CASE NO. _____

CAPITAL CASE

IN THE UNITED STATES SUPREME COURT

DANNY LEE HILL,

Petitioner,

v.

TIM SHOOP, WARDEN,

Respondent.

APPENDIX TO PETITION FOR WRIT OF CERTIORARI

VOLUME 1 of 3

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

Danny Hill,	)	CASE NO.: 4:20CV1294
	)	
Petitioner,	)	JUDGE JOHN ADAMS
	)	
	)	
	)	
Warden Timothy Shoop,	)	**ORDER**
	)	
Respondent.	)	
	)	

Pending before the Court is Warden Timothy Shoop's motion to transfer this matter to the Sixth Circuit on the basis that it is a successive § 2254 petition that requires permission from the Circuit to proceed. Doc. 6. Upon review, the motion is GRANTED.

Hill's argument that his petition is second-in-time but not successive is foreclosed by the Sixth Circuit. The Circuit has recognized that "not all second-in-time petitions are 'second or successive.'" *In re Coley*, 871 F.3d 455, 457 (6th Cir. 2017) (quoting *Panetti v. Quarterman*, 551 U.S. 930, 944 (2007)). To determine whether a petition is second or successive, the abuse of the writ standard is applied. *In re Bowen*, 436 F.3d 699, 704 (6th Cir. 2006) (collecting cases). More specifically:

> This court has also held that if the claims raised by the petitioner fall within the scenario addressed by 28 U.S.C. § 2244(b)(2)(A)—the Supreme Court has made a new rule of constitutional law, not previously available, retroactive to cases on collateral appeal—then the petition is deemed second or successive and the claims must pass through the gatekeeping strictures of that provision. *In re Coley*, 871 F.3d at 457. To hold otherwise "'would considerably undermine—if not render superfluous—'[ ]the second-or-successive rule." *Id*. at 457–58 (quoting *Magwood*, 561 U.S. at 335). This reasoning supports the parallel conclusion that if the claims raised by the petitioner fall within the scenario addressed by § 2244(b)(2)(B), then the petition is second or successive and the claims must satisfy that section. *See*

> *Magwood*, 561 U.S. at 335–36 (rejecting a proposed interpretation of "second or successive" that would mean that if a petitioner had a claim based on new facts that he was unable to fully and fairly raise previously then he would not have to meet the gatekeeping procedures of § 2244(b)(2)(B), because this would "truncate § 2244(b)(2)'s requirements").

In re Wogenstahl, 902 F.3d 621, 627 (6th Cir. 2018). In opposition to the motion to transfer, Hill argues: "Mr. Hill's claims, however, are based on the fact the bitemark comparison as a scientific fact has been debunked and this fact and claim could not have been raised previously, as found by the Ohio courts." Doc. 7 at 3. In other words, Hill's claim is "based on new facts that he was unable to fully and fairly raise previously." As such, the Sixth Circuit's logic espoused in *Wogenstahl* is controlling, and Hill must meet the gatekeeping procedures in § 2244(b)(2)(B).

The Warden's motion to transfer this matter to the Sixth Circuit for consideration as a request to authorize a second or successive petition is hereby GRANTED.

IT IS SO ORDERED.

Date: August 14, 2020

/s/ John R. Adams
JUDGE JOHN R. ADAMS
UNITED STATES DISTRICT JUDGE

NOT RECOMMENDED FOR PUBLICATION

No. 20-3863

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

FILED
Aug 30, 2022
DEBORAH S. HUNT, Clerk

In re: DANNY HILL,

Movant.

ORDER

Before: MOORE, CLAY, and STRANCH, Circuit Judges.

Danny Hill, an Ohio prisoner under sentence of death, filed a petition for habeas corpus relief under 28 U.S.C. § 2254 in June 2020. His petition alleges that the state trial court violated his due-process rights when it failed to conduct a materiality review of the evidence he submitted with his motion for a new trial, and that his convictions and sentence violated his due-process rights because they relied on now-discredited bite-mark evidence. The district court transferred the case to this court as a second or successive petition by opinion and order entered August 14, 2020. Hill now moves for leave to file a second or successive habeas corpus petition under 28 U.S.C. § 2244. Hill argues that his petition is second in time but not second or successive, and the gatekeeping restrictions of § 2244 do not apply because he could not have raised the claims earlier. We agree, dismiss Hill's motion for authorization as unnecessary, and transfer Hill's petition to the district court for further proceedings.

Factual Background

Hill was convicted of the 1985 kidnapping, rape, aggravated arson, felonious sexual penetration, and aggravated murder with specifications of twelve-year-old Raymond Fife. Part of the prosecution's case was testimony from a forensic odontologist who testified that, in his professional opinion and with a reasonable degree of medical certainty, Hill left bite marks on Fife's penis. The three-judge state-court panel convicted Hill of all charges except an aggravated

robbery count and the specification of aggravated robbery to the aggravated murder count and sentenced him to death. *State v. Hill* ("*Hill II*"), 595 N.E.2d 884, 886–89 (Ohio 1992).

Procedural History

First Habeas Petition

Hill filed his first federal habeas petition in April 1996. The district court denied the petition, and this court remanded the case for consideration of Hill's claim under *Atkins v. Virginia*, 536 U.S. 304 (2002). *Hill v. Anderson* ("*Hill III*"), 300 F.3d 679, 683 (6th Cir. 2002). The district court issued a stay and abeyance pending the state court's adjudication of Hill's *Atkins* claim. *See* No. 4:96-cv-00795, R. 63 (Mot. to Reactivate) (Page ID #1–2). The state trial court held an evidentiary hearing and concluded that Hill was not intellectually disabled. The Ohio Court of Appeals affirmed the trial court's decision, *State v. Hill* ("*Hill IV*"), 894 N.E.2d 108 (Ohio Ct. App. 2008), and the Ohio Supreme Court denied review, *State v. Hill*, 912 N.E.2d 107 (Ohio 2009) (table). The district court reopened Hill's habeas case in October 2009 and denied relief. This court affirmed the district court's denial of Hill's claims relating to his conviction and sentence and reversed the denial of Hill's *Atkins* claim. *Hill v. Anderson* ("*Hill V*"), 881 F.3d 483 (6th Cir. 2018). The Supreme Court vacated and remanded. *Shoop v. Hill* ("*Hill VII*"), 139 S. Ct. 504 (2019) (per curiam). In May 2020, this court again reversed the district court's decision to deny Hill's *Atkins* claim and remanded the case with instructions to grant the petition and issue the writ of habeas corpus with respect to Hill's death sentence. *Hill v. Anderson* ("*Hill IX*"), 960 F.3d 260 (6th Cir. 2020) (per curiam). The en banc court vacated the panel opinion and affirmed the district court's denial of Hill's habeas petition. *Hill v. Shoop* ("*Hill X*"), 11 F.4th 373 (6th Cir. 2021) (en banc). The Supreme Court denied Hill's petition for a writ of certiorari. *Hill v. Shoop* ("*Hill XI*"), 142 S. Ct. 2579 (2022) (Mem.).

Motion for a New Trial

In November 2014, Hill moved in the state trial court for leave to file a delayed motion for a new trial under Ohio Criminal Rule 33(B). He alleged that he had new evidence that the bite-mark identification evidence used at trial was invalid and that he was convicted in violation of his

Fifth, Eighth, and Fourteenth Amendment rights. According to Hill, the 2013 American Board of Forensic Odontology (ABFO) guidelines stated for the first time that open-population identification was no longer sanctioned. Forensic odontologist Dr. Franklin Wright reviewed the evidence from Hill's trial and concluded in an affidavit that Fife's injury was not a human bite mark, and, even if it were, it was not scientifically supportable to conclude that the injury was from Hill to the exclusion of anyone else. The state trial court found that Hill was unavoidably delayed in discovering his new evidence because the ABFO guidelines were not in existence at the time of his trial and granted Hill permission to file a motion for a new trial.

Hill filed his motion for a new trial in June 2016. He relied on the 2013 and 2016 ABFO Guidelines and affidavits from forensic odontologists.

The state trial court analyzed Hill's new evidence under *State v. Petro*, 76 N.E.2d 370 (Ohio 1947), and due process principles to decide whether the evidence could serve as the basis for a new trial. It compared Hill's affidavits and the ABFO guidelines with the testimony given at trial. The trial court found that advances in forensic odontology impeached and contradicted the trial testimony that marks on Fife could be linked to Hill. It held that it was bound by the Ohio Supreme Court's findings on the sufficiency of the evidence of aggravated murder and its independent weighing of the sufficiency of the rape, kidnapping, and aggravated arson specifications. The trial court found that the bite-mark evidence was only one of many factors in determining whether Hill was a principal offender of Fife's rape. It concluded that Hill's new evidence did nothing to vitiate the sufficiency of the overwhelming evidence against Hill for the kidnapping specification and that kidnapping was an independent basis for imposing the death penalty. The trial court held that, if the bite-mark evidence were excluded, there was no probability of a different outcome in a new trial because there was overwhelming evidence in support of Hill's convictions for the kidnapping specification.

The Ohio Court of Appeals affirmed the trial court's decision. *State v. Hill* ("*Hill VI*"), 125 N.E.3d 158 (Ohio Ct. App. 2018). The appellate court held that the evidence supported the trial court's conclusion that, even if the bite-mark evidence could not be introduced in a new trial,

there was no probability of a different outcome. *Id.* at 173. It agreed that the new bite-mark evidence did not vitiate the overwhelming evidence against Hill on the kidnapping specification and added that the same could be said of the aggravated arson charge. *Id.* at 168. The Ohio Supreme Court denied further review. *State v. Hill* ("*Hill VIII*"), 123 N.E.3d 1040 (Ohio 2019) (table), *cert. denied*, 140 S. Ct. 884 (2020).

Second Habeas Petition

Hill filed his second habeas petition in June 2020. As his ground for relief, Hill alleged that the state trial court violated his Fourteenth Amendment right to due process when it failed to conduct a materiality review of his new evidence as required under Ohio Rule of Criminal Procedure 33. He also asserted that his trial and conviction were fundamentally unfair because the bite-mark evidence was essential to his conviction. Hill alleged that the Ohio Court of Appeals did not properly analyze his due-process claims and made factual and legal errors. He asserted that Ohio Rule of Criminal Procedure 33 created a liberty interest under the Fourteenth Amendment. Hill concluded by asserting that the state court's failure to follow the established process for reviewing his claim violated his constitutional right to due process and a fair proceeding and was an unreasonable application of clearly established federal law and an unreasonable application of the facts.

The Warden moved to transfer Hill's habeas petition to this court as a second petition under 28 U.S.C. § 2244(b). The Warden argued that the petition was second in time and attacked the same state-court judgment that Hill attacked in his first application and that the district court lacked jurisdiction to consider his second petition without authorization by the Sixth Circuit. The district court granted the Warden's motion to transfer Hill's petition to this court on August 14, 2020. R. 9 (Order) (Page ID #546–47). The district court, relying on *In re Wogenstahl*, 902 F.3d 621, 627 (6th Cir. 2018), held that Hill's petition had to meet the gatekeeping procedures in § 2244(b)(2)(B) because Hill relied on new facts that he was unable to raise previously.

Analysis

The Anti-Terrorism and Effective Death Penalty Act restricts a prisoner's ability to file a second or successive habeas petition to challenge a judgment of conviction and sentence. 28 U.S.C. § 2244(b). Section 2244(b)(3) requires petitioners to request authorization from the court of appeals before a second or successive petition may be filed in the district court. This gatekeeping function, however, applies only to petitions that are "second or successive."

"[N]ot all second-in-time petitions are 'second or successive.'" *Wogenstahl*, 902 F.3d at 627 (quoting *In re Coley*, 871 F.3d 455, 457 (6th Cir. 2017) (per curiam)). Instead, "[t]he phrase 'second or successive petition' is a term of art," *Slack v. McDaniel*, 529 U.S. 473, 486 (2000), and the Supreme Court "has declined to interpret 'second or successive' as referring to all § 2254 applications filed second or successively in time, even when the later filings address a state-court judgment already challenged in a prior § 2254 application." *Panetti v. Quarterman*, 551 U.S. 930, 944 (2007).

We rely on the abuse-of-the-writ doctrine to determine whether a petition is second or successive. *See Stewart v. Martinez-Villareal*, 523 U.S. 637, 645 (1998); *In re Bowen*, 436 F.3d 699, 704 (6th Cir. 2006). A numerically second petition abuses the writ and is "second" when it raises a claim that could have been raised in the first petition but was not, due to abandonment or neglect. *McCleskey v. Zant*, 499 U.S. 467, 489 (1991); *Bowen*, 436 F.3d at 704. A petition that is second in time, challenges the same judgment of conviction as the first petition, and relies on newly discovered facts is also second or successive and must meet the gatekeeping provisions of § 2244(b)(2)(B). *Wogenstahl*, 902 F.3d at 627–28. The same is true of a petition that relies on a new legal rule. *Coley*, 871 F.3d at 457–58. But an application is not second or successive if it presents a claim that would have been unripe if it had been presented in an earlier application. *Panetti*, 551 U.S. at 945. And, relevant here, "a numerically second petition is not properly termed 'second or successive' to the extent it asserts claims whose predicates arose after the filing of the original petition." *In re Jones*, 652 F.3d 603, 605 (6th Cir. 2010). "In other words, if 'the events giving rise to the claim had not yet occurred' when the petitioner filed his original habeas petition,

his subsequent petition raising this claim need not meet § 2244(b)'s requirements." *Wogenstahl*, 902 F.3d at 627 (quoting *Jones*, 652 F.3d at 605).

In short, the issue before us is how to classify the 2013 and 2016 ABFO Reports. If "the predicates underlying [Hill's] current claims[] had already occurred when he filed his [first] petition," then this petition is second or successive, and § 2244(b)'s gatekeeping requirements apply. *Id*. at 627–28. But if these new reports are "predicates [that] arose after the filing of the original petition," then Hill's petition is merely second in time, not second or successive, and § 2244(b) does not apply. *Jones*, 652 F.3d at 605.

The factual basis of Hill's claim is that the bite-mark comparison has been debunked. At the time of Hill's previous petition, "the events giving rise to the claim had not yet occurred." *Id*. The events that gave rise to Hill's claims are the 2013 and 2016 ABFO Guidelines. Before these new guidelines, bite-mark comparison was considered scientifically valid. *See* R. 1-12 (2012 ABFO Reference Manual at 1–3) (Page ID #430–32). The new guidelines changed that: this bite-mark comparison is no longer scientifically acceptable. *See* R. 1-12 (2013 ABFO Reference Manual at 5) (Page ID #435) ("The ABFO does not support a conclusion of 'The Biter' in an open population case(s).").

Hill could not have brought this same claim in his earlier petition because the predicate facts had not happened yet. Just like a petitioner cannot challenge an execution that has not yet been set, *Martinez-Villareal*, 523 U.S. at 644–45, or laws that have not yet been passed, *Jones*, 652 F.3d at 605, Hill could not have challenged the bite-mark evidence as failing to comply with guidelines that had not yet been issued. This case is unlike *Wogenstahl*, 902 F.3d at 627–28, in which a *Brady* violation had occurred but the petitioner did not learn of it until later. Here, the facts underlying Hill's claim *had not happened* at the time he filed his first habeas petition: it was not until the ABFO manual was later reissued that bite mark identification was no longer an approved scientific methodology. In other words, if Wogenstahl had access to all then-available information at the time of his first habeas petition, he could have brought a *Brady* claim. In contrast, if Hill had access to all then-available information at the time of his first habeas petition,

he still could not have brought a viable claim that the bite-mark evidence was invalid because the prior ABFO guidelines still controlled.

The Supreme Court has reasoned that a second-in-time petition is not second or successive when a habeas petitioner could not have "receive[d] an adjudication of his claim." *Martinez-Villareal*, 523 U.S. at 645. "Instructing prisoners to file premature claims, particularly when many of these claims will not be colorable even at a later date" does not serve any purpose of federal habeas law. *Panetti*, 551 U.S. at 946; *see also Jones*, 652 F.3d at 605. This logic applies here. As in *Panetti* and *Jones*, "no useful purpose would be served" by requiring Hill to file this type of claim in his initial petition simply "in order to leave open the chance of reviving [his] challenge[] in the event [of] subsequent changes" to the ABFO standards. *Jones*, 652 F.3d at 605. It would be nonsensical to demand that Hill argue that bite-mark identification fails to comply with ABFO standards at a time when bite-mark identification still complied with the standards, solely on the off chance that the standards may eventually change.

The Warden's counterargument is unavailing. The Warden argues that Hill could have challenged the admissibility of the bite-mark evidence in his first habeas petition. But that is not Hill's claim. Instead, his claim is that the trial court violated his due-process rights when it failed to conduct a materiality review of the new evidence. R. 1 (Habeas Petition at 41) (Page ID #293). We have previously distinguished between new evidence that supported already-presented claims and new evidence that supports new claims. *See In re Hanna*, 987 F.3d 605, 608–09 (6th Cir. 2021). Hill's case fits into the latter category: the claim is new and could not have been brought earlier.

For the foregoing reasons, we **DISMISS** Hill's motion for authorization as unnecessary, and **TRANSFER** Hill's petition to the district court for further proceedings.

ENTERED BY ORDER OF THE COURT

Deborah S. Hunt, Clerk

RECOMMENDED FOR PUBLICATION
Pursuant to Sixth Circuit I.O.P. 32.1(b)

File Name: 23a0049p.06

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

IN RE: DANNY HILL,

Petitioner.

No. 20-3863

On Petition for Leave to File a Second or Successive Petition for a Writ of Habeas Corpus.
United States District Court for the Northern District of Ohio at Youngstown.
No. 4:20-cv-01294—John R. Adams, District Judge.

Decided and Filed: March 20, 2023

Before: SUTTON, Chief Judge; MOORE, CLAY, GIBBONS, GRIFFIN, KETHLEDGE, STRANCH, THAPAR, BUSH, LARSEN, NALBANDIAN, READLER, DAVIS, and MATHIS, Circuit Judges.*

COUNSEL

ON PETITION FOR REHEARING EN BANC: Benjamin M. Flowers, Zachery P. Keller, OFFICE OF THE OHIO ATTORNEY GENERAL, Columbus, Ohio, for Respondent State of Ohio. **ON RESPONSE:** Sharon A. Hicks, OFFICE OF THE FEDERAL PUBLIC DEFENDER, Cleveland, Ohio, for Petitioner.

ORDER

A majority of the Judges of this Court in regular active service has voted for rehearing en banc of this case. Sixth Circuit Rule 35(b) provides as follows:

> The effect of the granting of a hearing en banc shall be to vacate the previous opinion and judgment of this court, to stay the mandate and to restore the case on the docket sheet as a pending appeal.

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* Judge Murphy recused himself from participation in this decision.

Accordingly, it is ORDERED, that the previous decision and judgment of this court are vacated, the mandate is stayed, and this case is restored to the docket as a pending appeal.

The Clerk will direct the parties to file supplemental briefs and will schedule this case for oral argument as soon as possible.

ENTERED BY ORDER OF THE COURT



Deborah S. Hunt, Clerk

RECOMMENDED FOR PUBLICATION
Pursuant to Sixth Circuit I.O.P. 32.1(b)

File Name: 23a0196p.06

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

IN RE: DANNY HILL,

Movant. } No. 20-3863

On Petition for Rehearing En Banc
United States District Court for the Northern District of Ohio at Youngstown.
No. 4:20-cv-01294—John R. Adams, District Judge.

Argued En Banc: June 14, 2023

Decided and Filed: August 25, 2023

Before: SUTTON, Chief Judge; MOORE, CLAY, GIBBONS, GRIFFIN, KETHLEDGE, STRANCH, THAPAR, BUSH, LARSEN, NALBANDIAN, READLER, DAVIS and MATHIS, Circuit Judges.[*]

COUNSEL

ARGUED EN BANC: Sharon A. Hicks, OFFICE OF THE FEDERAL PUBLIC DEFENDER, Cleveland, Ohio, for Movant. Benjamin M. Flowers, OFFICE OF THE OHIO ATTORNEY GENERAL, Columbus, Ohio, for Respondent. **ON SUPPLEMENTAL BRIEF:** Sharon A. Hicks, Matthew Gay, Calland M. Ferraro, OFFICE OF THE FEDERAL PUBLIC DEFENDER, Cleveland, Ohio, for Movant. Benjamin M. Flowers, Zachery P. Keller, OFFICE OF THE OHIO ATTORNEY GENERAL, Columbus, Ohio, for Respondent. **ON AMICUS BRIEF:** Matthew F. Kuhn, OFFICE OF THE KENTUCKY ATTORNEY GENERAL, Frankfort, Kentucky, Tyler R. Green, Tiffany H. Bates, ANTONIN SCALIA LAW SCHOOL, Arlington, Virginia, for Amici Curiae.

NALBANDIAN, J., delivered the opinion of the court in which SUTTON, C.J., and GIBBONS, GRIFFIN, KETHLEDGE, THAPAR, BUSH, LARSEN, READLER, DAVIS and MATHIS, JJ., joined. THAPAR, J. (pp. 15–19), delivered a separate concurring opinion in which SUTTON, C.J., and GRIFFIN, KETHLEDGE and READLER, JJ., joined. CLAY, J. (pp. 20–31), delivered a separate dissenting opinion in which MOORE and STRANCH, JJ., joined.

[*]Hon. Eric E. Murphy recused himself from this case, and the Hon. Rachel S. Bloomekatz, who was confirmed on July 18, 2023, did not participate.

OPINION

NALBANDIAN, J., Circuit Judge. In 1986, Danny Hill was convicted of murder and sentenced to death in Ohio state court. For 37 years, he's been challenging his conviction and sentence. The Supreme Court vacated the decision of a panel of this Court to grant federal habeas relief. After that, we again granted habeas relief based on different reasoning, and an en banc panel of this Court vacated that opinion and denied Hill's petition for relief. With the first petition unsuccessful, Hill has filed a second habeas petition. It's "second or successive." So Hill must meet the gatekeeping provisions of 28 U.S.C. § 2244(b)(2).

I.

The brutal facts are familiar by now. Danny Hill and Timothy Combs kidnapped 12-year-old Raymond Fife as he was riding a bike to a friend's house before a Boy Scout meeting. *Shoop v. Hill*, 139 S. Ct. 504, 505 (2019) (per curiam); *State v. Hill*, Nos. 3720, 3745, 1989 WL 142761, at *1 (Ohio Ct. App. Nov. 27, 1989). Hill and Combs beat Fife up. *See State v. Hill*, 595 N.E.2d 884, 887–88, 902 (Ohio 1992). They raped him in multiple ways. *See id.* at 887. They strangled him, bit his genitals, sodomized him, and burned him. *See id.* Then, Hill and Combs left Fife in a field to die. *See id.* Fife's father found him in that field—Fife died two days later. *Id.* at 887–88.

Hill was indicted for kidnapping, rape, aggravated arson, felonious sexual penetration, and aggravated murder with specifications. *Id.* at 888. At trial, the government's case was substantial. Several witnesses testified that Hill was around the crime scene on the day of Fife's death. *Id.* at 889. The state introduced Hill's confession to police that he had watched Combs beat up and rape Fife. *Id.* at 888; *see also Hill*, 1989 WL 142761, at *2. And it also introduced Hill's statement that he had been with the victim when Combs had gone to the Valu-King to get more materials to torture Fife. *Hill*, 1989 WL 142761, at *3, *33; *Hill*, 595 N.E.2d at 888. The state introduced a broomstick into evidence—the broomstick, found behind the Valu-King, that was used to commit felonious sexual penetration. *Hill*, 595 N.E.2d at 887, 894, 899. One of the

state's witnesses testified that Hill had raped her in the same wooded area where Fife was raped, and another testified that Hill had raped her multiple times after breaking into her home. *Id.* at 892. And other evidence for the rape showed that anal intercourse had been forcibly performed on Fife. *Id.* at 899.

Relevant here, the state's forensic odontologist testified at trial that in his "professional opinion, with reasonable degree of medical certainty, . . . Hill's teeth, as depicted by the models and the photographs that [he] had, made the bite on Fife's penis." *Id.* at 889. Hill called his own forensic odontologist, who said "that he could not conclude with a reasonable degree of certainty as to who made the bite marks on the victim's penis." *Id.* He followed up, however, with this: "What I'm saying is either Hill or Combs, or both, could have left some of the marks but the one mark that's consistent with the particular area most likely was left by Hill." *Id.*

In the end, a three-judge state-court panel convicted Hill of kidnapping, rape, aggravated arson, felonious sexual penetration, and aggravated murder with specifications. *Id.* at 899. The trial court then sentenced him to death. *Id.* at 902. Hill appealed to the Ohio Court of Appeals—challenging, among other things, the imposition of the death penalty based on an insufficiency of the evidence on the convictions and on the aggravators, which included rape. *See Hill*, 1989 WL 142761, at *3. The Ohio Court of Appeals explained that plentiful evidence, including Hill's confession that he had been with Combs at the time of Fife's rape and torture, supported the rape conviction: "The evidence of the rape included the biting of the penis, leaving teeth marks; the pulling of the genitalia, bruising the pelvic area; and the penetrating of the anus with the broom stick, perforating the rectum and rupturing the urinary bladder." *Id.* at *29. The Ohio Supreme Court agreed. *See Hill*, 595 N.E.2d at 902. And Hill's subsequent state habeas petition proved unavailing too. *See State v. Hill*, No. 94-T-5116, 1995 WL 418683, at *7 (Ohio Ct. App. June 16, 1995).

Hill filed his first federal habeas petition in 1996, challenging, among other things, the denial of expert assistance on the bitemark evidence in his state post-conviction petition under the Sixth, Eighth, and Fourteenth Amendments because "[t]he state of medical knowledge regarding bite marks was in flux at the time of the trial." (1996 Habeas Petition, p. 37.) *See Hill v. Anderson*, No. 4:96 CV 0795, 1999 U.S. Dist. LEXIS 23332, at *53, *61, *146 (N.D. Ohio

Sept. 29, 1999). The district court denied the petition, and Hill appealed. While the case was pending on appeal, the Supreme Court decided *Atkins v. Virginia*. *See* 536 U.S. 304, 321 (2002) (holding that it violates the Eighth Amendment to execute intellectually disabled defendants). Then, we remanded the case so that Hill could exhaust his state remedies on that claim. *See Hill v. Anderson*, 300 F.3d 679, 683 (6th Cir. 2002).

The state court determined that Hill was not intellectually disabled, so his death sentence stood. *See State v. Hill*, 912 N.E.2d 107 (Ohio 2009) (unpublished table decision); *State v. Hill*, 894 N.E.2d 108, 195 (Ohio Ct. App. 2008). With that, Hill moved to reopen his habeas petition in federal district court and amended his claims. The district court rejected this petition too. *See Hill v. Anderson*, No. 4:96 CV 00795, 2014 WL 2890416, at *59 (N.D. Ohio June 25, 2014).

A panel of this Court then reversed the district court's denial of Hill's *Atkins* claim and granted habeas relief. *See Hill v. Anderson*, 881 F.3d 483, 513 (6th Cir. 2018). Next, the Supreme Court vacated that decision and remanded for the panel to reevaluate its reasoning. *Hill*, 139 S. Ct. at 509. The panel again granted habeas relief on the *Atkins* claim and granted the writ of habeas corpus as to Hill's death sentence. *See Hill v. Anderson*, 960 F.3d 260, 295 (6th Cir. 2020) (per curiam). Our Court, sitting en banc, vacated the panel's opinion and denied federal habeas relief. *See Hill v. Shoop*, 11 F.4th 373, 399 (6th Cir. 2021) (en banc), *cert. denied*, 142 S. Ct. 2579 (2022) (Mem.).

In the middle of all this habeas action, Hill moved in state court for leave to file a motion for new trial under Ohio Rule of Criminal Procedure 33(B)—a mechanism for allowing defendants to move for a new trial based on "newly discovered evidence" that the defendant "could not with reasonable diligence have discovered and produced at the trial."[1] This newly discovered evidence—Hill said—was a 2013 report from the American Board of Forensic

[1]The language of this Rule is similar to the evidentiary gatekeeping provision for second-or-successive habeas petitions under 28 U.S.C. § 2244(b)(2). *See* 28 U.S.C. § 2244(b)(2)(B) (requiring a petitioner to show that "the factual predicate for the claim could not have been discovered previously through the exercise of due diligence" to hurdle the second-or-successive bar).

Odontology ("ABFO") that suggested using bitemarks to identify a specific individual as the biter might not be reliable. Hill later added a 2016 report backing up the 2013 report.[2]

The state trial court allowed Hill to move for a new trial and conducted an evidentiary hearing. But that court noted that "[i]t is settled practice" that "newly discovered" evidence only "refers to evidence that existed at the time of trial but of which the moving party was ignorant." (R. 1-1, Motion for New Trial Decision, PageID 322.) And the court held that there was "no probability" that a new trial would lead to a "different outcome" without the bitemark evidence because the state had proffered so much other evidence of guilt.[3] (*Id.* at PageID 334.) The state appellate court agreed, *State v. Hill*, 125 N.E.3d 158, 176 (Ohio Ct. App. 2018), and the Ohio Supreme Court denied review, *State v. Hill*, 123 N.E.3d 1040 (Ohio 2019) (unpublished table decision).

That brings us to Hill's second federal habeas petition. In this June 2020 petition, Hill made two separate but related points: (1) his "conviction and sentence [we]re predicated on fabricated scientific evidence, violating his due process rights" (R. 1, Habeas Petition, PageID 295.); and (2) the state trial court violated his due process rights by not properly conducting a materiality review of the bitemark evidence under Ohio Rule of Criminal Procedure 33(B). Because Hill believed that his petition was second in time but not "second or successive" under 28 U.S.C. § 2244(b), he did not ask for leave to file a "second or successive" petition.

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[2]"The 2016 ABFO guidelines recognize that even where a patterned injury is determined to be 'human,' only the following terms should be used as they relate to [the] questioned dentition [of] a bite mark: A) Excluded as Having Made the Bitemark, B) Not Excluded as Having Made the Bitemark, C) Inconclusive." (R. 1-1, Exhibit 1, PageID 324.)

[3]In a response to a different argument Hill made about the voluntariness of his statements to the police, the trial court noted some of the most striking evidence: In his videotaped interview with the police after Fife was murdered, Hill "volunteered details about the murder and protracted torture of Raymond Fife," and "even demonstrated the location of the parties during the attack on a chalkboard . . . . Hill, without any emotion in his voice, described the boy's struggle to run[.]" (R. 1-1, Motion for New Trial Decision, PageID 317.) The trial court further noted that Hill was found guilty of three specifications for aggravated murder: kidnapping, rape, and aggravated arson. "A conviction [on] any one of the specifications made Hill eligible to receive a death sentence." (*Id.* at PageID 330.) And even setting aside the other specifications, under Ohio law, "there can be more than one principal offender in the commission of a crime." (*Id.*) Here the trial court quoted the Ohio Supreme Court's earlier decision, which held that even absent the bite marks, the other "various sexual acts" performed while Fife "was rendered unconscious" served as other evidence to meet the rape specification. (*Id.* at PageID 331.)

Despite Hill's characterization of the petition as only second in time, the district court concluded that Hill's petition was "second or successive" and thus required our authorization. So it transferred the petition to a panel of this Court to determine whether Hill's petition met the gatekeeping provisions of § 2244(b)(2). *See* 28 U.S.C. § 2244(b)(3)(A) (giving the federal courts of appeals exclusive jurisdiction to determine whether a "second or successive" petition passes the gatekeeping provisions of § 2244(b)(2)). Hill then filed his habeas petition on appeal. The case manager informed Hill that he needed to file a corrected petition on the second-or-successive form. And he did. (*See* Appellate R. 5, Corrected Petition, p. 1 ("Motion Under 28 U.S.C. § 2244 For Leave to File A Second or Successive Habeas Corpus Petition" (case altered)).) He maintained that his petition was not "second or successive." Yet he said that his claim relied on "newly discovered evidence," which is a prerequisite to meeting the gatekeeping provisions of § 2244(b)(2). (*See id.* at 6.)

The panel determined that Hill didn't need to meet the gatekeeping provisions, nor did he require our authorization to file, because his petition was second in time but not successive. The panel transferred the petition back to the district court for a merits determination. Next, the state moved for rehearing on whether Hill's petition is "second or successive." With that, we voted to rehear this case en banc.[4] And we review de novo whether Hill's petition is "second or successive." *See Lang v. United States*, 474 F.3d 348, 351 (6th Cir. 2007).

II.

The Supreme Court has distinguished two separate questions in these cases. The threshold question is whether an application is "second or successive" under § 2244(b). If the answer is yes, then the second question is whether to dismiss the successive application. *See Magwood v. Patterson*, 561 U.S. 320, 336–37 (2010).[5] So determining whether a

[4]The decision that a petition is *not* "second or successive" is reviewable. *See Magwood v. Patterson*, 561 U.S. 320, 330–31 (2010).

[5]To be more specific, if we determine that a petition is "second or successive," then a panel of this Court must determine whether to authorize the filing of the petition. In doing so, the panel must consider whether the petitioner has made a "prima facie showing that the application satisfies" the § 2244(b)(2) requirements. 28 U.S.C. § 2244(b)(3)(C); *In re McDonald*, 514 F.3d 539, 546–47 (6th Cir. 2008). In this context, "prima facie" means "simply sufficient allegations of fact together with some documentation that would 'warrant a fuller exploration in the district court.'" *In re McDonald*, 514 F.3d at 546 (citation omitted). If we determine that the prima facie

numerically second petition is "second or successive" is the threshold determination for our review. Start with the framework. Under the Antiterrorism and Effective Death Penalty Act ("AEDPA"), "a state prisoner always gets one chance to bring a federal habeas challenge to his conviction." *Banister v. Davis*, 140 S. Ct. 1698, 1704 (2020). "But after that, the road gets rockier." *Id.*

After a petitioner has filed his first petition, any future petition is governed by § 2244(b). As we must, we start with the text of that provision. A petitioner can't bring the same claim in a second petition that was "presented in a prior application." 28 U.S.C. § 2244(b)(1). And when a "claim presented in a second or successive habeas" petition "was not presented in a prior [petition]," we must dismiss that claim unless one of two circumstances applies: (A) The petitioner "relies on a new [retroactively applied] rule of constitutional law"; or (B) "[T]he factual predicate for the claim could not have been discovered previously through the exercise of due diligence" and "the facts underlying the claim . . . would be sufficient to establish by clear and convincing evidence that, but for constitutional error, no reasonable factfinder would have found the applicant guilty of the underlying offense." *Id.* In short, it's much harder to file an authorized "second or successive" petition than it is for the petitioner to file his first habeas petition.

Importantly, though, the Supreme Court has said that not all petitions filed second in time are "second or successive." And when a "numerically second petition" is not "second or successive," it isn't "subject to the restrictions of 28 U.S.C. § 2244(b)." *In re Bowen*, 436 F.3d 699, 705–06 (6th Cir. 2006); *In re Hanna*, 987 F.3d 605, 608 (6th Cir.), *cert. denied sub nom. Hanna v. Shoop*, 142 S. Ct. 246 (2021). So there are two kinds of second-filed petitions: numerically second petitions that are not "second or successive" and numerically second petitions that are "second or successive." And the caselaw tells us how to distinguish them.

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showing has been made, the "second or successive" application is transferred back to the district court. The district court then determines whether the § 2244(b)(2) requirements have actually been satisfied before possibly turning to the merits. 28 U.S.C. § 2244(b)(4); *see In re McDonald*, 514 F.3d at 547 (explaining that the district court must then "engage in additional analysis in order to ascertain whether but for the constitutional error, no reasonable factfinder would have found [the petitioner] guilty of the underlying offense").

The Court has noted that "second or successive" is a "term of art" that is "not self-defining." *Banister*, 140 S. Ct. at 1705 (quoting *Slack v. McDaniel*, 529 U.S. 473, 486 (2000); *Panetti v. Quarterman*, 551 U.S. 930, 943 (2007)). And in examining what qualifies as "second or successive," the Court has looked for general guidance in two places. First, the Court has "explored historical habeas doctrine and practice." *Id.* at 1705–06 (explaining that "[i]n particular" the Court has considered whether a "later-in-time filing would have constituted an abuse of the writ" as explained in "pre-AEDPA cases" (cleaned up)). And second, the Court has "considered AEDPA's own purposes." *Id.* at 1706. Those purposes include "to 'conserve judicial resources, reduc[e] piecemeal litigation,' and 'lend[] finality to state court judgments within a reasonable time.'" *Id.* (quoting *Panetti*, 551 U.S. at 945–46). "[T]he phrase 'second or successive' must be interpreted with respect to the *judgment* challenged." *Magwood*, 561 U.S. at 333 (emphasis added).

More specifically, the Supreme Court has carved out three circumstances when a petition is second in time but isn't "second or successive." First, when a second petition raises a claim that challenges a new state-court judgment—that is, not the one challenged in the first petition—the petition is not "second or successive." *See id.* at 339. Second, a second petition containing a claim—whether presented or not in the first petition—that would have been unripe at the time of the filing of the first petition is not "second or successive." *Panetti*, 551 U.S. at 943–45 (claim presented only in second petition but would have been unripe in the first petition); *Stewart v. Martinez–Villareal*, 523 U.S. 637, 643 (1998) (pre-AEDPA case where the claim was presented in both petitions but only became ripe in the second petition).[6] Third, when a second petition contains a claim that, though raised in the first petition, was unexhausted at that time and not

[6]It's worth noting that both *Panetti* and *Martinez-Villareal* involved claims under *Ford v. Wainwright*, 477 U.S. 399 (1986). In *Ford* cases, a competency-to-be-executed claim only ripens once the date for execution is set. *See Panetti*, 551 U.S. at 934–35 ("Under *Ford*, once a prisoner makes the requisite preliminary showing that his current mental state would bar his execution, the Eighth Amendment, applicable to the States under the Due Process Clause of the Fourteenth Amendment, entitles him to an adjudication to determine his condition."). In *Panetti*, the Court seemed to cabin the ripeness argument to the "unusual posture" of *Ford* claims. *Id.* at 945. Nevertheless, we have extended it to other ripeness claims. *See, e.g.*, *In re Salem*, 631 F.3d 809, 812–13 (6th Cir. 2011) (holding that because an entrapment claim was unripe in the first petition, the second petition was not "second or successive"). Those cases aren't at issue today.

decided on the merits, the petition is not "second or successive."[7] *See Slack*, 529 U.S. at 486–87, 489.[8]

With all this in mind, in making the threshold determination for a second-in-time petition—that is, in determining whether the petition is "second or successive"—we need to define "claim" and "judgment." That's because the Supreme Court and AEDPA have differentiated between claims and judgments for purposes of "second or successive" petitions. A judgment is the legal mechanism "authorizing the prisoner's confinement," i.e., typically conviction or sentencing. *Magwood*, 561 U.S. at 332 (citation omitted); *see* 28 U.S.C. § 2254 (explaining that "a district court shall entertain an application for a writ of habeas corpus [o]n behalf of a person in custody pursuant to the *judgment* of a State court" (emphasis added)). A claim is a legal challenge to that judgment. *Gonzalez v. Crosby*, 545 U.S. 524, 530 (2005) (explaining that "a 'claim' as used in § 2244(b) is an asserted federal basis for relief from a state court's judgment of conviction").

So first, we ask, is the second petition challenging a new judgment or an old judgment? *See Magwood*, 561 U.S. at 330–33; *In re Caldwell*, 917 F.3d 891, 893 (6th Cir. 2019); *In re Stansell*, 828 F.3d 412, 415 (6th Cir. 2016); *King v. Morgan*, 807 F.3d 154, 157 (6th Cir. 2015). If it's a new judgment, then the petition is not "second or successive," and we turn to the merits of the petition. *See King*, 807 F.3d at 157. If it's the old judgment that the petitioner challenged in his first petition, we next ask, is the claim presented an old claim or a new claim? *See In re Wogenstahl*, 902 F.3d 621, 627 (6th Cir. 2018). If it's an old claim—that is, one that was presented in the first petition—then it's a "second or successive" petition that must be dismissed under § 2244(b)(1). If it's a new claim, we ask whether it was either unripe or ruled unexhausted at the time of the first habeas filing. If so, then the petition isn't "second or successive." *See id.*

[7]The ripeness and exhaustion exceptions aren't tied to the text of § 2244. Instead, as we noted above, the Supreme Court has looked to the purposes of AEDPA and congressional intent to determine that, although not plain on the face of the literal text of § 2244, not every numerically second petition is "second or successive." *See Panetti*, 551 U.S. at 945 ("Our conclusion is confirmed when we consider AEDPA's purposes."); *id.* ("We conclude, in accord with this precedent, that Congress did not intend the provisions of AEDPA addressing 'second or successive' petitions to govern a filing in the unusual posture presented here[.]"); *Banister*, 140 S. Ct. at 1706 ("Here, both historical precedents and statutory aims point in the same direction[.]").

[8]Hill only challenges the second circumstance—whether the claim was previously ripe. *See infra* Part III.

at 627. If not, under the guidance we have from the Supreme Court, the petition is "second or successive," and the claim must meet the gatekeeping provisions under § 2244(b)(2)(B) to survive.

Although a mouthful, we can sum it up this way: When a second-in-time petition raises a new claim purporting to question the previously challenged judgment, the new claim was neither unripe nor unexhausted the first go-around, and the petitioner nevertheless failed to raise the claim, it is "second or successive." *See In re Coley*, 871 F.3d 455, 457–58 (6th Cir. 2017).

III.

Now to Hill's second petition. He raises two claims: (1) he challenges his conviction under the Due Process Clause because professional standards surrounding bitemark evidence have changed; and (2) he says that the state trial court violated his rights under the Due Process Clause in denying his motion for new trial by failing to sufficiently evaluate the materiality of the bitemark evidence to the state's case. We must determine whether Hill's petition is "second or successive" based on these claims.

Under our roadmap, we start with whether Hill is challenging the same judgment he challenged in his first petition or a different judgment. Hill's first ground for habeas relief challenges the judgment of conviction, so he is challenging the same judgment. Hill's asserted second basis for habeas relief doesn't get him anywhere because it's attacking a motion-for-new-trial ruling. By definition, a motion for new trial attacks the original judgment. And a ruling on that motion doesn't create a new judgment—it's just another order. So the motion-for-new-trial ruling is not a judgment for purposes of § 2244(b). *See In re Stansell*, 828 F.3d at 417 (explaining that "new judgments" means "new sentences" or "new convictions"). So we'll focus on the first ground—which serves as another challenge to the same judgment he attacked in his first petition. Next, we ask whether Hill is raising an old claim or a new claim.

To evaluate Hill's argument, we have to define the claim at issue. Hill's claim is that he was denied his right to due process because the bitemark evidence at trial was unreliable based on new ABFO reports. As the Warden concedes, Hill didn't raise this claim in his first petition.[9]

Next, we ask whether that claim was unripe or unexhausted at the time he filed his first habeas petition. He only argues that his claim was unripe. But as Hill's 1996 habeas petition makes clear, a challenge to the bitemark evidence has always been available to Hill. So any claim as to the bitemark evidence's unreliability was ripe at the time of his first habeas petition. In other words, "the events giving rise" to Hill's claim—the introduction of bitemark testimony at trial—had already occurred when Hill filed his first petition. *In re Tibbetts*, 869 F.3d 403, 406 (6th Cir. 2017) (quoting *In re Jones*, 652 F.3d 603, 605 (2007)).

Hill says that his petition was unripe because the first ABFO report he relies on only came about in 2013. He points to *In re Jones* to show why. 652 F.3d at 605. In that case, Michigan significantly changed its parole system after Jones was convicted and sentenced, with the final changes occurring after Jones had filed his first habeas petition. *Id.* So, when Jones filed another habeas petition challenging the new parole conditions on ex post facto grounds, we said that he could not have brought the challenge in his first petition because "the events giving rise to the claim," i.e., the changes to parole conditions that "produced a sufficient risk of increasing the measure of punishment attached to his conviction," had "not yet occurred." *Id.* at 604–05 (cleaned up); *see id.* at 605 (explaining that Jones was "challeng[ing] the cumulative effect of amendments to Michigan's parole system, the last of which took effect . . . two years after Jones's initial habeas petition was filed"). As a result, the petition challenging "a parole

[9]In his first habeas petition, Hill did raise a claim tangential to his new due-process claim saying, "Petitioner was denied his rights as guaranteed by the Sixth, Eighth and Fourteenth Amendments to the United States Constitution when his request for expert assistance in his post conviction petition to reexamine the dental evidence was denied." (1996 Habeas Petition, p. 37.) He explained that "[b]etween . . . trial . . . and the time of his post-conviction much was learned about bite mark analysis [and] . . . [t]he state of medical knowledge regarding bite marks was in flux at the time of the trial." (*Id.*) And he said that while his "counsel on post-conviction requested expert assistance to reexamine the dental evidence presented at trial," the "trial court denied said motion without a hearing." (*Id.*)

This challenge to a denial of post-conviction expert assistance is not the same as his new due-process claim. And it's that fact—not just the fact that Hill is putting forth new evidence—that makes his due-process claim a new claim. *See Franklin v. Jenkins*, 839 F.3d 465, 474 (6th Cir. 2016) (explaining that the new evidence in that case didn't give rise to a new claim because that evidence didn't transform the "gravamen of [the petitioner's] argument" (citation omitted)).

determination . . . that occurred after the prisoner's initial petition was filed" was not "second or successive." *Id.* at 605–06.

But Jones brought another claim too—one that resembles Hill's claim in this case and one that Hill doesn't mention in his briefing. Jones's second claim was based on jury selection, and that made our job "more straightforward." *Id.* at 606. That's because, unlike his ex post facto claim, the jury-selection claim "challenge[d] events that occurred at his trial." *Id.* And that meant the claim had to meet the gatekeeping provisions of § 2244(b)(2) as a "second or successive" petition. *Id.*

Hill's bitemark-evidence claim is like Jones's jury-selection claim, not like Jones's ex post facto claim. Hill could have made his due-process bitemark challenge in his first petition because the events giving rise to the claim—the introduction of bitemark testimony at trial—had occurred at the time of the first petition. In other words, just like Jones's jury-selection claim, Hill's bitemark claim is based on "events that occurred at his trial." *Id.* Just as Jones's jury-selection claim had to pass the gatekeeping provisions of § 2244(b)(2), so does Hill's bitemark claim.

In a nearly identical case to Hill's, *In re Wogenstahl*, we recognized that a petitioner couldn't bypass the gatekeeping provisions of § 2244(b)(2) simply by presenting new evidence for a new *Brady* claim. *In re Wogenstahl*, 902 F.3d at 625–28. We said Wogenstahl's petition was "second or successive." *Id.* at 627–28. In that case, the new evidence Wogenstahl proffered undermined the testimony the government put on at trial. *See id.* at 625–26. Still, the petition was "second or successive" because "the predicates underlying Wogenstahl's current claims"—the government introducing testimony at trial—"had already occurred when he filed his petition." *Id.* at 627. Any new evidence undermining the government's trial testimony could go toward meeting the gatekeeping provisions under § 2244(b)(2)(B), we said, but couldn't go toward showing that the claim wasn't "second or successive." *Id.* at 628.

Under § 2244(b)(2)(B), when "the factual predicate for the claim could not have been discovered previously through the exercise of due diligence" and that factual predicate "would be sufficient to establish by clear and convincing evidence" that "no reasonable factfinder would

have found the applicant guilty of the underlying offense," a petitioner can avoid dismissal of his "second or successive" habeas petition. 28 U.S.C. § 2244(b)(2)(B). It was Wogenstahl's burden to meet that standard, given that his petition was "second or successive."

And it's Hill's burden too.[10] Hill presents new evidence—evidence that wasn't available to him at the time of trial. And on the new evidence, he raises a new claim—that he was denied due process because his conviction is based on now-discredited evidence. But that claim has always been ripe because the factual predicates for the claim occurred at trial. That is, the bitemark testimony he now challenges occurred at trial, just like the testimony in Wogenstahl's case. So Hill must meet the gatekeeping provisions of § 2244(b)(2).

It's worth noting that we're not alone in treating a claim based on newly existing evidence the same way we treat *Brady* and *Giglio* claims in second-in-time petitions. Other circuits have assumed that claims based on newly existing evidence are "second or successive," and they have evaluated whether such claims meet the gatekeeping provisions of § 2244(b)(2)(B). *See Rhodes v. Smith*, 950 F.3d 1032, 1036 (8th Cir. 2020) (holding that "two peer-reviewed articles published" years after trial did not meet the gatekeeping provisions of § 2244(b)(2)); *Feather v. United States*, 18 F.4th 982, 985 (8th Cir. 2021) (rejecting a successive petition where the petitioner argued that "changes in forensic medical science" meant that "the government relied on 'fundamentally defective' evidence that was 'inconsistent with sound scientific methods'"); *see also Case v. Hatch*, 731 F.3d 1015, 1038 (10th Cir. 2013) (categorically not allowing newly existing evidence to meet the gatekeeping provisions).

The question of whether new evidence that was unavailable at trial can meet the gatekeeping provision of § 2244(b)(2)(B) is not before us, so we leave it to the panel to decide that question in the first instance and then perhaps the district court. In doing so, we are mindful

[10]Hill tries to distinguish his case from *In re Wogenstahl*. He points out that the ABFO reports—the new evidence in this case—were only published *after* trial. He says that his new evidence is "newly *existing* information," rather than newly *discovered* evidence, like in *In re Wogenstahl*. (Hill's Supplemental Briefing, p. 21.) That difference, he says, bolsters his argument that his due-process claim was unripe when he filed his first petition, in contrast to *Brady* and *Giglio* claims, which he concedes would be ripe in a first habeas petition under *In re Wogenstahl*. But Hill's distinction is without a difference. The factual predicates in his case—the introduction of bitemark evidence—occurred at trial. And that's just like the testimony in *In re Wogenstahl*. So the claim was ripe at the time Hill filed his first habeas petition.

of the fact that, even if Hill could use that kind of evidence to meet the gatekeeping provision of § 2244(b)(2)(B), to prevail on the merits, he must show that the state court's adjudication "resulted in a decision that was based on an unreasonable determination of the facts *in light of the evidence presented* in the State court proceeding." 28 U.S.C. § 2254(d)(2) (emphasis added). And, as mentioned above, plentiful evidence of the other forms of rape Fife endured—evidence that was presented at trial—supported the rape conviction.

We note that if we came out Hill's way, most convictions involving forensic evidence would never be final. The end of Hill's logic is that a petitioner could raise a new due-process claim, unmoored from the gatekeeping provisions, anytime a relevant scientific standard changed. If that were the case, we'd be undermining § 2244(b)(2) and AEDPA generally—that is, we'd be undermining the finality of convictions. *See Banister*, 140 S. Ct. at 1707 ("AEDPA aim[s] to prevent serial challenges to a judgment of conviction, in the interest of reducing delay, conserving judicial resources, and promoting finality.").

IV.

For these reasons, we hold that the petition is "second or successive" and must meet the gatekeeping provisions of § 2244(b)(2). We return the case to the panel for further consideration.

CONCURRENCE

THAPAR, Circuit Judge, concurring. I concur in the majority's thoughtful opinion. I write separately because the time has come for our court to honor the law's deadlines.

In habeas, finality matters. It matters for the victims. It matters for the state. And it matters for the criminal defendants. Recognizing this, Congress passed the Antiterrorism and Effective Death Penalty Act with specific time limits. We aren't free to ignore those limits. Yet we have—and we should stop doing so.

I.

After torturing, raping, and killing a twelve-year-old boy, Danny Hill was convicted in 1986. In the last thirty-seven years, Hill has sought review in the United States Supreme Court three times, Hill's case has come before a panel of this court four times, and the en banc court has now heard his case twice. At almost every turn, courts have ruled against him. Hill's case will now return to a panel—for the fifth time—to decide whether to let Hill file his second or successive petition. *See* 28 U.S.C. § 2244(b)(3)(B).

According to AEDPA's text, the panel must act within "30 days." *Id.* § 2244(b)(3)(D). That law says that "courts of appeals *shall* grant or deny the authorization . . . not later than 30 days after the filing of the motion." *Id.* (emphasis added). It's hard to imagine a clearer command.

Unfortunately, we've flouted this command in the past, interpreting the thirty-day deadline as "advisory or hortatory rather than mandatory." *In re Siggers*, 132 F.3d 333, 336 (6th Cir. 1997). Our reasoning? We cited a substantive canon that says Congress's commands are mandatory only if they include a penalty for noncompliance. *Id.* (quoting *McCarthney v. Busey*, 954 F.2d 1147, 1152 (6th Cir. 1992)). Because Congress "failed to specify a consequence for noncompliance with the thirty-day limit," we reasoned, "shall" doesn't mean "shall." *Id.*

This reasoning falls short. For one, we forgot that parties can seek mandamus from the Supreme Court to enforce the thirty-day rule. *See Cheney v. U.S. Dist. Ct. for D.C.*, 542 U.S. 367, 380–81 (2004). For another, the canon isn't sound. The First Amendment, for example, also fails to specify a consequence for noncompliance, but that doesn't mean Congress can treat it as advisory or hortatory. *Gray-Bey v. United States*, 201 F.3d 866, 872 (7th Cir. 2000) (Easterbrook, J., dissenting). Finally, applying a substantive canon here fudges our limited role in interpreting law. Our role is to enforce the linguistic import of enacted text. *See Wilson v. Safelite Grp., Inc.*, 930 F.3d 429, 439 (6th Cir. 2019) (Thapar, J., concurring in part and in judgment); *Hale v. Johnson*, 845 F.3d 224, 227 (6th Cir. 2016). But substantive canons don't illuminate linguistic meaning. They favor specific policy outcomes. Amy Coney Barrett, *Substantive Canons and Faithful Agency*, 90 B.U. L. Rev. 109, 159–67 (2010). For that reason, we don't use substantive canons when the text is otherwise clear. *See Miller v. French*, 530 U.S. 327, 340–41 (2000); *Moskal v. United States*, 498 U.S. 103, 107–08 (1990). And here, the text is clear. "Shall" means "shall." *See Miller*, 530 U.S. at 337; *Lexecon Inc. v. Milberg Weiss Bershad Hynes & Lerach*, 523 U.S. 26, 35 (1998).

Worse yet, many circuits have fallen into the same error, with several adopting our reasoning. *See Rodriguez v. Bay State Corr. Ctr.*, 139 F.3d 270, 272 (1st Cir. 1998), *abrogated on other grounds by Bousley v. United States*, 523 U.S. 614 (1998); *Galtieri v. United States*, 128 F.3d 33, 37 (2d Cir. 1997), *overruled in part on other grounds by Magwood v. Patterson*, 561 U.S. 320 (2010); *In re Hoffner*, 870 F.3d 301, 307 n.11 (3d Cir. 2017); *In re Williams*, 330 F.3d 277, 280 (4th Cir. 2003); *Gray-Bey*, 201 F.3d at 867–68; *Ezell v. United States*, 778 F.3d 762, 765 (9th Cir. 2015); *Browning v. United States*, 241 F.3d 1262, 1263–64 (10th Cir. 2001) (en banc). As far as I can tell, only the Fifth and Eleventh Circuits treat the rule as mandatory. *In re Williams*, 898 F.3d 1098, 1102–03 (11th Cir. 2018) (Wilson, J., concurring) (discussing *In re Johnson*, 815 F.3d 733 (11th Cir. 2016) (en banc)); *In re White*, 602 F. App'x 954, 956 n.2 (5th Cir. 2015).

Though our circuit has treated the thirty-day rule as difficult to follow, it isn't. Congress gave us a simple task that should be easy to perform within thirty days: decide, using a prima facie standard, whether a petitioner is entitled to file a second or successive petition. 28 U.S.C.

§ 2244(b)(3)(C). The criteria for filing a second or successive petition are spelled out right in AEDPA. *Id.* § 2244(b)(1)–(2). Because these conditions are difficult to meet, it's easy to judge whether they've been met. *See id.* Accordingly, we don't need an exhaustive opinion addressing the petition's merits. *Id.* § 2244(b)(3)(C).

Indeed, AEDPA envisions that most second or successive petitions will be denied. *Id.* § 2244(b)(2). There are only two narrow exceptions. *Id.* § 2244(b)(2)(A) (new, retroactive rule of constitutional law); *id.* § 2244(b)(2)(B) (newly discovered evidence so compelling that no rational juror would find the defendant guilty). That's why most of these petitions are routinely denied in a brief order. And because our denial is unappealable, that order ends the case. *Id.* § 2244(b)(3)(E).

Even in the extraordinary case when a petitioner makes the prima facie showing, our order can be brief. That's because AEDPA requires district courts to decide for themselves whether a petition meets AEDPA's stringent filing requirements. *Id.* § 2244(b)(4). And because our decision to let a petitioner file a second or successive petition isn't even binding on the district court, there's little reason for a panel to write more than a few pages.

It should be easy to perform this narrow, gatekeeping function within thirty days, especially when our decision isn't binding or subject to later review. But even if not, we could adopt procedures to ensure we meet the deadline. We could start by expediting the briefing. If, for some reason, a panel needs to write more than a brief order, it could issue an order within thirty days and release an opinion later. *See Galtieri*, 128 F.3d at 37. Or, true to the expectation implicit in AEDPA's text, we could develop a default rule that motions are automatically denied after thirty days. *See Gray-Bey*, 201 F.3d at 873 (Easterbrook, J., dissenting); 28 U.S.C. § 2244(b)(2).

In fact, we've already test run a procedure to ensure compliance with the thirty-day rule. In 1996, our circuit relied on staff attorneys to draft proposed orders, and we'd wait to start the thirty-day clock until the motion and draft order were submitted to a panel. *In re Sims*, 111 F.3d 45, 48 n.1 (6th Cir. 1997). Unfortunately, that procedure conflicted with the text just as much as

blowing past the deadline: AEDPA gives us thirty days from "the filing of the motion," not from the submission of a proposed order. 28 U.S.C. § 2244(b)(3)(D).

Whatever procedure we choose, the point is that we must comply with the thirty-day rule. That rule is anything but "advisory or hortatory." *Cf. Siggers*, 132 F.3d at 335.

II.

Why does the thirty-day rule matter? First, Congress made it mandatory, and that should be good enough for us. But also, the rule reflects the careful balance that Congress struck when enacting AEDPA.

Habeas plays "a vital role in protecting constitutional rights." *Slack v. McDaniel*, 529 U.S. 473, 483 (2000). But AEDPA balances this role against at least three concerns: finality of state convictions, abuse of habeas, and delay. *See Woodford v. Garceau*, 538 U.S. 202, 206 (2003) (quoting *Terry Williams v. Taylor*, 529 U.S. 362, 386 (2000) (opinion of Stevens, J.) ("Congress wished to curb delays, to prevent 'retrials' on federal habeas, and to give effect to state convictions to the extent possible.")). First, because habeas is a last-ditch challenge to another sovereign's conviction, AEDPA indulges a strong presumption that the conviction will be upheld. 28 U.S.C. § 2244(b)(2), 2254(d). This furthers "comity, finality, and federalism." *Michael Williams v. Taylor*, 529 U.S. 420, 436 (2000). Second, because federal habeas comes after several rounds of review, AEDPA limits habeas to the most compelling cases. 28 U.S.C. § 2254(b)(2). This protects petitioners, for "[i]t must prejudice the occasional meritorious application to be buried in a flood of worthless ones." *Brown v. Allen*, 344 U.S. 443, 537 (1953) (Jackson, J., concurring in judgment). Finally, because delays keep states, victims, and petitioners "in limbo," AEDPA demands that petitions be resolved quickly. 28 U.S.C. §§ 2244(b)(3)(D), (d)(1); *Baze v. Rees*, 553 U.S. 35, 81 n.17 (2008) (Stevens, J., concurring) (quotation omitted) (noting victims' families are "left in limbo," to relive a crime "for decades"); *Knight v. Florida*, 528 U.S. 990, 990 (1999) (Breyer, J., dissenting from denial of cert) (stating that long delays are "inhuman, degrading, or unusually cruel" for the prisoner). These concerns are weighty, and AEDPA's balance is "delicate." *Michael Williams*, 529 U.S. at 436.

The thirty-day rule is integral to this balance. It furthers federalism and finality by keeping us from meddling in another sovereign's conviction for longer than necessary. Because second or successive petitions are the last stage in a long review process (thirty-seven years here), the thirty-day rule has us decide quickly whether to let petitioners file them, curbing abuse and focusing us on the petitions most likely to be meritorious. And, most obviously, the thirty-day rule also prevents delay. Indeed, even the legislative record confirms that AEPDA's deadlines are essential to the statute's purpose: to solve "the acute problem[] of unnecessary delay," a committee report explained, "[c]ourts are directed" to decide petitions "within specified time periods." H.R. Report 104-518, at 111 (Apr. 15, 1996).

We have neither the authority nor the expertise to second-guess AEDPA's delicate balance. And we don't have discretion to upset the balance by disregarding one of the statute's key components. But treating the thirty-day rule as "advisory or hortatory" does just that. *Cf. Siggers*, 132 F.3d at 335.

* * *

This case has gone on for thirty-seven years. But AEDPA, correctly understood, ensures that it will not go on forever. Our court should honor—not ignore—the balance Congress struck in the thirty-day rule.

DISSENT

CLAY, Circuit Judge, dissenting. Danny Hill was tried on capital charges in 1986. Hill was convicted and sentenced to death, and his subsequent direct appeals and post-conviction proceedings were unsuccessful. Decades later, based on a discovery in forensic science, Hill moved for a new trial in Ohio state court. He was denied relief and now seeks to file a habeas corpus petition challenging the admission of recently debunked bitemark evidence at his trial and the state court's subsequent denial of his motion for a new trial as a denial of due process. The sole issue before the en banc court is whether Hill's proposed habeas petition is "second or successive" under 28 U.S.C. § 2244(b). Hill's habeas petition is not second or successive and should be remanded to the district court. I therefore respectfully dissent.

BACKGROUND

The majority's recitation of the facts presented by this case is in many ways misleading. Hopefully, the following description of the factual background of the case will place the relevant events in proper perspective.

Hill's trial began before a three-judge state-court panel in 1986. *See State v. Hill*, 595 N.E.2d 884, 889 (Ohio 1992) ("*Hill II*"). The prosecution argued that Hill had actively participated in the rape, murder, and other offenses committed against Raymond Fife. *Id.* The majority's version of facts would lead the reader to believe that Hill was the primary perpetrator in the offenses committed against Fife. However, Tim Combs, now deceased, according to Hill's confession, "did everything to the victim."[1] *Id.* at 888. Hill, who was 18 years old at the time of the offense, merely admitted he was present during the commission of the offense. *Id.* The critical evidence in proving that Hill was more than a spectator to these attacks was Dr.

[1]Combs was sentenced to multiple life imprisonments and not death, even though he was convicted of the same crime as Hill and considered the "principal offender." *Hill II*, 595 N.E.2d at n.1; *see State v. Combs*, 162 Ohio App.3d 706, 708 (Ohio Ct. App. 2005).

Curtis Mertz's testimony at trial that Hill had left a bite mark on Fife's penis.[2] *Id.* at 889. Dr. Mertz, now deceased, was then an influential forensic odontologist who had previously served as the president of American Board of Forensic Odontology (ABFO), a membership-based organization formed in 1976 that issues guidelines for the collection, analysis, and reporting of bite mark evidence. *See* National Academy of Sciences, Strengthening Forensic Science in the United States: A Path Forward 173 (2009) ["NAS Report"][3]; American Board of Forensic Odontology, *About the ABFO*, https://abfo.org/ (last accessed August 1, 2023).

In his opening statement, the prosecutor previewed that Dr. Mertz would identify Hill as the person who had left a purported bite mark on Fife's penis. Dr. Mertz then testified that it was his "professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and the photographs that [Dr. Mertz] had, made the bite on Fife's penis." *Hill II*, 595 N.E.2d at 889. The prosecutor returned to Dr. Mertz's testimony in his closing statement, emphasizing that the evidence showed that Hill, not Combs, had left the supposed bite mark on Fife. Hill was ultimately convicted of kidnapping, rape, aggravated arson, felonious sexual penetration, and aggravated murder with specifications, and was sentenced to death. *Id.*

At the time of trial, Dr. Mertz's testimony fell within acceptable limits set by the ABFO. In 1986, and indeed until 2013, ABFO guidelines permitted odontologists like Dr. Mertz to relate, "to a reasonable degree of dental certainty," a "suspected biter to a bite mark." *See* 2012 ABFO Guidelines, R. 1-12, Page ID #432. This meant that odontologists could, consistent with best practices, testify that a person was "the biter," "the probable biter," "not excluded as the biter," or "excluded as the biter," or that it was "inconclusive" whether the person was or was not the biter. *Id.* The ABFO guidelines, of course, did not resolve whether a suspected "biter" had left a given bite mark, but the guidelines endorsed the prevailing belief that odontologists were capable of accurately and reliably identifying who had left a particular bite mark. *See id.*

[2]The majority highlights the weakness of its argument by focusing on prior rape allegations against Hill and the horrendous nature of the crime, instead of confining its discussion to the legal issues presented. Furthermore, although the majority claims that Hill may have committed other rapes, that allegation purportedly is based on less than credible witness testimony.

[3]Available at: https://www.ojp.gov/pdffiles1/nij/grants/228091.pdf.

Dr. Mertz's identification of Hill as the bite mark contributor was thus consistent with the contemporaneous view of odontologists' abilities.

More than two decades after Hill was sentenced to death and had begun pursuing his initial round of collateral relief, forensic science underwent a seismic shift. In 2009, the National Academy of Sciences (NAS) published a landmark report concluding that a wide swath of forensic evidence routinely introduced in criminal trials lacked sufficient support to be scientifically valid. *See* NAS Report, *supra*, at 4–8. Odontology shared many of the shortcomings that pervaded other forensic disciplines. Critically, odontologists had not "establish[ed] the uniqueness of bite marks" and thus lacked a valid basis to make conclusive bite mark identifications. *Id.* at 174. The ABFO guidelines exacerbated the issue. The guidelines failed to provide criteria for determining "whether the bite mark can be related to a person's dentition and with what degree of probability." *Id.* The report stated that "[e]ven when using the guidelines, different experts provide widely differing results and a high percentage of false positive matches of bite marks using controlled comparison studies." *Id.* The unreliability of bite mark evidence is compounded, according to the report, because "second expert[s] are not widely used" and because, "[b]ite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect." *Id.* at 175. The NAS report concluded that there was no known "evidence of an existing scientific basis for identifying an individual to the exclusion of all others" and that further "research [was] warranted in order to identify the circumstances within which the methods of forensic odontology can provide probative value." *Id.* at 176.

The ABFO responded by substantially limiting the scope of acceptable bite mark identification testimony. In 2013, the ABFO issued amended guidelines that continued to permit odontologists to relate a suspected biter to a bite mark, but warned that the ABFO no longer "support[ed] a conclusion of 'the biter' in an open population case"—which is to say, where the universe or total number of possible bite mark contributors is unknown. 2013 ABFO Guidelines, R. 1-12, Page ID #434. The ABFO set even more restrictive limitations in 2016, this time amending its guidelines to preclude odontologists from making conclusive bite mark

identifications—beyond a broad claim that an individual could not be eliminated as a potential biter—in *any* cases, open population or not.

Given the substantially limited scope of the 2013 ABFO guidelines and their successors, were Dr. Mertz to have testified in accordance with these guidelines, he would have been precluded from identifying Hill as the person responsible for the alleged bite mark found on Fife. Had Hill been tried in 2013 or in the decade since, any odontologist called on to identify Hill as the source of Fife's purported bite mark, notwithstanding the ABFO guidelines that preclude such a determination, would have had to confront during cross-examination the widespread consensus that such testimony is unsupportable and unscientific—in the unlikely event that the odontologist were permitted to testify at all. *See Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993) (imposing an obligation on a trial judge to "ensure that any and all scientific testimony . . . is not only relevant, but reliable).

In 2014, Hill brought these scientific developments to the attention of an Ohio trial court when he moved for leave to file a delayed motion for a new trial under Ohio Rule of Criminal Procedure 33(B). Hill asserted in the motion that the revised ABFO guidelines constituted new evidence demonstrating that the bite mark identification evidence used at his trial was invalid, and that he was convicted in violation of his Fifth, Eighth, and Fourteenth Amendment rights. The state trial court found that Hill was unavoidably delayed in discovering his new evidence because the ABFO guidelines were not in existence at the time of his trial and granted Hill permission to file a motion for a new trial.

Hill filed his motion for a new trial in June 2016. In it, he recounted the scientific discoveries made since Dr. Mertz took the stand in 1986. He also submitted an affidavit from forensic odontologist Dr. Franklin Wright, another former president of the ABFO who had reviewed the evidence from Hill's trial. Based on his examination, Dr. Wright concluded that Fife's injury was "not a human bite mark." 2014 Wright Aff., R. 1-4, Page ID #368. Dr. Wright further opined that even ignoring his finding that the injury was not a human bite mark, Dr. Mertz's finding was not scientifically supportable because "[i]t is not possible to determine from the evidence" presented at Hill's trial that Fife's injury "was created by [Hill] to the exclusion of millions of other individuals in the open universe of possible biters." *Id.*, Page ID #368.

The state trial court found that advances in forensic odontology impeached and contradicted the trial testimony that marks on Fife could be linked to Hill. But the trial court held that it was bound by the Ohio Supreme Court's findings on the sufficiency of the evidence of aggravated murder and its independent weighing of the sufficiency of the rape, kidnapping, and aggravated arson specifications. The trial court concluded that, even if the bite mark evidence were excluded, there was no probability of a different outcome in a new trial because there was overwhelming evidence in support of Hill's convictions for the kidnapping specification. The Ohio Court of Appeals affirmed, *State v. Hill* ("*Hill VI*"), 125 N.E.3d 158 (Ohio Ct. App. 2018), and the Ohio Supreme Court denied further review, *State v. Hill* ("*Hill VIII*"), 123 N.E.3d 1040 (Ohio 2019) (table), *cert. denied*, 140 S. Ct. 884 (2020).

Hill filed a habeas petition under § 2254 in the district court. He alleged that Ohio Rule of Criminal Procedure 33 created a liberty interest under the Fourteenth Amendment, and that the state trial court violated his due-process rights by not conducting an appropriate materiality review of his new evidence as required under Rule 33. He further asserted that the Ohio Court of Appeals did not properly analyze his due-process claims and made factual and legal errors. Hill concluded that the state courts' failure to follow the established process for reviewing his claim violated his constitutional right to due process and a fair proceeding and was an unreasonable application of clearly established federal law and an unreasonable application of the facts.

The district court found that Hill's habeas petition was second or successive and transferred it to this court. A panel of this court held that Hill's petition was second in time but not second or successive, and transferred it back to the district court for further proceedings. *In re Hill*, No. 20-3863, 2022 WL 19222585 (6th Cir. Aug. 30, 2022) (order), *reh'g en banc granted, opinion vacated*, 62 F.4th 1039 (6th Cir. 2023) (order). The State petitioned for rehearing en banc, which the en banc court granted. 62 F.4th 1039.

DISCUSSION

As the majority correctly identifies, we review de novo whether Hill's petition is "second or successive." *See Lang v. United States*, 474 F.3d 348, 351 (6th Cir. 2007).

Hill claims that his conviction and sentence violated the Constitution because the prosecution relied on bite mark evidence that was discredited as scientifically unreliable in 2013 and 2016, and the Ohio state courts violated his due process rights by failing to follow established procedures when adjudicating his motion for a new trial. Hill seeks to raise that claim in a habeas petition under § 2254. The issue is whether he must satisfy § 2244(b)(2)'s gatekeeping requirements before he may file his petition in the district court. Because Hill's petition is merely second in time, not "second or successive," the petition is not governed by § 2244(b) and Hill may file the petition directly in the district court.

Section 2244(b) limits the ability of habeas petitioners to file second or successive habeas petitions. *See* 28 U.S.C. § 2244(b). Although Hill filed an initial habeas petition in 1996 and seeks to file a second petition now, the Supreme Court has repeatedly affirmed that a habeas petition is not "second or successive" merely because it was "filed second or successively in time[.]" *Magwood v. Patterson*, 561 U.S. 320, 332 (2010) (quoting *Panetti v. Quarterman*, 551 U.S. 930, 944 (2007)); *see also In re Cook*, 215 F.3d 606, 607 (6th Cir. 2000) (order) ("[T]he fact that [the defendant] has already filed one § 2254 application . . . is not necessarily determinative of whether the current attempt is a 'second or successive' application."). Indeed, the Supreme Court has "declined to interpret 'second or successive' as referring to all § 2254 applications filed second in time, even when the later filings address a state-court judgment already challenged in a prior § 2254 application." *Panetti*, 551 U.S. at 944 (citing *Slack v. McDaniel*, 529 U.S. 473, 486–87 (2000)); *Stewart v. Martinez-Villareal*, 523 U.S. 637, 645 (1998)).

The ripeness of a defendant's argument at the time of his initial petition is critical in determining whether a claim presented in a second habeas petition is considered second in time, or instead second and successive. In *Panetti*, the Supreme Court considered how to categorize a petitioner's second habeas petition that raised a competency claim under *Ford v. Wainwright*,

477 U.S. 399 (1986), whereby the petitioner's "first federal habeas application, which was fully and finally adjudicated on the merits, [had] failed to raise a *Ford* claim." *Id.* at 942 (citation and quotation marks omitted). The Court found that the defendant's claim was second in time, not second and successive, notwithstanding the petitioner's failure to raise a *Ford* claim in his first petition, because the petitioner filed his "Ford-based incompetency claim . . . as soon as that claim [became] ripe." *Id.* at 945; s*ee also Martinez-Villareal*, 523 U.S. at 643–46 (holding that a *Ford* claim, raised for the second time after petitioner's first claim was dismissed as premature, was not a "second or successive" petition under § 2244(b)). Our Court has applied *Panetti* outside the context of a *Ford* claim, including in *In re Salem*, where we held that the defendant's entrapment claim was not ripe at the time of the initial petition, and "should therefore be treated as a continuation of [the defendant's] earlier, undoubtedly reviewable, application for federal habeas relief." 631 F.3d 809, 813 (6th Cir. 2011) (quoting *Martinez-Villareal*, 523 U.S. at 643). The majority agrees that a claim not ripe at the time of an initial petition is not second and successive, but for inexplicable reasons finds that Hill's petition is nonetheless "second or successive."

When determining whether a habeas petition is second or successive, the Supreme Court and this court have "looked for guidance in two main places." *Banister v. Davis*, 140 S. Ct. 1698, 1705 (2020). First, the courts have considered whether the habeas petition would have historically "constituted an abuse of the writ, as that concept is explained in [the Supreme Court's] [pre-Antiterrorism and Effective Death Penalty Act (AEDPA)] cases." *Id.* at 1706 (quoting *Panetti*, 551 U.S. at 947). "If so, it is successive; if not, likely not." *Id*. Second, the courts have looked to the purposes of AEDPA, including "conser[ving] judicial resources, reduc[ing] piecemeal litigation, [and] streamlin[ing] federal habeas proceedings."[4] *Panetti*, 551 U.S. at 946.

Hill's petition does not constitute an abuse of the writ. A petitioner abuses the writ "by raising a claim in a subsequent petition that he could have raised in his first, regardless of

[4]The majority unnecessarily delves into a distinction between judgments and claims in relation to § 2244(b). Hill's petition is not "second and successive" even accepting the majority's view that the petition is based on a purported "new claim."

whether the failure to raise it earlier stemmed from a deliberate choice." *McCleskey v. Zant*, 499 U.S. 467, 489 (1991). This court has previously held that a claim that could have been raised in an earlier petition but was not, either because the petitioner chose not to, or because the petitioner was not aware of existing facts supporting the claim, is "second or successive" under § 2244(b). *See* 28 U.S.C. § 2244(b)(2)(B)(i); *In re Wogenstahl*, 902 F.3d 621, 627–28 (6th Cir. 2018). By contrast, a petitioner does not abuse the writ by raising a claim that would have been unripe if it had been presented in an earlier petition. *Panetti*, 551 U.S. at 945. Such is the case where "the events giving rise to the claim had not yet occurred" when the petitioner filed his earlier habeas petition. *In re Jones*, 652 F.3d 603, 605 (6th Cir. 2010). The majority opines that Hill's new claim was ripe during his initial habeas petition because the bite mark evidence was presented during trial and was appealable from that moment on. This is a fundamental misunderstanding of Hill's claim.

Hill's claim arises out of events that occurred decades after he filed his first federal habeas petition in 1996. His claim arose in 2013 and continued into 2016, when the scientific community repudiated the bitemark evidence offered at his trial and the ABFO revised its guidelines to account for that scientific revolution. Prior to those developments, Dr. Mertz's testimony "fell within acceptable limits" set by the ABFO and subscribed to by odontologists. 2020 Wright Decl., R. 1-11, Page ID #410. After the change, his testimony was deemed by the relevant scientific community to lack a valid scientific basis. Given the timing of these events, Hill could not have brought his claim in his initial petition. Hill was aware of the bite mark evidence during his trial; however, his claim disputing the reliability of the evidence was not ripe until the scientific community invalidated the evidence.

Further, the majority claims its opinion preserves AEDPA's objectives, because Hill could have brought his bite mark claim in his initial petition, which would have streamlined his proceedings. However, it makes little sense to demand that Hill argue that bite mark identification lacked a scientific basis at a time when bite mark identification was still widely considered to be a valid form of forensic evidence, solely on the off chance that the science might eventually change. *Cf. Panetti*, 551 U.S. at 946 (finding that "[a]n empty formality requiring prisoners to file unripe *Ford* claims neither respects the limited legal resources

available to the States nor encourages the exhaustion of state remedies"). Rather, allowing Hill to raise his claim in a second-in-time habeas petition once the scientific community reached its consensus and his claim became ripe serves a greater judicial purpose, and is not contrary to the purposes of the AEDPA. *See id.*; *see also Jones*, 652 F.3d at 605.

Moreover, beyond placing an impossible standard on defendants that requires defendants to predict scientific discoveries in their initial petition, the majority also directly flouts this Circuit's and the Supreme Court's precedent. Hill's inability to challenge the bite mark evidence before the evidence was scientifically discredited is directly comparable to a petitioner's inability to challenge an execution that has not yet been set, *Martinez-Villareal*, 523 U.S. at 644–45, or laws that have not yet been passed, *Jones*, 652 F.3d at 605.

In particular, Hill's claim in this case is directly analogous to a claim presented in *Jones*. In *Jones*, the petitioner moved for authorization to file a second or successive habeas petition based in part on his claim that changes to Michigan's parole system since his conviction constituted an ex post facto law. *Jones*, 652 F.3d at 604. Jones' "*ex post facto* claim . . . challenge[d] the cumulative effect of amendments to Michigan's parole system, the last of which took effect . . . two years after Jones's initial habeas petition was filed." *Id.* at 605. Given the timing of these events, this Court held that Jones's claim was "unripe when his initial petition was filed" and that his claim was therefore second in time rather than second or successive. *Id.*

Like the newly enacted change to Michigan's parole system which rendered Jones' petition second in time, the seismic shift in forensic odontology and newly formed scientific consensus that such evidence lacks validity renders Hill's petition second in time, and not second or successive. As the *Jones* Court held, "no useful purpose would be served by requiring prisoners to file *ex post facto* claims in their initial petition as a matter of course, in order to leave open the chance of reviving their challenges in the event that subsequent changes to the [law] create an *ex post facto* violation." *Id.* Similarly, no useful purpose would have been served by requiring Hill to file his claim challenging the scientific validity of the bite mark evidence in his initial petition, to then lose on the basis that no scientific evidence supported his claim. Just as we do not require petitioners to predict changes in the law, we should not require petitioners to predict changes in science. The majority's repeated assertion that Hill could have brought this

claim initially is misguided, and would have required Hill to mount a scientific challenge that was not supported by the scientific evidence available at that time. In view of such enormously consequential errors, this Court should acknowledge that Hill's petition is merely second in time, not second or successive, and hold that § 2244(b) does not apply to Hill's petition.

While the majority agrees that Jones' ex post facto claim was second in time, the majority attempts to argue that a second claim brought by Jones, which the *Jones* Court held was second or successive, is more analogous to Hill's petition. Jones' second claim "contend[ed] that the jury pool at his trial systematically excluded African-Americans, in violation of the Sixth Amendment's fair cross-section requirement." *Id.* at 604. Because Jones' claim "challenge[d] events that occurred at his trial," the *Jones* Court found that the claim fell "squarely within the scope of § 2244(b)." *Id.* at 606. Attempting to analogize, the majority opines that Hill's bite-mark claim, like Jones' cross-section claim, challenges events that occurred at his trial, and thus must pass the gatekeeping provisions of § 2244(b).

The majority is plainly wrong. In bringing his cross-section jury claim, Jones alleged no new discovery or new law that changed the legal landscape regarding jury selection practices—thus Jones' jury claim was ripe at the time Jones brought his first petition. Clearly, Jones' cross-section jury claim is completely unlike Hill's claim, which is based on new scientific evidence that did not exist when Hill filed his initial petition—new scientific evidence that *completely* invalidates the bite mark evidence—and therefore was unripe at the time of the initial petition.

Further, the majority insists that "the factual predicates for the claim occurred at trial," thus any claim that is a derivative of those factual predicates would necessarily be "second and successive" if not brought in the initial petition—relying on *Wogenstahl*, 902 F.3d at 627–28, in which a *Brady* violation had occurred but the petitioner did not learn of it until later. *See Brady v. Maryland*, 373 U.S. 83 (1963). However, unlike in *Wogenstahl*, the factual predicate for Hill's claim did not exist at the time he filed his first habeas petition: it was not until the scientific community repudiated the odontological evidence introduced at Hill's trial, and the ABFO manual was later reissued, that Hill's claim became ripe. In other words, if Wogenstahl had access to all then-available information at the time of his first habeas petition, he could have

brought a *Brady* claim. In contrast, if Hill had access to all then-available information at the time of his first habeas petition, he still could not have brought a viable claim that the bite mark evidence was invalid because the evidence had not yet been repudiated, the prior ABFO guidelines still controlled, and his argument would have been contrary to the prevailing scientific consensus.

The majority also points to out-of-circuit cases in which courts have "assumed" that claims based on newly existing evidence are "second or successive." Critically, these cases do not analyze whether the petitions are "second or successive." *See Rhodes v. Smith*, 950 F.3d 1032, 1036 (8th Cir. 2020) (noting that the only question raised on appeal was whether the district court erred in holding that the petitioner failed to satisfy the § 2244(b) requirements); *Feather v. United States*, 18 F.4th 982, 985 (8th Cir. 2021) (treating the § 2255 motion as an initial petition and reviewing it on its merits); *Case v. Hatch*, 731 F.3d 1015, 1026 (10th Cir. 2013) (assuming without analysis that the § 2254 application was "second or successive"). Thus, these cases shed no light on the question presented to the Court in this case.

To be clear, the only issue before the en banc court is whether Hill's proposed habeas petition is second or successive under § 2244(b). The merits of Hill's challenge to the state trial court's decision, the strength of the evidence he has introduced, and all other matters bearing on the merits of his claim are irrelevant to that issue and are not before the en banc court. Even taking the merits into account, however, the majority grossly overstates and overestimates the evidence against Hill that would qualify him for the death penalty. As described above, the bite mark evidence is paramount in determining the level of Hill's participation in the offense. Likewise, the amount of time that has passed since Hill was convicted and sentenced should have no bearing on the en banc court's determination. Those considerations are already reflected in the limitations § 2244(b) places on second or successive habeas petitions and in the Supreme Court's decisions interpreting the provision. Hill did not unduly delay his claim, as the invalidating evidence did not come to light until 2013. Nor should Hill's efforts to litigate his other claims, which have generated substantial judicial disagreement, influence the Court's decision here.

The en banc court should not alter the balance Congress and the Court have struck. Because the majority's approach cannot be reconciled with more than two decades of Supreme Court precedent recognizing that a second-in-time habeas petition is not second or successive when the petitioner could not have "receive[d] an adjudication of his claim" when he filed his earlier petition, *Martinez-Villareal*, 523 U.S. at 645, the majority's approach is grievously misguided.

For the aforementioned reasons, Hill's habeas petition is second in time but not second or successive, and should therefore be remanded to the district court for further proceedings as a second in time petition. Because the majority declines to follow that straightforward procedure based on its misreading of precedent and its mischaracterization of Hill's claim, I respectfully dissent.

and 6:00, that he ends up on the corner, which is "D" on the diagram here, and as he's walking, he sees four individuals leaving the wooded area going west on Willow Drive coming out of the woods. Donald Allgood will tell you that Timmy Combs and Danny Hill were leading the way out of the woods. Allgood knew Tim Combs, knew him by name. He also knew two of the other individuals by name. He said Tim Combs was pulling his zipper up. He also saw something that's very important. He saw the defendant throw a stick or some object in the woods. The defendant throwing a stick. The defendant will tell this Court by way of his statements that he didn't leave after the crime with Tim Combs. That he never had his hands on the stick which he described, and that, in fact, Timmy Combs was running way ahead of him when they left that crime scene.

On September 14th, which was a Saturday -- Friday before that, the -- Allgood tells the police about what he saw. He's brought down to the police station and he makes a prior identification; picks out the picture of the defendant, saying he was the man that was with Tim Combs that threw something in the woods which could have been a stick. On Sunday the 15th, police officers return with

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Donald Allgood and they go right back -- and this is the point in time where he tells about did you see Danny Hill. He says yeah, he threw something which he thought was a stick. The stick is something around 18 inches long. It's a broom handle or a shovel handle that's been broken off. It's jagged at one end. He didn't -- Donald Allgood didn't get a good look at it. He just said he threw something on his right as he's walking out of the woods like that (demonstrating).

The Warren Police Officers, the next day, come back and they cut down the thick woods and brush that's really high. Jaggers and weeds. That's cut down so they can go in there and look. And approximately six feet off the path, 19 feet from the road, they find a stick. This stick, which was taken by Officer -- or Detective Teeple, was a stick that was not covered with weeds, not implanted in the dirt. It was loosely on the ground. It was taken at that particular time. It was submitted to the lab for blood, and the lab did not find any blood. In fact, there is no evidence of blood in this case, and we feel that it's reasonably explained. When I say there is no evidence of blood, I'm not talking about -- there is a lot of

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tions.

ATTORNEY WATKINS: I would thank the witness.

(Witness is excused.)

ATTORNEY WATKINS: Doctor Curtis Mertz.

DOCTOR CURTIS A. MERTZ

being duly sworn, according to law, on his oath, testified, as follows:

DIRECT EXAMINATION BY ATTORNEY WATKINS:

Q Doctor Mertz, this case, unlike other cases you probably have testified, the Court will hear your testimony and not the jury, and would you direct your answers to me to them. And would you for the record please state your full name.

A Curtis Alvern Mertz, M-E-R-T-Z.

Q And Doctor Mertz, what profession do you have?

A I'm a dentist.

Q And would you go through your educational background, please.

A I graduated from high school in Texas, attended my predental education at the University of Texas in Austin, Texas, my dental education at Ohio State University College of Dentistry where I graduated in 1944, and my postgraduate education in oral

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surgery and oral diagnosis at the Cleveland Clinic Foundation in Cleveland, Ohio.

Q And did you become licensed in the state of Ohio?

A I am so licensed.

Q And what year was that?

A 1944.

Q And are you licensed in any other states?

A I'm licensed in the state of Texas.

Q And do you belong to any professional organizations or associations?

A I'm a member of the Northeastern Ohio Dental Society, the Ohio State Dental Association, and the American Dental Association.

Q Have you done any postgraduate education or training in the area of dentistry?

A Yes, I have. I've attended Case Western Reserve, Ohio State, University of Michigan, Armed Forces Institute of Pathology at Walter Reid Hospital in Washington, and the last one was at the Smithsonian Institute in December.

Q Okay. And would you in a brief way discuss from 1944 or so what you've been doing as far as your practice.

A I'm a trained oral surgeon, but I never have limited my practice to that. Early in my career, I started a group practice of dentistry which evolved in 19 --

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from '60 up till seven -- '82, managing a group of 10 dentists, and doing the oral surgery at three hospitals in our area.

Q Now, are you on staff at any particular hospitals?

A I'm the Chief of the Dental Staff at Ashtabula Medical Center.

Q And how long have you been Chief of Staff there?

A Probably more than 10 years, but I can't remember.

Q And have you practiced in Ashtabula since the war?

A Yes.

Q Now, have you received any professional certifications along the way in your long career?

A Yes. I'm certified by the American Board of Forensic Odontology.

Q Okay. Are you a diplomate?

A Yes.

Q And would you tell the Court when the American Board of Forensic Odontology was formed.

A The American Board was formed as an outgrowth of another organization, the American Society of Forensic Dentistry -- or Odontology, in the early seventies, and in the middle seventies; around '77 or so, the American Board was put together under a grant by the LEAA at that time.

Q And did you hold any positions for the American Society,

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the forerunner of the --

A I'm past president of the American --

Q Past president?

A Of the American Society and of the American Board. Both.

Q And who was the first president of the American Board of Forensic Odontology in the United States?

A I was.

Q And would you tell the Court whether or not you belong to any other professional organizations.

A I belong to a number of organizations which are associated with dentistry, and the Pierre Fuchard Academy, and others that --

Q Did you have to take any tests to become a diplomate of the American Board of Forensic Odontology?

A At the time, the tests were made up by Doctor Miles Standish, a professor out at the University of Illinois -- I'm sorry, Indiana, and all of us who were the officials, if you'd call them that; are members of the Board of Directors, took the test prior to it being utilized to certify further members.

Q Okay. So, you did take a test?

A Oh, yes.

Q Now, would you tell the Court in layman's terms what odontology is. What do you do?

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A Well, forensic odontology is primarily the relationship of the law to dentistry, and hopefully interpreting and explaining dental problems that occur in an understandable manner. And this encompasses dental identification. It encompasses not only bite marks, but personal injury cases, malpractice, and child abuse.

Q And you've been involved in all of those?

A I have.

Q Have you been a consultant for any other organizations or institutions?

A Yes. I've been a consultant for -- to the Federal Aviation Administration in their Human Factors Division in the identification of dead -- air crashes, and I'm a consultant to the Armed Forces Institute of Pathology at Walter Reid Hospital in Washington in forensic dentistry where I lecture.

Q Now, when you talk about lecturing and being a faculty member, would you go through -- and in fact, I'm not going to go through much more with your cirriculum vitae. I'm going to have this marked as an exhibit. Would you identify 122.

A This is a cirriculum vitae that I prepared and continued -- upgraded as needed, and this one's dated January 1, '86.

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Q And as I look through this document, you have lectured many times in many different places, have you not?
A Yes, sir.
Q And have you been involved with publications, books, authorities in the area of forensic dentistry?
A Yes, I've written several articles that have been published on forensic dentistry.
Q Okay. I believe that recently, you've gone to the Peoples Republic of China, and recently, Nairobi, is that correct?
A That's correct.
Q And would you tell the Court what you went there for.
A I lecutured about every third day, sometimes two days in a row, along with a forensic anthropologist, on the handling of air craft accidents; what you do from the standpoint of recovering bodies, preserving bodies, identification of bodies, and then the deposition of the remains. I lectured in Nairobi last week, and also about the 2nd -- 2nd of January.
Q And did you cover bite marks in Nairobi?
A Yes. And I covered them in China, too. It's part of the entire scope of forensic dentistry.
Q Okay. What, in general, can you tell us about bite marks? What we know -- we've heard as lawyers, and,

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indeed, lay people, about fingerprints, trace evidence. Would you explain what's significant to us as lawyers about human bite marks or bite marks in general.

A Well, I think one of the most significant features is that most more often use them to rule out someone than you can rule in someone. They -- bite marks occur in a number of different shapes and sizes and forms, depending on where the bite occurred, the nature of the bite, and the tissues underneath the skin.

Q Do human teeth have any particular characteristics that differ between all of us?

A Yes. Some people have individual characteristics even though the size of the jaws may be similar or dissimilar. The imprints of the teeth may show individual characteristics of a particular tooth or group of teeth, this sort of thing.

Q Okay. I'm going to hand you 123 and 124, and would you tell the Court -- look at the red ones, Doctor. I know you saw the yellow ones before in the deposition, but refer to the red number as you speak.

A This is my original certification, Number 123, where I was granted the qualification in forensic odontology as a diplomate on the 18th day of February, '76.

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And the re-certification the 1st of February in '81.

Q Okay. And --

A That's Number 124.

Q What numbers are they?

A 123, the first one, and 124, the last one.

Q And these are copies of your certifications?

A Yes.

Q Now, has your discipline or subdiscipline -- would you call it subdiscipline; forensic odontology? How would you describe it?

A I would describe it as a subdiscipline, yes.

Q Has it recognized -- has it been recognized in the scientific community as having general principles of reliability and validity?

A Are you specifically referring to bite marks or to forensic odontology and its other areas?

Q I'm referring to bite marks in particular, but you can also refer to the area in general.

A Well, forensic odontology identification is certainly recognized around the world, and it is used extensively, especially in mutilations in air crashes, or any mass accidents, incinerations, and that sort of thing. In particular, bite marks have been heard by the Courts since, I believe, 1970. I'm not sure of the exact date. The first one that I was involved

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in a Court proceeding was -- I think it was '73 or '74.

Q And how many times have you testified in Court, Doctor?

A In any type of forensic odontology case or in bite marks?

Q In any type of case.

A I would say somewhere around 35 to 50 times.

Q And how many cases -- and I'm not talking about testimony. How many cases have you been involved with bite marks?

A Somewhere around 35 or 40.

Q And what period of time are we spanning with the 35 or 40?

A I've reviewed many of these cases starting in the seventies and continued up to the present time.

Q Okay. And when you would review bite marks from the early seventies up to the present, what would you need to make comparisons?

A First of all, good photographs, and hopefully, but rarely, seeing the victim ahead of time or at a time of autopsy. We would need models -- impressions be taken and models poured to duplicate the dentition of the suspect and a -- bite related teeth; hit teeth (demonstrating), this sort of thing, of a suspect.

Q Okay. And the 35 or 40 times that you have reviewed

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bite mark cases, did you always come to a conclusion pointing to some particular person?

A No, sir.

Q Would you describe your statistical analysis of your cases in summation.

A Well, I would say in a higher percentage of cases that have been submitted to me, I've said I don't feel there's enough evidence here to make any sort of determination.

Q And why would that be in most of your cases?

A Because of -- the indentations were not sufficient or the photographs -- and/or the photographs, I should say, were lousy, and you couldn't use them for comparison purposes.

Q Okay. Now, when you testified in Court, did you testify for any particular -- have you testified for any particular side? How would you describe your -- plaintiff, defendant work?

A Oddly enough, I've testified for two defendants, and now this particular case of the prosecution.

Q Okay. So, you've testified on both sides?

A Oh, yes.

Q Now, how many bite mark cases have you testified in?

A Three.

Q And would you tell the Court, if you can recall, when

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they were. And you indicate you've been involved with 35 to 40 cases.

A I've either written reports or given an oral report to whomever called me and said, "I'm sorry. I can't help you."

Q And out of those, I take it three ended up going to trial?

A Yes. Several of the defendants ultimately confessed after.

Q Well, yeah, I understand. Cases that are disposed of --

A Yeah.

Q -- other than trial. Where were those cases that you testified in? What Courts did you testify in?

A First one was in Illinois. In Wheatland, Illinois. And over in Pennsylvania for the other two.

Q Okay. And in Illiois, who did you testify for?

A The defense.

Q Criminal defendant?

A Yes.

Q Okay. Now, were these other cases homicides?

A All of them were, yes.

Q And when was the last time you testified in Pennsylvania? Approximately how long ago?

A About a year and a half ago.

Q Okay. Have you been involved in depositions also?

A Yes, sir.

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Q Approximately how many?
A Well, if you count the personal injury and the malpractice and everything, I've probably done 35 to 50, perhaps, depositions.
Q Okay. Now, do you recall on or about September 13th, 1985, receiving a phone call from somebody in Trumbull County to come down?
A This female who represented herself as an investigator for the Coroner's Office of Trumbull County had requested I come down and view what the pathologist felt may well be a bite mark on a homicide victim.
Q At that time, Doctor, on the 13th of September, did you know Dennis Watkins?
A No.
Q Did you know any members of the Warren Police Department?
A Not anyone.
Q Did you know the members of the Coroner's Office of Trumbull County?
A No.
Q Who did you know? Did you know Doctor Adelman?
A I had met him many years ago when he was in New York City when I done some consulting work for the Medical Examiner's Office there, but that's -- frankly, I probably would not have recognized him.
Q Okay. So, he's not even a close friend of yours?

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A No.
Q So, when you received the call, did it turn out that you did come to Warren, Ohio?
A Well, fortunately, it was my afternoon off, and I left within a very short time and came down here.
Q And what time did you arrive?
A It was some time after 2:00 in the afternoon. I'm not positive as to the exact time.
Q And who was present?
A I met Doctor Adelman at the hospital, and he took me to the morgue. He was present.
Q And did you see a young boy's body?
A Well, the two of us removed a cart that the body was on from the refrigerated area, and then in the morgue is where I examined the body.
Q You have to speak a little bit louder. Maybe you can put the microphone maybe a little bit closer to you, Doctor. So, you saw the young man in the morgue?
A Yes.
Q And would you describe what you saw.
A Well, it was kind of a pitiful sight. I first examined the head and neck, which is the usual procedure on forensic dentistry cases, and I examined the face and the teeth of the victim, and then subsequently, I examined the penis of the victim where the bite

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mark was.

Q Would you describe the injuries that you saw.

A Well, they were burned injuries of the face, there was what appeared to be a ligature mark around the neck, the lips were bruised, the face was bruised, the teeth -- I parted the lips to look at the teeth, and I saw at least one for sure, and in all likelihood, perhaps two teeth, that were recently fractured from a blow to the mouth and lips. And then I examined the penis, photographed it in black and white and color, and then I took saliva washings in the hope that, even though the patient had lived and was in the hospital for a period of time, that we might recover from a secretor a blood type.

Q Okay. Would you explain what the secretor is and how the time a person lives after the injury has an effect on any evidence that you might recover.

A Well, a secretor is an individual, of which, in this Courtroom, 80% of us, or slightly better, in our saliva, our perspiration, and vaginal fluids in women and semen in men, you can recover the blood type. And while I had little hope of recovering it since he'd been in the hospital and undoubtedly cleaned up, it was worth a try. It didn't take more than 10 minutes or so. So, I did that.

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Q Okay. And what did you see on the little boy's penis? 92(
A Well, I saw what I felt was a human bite mark. The impressions of -- at the time, I felt were three upper imprints and the possibility of two lower teeth imprints that were not as distinct as the other.
Q Now, did they appear to be fresh bite marks?
A Well, they certainly, as far as I'm concerned, did. There were blood clots and ecchymosis underneath the skin and this sort of thing.
Q And was that similar to other injuries you saw on the body?
A Yes.
Q Okay. Now --

JUDGE McLAIN: Mr. Watkins.

(A discussion was held at the bench.)

JUDGE McLAIN: Ladies and Gentlemen, due to the large number of people present, I think we'll take about a 20-minute recess.

(Court in recess at 2:27 P.M.)

(Back in session at 2:48 P.M.)

JUDGE McLAIN: Mr. Watkins, you may proceed.

ATTORNEY WATKINS: Thank you.

CONTINUING DIRECT EXAMINATION BY ATTORNEY WATKINS:

Q Doctor, you were describing the victim at some time after

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2:00 o'clock in the afternoon on the 13th of September, 1985. I believe that was a Friday, was it not?

A Yes.

Q Now, I want to have you look at some photographs, and I think I'm just going to hand them to you while I stand here. Try to give some order on this. 89 is a photograph I wish you to look at, and tell the Judges whether or not you recognize that photograph.

A I do. This is a photograph of an enlargement of the slide that I took in the morgue of the victim's penis.

Q And does it show any particular part of the penis?

A It's depicting the portion of the penis with a ruler; metal ruler, beginning -- held in position.

Q Is that an accurate blow up of what you saw that day?

A I would say so, yes.

Q That was Exhibit Number 89. I'll show you 90.

A 90 represents a view of the scrotum with the same ruler intact showing the ecchymosis or bruising of the scrotum.

Q And that was the young boy?

A Yes.

Q Do you know his name, by the way?

A I did not at the time, but now -- they told me his name

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was Fife.

Q Okay. That's Exhibit Number 90. And 91. And I wish you to point out anything on 91 that you find important. I think you've already talked about it.

A Number 91 is a photograph of the deceased Fife, of his mouth and teeth, and his mouth being slightly open to exhibit the teeth where they were fractured.

Q And would you point that out to the Court, please.

A How do you want me to do that? Go around here?

(Witness approaches the bench.)

A This is the upper jaw, and this is the lower jaw of the victim (indicating), and this area right here (indicating) is of where -- the recent fracture on the upper right lateral incisor, and I can't be sure, but I feel that this fracture of the cuspid right in there (indicating) undoubtedly occurred at the same time. There's evidence of fresh fractures.

Q (By Attorney Watkins) And again, what exhibit is that?

A This is Exhibit Number 91.

Q And you took that photograph?

A Yes, I did.

Q And it's an accurate depiction of the Fife boy as you saw him?

A Yes, sir.

Q Please be seated, Doctor. Take your time.

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(Witness resumes the stand.)

Q (By Attorney Watkins) Would you have an opinion as to what type of trauma would cause fractures of the teeth that you see?

A Well, some sort of a blow to the mouth, which is shown to have occurred because of the damage to the lip up here (indicating) and -- which does not show in the photographs, but there were other evidence of injury to the lip. But some fairly heavy blow is needed.

Q To fracture a tooth?

A To fracture teeth.

Q Did you note anything else about his mouth that was unusual, or his tongue or anything?

A No.

Q Now, did you -- I'm going to ask this question. I know you have indicated that in your occupation -- or specialty, you do look at the victim's teeth for a specific purpose, do you not?

A Yes. I wanted to rule out first, that he didn't bite himself, and that's my main reason for asking Doctor Adelman to hold his mouth open so that we could demonstrate that.

Q And did you rule that out?

A Yes.

Q And would you tell the Court how you ruled that out.

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A Because there's no separation or diastema; diastema --

JUDGE SHAKER: You can do it from there.

A -- between the two central incisors that showed up on the bite mark.

Q (By Attorney Watkins) Since I have these, I'm going to -- they're out of order, but I think I'll have you look at -- let's take 92 and 93, and tell the Court whether or not you've seen those before and what they are. Look at 92 first, please.

A 92? This is a picture supplied to me by Mr. Teeple -- or show to me, I should say, by him of Mr. Hill's mouth being propped open. It's to exhibit the full features of the upper and lower teeth.

Number 93 -- it's marked 9/19/85, is a picture of Combs' teeth.

Q Okay. 117 through 121. Would you go through those photographs, also.

A 117 photograph depicts more close-up view of Mr. Hill's teeth. Number 118 is an even closer view with the scale in position of Mr. Hill's teeth, especially depicting the fracture of the upper right central incisor and the diastema between the two central incisors. Number 119 is another view of the upper teeth with a mirror view to show the lingual or tongue side surfaces of the teeth of Mr. Hill.

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Number 120 depicts a view of the upper and lower teeth of Timothy Combs.

Q And -- go ahead. Go on, please. I'm sorry. I thought you were done.

A Number 121 is marked a further view of Mr. Combs' teeth showing the upper left cuspid number 11 that's missing and the diastema between his upper central incisors.

Q When you were making your -- when you were making your opinion -- or the material you were using -- history you were using, did you have those photographs to study?

A I had photographs, yes, of these.

Q Okay. Now, all those photographs were accurate photograhs to the best of your knowledge?

A In comparing them with models of the teeth that were supplied to me of both Hill and Combs, I would say they were accurate photographs.

Q Okay. Now, we've been talking about teeth. How many teeth does a human being have?

A Human being would normally have 32 teeth if all of the teeth were erupted in the mouth.

Q And how were the condition -- strike that. We'll get back to that. The question I want to ask -- you mentioned the word diastema.

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A Diastema, yes.
Q And would you tell the Court what that is.
A That is any space between two or more teeth in the mouth. It's the name given to the little distance. In theory, normally all of our teeth should be in apposition, and if there were spaces between any or all of the front teeth, then those spaces are called diastemas or diastemas.
Q I'm going to show you some more photographs. I'm sorry it's taking so much time, but I'm sure you appreciate -- 125.
A 125 is an eight by twelve enlargement of a side view or semi-profile view of the head and neck, face of the victim Fife.
Q 126.
A 126 is an eight by twelve more close-up view of the right side of the face of the victim.
Q 127.
A 127 is a picture of the left side of the face that depicts the facial injuries and what appeared to me to be a ligature mark.
Q 128. That was 127?
A (Witness nods head affirmatively.)
Q Now we'll go to 128.
A 128 is a quarter view of the face and nose of the victim.

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Q Doctor, were all those photographs -- were they taken by you?
A They were.
Q And again, are they accurate photographs?
A Definitely, I would say, yes.
Q Go on -- and we have some other photographs here. Some black and whites. I'm going to show you what's been marked as 129.
A 129 depicts the penis with a ruler; metal ruler, in it of the penis of the victim showing the bite marks. One view.
Q 130.
A 130 is a smaller view, or more of a routine view, of the same area taken with that Panatomic X film.
Q When you say "Panatomic X film," would you tell the nature and the amount of photographs that you took and why.
A Well, I've had so many cases that I've looked at that the photographs were just plain miserable to try to do anything with, and I would personally prefer to either take them myself or to direct them to be taken, and the finest grain film, possibly both in black and white and in color, this happens to be code Panatomic X, which is an ultra fine grain black and white film, and the colors are taken with Koda-

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chrome 25AS825, which is the finest of the normal range of color photographs. Photographic film, I should say.

Q Now, 129 and 130 are blow ups -- or is one a blow up? Could you describe it more accurately?

A This Number 129 is a blow up of the regular print of 130, and it's been cropped to the extent that some of the -- of the enlargement is getting as close as possible.

Q I notice you have a ruler in that photograph.

A Yes, sir.

Q What's the purpose of having a ruler?

A Because we attempt to obtain measurements of not only a view of the arch form and measurements of the imprints of the teeth, whether they be in the penis or a breast, or any other part of the body, and you want as accurate as you can the blow ups for detail.

Q I'm going to hand you 131 and 132.

A 132 is the small size print with the ruler of the bite marks on the penis of Fife, and 131 is the enlargement of the areas.

Q Those different views?

A They appear to me to be the same view, just enlarged.

Q Okay. One's just a small photograph and one's enlarged, is that correct?

A Yes.

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Q Again, they were taken by you the same date and time?
A Yes.
Q And are accurate?
A Yes.
Q Now, I'm going to hand you another photograph, 133. Would you look at that.
A 133 is another picture of the penis of Fife and the ruler, and I had Doctor Adelman try to hold this as close to the film plane as possible so that we could hopefully get a good picture and have the ruler there for a reference.
Q Is that a one to one photograph?
A No, sir. 133 is an eight by twelve enlargement of the slide.
Q You had some one to one photographs made also?
A I had them, yes.
Q They were used in this particular case?
A Yes, but I -- frankly, in the measurements of them, I was not satisfied with the accuracy of them.
Q Okay. You basically relied on your own photographs?
A Yes.
Q Now, did you, after taking all the photographs that you've identified, make any suggestions to the police department or Prosecutor's Office as to what could be done in this particular case?

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A Well, after physically examining the victim at the morgue, I felt at that time that they were -- the bite marks were of human origin. Then I just looked at the penis, and they asked me subsequently could I give them any idea, and I said based on my initial examination, I would look for a suspect that had a space between his two central incisors and a fractured upper right central incisor number 8 in the universal number system, and that the fracture was the distal or the most backward portion of the tooth. The incisal edge of the tooth and the lingual or tongue side of the tooth.

Q Okay. When did you indicate that was your preliminary finding? What time? Do you recall? Do you have any dates when that was?

A I don't know, but I hadn't received any of the photographs back, and I suspect it was within a day or -- I really don't know. I may have said something to Doctor Adelman about it.

Q Could you have mentioned that to Doctor Walton?

A On the phone when he called me regarding suggestions on how to accomplish accurate impressions for use in possible Court proceedings, yes.

Q Okay. Continue as to what you felt was necessary to identify, if you could, any person with the bite

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mark that you found on Raymond Fife's penis.

A Well, the first thing that I want is an accurate model taken and poured up from a good impression of the suspects upper and lower teeth, and a bite, and it's always helpful to have a clinical examination and some X-rays, and, of course, any additional photographs since -- such as these just to check one against the other.

Q Okay. And was that done in this case?

A Pardon?

Q Was that done in this case?

A Yes.

Q Okay. And in fact, you received some impressions as you instructed?

A Impressions were made, the models poured, and they were brought to me -- I initialed this 9/24/85.

Q Okay. What exhibit is that in red?

A This is Number 49B, and it depicts the models of the upper teeth of Timothy Combs, and the lower teeth.

Q Okay. And you received those?

A I signed for them 9/24/85.

Q And who gave them to you?

A J.T. Mr. Teeple.

Q Now, would you go to 49A.

A 49A represents models of David Hill.

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Q Of who?
A David Hill -- Danny Hill. I'm sorry. I'm reading the print wrong.
Q Okay.
A And they were taken by Doctor Robert A. Walton here.
Q And would you tell us whether or not the models are of good quality, suitable quality.
A I frankly think they're excellent quality. And they're poured up in diestone, which is the most accurate, and I found not criticism whatsoever of the models.
Q And does it show the chipped tooth?
A It shows the upper right central incisor to be chipped on the incisal edge and the distal and the lingual.
Q Shows the rotated tooth?
A It shows the slight rotation of number 10. I'm sorry. Correction. Number 7, which is the upper right lateral incisor, and it shows the diastema between 8 and 9, the upper right central and the upper left central.
Q Okay. You may put those back for now. We'll get back to them. I'm going to hand you what's been marked as State's Exhibit 116, and would you tell the Court whether or not you recognize the documents found therein.
A I signed --

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Q Take your time.
A This is Exhibit 116, and it was sealed when I got it, and I opened it and -- you've got Exhibit 1 mixed up in here. It is the clinical records and X-rays of Daniel Hill and Timothy Combs.
Q They have X-rays in those records too?
A Um-hum. There are X-rays of both Hill and Combs and their clinical examinations just like you make in any good examination in a dental office on a patient.
Q I take it there came a time that you gave the records and the dental impressions and other items you inspected back to the Warren Police Department?
A Yes.
Q And what time was that, just for foundation purposes? You recall when you gave all this back to the police department to be brought back to Warren?
A Frankly, I don't remember.
Q Okay. But you did give it back?
A Yes, these were all --
Q And who'd you give it to? Detective Teeple?
A I believe it was Teeple or Carnahan. I'm not sure which one.
Q Now, from the -- you've explained certain characteristics that you found on Hill's teeth pursuant to the photographs and the impressions, correct?

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A Yes.
Q And did you also equally inspect the teeth of the defendant Combs?
A I inspected the models of the teeth of Combs.
Q And from the history and the photographs, and all the evidence that you had at that time, and exhibits that you had, did you feel at that time that you had enough information to make a comparison between what you saw and what you photographed of the bite marks found on Raymond Fife on September 13th, 1985, and the materials given concerning the defendants in this case?
A Yes, sir.
Q Okay. And based on your observations, your findings, your history given in this case, the dental casts, the photographs taken, do you have an opinion, based on reasonable dental certainty, whether the injuries you found on the penis of Raymond Fife to be a human bite mark?
A I do.
Q Can this bite mark be identified with all the exhibits that I've already talked about?
A It can.
Q And what's your opinion?
ATTORNEY LEWIS: Your Honor, I'm going to

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object at this particular point. The Doctor has not gone through the necessary data in order to arrive at his particular opinion. I think the necessary data in order to get to that opinion should be introduced into evidence, and there's certain assumptions made in regard to that opinion that are totally unsubstantiated in this case. Can I discuss it with the Court? 936

JUDGE McLAIN: I don't have any way of knowing what that is.

ATTORNEY LEWIS: Well, I'll explain to the Court -- well, Mr. Mertz is going to finally indicate that all his measurements are off in regard to the matching up of the spacing of the teeth and everything else, and that's based upon an assumption they made later on of the condition of the penis at the time it was bitten. There's no evidence in the case as to that. And there's some other matters here that really --

JUDGE McLAIN: Well, I think that's a matter of cross examination and subject to motion to strike depending on what their errors, if any, might be. Overruled at this time.

ATTORNEY WATKINS: Thank you, Your Honor.

Q (By Attorney Watkins) With reasonable dental certainty,

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tell us what your findings were as to which individual, if any, made the bite marks that were found on the penis of Raymond Fife.

A It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and the photographs that I had, made the bite on Fife's penis.

Q And Doctor, would you explain in your own words how you made that finding.

A Well, first thing I did was to spend a great deal of time analyzing and studying the models and the photographs. And it is correct that I measured at great length all of the teeth involved, or those that could possibly be involved, of both Hill's models and Combs' models. And then through my conclusions when they turned out almost exactly one-third less in size, in consistency across; the bite to be one-third less, the space between the teeth; the diastema, the fractured tooth, the alignment of the teeth, or arch form, were all consistent with the bite. But I was not there. I have no idea of the size of the penis at the time of the bite. And I think it was substantiated in another exhibt. I don't know what your exhibit number is.

Q We'll get to that. Continue.

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A Okay. That the probability that the penis was in an erected state at the time was the explanation of why the consistent smaller size tooth marks when they're accurately measured, or as accurately as I can measure them.

Q Now, how many teeth marks did you find on the penis itself?

A Well, I found three marks of the upper teeth with the possibility of a fourth one, which was indistinct, and the diastema between the two teeth; the two central incisors, and then impressions, although indistinct, of two lower teeth.

Q Is there something about the mouth of Danny Hill and the teeth of Danny Hill that differentiates Hill from Combs?

A Yes. And may I use the models to show you?

Q Sure! Which exhibits do you have?

A Just a minute. I've got the models.

Q 49A and B. Okay.

(Witness approaches the bench.)

A Now, these are the models of -- in my left hand, of David Hill.

Q (By Attorney Watkins) You mean Danny Hill?

A Danny Hill. I'm sorry. Daniel Hill. And the right, Timothy Combs. First thing, you'll notice that the

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arch sizes -- I'll have to show them to you this way, 939
are very close to being the same size (indicating). Hill's is slightly smaller. Now, the most significant part of this is the way the teeth hit together. Now, Combs' teeth in their natural occlusion, or the way your teeth hit together, come up, and the lower teeth occluded in a fairly consistent, normal manner with the upper teeth with the number 10 upper left lateral incisor here (indicating) and almost across bite, and -- but the relation of the lower teeth to the upper teeth is more normal.

In Hill's mouth, we have a slightly different thing that is significant. His teeth -- lower teeth bite up underneath here (indicating). You can see that the upper teeth go over the top of the lower to a much greater degree than the other case. Now, this would explain why that we're getting more distinct impressions of the upper teeth in preference to the lower because when the bite occurred, the lower jaw moves, the upper jaw is fixed, and normally, you would expect to find a clear imprint of the lower teeth. And, indeed, if it were Combs' mouth, I would expect the lowers to leave fairly distinct marks. And in Combs' mouth, because they bite up underneath -- and when you open your jaw, you're

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biting like this (demonstrating), and you're probably going to get much sharper impressions, and I think this is especially true in the fact that it was the bite on the penis.

Q What about the upper teeth? Could you show the Judges what you see in the photographs of the young man's penis and how that's significant as to Hill rather than Combs.

A Okay. The upper right central incisor has a fracture and a low point here (indicating). See where this is broken (indicating)? Where the opposite side is normal, flat and across? And it's broken underneath here and the back portion of it here (indicating). Another significant feature, there's a slight, but nevertheless present, rotation in diastema, or space, between the right lateral incisor number 7 and number 8 cental incisor. And also, number 9 has a -- more of a flat area here across (indicating). That would be normal. And 10, or the left lateral incisor, has a flat, normal surface.

Now, the last thing on this number 7, or the upper right lateral incisor -- I think if you all look closely, you can see that this longest portion of this tooth (indicating) is sort of almost in the center. Now, right there is the longest portion of this tooth.

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It tapers up this way to the distal and up this way to the mesial (indicating). Just a variation in normalcy in teeth. And the lower teeth, while they -- there's ample evidence of gum problems here, or a periodontal problem. The number 26 is the lower right lateral incisor (indicating), and it is set back slightly from the line, or arch, or occlusion, and perhaps it's slightly higher. The other teeth, they will be fairly even and set down slightly, or one's up and the others are down. One's normal and one -- the other one is slightly not normal.

Q Doctor, if we had some photographs of the young man and the bite mark, could you show with the photographs and the impressions how the bite marks were made? Could it be illustrated for the Court?

A I would certainly try.

Q If you want the other photographs, I'll give you -- I know I just made a few of them as exhibits. Would you tell the Court --

A Excuse me. I took about 20 slides and had about a dozen or so blown up to eight by twelve, and I took a -- I'm sure, about a -- four, six in black and white and had those blown up. This is the way I studied this case. And the bites undoubtedly were inflicted

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in this manner. This photograph, while it is not to scale, just happened to turn out number 9 here (indicating), the space between the two teeth, and the number 8 here (indicating) in this manner. If you have any questions, feel free -- 942

JUDGE NADER: That's not to scale?

A Okay. This is a plastic photograph --

JUDGE NADER: Not to scale? Those you said weren't done very well?

A No. This is just an enlargement to show this in this manner here and the space. These two may --

JUDGE McLAIN: Can you tell on the pictures what number tooth it is?

A Well, let's do it this way. Since it's close, I think it's easier for you. This would be number 9 (indicating), upper left central incisor. This is the space for the tissue as you went up between the teeth (indicating), and this is number 8 (indicating). On this particular photograph, jagged mark --

JUDGE McLAIN: I gather what you're saying is that some of the tissue in the body had been pushed between the teeth?

A Yes.

JUDGE NADER: Diastema?

A In the diastema area, yes, sir. This is what I would

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expect because the penis is quite a pliable thing. It's not like biting here (indicating on arm) and having bone underneath it to give it some rigidity. Experimental bite marks on the legs, for example --

JUDGE NADER: I see puncture marks.

A This is the shapes of the teeth. Usually centrals, if they're a good, clean bite, will be rectangular centrals, and the laterals, and this gives you the beginning of the rectangular area here (indicating), but you do not see these rectangles here (indicating) because of the pliability of the penis. And these puncture marks are -- underneath here (indicating), I interpret as two lower teeth marks that came up, and this was squashed.

JUDGE McLAIN: I'd like to particularly see what mark you think on the photograph is made by the tooth which is fractured and slightly turned.

A Fracture one is this here (indicating) right on this side. You can see where the tissue came up between there, and you can see this irregular, almost a triangular type of mark that's here (indicating).

JUDGE SHAKER: Point in the picture with your pen as to where the fracture --

A I'll try to hold it. Right here in this area here, here, here (indicating). This tooth had this frac-

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ture that you can see.

JUDGE SHAKER: That's on number what?

A That's number 8. This is the gloppy mark of what almost appears -- is a triangle that starts out as a rectangle because of the fractures underneath. See this under here (indicating)? When that tissue is trapped -- and as it's trapped, you don't get a sharp mark --

JUDGE McLAIN: Where is that? You find it easier to use that? I want to see -- where's the enlargement?

A Okay. That would be here on this particular -- let's get it this way. All right. Here (indicating), depending on the way I hold it. This is the number 8 (indicating) with the incisal edge, the trapped, broken spot. This indicates to me the diastema of the two teeth. This would be number 9 -- and not so much on this photograph, but on other photographs, there's a hint that this could be number 10, but I did not place a whole lot of emphasis on that.

JUDGE NADER: This one is so much deeper than this one (indicating).

A The fractured teeth, it pushed that tissue up. You realize that this is a bruised tissue. This is not a -- like a bite in an apple or a piece of cheese.

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The tissue gave, popped back, and there's undoubtedly some healing that's taken place, or at least started as long as the poor child lived. To me, the overbite is highly significant in this case because this gives room, when you bite, to let that -- the piece of the lower normally would give the good impression; not give in, because it's being pushed and rolled against the uppers in this bite whereas in Combs' bite, it's more a normal bite. You wouldn't have, you know, room for that to roll, or as much to roll. 945

JUDGE NADER: This doesn't go back that far?

A No, it does not. The bite does not involve number 11 or the upper missing cuspid on Combs.

JUDGE SHAKER: In other words, the overbite is the really distinctive necessary of the marks on the lower impressions?

A That's my opinion, sir.

JUDGE SHAKER: In your opinion?

A Yeah.

Q (By Attorney Watkins) Doctor, what was the size of the teeth themselves compared to Combs and Hill?

A Combs is just slightly larger, but essentially, there's not a great difference in the size of the teeth. There's a small amount of difference in that I would

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say there's perhaps a millimeter difference in the width.

Q Very close in size?

A Very close, yeah.

Q Okay. Now, you indicated that the marks as you saw them were smaller than the teeth?

A Yes, sir.

Q Okay. And you indicate that the size of the tissue bitten at the time is relevant as to the size that you would see when you looked, in this case, at the boy's penis, is that correct?

A Yes. The only -- pardon me.

Q Could you give an example as to what you're talking about; how sizes differ? Would it be like you get a balloon with a letters on it, when it's deflated, the letters get smaller, and when you blow it up, the letters get larger?

A That's a very good example.

Q So, if the penis were erect and bitten, and if you would look at the bite mark when it's erected, it'd have a particular size, right?

A That's correct.

Q And then if it's deflated, flaccid, it'd have a different size?

A Surely.

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Q Okay. Now, I'm going to hand you 134 and 135, and would you tell the Court what those exhibits are.
A Well, 134 is a report that I sent to Mr. Watkins of November the 4th, 1985, and 135 is the notes that I made in studying these cases. I'm always making notes of what I'm doing so that I can refer back to --
Q And those notes and the two documents are your written conclusions?
A Yes, sir.
Q And they outline your findings that you've testified to today?
A Yes. And they indicate about the prevalence of the diastema or diastema, and then gave the reason here for the lower teeth not matching or imprint clearly, as I've explained, and --
Q Okay. You mentioned diastema. Did you have an occasion to use any medical, scientific journals that would show the range of population that would have midline diastema?
A Well, in the Journal of Prosthetic Dentistry by McVay and Latta, Volume 52, Number 6, December 1984, they report that there's a space between the central incisors of 3.5% in white, 5.2% in blacks, and 3.4% in Mongolians of the American population ages 18 to 25 range.

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Q This journal recognizes -- scientific journal that you rely on, is that recognized in the practice of dentistry?
A It's a quite recognized journal, yes.
Q Okay. I'm going to hand you what's been marked as 136. Would you identify it.
A This exhibit is a photocopy that I had made of the article from the journal; Journal of Prosthetic Dentistry.
Q It has the statistics that you've given to the Judges, is that correct?
A Yes.
Q So, approximately 95% of the black individuals in this country, from that study, would not have the diastema at the middle of the two teeth?
A That is correct.
Q It's about 5.2%, right?
A They have it.
Q Okay. And you originally saw on the bite marks that the person had to have diastema?
A I felt immediately that.
Q Okay. Now, you indicate that you saw other things other than the lower jaw and the bite the way the bite mark occurred. You saw a chipped tooth and a rotated tooth, is that correct?

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A Yes. The chipped tooth is the upper central incisor, and it's slightly rotated, but definitely rotated, and the lateral incisor is slightly depressed and has a -- its longest portion approximately in the center of the tooth. 949

Q Would it be unusual to have a person who would have the diastema with the chipped tooth and the rotated tooth?

A Well, I have no way of giving you percentages, but in my practice, it's certainly not a common occurrence to have the three things together.

Q And that was important in this case why you found that Danny Hill was the person who did the biting?

A Yes.

Q Okay. 137 is another exhibit. Would you identify it for us.

A 137 is the American Board of Forensic Odontology Scoring Sheet for bite mark analysis, and I went through and scored it the way -- we had a workshop out in Anaheim, California, a couple of years ago and took a number of experimental models of teeth and bite mark photographs, and this is the way it was recommended. Our whole group got together for -- probably 40 or 50 of us that were diplomates, or people that were about to -- were Board eligible,

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reviewed all of this, and this is one method that they recommended that we all at least try and use.

Q And what did you find?

A Well, my score on this was 36, and their rule in score is 35 to 40 points, and I did not give two or three more points that I felt were debatable, and I just conservatively said 36 points here.

Q Is that somewhat subjective?

A Yes.

Q Okay. And would you explain to the Court what you -- how it is --

A Well, bite marks are rarely beautiful imprints of teeth. Now, if someone bites into a piece of cheese or an inanimate object, generally, they depict real true size and shape and form. Or sometimes I've seen a couple in apples that were quite good. But the human tissue moves. I don't care whether it's on a breast, a penis, the face. This is moveable tissue, and that tissue does not have imprints that are beautiful like impressions in -- sometimes in chesse or inanimate objects. And while I have never studied a bite mark on the penis as such, I called up a couple of friends of mine that are certified, and they agreed with me that --

ATTORNEY LEWIS: Objection, Your Honor.

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We're -- can we find out where he's going here? "We agreed." What's he talking about?

JUDGE McLAIN: Objection is sustained.

Q (By Attorney Watkins) Okay. You have to testify --

A I'm sorry.

Q -- what you know and --

A I feel that -- under most circumstances, that the penis would be less than an ideal bite place to have a bite mark. You're going to work on the case, and to try to make your determination, it's clearly not as good. And this is very well accepted, I feel sure all over the country, that the breast is highly mobile. And after all, most of the bite marks are -- at least a high percentage, are on the breast, and they give indistinct -- some teeth mark and others don't. And this is backed up in some of the literature.

Q And would you summarize why you feel strongly in this case again.

A I feel strongly in this case because of the nature of the bite on the penis, and the mechanism of the bite, which is the closure, would allow the imprints of the upper to be more distinct than the lower. And I gave very little weight, especially in this, to the imprints of the lower because they're indistinct.

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Q Now, you indicate that you have excluded Combs altogether? 952
A Yes.
Q No question in your mind?
A There's no question in my mind.

JUDGE McLAIN: I'd just like to ask that in a little different way, and that is: Are you sure of that exclusion, or are you sure of your identification?

A I'm sure of the exclusion as well as the identification.

JUDGE McLAIN: That's not exactly what I asked. Is there any difference in the way you feel more strongly that you can absolutely say one opinion more than the other is a stronger opinion?

A Of the exclusion or of Hill's mouth?

JUDGE McLAIN: One opposed to the other. Is your opinion of the same weight? Are they different?

A My opinion is very strong that you can exclude Combs, and my opinion is, if you want to put it on a varying scale, slightly stronger that it is Hill's bite.

JUDGE McLAIN: Okay.

Q (By Attorney Watkins) Okay. Doctor, when we talked about you felt that the penis may have been inflated -- and you've dealt in many homicides and used other medical journals, medical literature, scientific

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literature?

A Yes.

Q And would you -- I'm going to hand you three exhibits; 138, 139, and 140, and would you go through these exhibits and tell how they were used by you and what they are.

ATTORNEY LEWIS: I'm going to object at this time in regard to these records being introduced, and documents, based upon the testimony of this particular gentleman regarding these documents.

JUDGE McLAIN: Has he given any testimony about these documents? Has he given testimony about these documents?

ATTORNEY WATKINS: No, not -- I know what documents are coming, though.

(A discussion was held at the bench.)

JUDGE McLAIN: Overruled at this time. I'll have to make a judgment later.

ATTORNEY WATKINS: Thank you, Your Honor.

Q (By Attorney Watkins) Will you refer to those exhibits, Doctor, by number.

A The first one is 138, and this is Sexual Behavior In The Human Male. It's a part of Kinsey, Pomeroy, and Martin's book that was published, and on Page 178, they make a statement -- realize that I inquired of

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two physicians that are -- one a pediatrician and one a urologist --

ATTORNEY LEWIS: Objection. Just the documents, Your Honor, not he's talked to somebody. He's talked to other people in the medical field. He's talking about documents.

JUDGE McLAIN: It's too close to -- I'm not sure exactly -- I guess the other members of the Court are not sure. I guess what we don't think is that you can say what the other physicians or somebody in some other medical field told you about the human body, particularly as it relates to this case. Or are they just people who told you about these journals?

A They recommended that I look or have a literature search ran -- run on this and -- because they felt it was documented and it found that erection is much quicker in preadolescent boys than in adults, although the speed with which climax is reached in preadolescent males varies considerably in different boys. That essentially -- I wanted to satisfy myself regarding the possible erection in a 12-year old boy. That's the reason I went to this literature.

Q (By Attorney Watkins) Would you continue, Doctor.

JUDGE SHAKER: Go ahead.

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Q (By Attorney Watkins) Continue, Doctor.

A Exhibit Number 140 is Gradwohl's Legal Medicine as edited by Francis Camp, and this was a standard legal medical text, and on it -- Page 335 under chapter entitled Unnatural Death Due To Asphyxia, they describe here when someone is strangled what happens:

"1. A stage of inspiratory dyspnoea, with deep and forceful respiration, and more or less cyanosis, lasting for a minute or so;

"2. Spasmodic efforts at expiration: the stage of expiratory dyspnoea. Consciousness is lost and the pupils become dilated. The pulse slows and the blood-pressure rises."

The third thing:

"The blood-pressure falls, pulse-rate increases, and it is in this stage that spontaneous defaecation, erection, and ejaculation may occur."

And Number 4:

"Respiratory movements cease except for terminal irregular occasional respirations, the heart often continuing to beat for 10-15 minutes."

And Exhibit Number 139 is a Basic Morphological Data of the External Genitals in 177 Healthy Central European Men by J.G. Farkas. In the journal --

ATTORNEY LEWIS: For the record, Your Honor,

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we're objecting to this document as well. Same basis.

JUDGE McLAIN: Overruled at this time. Go ahead.

A This was measuring the difference in the sizes of the flaccid penis and the erect penis in a hundred and seventy-seven healthy men aged 18 to 20 years of age. And in here -- if I can find the spot -- well, it ends up with the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state. Now, there's a lot of other things in here, but that is what I think is significant in this case.

Q (By Attorney Watkins) Why is it significant?

A Because based on this research; in my mind, valid research, this explains the difference in the measured size of approximately a third less than in the measurements when teeth mark sizes are compared.

Q Now, I notice that was studied for 18-year olds.

A Yeah.

Q Did you look for studies, if there are any known, as to young 12-year olds, 14-year olds --

A The -- our hospital librarian could not find any reference to size differentials in younger individuals. There may be in the literature.

Q From your own experiences, would you have an opinion as

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to the consistency of the erection size as a young age or as an older age?

A I don't think I'm qualified to answer the question, frankly.

Q But you feel the information you have justifies your opinion?

A It should be consistent, but I have no real basis other than --

Q You were -- okay. You didn't deal with Doctor Adelman on this question, did you?

A No.

Q Okay. Doctor, I have one last question. You have given your opinion that the bite marks on Raymond Fife came from the defendant, Danny Hill. Do you see Danny Hill in the Courtroom here today?

A I can only surmise that Danny Hill is there (indicating) from comparison to the pictures. I have never met him or seen him prior to today.

Q He looks like the man that's in the photographs that you were given?

A I could tell better if he showed his teeth.

Q Would you tell the Court where Raymond Fife's penis would have to be in order to have the bite marks.

A Well, I wasn't there, and I didn't see any of this, but my strong feeling, based on experience, is that he

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was probably on the ground at the time, or being held or something, and that --

ATTORNEY LEWIS: We're going to object to it, Your Honor; in regard to the particular conclusions that the witness is coming to. He wasn't there. He already indicated that.

JUDGE McLAIN: I don't know. Is that a type of opinion that would be within your usual type -- let's say the meetings of your forensic society? I mean are those recognized opinions -- positions of somebody when bitten?

A These areas are discussed like at the Academy of Forensic Science meetings where all the disciplines come together. Medical examiners, the investigators, pathologists, forensic anthropologists, and forensic dentists will discuss cases, and I'm just basing it on that information that I've been privy to in numerous meetings throughout the years.

JUDGE McLAIN: I realize that there's certain interrelationships about some of these things, but I mean basically, body positioning and so on is sort of -- somewhat away from dentistry as such?

A Yes, it is, sir.

JUDGE McLAIN: Objection's sustained.

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Q (By Attorney Watkins) Doctor, would you have an opinion as to where the mouth and the penis would be located as to each other in order to have a bite mark?

A The penis would be within the mouth at least some distance, as in fellatio.

ATTORNEY WATKINS: Thank you.

JUDGE McLAIN: Doctor, before the cross examination, I think we're going to take a short stretch break. I'd like to ask this question, and that is, if you assume that the penis was not in an erected state, would that say anything about the size of the teeth or the person that was responsible for the bite? I mean would they be unusually small teeth, I guess is what I'm asking?

A I would say that they would be certainly smaller than average teeth. I did not specifically measure them with that in mind, but --

JUDGE McLAIN: Well, I think --

A -- they're within limits. Small teeth. And many people have small teeth, but they're -- it's unlikely that they would be that small on an average and having this larger space.

JUDGE McLAIN: Do teeth have anything to do with your general size?

A No.

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JUDGE McLAIN: Okay. So, you just never looked at it that way, but small teeth, you wouldn't be able to see, you know, how often it would occur in the population of 18-year old adult males? 960

A No, sir.

JUDGE McLAIN: That they would be small?

A They would have to be quite small teeth.

JUDGE McLAIN: Okay. You want to take a little break? I gather you're going to be some time?

ATTORNEY LEWIS: Yes.

JUDGE McLAIN: I think we'll take like a 10-minute break.

(Court in recess at 4:03 P.M.)

(Back in session at 4:19 P.M.)

ATTORNEY LEWIS: Thank you, Your Honor.

CROSS EXAMINATION BY ATTORNEY LEWIS:

Q Mr. Mertz -- Doctor Mertz, I hope I'm not too long. I understand your condition, and I'll try to be as brief as possible, but you know what lawyers say when they say "brief." Doctor Mertz, I understand you were one of the founders of the American Board of Forensic Odontology, are you not?

A That's correct.

Q Okay. And in fact, the initial certificates you received, of course, is signed by you as president,

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is that correct?

A That's correct.

Q Okay. And the tests that were developed were developed by a fellow by the name -- I think you --

A Miles Standish.

Q Miles Standish. Okay. And he was a professor?

A At the University of Indiana. He is a dentist.

Q Okay. And he basically developed -- or through his expertise, developed an exam that would include all the criteria that would be necessary in order to be a member of this Board or specialty?

A He asked for questions from all of the people that were either going to be certified or hoped to be certified, and they sent in questions and answers. Using his expertise, he put about 300 questions together.

Q He put together the exam?

A Yeah.

Q Okay. From people in the field, right?

A Yes.

Q Okay. And you mentioned an earlier society. That --

A Yes.

Q -- basically was the same group of individuals?

A Yes.

Q Okay. And on the re-certification -- which is dated for what? Is it 1981? And expires February 1st, 1986,

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which you're going to have renewed shortly, hopefully?

A Yes.

Q Okay. That re-certification, what does that involve? How are you re-certified?

A Well, I'm just putting it, finally, together now. It involves a listing of all the cases that you've handled within the last 5-year period, broken down into child abuse, malpractice, bite marks, personal injury, and identification. Those general categories. Any research you've done and where you've given lectures or put on postgraduate courses.

Q Okay. Basically a work experience type situation --

A Yes.

Q -- is that right?

A It's to make sure that you maintain your qualifications in it by continued work in the field.

Q Okay. So, your continued work in the field. Does anybody actually give you a test then, or are you retested in any manner whatsoever in that sense of the word?

A The -- in the Constitution and Bylaws, you can re retested if you haven't been doing anything in the field for a period of time.

Q So, it's the body of the work experience really that be-

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comes the matter for the re-certification? Is that basically it then?

A And postgraduate education and attendance at meetings and all this sort of thing.

Q In other words -- I'll cut it short, they don't go out and give you a hypothetical model of something and come in and have you give an opinion in regard to that and test you in that manner?

A Not on this re-certification.

Q Just as long as you continued to work, write some papers, do some lectures and so forth and so on, and do the general work?

A (Witness nods head affirmatively.)

Q And you basically indicated in Direct Examination that the tooth mark -- or the bite mark sub -- what -- call it a subcategory of the field, basically? It's not really the bulk of the field, is it?

A No.

Q The biting? Field really is the plane disasters, identifying teeth if the fillings -- and so forth and so on, is that not correct?

A As far as myself is concerned or the whole field? Which are you talking about?

Q Yeah. Well, what I'm saying is that the bite mark is not really the foremost thing for a forensic odontolo-

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gist?

A You're correct there.

Q Okay. Thank you. And at the same time, this has kind of been a recent development? Back in about, you said, 1977, I think the bite marks -- forensic odontologists started to look at those in a very serious manner, I take it. And you indicated also that your first case involved somewhere around '74, '75, '76?

A About '73 and four.

Q Okay. And you've also indicated that you've been involved in approximately 35 bite mark cases, is that correct?

A That's correct.

Q Okay. And you've had an occasion to testify -- I think it was three times, was it not?

A True.

Q And you also indicated that you've only had one occasion to be involved in a bite mark case involving a penis, is that correct?

A That's correct.

Q Okay. And in that particular case, you were unable to render an opinion one way or the other?

A That's correct.

Q And basically, the idea of the bite marks or the -- that

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area, you said it's kind of a rule in or rule out situation. Is that basically it?

A In bite mark, you first rule in or rule out, and then you go -- if it's a rule in, possibly then you go ahead with it.

Q Okay. Have you had an occasion to write any articles, papers, or anything for the American Board, or anything for publication purposes on bite marks specifically?

A Not specifically. I have written paragraphs and what have you, and other articles.

Q Here and there maybe. Whatever. In fact, you contributed to a book that's called The Outline of Forensic Dentistry? You've seen this book before, haven't you?

A Yes.

Q In fact, the gentleman, Miles Standish, appears in that, doesn't he?

A Right.

Q And that was also written -- Miles Standish, and who's the other person involved in that?

A Paul Stemson and Catone -- Jim Catone from San Antonio.

Q There's an article in there -- or kind of -- if -- it's called an Outline of Forensic Dentistry. Basically, there's an article about bite marks, is there not?

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A Um-hum.
Q And do you recall reading that article at one point in time?
A Yes. It's one by Lowell Levine.
Q And do you know Lowell Levine?
A Oh, yes!
Q Can you tell us about Lowell Levine?
A Well, he's a qualified forensic odontologist that devotes full time to it. One of the two men in the United States that do.
Q One of the two men in the United States. Okay. And you know him personally?
A Yes.
Q Okay. And he is the -- is he the author of that particular article in regard to --
A It's contributed here; Chapter 19, Bite Mark Evidence, by Lowell J. Levine.
Q Okay. And Mr. Levine, he's also been a past president of the American Board of Forensic Odontology, has he not?
A Yes.
Q '81, '82, I think?
A Um-hum.
Q And do you know of any of his recent, I'll call it, exploits? Do you -- were you aware that he was one

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of the people certified by the Justice Department to investigate the remains of the Nazi war criminal Joseph Mengele?

ATTORNEY WATKINS: Your Honor, I'll object as to relevance.

JUDGE McLAIN: Is he going to be a witness or what?

ATTORNEY LEWIS: Theoretically, yes, Your Honor.

JUDGE SHAKER: Theoretically?

ATTORNEY LEWIS: Yes, he is going to be.

ATTORNEY KONTOS: He's going to be a witness?

ATTORNEY LEWIS: Yes.

Q (By Attorney Lewis) Are you acquainted --

JUDGE McLAIN: Objection's overruled.

Q (By Attorney Lewis) Are you acquainted with --

A Oh, yes, I'm acquainted with Lowell.

Q All right. And would you recognize him as an expert in the field?

A He's seen a great number of cases.

Q And you said he's one of the two full time forensic odontologists, is that correct?

A As far as I know.

Q Okay. Would you call him a career authority within your

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organization?

A Well, I don't know how you determine who is the greatest or this sort of thing.

Q Not necessarily the greatest, but is he well up there in the group?

A Well, certainly, he is.

Q Okay. Certain he's what? I didn't quite hear the last --

A He's recognized in the field.

Q Okay. Incidentally, in regard to taking the bite marks -- or examining bite marks on humans, in here, he indicates that for a person who is deceased, that it should be done or observed; a photograph, of five days. Is that a current thing that's done?

A Will you state that again, sir?

Q Okay. What I'm saying is that if -- in here -- well, maybe -- my associate will find it in a minute. Okay. Let's go on. When dealing with -- you found it rather unusual in dealing with the -- excuse me. You found it rather unusual to be involved, of course, with the penis in this case, right?

A Well, it happens.

Q It happens. Right. Okay. But I'm talking about in relationship -- that type of tissue or that kind of object on the human body as opposed to some other bite mark cases as opposed to like on the arm or on

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the chest or any other area?

A Well, it's not certainly the most common place.

Q Right. What I'm getting to is is there a special amount of difficulty in dealing with something such as the penis itself being flaccid, being a round object? Does that create problems as opposed to a bite mark that was left -- like this (indicating), on the skin, in some area of the body?

A I certainly felt it was -- I wanted to spend as much time as possible on it.

Q Okay.

A Yeah.

Q Did it create any more problems in regard to your analyzation as opposed to a bite mark that would be like on the arm?

A Well, I've seen many bite marks on arms, breasts, the rest of the body, that were poor bite marks. In fact, I've ruled out -- that is, use of them, in many cases.

Q Okay. All right. Well, the penis, of course, is round, is that correct?

A Um-hum.

Q The tooth marks we're talking about, there were six in total, were there not? Six on the penis in this particular case, from the photographs?

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A You're talking about six different imprints of one sort or another, is that correct?
Q Imprints, yeah. We'll call them imprints. But there weren't actually any indentations, were there, in the surface of the skin?
A Indentations?
Q Yes.
A At the time that I saw the body --
Q That's what I'm talking about.
A -- there were areas of ecchymosis, and I did not feel that they were of sufficient depth to take impressions in order to try to do something.
Q Okay. So, you did notice when you did exam the penis that there were some indentations of some sort, but they were not sufficient in order to do what exactly? What is normally done if you have the indentations?
A Well, if you've got a slight indentation, it's unlikely it's going to show up very much. If anything, in an impression; a counter model of it. But if you've got deep ones, yes, they will register.
Q Okay. Explain real quickly -- when you say "counter model," what is a counter model? What would you be talking about?
A You take an impression, which is a negative, and then you pour stone; artificial stone or diestone, in

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that to make a positive from that, which would be a replica of the penis --

Q Okay.

A -- in this case.

Q Okay. And in regard to taking the impressions, are sometimes those done with Aluwax on the surface of the skin to get impressions of negatives?

A No, sir.

Q What is used other than the material you just talked about? Or is that the only material used?

A Aluwax will not take an impression unless you press something into it, and then if you're attempting to take an impression of an indentation, you would take something like a possible alginate; at least a third generation silicone, that's used in making of crowns or bridges in the mouth.

Q Let me ask you this question: You do have bite mark cases where you've got actual indentations, and you do take the counter product, right? In other words, you take an impression?

A A few, yes.

Q But that was not present in this case?

A It was not sufficient that I felt would be meaningful to take.

Q Okay. All right. So, there were some indentations, but

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they weren't sufficient in your opinion to take the cast?

A I felt the photography would record it better.

Q Okay. Photography we're talking about. You used both black and white and color film, is that correct?

A Yes.

Q Okay. And can you tell us -- did you use a flash on the camera or didn't you use a flash on the camera?

A I used a flash.

Q Okay. And, of course, the penis being a round object over the end, when you've got marks on both sides and everything else, is there any kind of shadows or anything else created in your attempt to take the photograph since it's not a flat surface?

A Surely.

Q So, is it possible there's some shadows or a mark heavier or darker, depending on the light and depending on how it was photographed, when you tried to get all of the marks at one time?

A Now, you're -- are you speaking specifically of a shadow caused by the flash? Is that what you're talking about?

Q Well, what I'm talking about is that -- the photograph right here, you've got a shadow down below so you've got darker light, so the marks that are

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underneath, would those appear darker because of the shadow or --

A I don't see where the shadow has anything to do with it.

Q You're saying the shadow wouldn't have anything to do with it, and it would be crystal clear even though --

A The shadow is off and not associated with the area of the bite marks.

Q Okay. But what I'm asking you is this: That you're taking -- it's a round object, okay, and the marks are on the side of the object. Basically, they're not right on the flat surface, right? You understand what I'm saying? What I'm asking?

A I'm waiting for it.

Q You're waiting for it. Okay. What I'm saying is: You think you would get any better picture if all the marks were on the flat surface if you just photograph straight on, or would there be some distortion of size or whatever when the objects are on the sides? In other words, on the object you're photographing, they're not oblique? They're not square to the photograph?

A Well, anything out of the focal plane --

Q Right.

A -- will be, perhaps to a very slight degree, distorted.

Q Okay. That's what I was getting at. Finally helped me.

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Thank you. Do you recall, were these materials sent to Doctor Levine? Did you have an occasion to send these materials to Doctor Levine? 974

A Yes, he saw them.

Q The cast, the photographs?

A Um-hum.

Q And how about some of your other material? Say, for instance, your notes, your score sheet, or anything along that line?

A I don't know that he saw those.

Q Okay. You indicated the fact that there were no saliva samples or nothing detected as far as the saliva?

A I took them. That's the last I've heard of them. I do not know.

Q You've indicated that there is four mark -- well, on direct testimony, you were talking about three marks on top and two in the lower. You're really saying there's four marks on top and two on the lower, is that correct? Talking about the penis? Four?

A I'm speaking -- and in the different photographs, they're -- possibly the other, there's another mark or so, but they're -- I could not correlate all of -- whether it's an abrasion or whether -- what it was or how it occurred. I do not know.

Q Would you point that mark out to me.

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A You're counting -- this is one, two, three, four, five (indicating).
Q Is there something on the -- is there something on the other side? Is there something over on the other side?
A This -- on one of the photographs, there was a little --
Q That's it! Right there (indicating).
A This is what I interpreted as a possible number 10, but I gave it no particular weight in the analysis. It wouldn't have added to the analysis, according to this ABFO thing.
Q But you didn't place any importance upon it from that standpoint?
A No great importance.
Q Okay. Incidentally, other than the tooth marks, other trauma to the penis could cause marks, could it not? Could cause the ecchymosis and bruising other than teeth?
A It could, but I don't see how you could get the arch form and alignment. Certainly the penis can be bruised.
Q Well, say, for instance, if -- well, let me ask you this question. Strike that. There are occasions, are there not, Doctor, that -- and have you had bite mark cases where -- if you had somebody that was bitten, say, for instance, on the arm, and where

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you've got both the maxillary and the mandible, and you've got a number of teeth out there, there's been occasions where some teeth didn't show any marks whatsoever? Is that true?

A That's correct.

Q So, is there any explanation for that? Is that just a natural phenomena?

A I think it's movement of the tissue at the time of the bite you fail to get registration.

Q Okay. In other words, what you're saying is that the exact area the tissue -- in other words, the tissue from millimeter to millimeter could register different? In other words, you could have a mark where this incisor is, and then you may not have a mark where this incisor would hit? Is that what you're telling me?

A Normally you would have the marks, but they're occasionally --

Q You would expect the marks?

A You'd expect them.

Q But you've had occasions where some teeth have not shown up at all on the skin, is that correct?

A Yes, sir.

Q Okay. Now, you've indicated the fact that your estimation is, according to the articles that were introduced,

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which were the European men, I believe that was the only study you could find in regard to the enlargement of the penis?

A Yes.

Q Okay. I guess they studied those things in Europe. You don't have anything for the American --

A No. It was published by a Canadian.

Q Published by a Canadian. Okay. And their figure was 1.307, is that correct?

A When you get it all figured out is 1.307 greater.

Q 1.307 greater. So, that's the proportional figure to use --

A Yeah.

Q -- right? Okay. And when we're talking about the measurements of the teeth marks there, give me an example. Give me the measurement, if you could, of -- what is the measurement of Mr. Combs' upper right incisor?

A I do not have the measurements here with me.

Q You don't have the measurements with you?

A No. And I do not have them from memory nor do I have a metal ruler with me to give you the measurements.

Q Okay. Well, let me ask you this: From your recollection, how much difference would you say there was in distance, millimeter wise, if you can use that figure

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or that break down, between the upper midline incisor, the upper incisor number -- let's pick number 9, of Mr. Combs and pick 9 of Mr. Hill. How much distance are we talking about here?

A Well, we'll compare the two this way. I would, without a definite measure, say approximately a millimeter in size of number 9 and number 9.

Q Okay. Let me ask you this: Do you happen to know how much -- how many millimeters is there in an eighth of an inch or sixteenth of an inch? Say, for instance, sixteenth of an inch? Do you have any idea?

A It's 2.5 centimeters to the inch, and 10 centimeters -- 10 millimeters to the centimeter.

Q Okay. So, the distance we'd be talking about in terms of inches would be what?

A For a one millimeter?

Q Um-hum.

A I don't have my calculator to figure it out. I can't tell you offhand.

Q Well, is it more than a sixteenth of an inch?

A More than a sixteenth?

Q Right.

A I'm sure it's not a sixteenth.

Q No. No, it isn't. Is it a thirty-second of an inch?

ATTORNEY WATKINS: Your Honor, I'm going

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to object. He says he can't --

Q (By Attorney Lewis) Well, it's very small, would you agree with that, Doctor Mertz?

A It is small, yes.

Q Okay. And going back for a moment, you indicated the fact that all your measurements are based upon this hypothetical 1.307, is that correct?

A I didn't know anything about the 1.307 until after I had made all the measurements.

Q Okay. And you made all the measurements, and, of course, they were all, you said, approximately --

A They were consistently about a third less in size.

Q Okay. And how about Mr. Combs' teeth? Would they fit into the pattern? Just from the standpoint -- measurements now.

A Now, let's qualify and -- have you qualify and tell me what pattern you're talking about.

Q Okay. What I'm talking about is this. Give you an example. If we used -- you measured the mark on the penis? This mark right here (indicating), right?

A Yes.

Q Okay. And that's supposed to be the number 8 central incisor, is it not, from the maxillary?

A You're talking about -- here's -- number 8 --

Q Um-hum.

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clusion, okay? When he takes the casts, what's the position of the teeth? In other words, when you're rotating those teeth, Doctor -- what I'm asking you is this: When you're rotating those, you've got them in a certain position? That means the maxillary is in a certain position and the mandible -- the maxillary is not moving? That's the top portion?

A Right.

Q The mandible is the moveable part?

A Right.

Q Tell us what position those would be in when the cast is taken.

A Now, you're using some confusing terminology.

Q Straighten my terminology out for me then.

A All right. When the impressions are taken?

Q Impressions are taken. Okay.

A You must take an impression, then a cast is made from the impression. And you're -- you're asking a question -- and by the way, you asked the question -- the mouth has to be opened when it's taken. Then the bites are taken. That is, when you close together, you establish the way the teeth bite in their normal centric relation.

Q I'm sorry for the confusion. I understand what you're

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talking about now. What was done in order to get the natural bite then to get the distance?

A The natural bite, in this particular case, I took -- put them together in their obvious occlusion, and they were bites that teeth were in and have -- "

Q Wait a minute! Excuse me. You put them together in the obvious --

A Okay. If I'm interpreting your question correctly, I put the teeth together originally with the Aluwax bites that he supplied to me -- or was supplied. Now, when they close together, it tells me the relationship of the lower teeth to the upper teeth, and that is based on the impressions in the wax so that you know -- and these could be mounted on an artificial articulator if necessary, but you don't need it because in their case, you can hold them with your hand in that normal position of the bite.

Q Okay. You mentioned the impressions that were in the Aluwax.

A The bite that was in the Aluwax.

Q The bite that was in the Aluwax. Now, did you measure that to get --

A You can't measure that because that's interspersed in between the teeth for orientation purposes.

Q Orientation purposes?

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A Yes.
Q Okay. So -- let me ask you this: Are you just putting together the casts of the maxillary and the mandible just the way they would -- you're just putting them together? You don't know --
A I put them together with the Aluwax, looked to see the way the teeth lined up, removed the Aluwax, then put the teeth back in that position, or one occluded with the other.
Q Okay. And that's how you determined -- in other words, in this direction (indicating)?
A Overjet or overbite.
Q Okay. Overbit or whatever. What was it called?
A Overjet.
Q Overjet?
A They're the same thing.
Q Okay. You indicated it was five millimeters in difference?
A It's about five millimeters, yes.
Q And your conclusion -- one of your conclusions was that it was Mr. Hill's teeth because he has a larger overbite? Was that it?
A The way the teeth hit together. His upper teeth come down over the lower teeth more, and Combs' teeth hit together this way (demonstrating).

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Q Closer?
A Closer together in a normal occlusion.
Q And you've just indicated that the difference in the anterior teeth, or what you're talking about, is about five millimeters?
A Yes.
Q Okay. Now, of course, you weren't there when the bite mark was made, right? Your assumption here is that when the person -- whoever bit down, they were biting down in a natural situation where -- like in the Aluwax? They'd be biting exactly the same, is that correct?
A No.
Q You're not?
A No.
Q Okay. Explain to me then what you would be talking about.
A I'm talking about when you intersperse some material between the upper teeth, there's a limited movement of the lower. You can open and close, but you can't jut your jaws out in normal biting. You do not push the lower jaw out.
Q Right. What happens?
A You close.
Q You close?
A You close together in a relation to where nature and

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your muscle balance intended.

Q And what happens to your lower jaw? What happens to the mandible when you're closing down on something that's located right at the anterior? What happens to the mandible?

A Swinging in an arch.

Q Swinging in an arch? You said it doesn't jut out, does it?

A You would have to go into protrusive relation if you did this in order to force it into a different position.

Q Okay. That's assuming if you wanted to just do it straight up and down in normal situations, right? Close it just normally?

A Well, if you will try to figure out with swinging your jaw out and bite a carrot or something, you'll find it's very uncomfortable, and it's not practical.

Q Let me ask you something. All right. Then when you bite down -- say, for instance -- we're talking about a penis here, and you got it between your anterior teeth up here (indicating), and you're pushing down, and you don't sever it. Is your mandible going to go back? Is your lower portion of your jaw going to go back?

A It's going to be in the arch.

Q In the arch?

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A Which the ultimate closure of the arch puts it into this closure position like this (demonstrating). You don't slide it out here in great proportions.
Q Let me ask you this question: Is the mandible -- is the mandible absolutely hinged so it only goes up and down, or can the mandible move back at all?
A The move -- the mandible can move very, very slightly in a retruded position.
Q Retruding position. That means backwards, right?
A Yes.
Q Like that (demonstrating)?
A Okay. Very slightly.
Q How much would you say?
A Probably a millimeter at the most.
Q A millimeter at the most?
A To force your jaw back.
Q What you're saying is that when you close the mandible, you would not have that mandible moving back, depending on the surface, of course; how large the object was, right? Would that make any difference?
A I don't think that'd make any big difference at all.
Q Okay. I could move my jaw in and out, but I can't move it back very far?
A That's right.
Q Okay. And one of your criteria here is simply the fact

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that because of the five millimeters we're talking about, you say that it would not be Mr. Combs, but it would be Mr. Hill, and that's based upon, also, the fact that the two lower marks below the penis are not that -- or not as large or -- what were you saying? Large as the upper ones?

A They're more indistinct.

Q More indistinct?

A Yes.

Q In fact, I've kind of reversed this, haven't I? It's because they're indistinct you're saying that it was Mr. Hill, right?

A I'm saying because I would expect if Combs to have made that bite underneath, those lower ones should be sharp. They should give a sharp imprint. And in this case, because of the arch form and the bite, the normal overlap of the teeth, that I would expect the lowers to be more indistinct. In other words, they wouldn't be like nice little rectangles that you see. They are sort of a rounded -- the tissues brought up and compressed, and you do not get a distinct mark. If Combs had bit them, I would expect distinct marks of the lower.

Q Okay. Now, going back, you've already indicated to me that the reasons you don't have rectangular marks

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on top was based upon what? The nature of the tissue, number one?

A The distinct marks on top? I did not understand your question.

Q The question was you normally -- said you normall expect rectangular marks, distinct marks. We don't have, really, that on any of the marks here, do we?

A That's correct.

Q And you said one of the reasons for that was that it was because of the nature of the tissue?

A The roundness of the tissue.

Q And the object?

A And the biting surfaces.

Q Biting surfaces. In other words, the tissue itself?

A Yes.

Q Okay. And you also agreed with me earlier that you could have bite marks or teeth -- where there's been bite marks, you can have a bite mark from one tooth, and the next tooth won't show anything?

A That's possible.

Q So, even considering those elements, your opinion was that you expected a larger mark on the bottom. So, because you didn't get the larger mark --

ATTORNEY KONTOS: Objection. He never said that.

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A Wait a minute now.
Q (By Attorney Lewis) Okay. Go ahead. Go ahead.
A I said a more distinct mark.
Q A more distinct mark?
A That's right.
Q Okay. Now, because you didn't get a more distinct mark on the two lower marks, that was your -- one of your criteria for saying it was Mr. Hill and it wasn't Mr. Combs?
A That's right.
Q Okay. But the other variables you've already talked about are a consideration in this, are they not? In other words, the tissue you're working with, the fact that you didn't end up with direct, rectangular marks on top, and plus, there's the natural phenomena where sometimes they don't show up, or they may show up less?
A Yes.
Q Okay. So, that's all included in there? There's no possibility of any of that happening for those two lower marks? They were not so distinct?
A They're -- on surfaces, they are not distinct.
Q Right. Okay. Were there any other -- the arch size. Was the arch size significant, or can that be accounted for -- because of the difference in the

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measurements we're talking about, are they so distinct or different? 1000

A The arch sizes are not greatly different.

Q Okay.

A And they should make -- Combs has got a more V-shaped or a tapered arch this way (indicating), and Hill has got a broader front section of it, and with a -- more tapered. And the lowers being on the same occlusion plane, I would have expected, if it were Combs, that definitely, you would have more distinct incisal surface bites.

Q Okay. That's -- we're back at that question. That wasn't really what I was asking you. I'm just saying from the standpoint of arch -- the size of the arch. The measurable difference between the arches. Would that rule out Mr. Combs in this case just from the arch and the size of the arches of both alone? We're talking alone.

A If that were the only criteria, it would not rule him out.

Q Okay. Okay. Do we have -- is it fair to say we have -- well, we have a couple more things left. Getting to the fractured incisor, that's number 8, is it not?

A The fractured incisor on Mr. Hill you're asking?

Q That's correct.

A Number 8.

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Q Okay. And the mark that that left is this mark right here (indicating), is that correct?
A No.
Q I'm sorry.
A This would be -- in this sort of -- let me -- where's the little one? You can see better.
Q Well, just -- what I'm asking you, Doctor, is that the mark? You don't have to put it on there right now. Is that the mark we're talking about?
A The mark we're talking about, number 8, is this one (indicating).
Q That's right. Okay.
A And 9 is this one (indicating).
Q That's what? Is it -- basically, is that oblong? How would you describe that mark?
A Which one now?
Q The one I was just referring to. That's number 8. From the fractured incisor.
A I would say that there's an initial mark here (indicating); that is the beginning of this, to -- and this is the rounded mark where the tissue is trapped, and -- as a result of this fracture.
Q Okay. And that's one of the criteria that you used to determine between Mr. Hill and Mr. Combs, is that correct?

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A Yes.
Q Okay. It's your opinion that that particular mark was left by Mr. Hill by virtue of the fact that it's a fractured incisor?
A It's consistent with the fractured incisor.
Q Okay. The mark itself is not rectangular in any fashion, is it?
A No.
Q The other mark left by the individual; that would be the -- number 9 incisor, upper incisor, is that a round, rectangular mark, or is that a --
A All right. If this is number 8 on this side (indicating), number 9 over here (indicating), you could see that it is more straight across here and more triangular due to the fact that the tissue pushed up under it (indicating).
Q So, it's triangular because tissue was pushed up?
A To a degree it's triangular. It's not a perfect triangle.
Q Mr. Combs -- do we have that small photograph?
A It should be here. Fits pretty good.
Q Yeah. To the average person, Doctor, when you put Mr. Combs' maxillary on there, it looks pretty close, doesn't it? In fact, it looks like a fit to --
A No.
Q That's to the layman.

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A I don't think laymen or qualified --
Q I agree with you. But just to look at it -- okay. Let me ask you this, Doctor. Okay. It's not the diastem necessarily, is it, that you're making the judgment on?
A No.
Q Okay. You're making it partially on the overbite; the roll up of the tissue?
A The overbite.
Q Okay. And you're making it based upon the fracture incisor number 8?
A Right.
Q Okay. Are those the -- we'll call them individual characteristics. Two types of characteristics we're talking about here, aren't we, Doctor?
A Pardon?
Q We're talking about two different kinds of characteristics, are we not? They're called class characteristics and individual characteristics?
A Yes.
Q The individual characteristics --
A But you left out number 7's mark here.
Q Okay. Number 7.
A Which is the upper right lateral incisor.
Q Okay. And your judgment in regard to number 7 was what?

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What was the reason why you felt that mark was left on number 7?

A Because the longest portion of this number 7 is virtually in the center of the tooth, and when you put it on here; again, on a rounded surface, that longest point will come -- see where it fits?

Q Oh, Doctor, I'll tell you, you got the wrong set there. Here's the fractured incisor. You got Mr. Combs.

A Okay.

Q It fit though?

A That will give you some fit, but it does not fit like this one.

Q Doesn't fit like that one. Describe number 7 for me for Mr. Combs. Describe his lateral -- is that a lateral incisor?

A Yes.

Q What's the --

A Number 7.

Q Yeah. Describe his incisor.

A Mr. Combs has a similar, but not exactly alike, size and shape. It's a larger tooth on Combs, and it's not exactly in the same position in its relation to the number 8 here.

Q Does it also come to somewhat of a point?

A Yes.

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Q Okay.
A Sure.
Q All right. Going back, there's some similarity there between number 7 on Mr. Combs; the upper incisor, and also --
A With the same general arch size. With the same general arrangements, yes.
Q Okay. All right. And you would agree, obviously -- and the way we've been talking about this dealing with the tissue, we're talking about the compression of the tissue, assuming it was an erection at the time and so forth. This becomes rather subjective, does it not? In fact, it's all subjective to a great degree, is it not?
A It's a judgment decision.
Q Right. You're assuming about the flesh being pushed up between the two teeth and the mark being left, is that correct?
A Yes.
Q And that may well have happened with Mr. Combs as well? Could that have happened with Mr. Combs?
A I do not believe that it would be the same.
Q Could it, Doctor?
A I do not believe it could.
Q You do not believe it could ever happen with Mr. Combs?

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A That's my impression and opinion.
Q And that comes back to the idea -- is it the overbite then?
A It's a combination of all the factors.
Q Oh, I understand! But what I'm trying to determine -- let's specifically distinguish Mr. Combs from Mr. Hill. A fractured incisor number 8, right?
A Yes.
Q And number two, the most important thing probably -- I don't know whether it's more important or not, is the situation involves this overbite? The five millimeters we're talking about?
A Yes.
Q Are those the two real big things that you're --

ATTORNEY WATKINS: I'm going to object, Your Honor.

Q (By Attorney Lewis) Basing this on --

ATTORNEY WATKINS: Well, go ahead.

Q (By Attorney Lewis) -- Mr. -- Mr. Combs and Mr. Hill. That's what I'm trying to find out.
A It's my decision to name Hill in this because of the combination of all of the factors. Even some of those indistinct bite marks that you will get --
Q Right. Indistinct.
A -- fits Hill, and it does not fit Combs.

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Q Right. Indistinct.
A -- fits Hill, and it does not fit Combs.

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Q Okay. And earlier in your testimony, you described -- the Judge was asking you about your certainty in regard to this, and your certainty was on the ruling out of Combs and on the inclusion of Hill, and what was the phraseology you used? 1007

A Well, I say that it's -- the bite was made by Hill with a reasonable degree of medical certainty or probability, however you want to use the two terms.

Q Oh, those are interchangeable?

A In my mind they are.

Q According to Doctor Levine of the articles, is there any standard protocol in the forensic odontology regarding use of probability and the use of certainty?

A I've never been challenged on it. Most all of us use this same --

Q I wasn't asking you to be challenged on it. What I'm saying is that -- you recall the article I just showed you a while ago?

A Let me see what you specifically are referring to.

Q Okay. Would you read that one sentence here, Doctor. This is from the Forensic Dentistry Color and Swelling Changes. Would you read that.

A Now, wait a minute! Let's see. Are you talking about a live patient or a dead patient?

Q Dead patient, Doctor.

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A Let's read the whole thing. (Witness complies.) Wait a minute! This is not Levine's article. It's Catone's article. 1008

Q Oh! I'm sorry.

A "As color and swelling changes daily in bite marks in live and dead bodies, it is essential to photograph the bite marks for at least five days." I think that is an -- incorrectly worded. And I do not agree with that because I know of no reason why, in a dead patient, they should change at all. In a live patient, I agree.

Q All right. In the chapter when it talks about -- if I can find it again. As I understand it then, you're saying that the probability and certainty are two coequal terms in your terminology, is that right?

A Yes.

Q Okay. You want to read what Levine says about it?

A You're right.

ATTORNEY WATKINS: Your Honor, I'm going to object as to what other people say probability, certainty are. I think the Court has determined the law in this State, and I think it's interchangeable in the state of Ohio.

JUDGE McLAIN: Well, I think it's a factor that changed, which did not seem to me to be signi-

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ficant, in any case, as far as the law's attitude as far as those words.

Q (By Attorney Lewis) All I want to ask you, Doctor, is this: Doctor Levine -- you've already described who he is -- and incidentally, it is his article in here I referred to. Doctor Catone's. You're right. "With reasonable dental certainty, the bite mark and the tissue, these are the possible conclusions the forensic -- "

A You're quoting from Levine here?

Q Yeah. You want to read it yourself?

A I prefer to.

Q I'm not that tricky. Do you want to start reading Conclusions and Criteria? That's all.

A (Witness complies.) This is worded slightly different from the article that he wrote in the FBI journal where he used brackets, I believe, if my memory's correct. Certainty and then probability.

Q Okay. Explain it any way you want to, Doctor. It's okay. And then go ahead and read it. In fact, you can read it to the Court if you want. Read that first conclusion there.

A "With reasonable degree of dental certainty, the bite mark in the tissue and the exemplar have been left by the same teeth." Brackets. "[This is a high

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degree of probability that the two bite marks have a common origin.]" Closed brackets.

Q Okay. I would assume -- and do you understand that to mean that the certainty is the highest level and the yardstick for determining? That is, the word probability. The highest degree of probablity, just from what you read, not that you accept the standard? I mean just from what you read.

A Probability and the certainty? High degree of probability and --

Q Is certainty?

A -- with reasonable degree of dental certainty, to me, mean the same thing.

Q Okay. Well, the reason I was asking you, Doctor, is in your report, you said with reasonable dental certainty -- or rather, probability. I'm sorry. Reasonable medical probability, okay? And then you testified here today that -- reasonable dental certainty, and you just told me that you're equating probability with certainty. It means the same thing in your terminology?

A In my terminology.

Q Okay. However, Mr. Levine, when he talks about medical certainty -- or dental certainty, he describes it as a yardstick, and you're using probability to deter-

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mine that; a high degree of probability, right? Is that correct?

ATTORNEY WATKINS: Your Honor --

A He uses a high degree --

ATTORNEY KONTOS: Your Honor, I'm going to object. I don't understand what he's getting to. He's asking him what his --

JUDGE SHAKER: Wait a minute. You objected. We'll rule on it.

ATTORNEY KONTOS: Well, I'd like to explain it.

JUDGE SHAKER: We don't want you to explain it.

JUDGE McLAIN: Well, I think -- I don't think you're going to get anywhere with this semantic quibble because of the fact the word certainty and probability aren't ever used without the additive reasonable, which, in my mind, is the way we treat it in the law and the way we treat matters in medical certainty. Probably. And to -- once you define certainty, that it means a certain degree of probability, you practically merge the two together by definition.

ATTORNEY LEWIS: All right. Okay, Your Honor.

DOCTOR CURTIS A. MERTZ

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Q (By Attorney Lewis) Mr. Mertz, in regard to that, let me ask you this: Is there any standard protocol with forensic odontology as to the use of these terms? 1012

A In my opinion, there is. You brought it up, but I don't know. I've never heard people discuss that there's a difference in them.

Q What you're saying is that's standard protocol? You're matching yourself up with what Doctor Levine's saying here. Or it's not?

A I think -- my interpretation of that is that it's the same thing.

Q Your interpretation is the same thing. Okay. The question I'm asking you: Is there a standard protocol -- the American Board of Forensic Odontology, do you have a standard protocol where you say this is what we're going to use gentlemen? We're all going to standardize these things? Certainty means this and so forth?

A To my knowledge, it's not written down.

Q Okay. That's what I was getting to. And the sheet that you scored these points on that you've identified, I think, is right --

A Yes, it's right here.

Q This was a sheet made up at a convention of the -- forensic odontologist out in -- what is it? Anaheim,

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California?

A Right.

Q And is this standardized in the industry now? In your field? Is this what everybody's going to use when they go out and do bite mark evidence? Or is it something recommended?

A I frankly do not know how many people use it. I used it because of the completeness factor only, and I don't -- I don't know how much use it --

Q Okay. And incidentally, on that particular sheet, you indicated the fact that you should have a score -- at least had a 35 to --

A 35 to 40.

Q Okay. And your scoring of the points was a total of 36, is that correct?

A That's correct.

Q And down below, you have number 8, which is referring to the upper incisor; fractured incisor number 8. The diastema you give three points to, right?

A Yes.

Q Okay. And you give three points to what? Is it 8 and 7?

A 8.

Q 8 is the fractured incisor?

A 8 is the fractured 8 in its relationship to 7.

Q And what are the other three points? That's just to the

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fractured incisor, right?

A The number 8, it's fracture. The diastema or diastema has three, and the combination of the 9, the 8, and 7 are, to me, distinctive features, and I gave that three points.

Q Okay. So, the total came out, in that one block relevant to those three factors, as nine points. I have a total of 36. Right?

A Total of 36. I did not add a couple. Probably some men would have added it.

Q It's very subjective, right? Is that what you're saying?

A It is subjective.

ATTORNEY LEWIS: Okay. Okay. I thank you very much. Sorry to keep you so long.

RE-DIRECT EXAMINATION BY ATTORNEY WATKINS:

Q I only have a couple questions, Doctor. You mentioned Doctor Levine. He's a colleague of yours?

A Colleague?

Q He's --

A Is that the word you said?

Q Colleague.

A Yes.

Q Okay. And in fact, you have talked to him about this particular case?

A Yes. We both lectured on bite marks at the Armed Forces

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Institute of Pathology.

Q And to your knowledge, I believe he's given a report to me, has he not?

A Yes.

Q And to your knowledge, Mr. Lewis was given a copy of that report a couple months ago?

A To my knowledge.

Q Okay. Now, did you have any other consultants that Mr. Lewis had retained see you?

JUDGE McLAIN: I'm sorry. I didn't hear that question.

Q (By Attorney Watkins) Were any other consultants involved with the materials other than Doctor Levine?

A Markle came -- called me and arranged an appointment to come up on December the 26th.

Q Okay.

ATTORNEY LEWIS: We're going to object to any testimony in regard to what Mr. Markle discussed with Mr. Mertz in regard to this.

ATTORNEY WATKINS: Okay. I won't ask any more questions other than the fact --

JUDGE McLAIN: First, don't speculate on what somebody who is not going to be a witness might or may not say.

ATTORNEY WATKINS: I wasn't going to ask

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any question of the subject, Your Honor. I just wanted to point out there were other consultants made available and had materials. 1016

JUDGE McLAIN: Well, I guess, even if so, the Court can't come to the conclusion from the fact that neither side chose to have him as a witness. If that's all the questions, thank you, Doctor.

(Witness is excused.)

JUDGE McLAIN: And we're going to adjourn until -- any of you who are coming here on a regular basis, we're going to adjourn until 10:00 o'clock tomorrow morning for the reason that there's intervening legal matters which will have to be discussed by all three of us in chambers.

(Court in adjournment at 5:30 P.M.)

* *

Wednesday, January 29, 1986, at 9:30 A.M.

(State's Exhibit No. 142 marked for identification.)

JUDGE McLAIN: Court is now convened pursuant to adjournment, and the record should reflect the presence of the defendant. The Court has reason to believe that the State wishes to make a proffer of evidence at this time, and you may go forward with that.

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at times. We have a lot of rain according to the evidence. And there is not a situation, as this Court is aware, where you don't have some evidence. We like to have the forensic evidence. We'd like to have it. We do have some in this case, obviously, but the bike didn't have fingerprints on it. Maybe Mr. Lewis will argue that Raymond wasn't on the bike. It didn't have fingerprints. Well, there's an explanation you don't necessarily have fingerprints on everything. And rain will affect fingerprints as it will affect blood. I mean the best evidence is -- I submit everybody agrees you can wash blood out of cloth and it soaks it up. Everybody agrees. All the witnesses agree, and I would suggest that there's a big difference, and I think that's kind of important. Who does this Court feel is more qualified? Mr. Dehus or Mr. Gelfius on the charcoal lighter as to paint thinner and hydrocarbons? I thought that his testimony was much more credible. I don't feel Mr. Dehus; it couldn't break down; very unlikely, and I don't think that's the case. I think that the witness from the Arson Lab who deals strictly with arson is the most credible witness in this case, and that substantiates the State's case.

CLOSING ARGUMENTS

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American Board of Forensic Odontology

Diplomates Reference Manual

January 2012 Edition

DEFENDANT'S EXHIBIT G

- Variation from normal, unusual, infrequent.
- Not one of a kind but serves to differentiate from most others.
- Highly specific, individualized.
- Lesser degree of specificity than unique.

Bitemark Definitions

Bitemark:

• A physical alteration in a medium caused by the contact of teeth.

• A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark

A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.

Variations:

1. Additional features:

    - Central Ecchymosis (central contusion).
    - Linear Abrasions, Contusions or Striations
    - Double Bite - (bite within a bite)
    - Weave Patterns of interposed clothing.
    - Peripheral Ecchymosis

2. Partial Bitemarks

3. Indistinct/Faded Patterned Injury (e.g., fused or closed arches, solid ring pattern)

4. Multiple Bites.

5. Avulsive Bites.

Terms Indicating Degree of Confidence That an Injury is a Bitemark:

Bitemark - Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: pattern conclusively illustrates a) classic features. b) all the characteristics, or c) typical class characteristics of dental arches and human teeth in proper arrangement so that it is recognizable as an impression of the human dentition.

Suggestive – The pattern is suggestive of a bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a bitemark – Teeth did not create the pattern.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

ABFO Standards for "Bitemark Terminology"

The following list of Bitemark Terminology Standards has been accepted by the American Board of Forensic Odontology.

1. Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion.

2. Terms used in a different manner from the recommended guidelines should be explained in the body of a report or in testimony.

3. All boarded forensic odontologists are responsible for being familiar with the standards set forth in this document.

2/2006

American Board of Forensic Odontology

Diplomates Reference Manual

August 2013 Edition

Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

Human Bitemark – Human Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: the injury pattern displays features that reflect the class and individual characteristics of human teeth.

Suggestive – The pattern is suggestive of a human bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as individual tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a human bitemark – Human teeth did not create the injury.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

The ABFO does not support a conclusion of "The Biter" in an open population case(s).

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

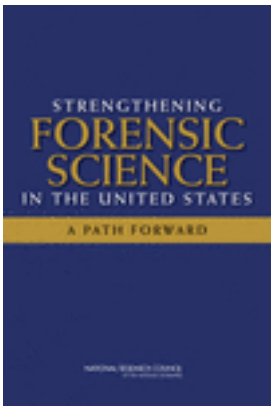
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STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES

A PATH FORWARD

Committee on Identifying the Needs of the Forensic Science Community

Committee on Science, Technology, and Law
Policy and Global Affairs

Committee on Applied and Theoretical Statistics
Division on Engineering and Physical Sciences

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By contrast, much more research is needed on the natural variability of burn patterns and damage characteristics and how they are affected by the presence of various accelerants. Despite the paucity of research, some arson investigators continue to make determinations about whether or not a particular fire was set. However, according to testimony presented to the committee,[118] many of the rules of thumb that are typically assumed to indicate that an accelerant was used (e.g., "alligatoring" of wood, specific char patterns) have been shown not to be true.[119] Experiments should be designed to put arson investigations on a more solid scientific footing.

FORENSIC ODONTOLOGY

Forensic odontology, the application of the science of dentistry to the field of law, includes several distinct areas of focus: the identification of unknown remains, bite mark comparison, the interpretation of oral injury, and dental malpractice. Bite mark comparison is often used in criminal prosecutions and is the most controversial of the four areas just mentioned. Although the identification of human remains by their dental characteristics is well established in the forensic science disciplines, there is continuing dispute over the value and scientific validity of comparing and identifying bite marks.[120]

Many forensic odontologists providing criminal testimony concerning bite marks belong to the American Board of Forensic Odontology (ABFO), which was organized in 1976 and is recognized by the American Academy of Forensic Sciences as a forensic specialty. The ABFO offers board certification to its members.[121]

Sample Data and Collection

Bite marks are seen most often in cases of homicide, sexual assault, and child abuse. The ABFO has approved guidelines for the collection of evidence from bite mark victims and suspected biters.[122] The techniques for obtaining bite mark evidence from human skin—for example, various forms of photography, dental casts, clear overlays, computer enhancement, electron microscopy, and swabbing for serology or DNA—generally are

[118] J. Lentini. Scientific Fire Analysis, LLC. Presentation to the committee. April 23, 2007. Available at www7.nationalacademies.org/stl/April%20Forensic%20Lentini.pdf.

[119] NFPA 921 Guide for Explosion and Fire Investigations, 2008 Edition. Quincy, MA: National Fire Protection Association.

[120] E.g., J.A. Kieser. 2005. Weighing bitemark evidence: A postmodern perspective. *Journal of Forensic Science, Medicine, and Pathology* 1(2):75-80.

[121] American Board of Forensic Odontology at www.abfo.org.

[122] Ibid.

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well established and relatively noncontroversial. Unfortunately, bite marks on the skin will change over time and can be distorted by the elasticity of the skin, the unevenness of the surface bite, and swelling and healing. These features may severely limit the validity of forensic odontology. Also, some practical difficulties, such as distortions in photographs and changes over time in the dentition of suspects, may limit the accuracy of the results.[123]

Analyses

The guidelines of the ABFO for the analysis of bite marks list a large number of methods for analysis, including transillumination of tissue, computer enhancement and/or digitalization of the bite mark or teeth, stereomicroscopy, scanning electron microscopy, video superimposition, and histology.[124] The guidelines, however, do not indicate the criteria necessary for using each method to determine whether the bite mark can be related to a person's dentition and with what degree of probability. There is no science on the reproducibility of the different methods of analysis that lead to conclusions about the probability of a match. This includes reproducibility between experts and with the same expert over time. Even when using the guidelines, different experts provide widely differing results and a high percentage of false positive matches of bite marks using controlled comparison studies.[125]

No thorough study has been conducted of large populations to establish the uniqueness of bite marks; theoretical studies promoting the uniqueness theory include more teeth than are seen in most bite marks submitted for comparison. There is no central repository of bite marks and patterns. Most comparisons are made between the bite mark and dental casts of an individual or individuals of interest. Rarely are comparisons made between the bite mark and a number of models from other individuals in addition to those of the individual in question. If a bite mark is compared to a dental cast using the guidelines of the ABFO, and the suspect providing the dental cast cannot be eliminated as a person who could have made the bite, there is no established science indicating what percentage of the population or subgroup of the population could also have produced the bite. This follows from the basic problems inherent in bite mark analysis and interpretation.

As with other "experience-based" forensic methods, forensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which

[123] Rothwell, op. cit.
[124] American Board of Forensic Odontology, op. cit.
[125] Bowers, op. cit.

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to choose from in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect. Blind comparisons and the use of a second expert are not widely used.

Scientific Interpretation and Reporting of Results

The ABFO has issued guidelines for reporting bite mark comparisons, including the use of terminology for conclusion levels, but there is no incentive or requirement that these guidelines be used in the criminal justice system. Testimony of experts generally is based on their experience and their particular method of analysis of the bite mark. Some convictions based mainly on testimony by experts indicating the identification of an individual based on a bite mark have been overturned as a result of the provision of compelling evidence to the contrary (usually DNA evidence).[126]

More research is needed to confirm the fundamental basis for the science of bite mark comparison. Although forensic odontologists understand the anatomy of teeth and the mechanics of biting and can retrieve sufficient information from bite marks on skin to assist in criminal investigations and provide testimony at criminal trials, the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match. In fact, one of the standards of the ABFO for bite mark terminology is that, "Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion."[127]

Some of the basic problems inherent in bite mark analysis and interpretation are as follows:

(1) The uniqueness of the human dentition has not been scientifically established.[128]
(2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.[129]
    i. The ability to analyze and interpret the scope or extent of distortion of bite mark patterns on human skin has not been demonstrated.
    ii. The effect of distortion on different comparison techniques is not fully understood and therefore has not been quantified.

[126] Bowers, op. cit.
[127] American Board of Forensic Odontology, op. cit.
[128] Senn, op. cit.
[129] Ibid.

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(3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

Summary Assessment

Despite the inherent weaknesses involved in bite mark comparison, it is reasonable to assume that the process can sometimes reliably exclude suspects. Although the methods of collection of bite mark evidence are relatively noncontroversial, there is considerable dispute about the value and reliability of the collected data for interpretation. Some of the key areas of dispute include the accuracy of human skin as a reliable registration material for bite marks, the uniqueness of human dentition, the techniques used for analysis, and the role of examiner bias.[130] The ABFO has developed guidelines for the analysis of bite marks in an effort to standardize analysis,[131] but there is still no general agreement among practicing forensic odontologists about national or international standards for comparison.

Although the majority of forensic odontologists are satisfied that bite marks can demonstrate sufficient detail for positive identification,[132] no scientific studies support this assessment, and no large population studies have been conducted. In numerous instances, experts diverge widely in their evaluations of the same bite mark evidence,[133] which has led to questioning of the value and scientific objectivity of such evidence.

Bite mark testimony has been criticized basically on the same grounds as testimony by questioned document examiners and microscopic hair examiners. The committee received no evidence of an existing scientific basis for identifying an individual to the exclusion of all others. That same finding was reported in a 2001 review, which "revealed a lack of valid evidence to support many of the assumptions made by forensic dentists during bite mark comparisons."[134] Some research is warranted in order to identify the circumstances within which the methods of forensic odontology can provide probative value.

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[130] Ibid.

[131] American Board of Forensic Odontology, op. cit.

[132] I.A. Pretty. 2003. A Web-based survey of odontologists' opinions concerning bite mark analyses. *Journal of Forensic Sciences* 48(5):1-4.

[133] C.M. Bowers. 2006. Problem-based analysis of bite mark misidentifications: The role of DNA. *Forensic Science International* 159 Supplement 1:s104-s109.

[134] I.A. Pretty and D. Sweet. 2001. The scientific basis for human bitemark analyses—A critical review. *Science and Justice* 41(2):85-92. Quotation taken from the abstract.

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American Board of Forensic Odontology

Diplomates Reference Manual

January 2012 Edition

DEFENDANT'S EXHIBIT G

- Variation from normal, unusual, infrequent.
- Not one of a kind but serves to differentiate from most others.
- Highly specific, individualized.
- Lesser degree of specificity than unique.

Bitemark Definitions

Bitemark:

• A physical alteration in a medium caused by the contact of teeth.

• A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark

A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.

Variations:

1. Additional features:

    - Central Ecchymosis (central contusion).
    - Linear Abrasions, Contusions or Striations
    - Double Bite - (bite within a bite)
    - Weave Patterns of interposed clothing.
    - Peripheral Ecchymosis

2. Partial Bitemarks

3. Indistinct/Faded Patterned Injury (e.g., fused or closed arches, solid ring pattern)

4. Multiple Bites.

5. Avulsive Bites.

Terms Indicating Degree of Confidence That an Injury is a Bitemark:

Bitemark - Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: pattern conclusively illustrates a) classic features. b) all the characteristics, or c) typical class characteristics of dental arches and human teeth in proper arrangement so that it is recognizable as an impression of the human dentition.

Suggestive – The pattern is suggestive of a bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a bitemark – Teeth did not create the pattern.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

ABFO Standards for "Bitemark Terminology"

The following list of Bitemark Terminology Standards has been accepted by the American Board of Forensic Odontology.

1. Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion.

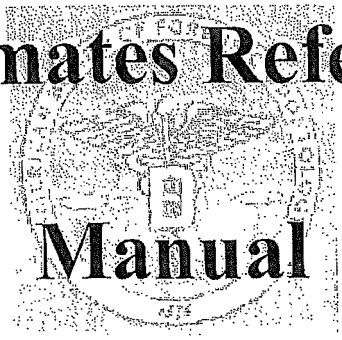
2. Terms used in a different manner from the recommended guidelines should be explained in the body of a report or in testimony.

3. All boarded forensic odontologists are responsible for being familiar with the standards set forth in this document.

2/2006

American Board of Forensic Odontology

Diplomates Reference Manual



August 2013 Edition

Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

Human Bitemark – Human Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: the injury pattern displays features that reflect the class and individual characteristics of human teeth.

Suggestive – The pattern is suggestive of a human bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as individual tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a human bitemark – Human teeth did not create the injury.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

The ABFO does not support a conclusion of "The Biter" in an open population case(s).

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

American Board of Forensic Odontology

Diplomates Reference Manual

March 2016 Edition

DEFENDANT'S EXHIBIT S

Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

A. ***Human Bitemark*** – human teeth created the pattern.

• *Criteria*: the pattern demonstrates class and/or individual characteristics of human teeth.

B. ***Not a Human Bitemark*** – human teeth did not create the pattern.

• *Criteria*: the pattern does not demonstrate class and/or individual characteristics of human teeth.

C. ***Inconclusive*** – there is insufficient information to reach an opinion whether or not the pattern is a bitemark.

• *Criteria:* class and/or individual characteristics of human teeth are missing, incomplete, distorted, or otherwise insufficient in the pattern.

Terms Used to Relate a Questioned Dentition to a Bitemark:

A. *Excluded* as Having Made the Bitemark

• *Criteria:* the bitemark demonstrates class and/or individual characteristics that could not have been created by the dentition in question.

B. *Not Excluded* as Having Made the Bitemark

• *Criteria:* the bitemark demonstrates class and/or individual characteristics that could have been created by the dentition in question.

C. Inconclusive

• *Criteria:* although the analyst has concluded the pattern is a human bitemark, there is missing, incomplete, or otherwise insufficient information to form an opinion whether or not the dentition in question caused the bitemark.

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

IN THE COURT OF COMMON PLEAS

TRUMBULL COUNTY, OHIO

STATE OF OHIO,	)	**CASE NO. 85-CR-317**
	)	
Plaintiff/Respondent,	)	**CAPITAL CASE**
	)	
vs.	)	
	)	
DANNY LEE HILL,	)	
	)	
Defendant/Petitioner.	)	

KAREN INFANTE ALLEN
CLERK OF COURTS
TRUMBULL COUNTY
2014 NOV 14 PM 4:06
TRUMBULL COUNTY
CLERK OF COURTS

PETITIONER'S REQUEST FOR LEAVE TO FILE A MOTION FOR NEW TRIAL PURSUANT TO OHIO CRIMINAL RULE 33(B)

Petitioner, Danny Lee Hill, through undersigned counsel, requests leave to file a motion for new trial pursuant to Ohio Criminal Rule 33(B). The proposed Motion for New Trial is attached as Exhibit 10. Mr. Hill has discovered new evidence that was not available to him within 120 days of the trial verdict. The new evidence materially affects Mr. Hill's substantial right to a fair trial as guaranteed by the Due Process Clause of the Fourteenth Amendment. *See Kyles v. Whitley*, 514 U.S. 419 (1995); *Chambers v. Mississippi*, 410 U.S. 284 (1973).

At trial, the state adduced evidence that there was a bite mark on the victim's penis that matched Mr. Hill's dental impressions. The prosecution offered the testimony of Dr. Curtis Mertz, who claimed that based on a comparison between the marks left on the victim and the dental impressions taken of Mr. Hill, he could conclude with a reasonable degree of scientific certainty both that the marks were indeed a human bite mark, and that Mr. Hill was the individual who bit the victim's penis. Although defense counsel called a rebuttal expert, Dr. Lowell Levine, that

expert merely testified that either Mr. Hill or the co-defendant, Timothy Combs, could have inflicted the injury and did not discredit Dr. Mertz's testimony.

The state utilized this vile testimony throughout the trial to vilify Mr. Hill and persuade the judicial panel so that it would convict him and sentence him to death. The prosecutor used it to inflame the fact-finders' passions ("he destroyed and devoured a little boy") (Trial Tr., Vol. IV, at 1170)[1], to identify Mr. Hill as the assailant to the exclusion of all others, and to secure a death sentence. The prosecution relied heavily on the bite mark evidence. Thus, any new evidence discrediting Dr. Mertz's conclusions would wholly undermine any confidence a court could have in the outcome of Mr. Hill's trial.

New scientific guidelines both generally and as applied to Mr. Hill's case do just that. Recently, the National Academies of Sciences released a report determining that bite mark evidence is unreliable and cannot be validated scientifically. In August 2013, the American Board of Forensic Odontology (ABFO), the organization responsible for accrediting and establishing standards for bite mark analysts, stated for the first time, in its *Reference Manual*, that open-population identification is no longer sanctioned.

Based on these new guidelines and other media that reported it, Mr. Hill's habeas counsel, Vicki Werneke, requested that another forensic odontologist review the bite mark evidence proffered at Mr. Hill's trial. After a review of this evidence, Dr. Franklin Wright determined that the bite mark identification testimony in Mr. Hill's trial was completely unreliable.

More importantly, Dr. Wright worked closely with Dr. Mertz after Mr. Hill's trial. He avers that Dr. Mertz regretted his testimony at the Hill trial and believes he testified in that manner out of sympathy for the victim and possibly pressure from the prosecution and the community.

[1] The trial transcripts are on file with the Trumbull County Court Clerk and available for the Court's review.

(See Report of Dr. Franklin Wright, attached as Exhibit 1). These new scientific developments and Dr. Mertz's own assessment of his trial testimony could not have been produced within 120 day of Mr. Hill's trial. The court should grant Mr. Hill's Request for Leave to File a Motion for a New Trial pursuant to Ohio Criminal Rule 33(B). A Memorandum in Support of this Motion is attached hereto.

Respectfully Submitted,

Sarah Kostick

SARAH R. KOSTICK (0086925)
2925 E. Mabel Street
Tucson, Arizona 85716
(510) 701-2017

Counsel for Defendant/Petitioner
Danny Lee Hill

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **PETITIONER'S REQUEST FOR LEAVE TO FILE A MOTION FOR NEW TRIAL PURSUANT TO OHIO CRIMINAL RULE 33(B)** was hand delivered to the Trumbull County Prosecutor's Office and to the Honorable Andrew D. Logan on this 14th day of November, 2014.

Vicki Denneke for

SARAH R. KOSTICK
(510) 701-2017

MEMORANDUM IN SUPPORT OF PETITIONER'S REQUEST FOR LEAVE TO FILE A MOTION FOR NEW TRIAL

Under Ohio Criminal Rule 33(B), Petitioner, Danny Lee Hill, seeks leave of this Court to file a motion for new trial based on newly discovered evidence that could not have been discovered within 120 days of the trial verdict.

I. STATEMENT OF THE CASE

On Tuesday, September 10, 1985, 12-year-old, Raymond Fife was brutally attacked and left in a field. His parents had reported him missing a few hours before he was found. The child was found by his father. He died two days later.

Mr. Hill gave several statements to the police over the next several days regarding the case. On one occasion, he traveled to the police department voluntarily; on two other occasions he was transported by members of the Warren Police Department. After hours of interrogation spanning several days, Mr. Hill gave a taped statement and a videotaped statement.

On September 17, 1985, the State charged Petitioner Hill with Aggravated Murder in violation of Ohio Rev. Code § 2903.01(B); Kidnapping in violation of Ohio Rev. Code § 2905.01(A); Rape in violation of Ohio Rev. Code § 2907.02(A)(1)(3); and Felonious Sexual Penetration in violation of Ohio Rev. Code § 2907.12(A)(1)(3). On September 23, 1985, Mr. Hill was indicted capitally on the aggravated murder charge with the aggravating circumstances of kidnapping, rape, aggravated arson and aggravated robbery. Ohio Rev. Code § 2929.04(A)(7).

Following several Motion hearings, Mr. Hill waived his right to a jury trial on January 7, 1986. Trial commenced January 21, 1986, before a three judge panel. The three judge panel found Mr. Hill guilty of all charges except aggravated robbery. The mitigation hearing began on February 26, 1986. The panel sentenced Mr. Hill to death and issued a written opinion as to the

basis for the sentence, which it entered on March 5, 1986. The convictions and sentences were affirmed on direct appeal. *State v. Hill*, 11th Dist. Nos. 3720, 3745, 1989 WL 142761 (Nov. 27 1989); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (1992).

Mr. Hill thereafter filed a Petition to Vacate or Set Aside Judgment and/or Sentence Pursuant to Ohio Revised Code Section 2953.21 with this Court. Although Mr. Hill requested discovery, the Court issued its opinion denying the decision without an evidentiary hearing or discovery. Mr. Hill appealed to the Eleventh District Court of Appeals, which affirmed this Court's decision. *State v. Hill*, 11th Dist. No. 94-T-5116, 1995 WL 418683 (June 16, 1995). The Ohio Supreme Court declined to accept jurisdiction to review. *State v. Hill*, 74 Ohio St. 3d 1456, 656 N.E.2d 951 (1995). No application for re-opening the direct appeal pursuant to Ohio Rule of Appellate Procedure 26(B) was filed on Mr. Hill's behalf.

On December 2, 1996, Mr. Hill filed a Petition for a Writ of Habeas Corpus pursuant to 28 U.S.C. § 2254 in federal district court. The district court denied the petition on September 29, 1999. An appeal to the Sixth Circuit Court of Appeals thereafter commenced. In *Hill v. Anderson*, 300 F.3d 679 (6th Cir. 2002), the Court of Appeals issued an order finding the claim regarding whether Mr. Hill's death sentence violated the Eighth Amendment because he is mentally retarded was unexhausted. In light of the Supreme Court's recent ruling in *Atkins v. Virginia*, 536 U.S. 304 (2002), the Sixth Circuit deemed it appropriate and necessary for Mr. Hill to exhaust the issue in state court.

On November 27, 2002, Mr. Hill filed an initial *Atkins* claim in the Trumbull County Court of Common Pleas. A hearing was conducted in October 2004, with rebuttal testimony presented in March 2005. Judge Curran, the visiting judge presiding over the *Atkins* hearing, denied the post-conviction petition on February 15, 2006. An appeal was perfected to the Eleventh District

Court of Appeals, which affirmed the denial on July 11, 2008, with one judge dissenting. *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509 (11th Dist.). The Ohio Supreme Court declined to accept jurisdiction on August 26, 2009, with two justices dissenting. *State v. Hill*, 122 Ohio St. 3d 1502, 2009-Ohio-4233, 912 N.E.2d 107. Mr. Hill thereafter filed an Amended Petition in the district court regarding his exhausted *Atkins* claim. The petition was denied June 25, 2014, and is currently on appeal to the Sixth Circuit Court of Appeals. *Hill v. Anderson*, Case No. 99-4317/14-3718 (6th Circuit).

Mr. Hill now requests leave from this Court under Criminal Rule 33(B) to file a motion for new trial under Criminal Rule 33(A)(6) based on new evidence discovered more than 120 days after the verdict.

II. STANDARD OF REVIEW

This Court has jurisdiction to review Mr. Hill's motion for new trial. *See State v. Davis*, 131 Ohio St. 3d 1, 2011-Ohio-5028, 959 N.E.2d 516, ¶ 1. Under Criminal Rule 33(A)(6), a motion for new trial may be based on newly discovered evidence when such evidence is "material to the defense ...[and] which the defendant could not with reasonable diligence have discovered and produced at trial." Under Criminal Rule 33(B), a motion for new trial based on newly discovered evidence must be filed within 120 days of the verdict, unless "it is made to appear by clear and convincing evidence proof that the defendant was unavoidably prevented from the discovery of the evidence upon which he must rely." A new trial motion must be filed within seven days of an order from the trial court finding that the defendant "was unavoidably prevented from discovering the evidence within the one hundred twenty day period." *Id.*

> "A party is unavoidably prevented from filing a motion for new trial if the party had no knowledge of the evidence of the ground supporting the motion for a new trial

> and could not have learned of that ground within the time prescribed for filing the motion for new trial in the exercise of reasonable diligence."

State v. Noling, 11th Dist. No. 2011–P–0018, 2014-Ohio1339, ¶ 26 (quoting *State v. Walden*, 19 Ohio App. 3d 141, 145-146 (10th Dist. 1984). In *State v. Noling*, the Eleventh District Court of Appeals found the defendant had met the clear and convincing burden under Criminal Rule 33(B) and remanded for further proceedings.

III. FACTUAL BACKGROUND

A. The Prosecutor Referred to Bite Mark Evidence On Numerous Occasions in Opening and Closing Statements

Prosecutor Watkins referred extensively to the bite mark evidence against Mr. Hill in both his opening statement and closing argument. In his opening statement, Prosecutor Watkins laid out a time line of the events regarding the analysis of the bite marks. He then emphasized the paramount importance of this evidence in his closing argument.

In his opening statement, Prosecutor Watkins explained that the coroner, Dr. Adelman, first noticed the marks on the victim's penis during the autopsy and Dr. Adelman thought they could be human bite marks. Trial Tr., Vol. 1, p. 30. Prosecutor Watkins admitted that Dr. Adelman was not an odontologist, and therefore not an expert in the field. *Id.* Dr. Adelman then contacted Dr. Mertz, a forensic odontologist, to examine the alleged bite marks further. *Id.* Dr. Mertz examined the corpse, requested dental impressions of the suspects, and eventually determined that the bite marks on the victim's penis had to have come from Danny Hill, who must have therefore raped the victim by way of fellatio. *Id.* at 31. In the context of this sequence of events, it is important to note that Dr. Adelman is the person who first identified the marks as bite marks, even though he was not an expert. When the coroner contacted Dr. Mertz and told him about the marks, Dr. Mertz was pre-disposed to believe the marks were bite marks, even though Dr. Adelman did

not necessarily have the background to make such a determination. In regard to Prosecutor Watkins's description of these events, he noted early on his opening statement that teeth leave the same kind of identifying characteristics as fingerprints. *Id.* This statement was misleading because although the government did not have any fingerprint evidence against Danny Hill in this case, Prosecutor Watkins tried to imply that by having a potential bite mark, it was as probative as if Danny Hill's fingerprints had been found on the body.

In his closing argument, Prosecutor Watkins mentioned multiple times how important the bite mark evidence was and concluded his argument by relying on the expert testimony from both Dr. Mertz and Dr. Levine. Prosecutor Watkins began his argument by specifically noting Danny Hill's confession, but then indicated that "more importantly, the other evidence proves beyond question that this defendant was a principal in the offense." Trial Tr., Vol. 4, p. 1166. Danny Hill's confession and the physical bite marks were the two most important pieces of evidence in the case, but Prosecutor Watkins specifically stated in the beginning of his closing argument that the "other evidence," which included the bite mark, was more important than the confession.

Throughout his story of the case, Prosecutor Watkins made references to the bite mark. *Id.* at p. 1167 ("Wherein he destroyed and devoured a little boy."); *id.* at p. 1170 ("So, we use circumstantial evidence, which alone, if shown to exclude a reasonable hypothesis of innocence, is sufficient to convict."). Prosecutor Watkins concluded by discussing the bite mark evidence and the testimony from both Dr. Mertz and Dr. Levine. Once again, he stated that the odontology evidence was "important evidence" and "especially significant." *Id.* at p. 1199. He emphasized the fact that both experts implicated Danny Hill in at least one of the bites and that Danny Hill's broken tooth was the "best evidence because that's what Doctor Mertz says is a trademark and blueprint that we can follow in the pattern of injury on that little boy's private." *Id.* at p. 1200. Not

only did Prosecutor Watkins conclude with what he believed to be his strongest piece of evidence, but he also came full circle by referring to the bite mark as a blueprint, much like the reference in his opening statement to the bite mark being like a fingerprint. Clearly, defense counsel recognized how much the prosecution relied on the bite mark evidence, because he spent a significant portion of his closing argument attempting to explain the "battle of the experts." *Id.* at pp. 1240-45. In response to defense counsel's explanation of the experts, Prosecutor Watkins once again referenced the bite mark evidence in rebuttal, and highlighted the fact that Dr. Mertz had the opportunity to examine the victim's body in person, unlike Dr. Levine, who only looked at photographs. *Id.* at p. 1266. Based on the explicit references to the importance of the bite mark evidence, as well as its placement as the final piece of evidence in Prosecutor Watkins's closing argument, the bite marks clearly represented the government's key evidence of guilt.

B. The Prosecution Questioned Both Expert and Lay Witnesses Extensively Regarding the Bite Mark Evidence During Trial

Five different non-expert witnesses testified regarding the bite mark evidence throughout the trial. Therefore, in addition to using an expert forensic odontologist to connect Danny Hill to the crime, Prosecutor Watkins also had lay witnesses describe, explain, and validate the bite mark findings. For example, Detective Teeple's testimony described what Dr. Walton, the dentist, did when he took dental impressions of Danny Hill and Timothy Combs, as well as how the evidence was protected. Trial Tr., Vol. 1, p. 149. Sergeant Stewart's testimony referenced the search warrants used for the dental impressions. Trial Tr., Vol. 2, p. 546. Dr. Walton's testimony discussed his process and the distinctions in Danny Hill's teeth, but also noted that such distinctions are common. Trial Tr., Vol. 3, p. 827-841. Although Dr. Walton's testimony did not specifically address the bite marks on the penis, the extensive questioning and testimony helped

prove that Dr. Walton's methods were legitimate. Like the coroner, Dr. Sudimak described the penile wounds as bite marks on the penis. *Id.* at p. 173.[2] The coroner, Dr. Adelman, stated he discovered contusions and abrasions around the penis and that the abrasions "appeared" to be bite marks. Trial Tr., Vol. 2, p. 363. Dr. Adelman continued to use "contusion" and "abrasion" interchangeably throughout his testimony, indicating that the marks varied in their extent of injury.[3] Finally, like in Prosecutor Watkins's opening statement, Dr. Adelman explained that, "[A] bitemark can be as specific as a fingerprint." *Id.* at p. 364. Not only was this statement misleading, because in fact the government did not have any evidence of Danny Hill's fingerprints, but it was improper coming from someone who is not a forensic odontologist, and, therefore, not an expert.

After questioning an array of witnesses who referenced the bite mark evidence, Prosecutor Watkins presented his main expert witness, Dr. Mertz, a forensic odontologist. Dr. Mertz's testimony is hundreds of pages long and goes into significant detail regarding his examination and determination that the bite marks came from Danny Hill. Dr. Mertz, like Prosecutor Watkins and Dr. Adelman, analogized a bite mark to a fingerprint. Trial Tr., Vol. 3, p. 912. Although this comment was slightly more legitimate coming from an expert, it was still misleading based on the fact that the government did not possess any fingerprint evidence against Danny Hill. Although Dr. Mertz admitted in the beginning of his testimony that bite mark evidence usually is not strong enough to make a solid determination, in this case he ended up testifying "with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and the photographs that I had,

[2] Although bite marks on the penis were not an independent cause of the victim's death, they were the only injury physically linked to Danny Hill.

[3] Contusion: "an injury that usually does not break the skin, bruise; abrasion: an injury caused by something that rubs or scrapes the skin, irritation." Merriam Webster Dictionary (online).

made the bite on Fife's penis." *Id.* at pp. 915, 937. Despite his "reasonable degree of medical certainty," Dr. Mertz later cited an attenuated study of 18 year old male erections in order to explain why his measurements between the marks and impressions were off. *Id.* at p. 956. The judges began asking many questions about Dr. Mertz's analysis. *Id.* at p. 942. These questions continued throughout Dr. Mertz's testimony, the only portion of the trial where the judges were so actively vocal.

Unfortunately, the defense's expert witness, Dr. Levine, did not do much to discredit Dr. Mertz's testimony. In fact, as described above, the Prosecutor Watkins was able to rely on both Dr. Mertz's and Dr. Levine's testimony in his closing argument. Although Dr. Levine testified on direct that he could not come to a conclusion with a reasonable degree of certainty, he admitted that the marks could have been made by both suspects, and that one mark in particular was likely made by Danny Hill. Trial Tr., Vol. 4, pp. 1145-46, 1153. Prosecutor Watkins was able to bolster his own argument by again getting Dr, Levine to admit that Danny Hill likely made one of the bite marks, "to the exclusion of Timmy Combs." *Id.* at p. 1158.

IV. NEWLY DISCOVERED EVIDENCE

On March 30, 2014, Dr. Wright submitted his report to Mr. Hill's current habeas counsel, Vicki Werneke. Based upon his review of the photographs, as well as the current guidelines of the American Board of Forensic Odontology ("ABFO"), Dr. Wright determined that the marks on Raymond Fife's penis were not those of a human bite. Dr. Wright noted, as the defense raised at trial, that without knowing the state of the penis during the attack, i.e., whether it was flaccid or erect, it is impossible to make any conclusion about the mark or its origin. He reported:

> For purposes of analyzing the injuries as possible human bitemarks, this unknown information creates a huge problem as the size, shape and appearance of the injuries would be significantly affected by the state of erection (or not) of the penis. It is

> nothing more than a blind guess to try to say one way or the other with virtually no physical proof to support either position. Lacking this information, there is no supportable bitemark analytical scientific methodology that would allow comparison of any suspected biter to the injuries that were present on the penis.

(Exhibit 1 at p. 4).

Significantly, Dr. Wright also was acquainted with Dr. Mertz, and he recalls that Dr. Mertz later regretted the testimony he provided at trial. He provides:

> Note: Dr. Mertz, who passed away in 2005, was my mentor and a great teacher and scholar in forensic odontology. He showed me this case when I was preparing to take my ABFO certification examination. This was sometime around the late summer or early fall of 1988. We again discussed this case probably later in the 1990's. In both of those conversations, Dr. Mertz confided to me that he would not have had the same opinion in this case (biter identification) as he had in his original opinion and testimony. He indicated he was not as sure the injury was a definite bite mark nor was he so sure, if the injury was a bite mark, that he could identify a biter.

(*Id.* at 5). Upon receiving this report, Ms. Werneke acted swiftly.

V. DUE DILIGENCE

On March 31, 2014, Ms. Werneke filed with the Sixth Circuit Court of Appeals a request for authorization to litigate this motion in state court under seal. Attached to the motion was a declaration from Dennis Terez, the Federal Public Defender for the Northern District of Ohio, and Dr. Wright's report. (See Case No. 99-4317/14-3718 (6th Circuit), Doc. 264-1, Request for Authorization, attached as Exhibit 2). Per Mr. Terez's declaration, (Case No. 99-4317/14-3718, Doc 264-2, attached as Exhibit 3), Ms. Werneke had to obtain authorization from the federal court before she could initiate any litigation in state court. On April 18, 2014, the Sixth Circuit remanded the motion to the federal district court for consideration because there was an amended habeas petition was pending. (See Case No. 99-4317/14-3718, Doc. 277, attached as Exhibit 4).

On April 21, 2014, Ms. Werneke filed the motion for authorization to litigate in state court with the federal district court. (Case No. 4:96-CV-795 (U.S. Dist. Court, Northern Dist. of Ohio),

ECF 156, attached as Exhibit 5). The district court denied the motion on May 15, 2014. (Case No. 4:96-CV-795, ECF 159, attached as Exhibit 6). Ms. Werneke filed a motion to reconsider on May 23, 2014. (Case No. 4:96-CV-795, ECF 160, attached as Exhibit 7). On June 25, 2014, the district court denied the motion to reconsider. (Case No. 4:96-CV-795, ECF 163, attached as Exhibit 8). The same day, the district court denied the amended habeas petition that had been pending. (Case No. 4:96-CV-795, ECF 165, attached as Exhibit 9).

Soon after the denial of the motion to reconsider, Ms. Werneke contacted undersigned counsel. Counsel was an extern with the Capital Habeas Unit while a law student at Case Western Reserve University School of Law. Counsel has been licensed to practice law in Ohio since 2010, but moved to Arizona a year ago; she maintains an active law license in Ohio. Counsel agreed to assist Mr. Hill with this request for leave to file a motion for new trial. Since that time, counsel has been reviewing Mr. Hill's case. Counsel is filing this request for leave to file a motion for new trial with the numerous attachments as soon as possible.

VI. THE COURT SHOULD GRANT MR. HILL LEAVE TO FILE A NEW TRIAL MOTION.

Mr. Hill could not have learned of this new evidence any sooner. The ABFO changed its guidelines in 2013 regarding the use and efficacy of both identifying a mark on a victim's body as a human bite mark and the ability to identify (or exclude) particular suspects as the biter.

Mr. Hill acted diligently in seeking an expert based on the new guidelines. Prior counsel for Mr. Hill could never have suspected that Dr. Wright possessed direct information about Dr. Mertz and this specific case. Dr. Wright's report unequivocally states that, based on the ABFO guidelines, the marks left on the victim's penis were not caused by a human bite. As soon as habeas

counsel did learn of this new evidence, Ms. Werneke made reasonable and diligent efforts to bring this action to this court.

VII. CONCLUSION

Mr. Hill has demonstrated by sufficient evidence that he was unable to file previously this motion for new trial. The court should grant the request for leave to file the Motion for New Trial and allow that proceeding to continue in due course.

Respectfully Submitted,

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March 30, 2014

Vicki Werneke
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RE: State of Ohio v. Danny Lee Hill, Case No. 85-CR-317, Trumbull County Court of Common Pleas
Report of Bitemark Analysis and Comparison

Dear Ms. Werneke,

You have asked me to review the bitemark evidence in the above cited case. I have been provided with bitemark case opinions and testimony from Drs. Curtis Mertz and Lowell Levine, as well as copies of the evidence associated with the case labeled "File 1 of 4"; "File 2 of 4"; "File 3a of 4"; "File 3b of 4"; "File 4 of 4" and twenty two black and white images which include a suspect's dentition and patterned injuries on a penis. This is a report of my findings.

The Evidence:

Fourteen images of the twenty images provided to me document patterned injuries on the penis of the homicide victim. I have reviewed all of these images in great detail.

It is my opinion that the patterned injuries on the penis of this homicide victim do not represent a human bitemark. In a given case with patterned injuries suspected of being a possible bitemark, the first step is to determine if the patterned injury is a human bitemark. The American Board of Forensic Odontology (ABFO) Bitemark Terminology Guidelines[1] present three choices:

-the injury is a *human bitemark*
-the injury is *suggestive of a human bitemark*
-the injury *is not a bitemark*

Human Bitemark:

If a patterned injury is determined to represent a human bitemark, the ABFO Bitemark Terminology Guidelines state that further analysis of the bitemark and a possible comparison of suspected biter(s) dentitions is possible. The ABFO Bitemark Terminology Guidelines state that the association between the biter(s) dentition and the bitemark may be expressed in the following:

-biter
-probably biter
-not excluded as the biter
-inconclusive
-excluded

Suggestive of a Human Bitemark:

If a patterned injury is suggestive of a human bitemark, an analysis can be done to determine discernible features of the bitemark but biter identity is not sanctioned.

Not a Human Bitemark:

A patterned injury determined not to be a human bitemark is neither analyzed nor compared to a population of suspected biters.

Human Bitemark

The ABFO defines the presence, characteristics and appearance of a human bitemark:

Bitemark Definitions

Bitemark:

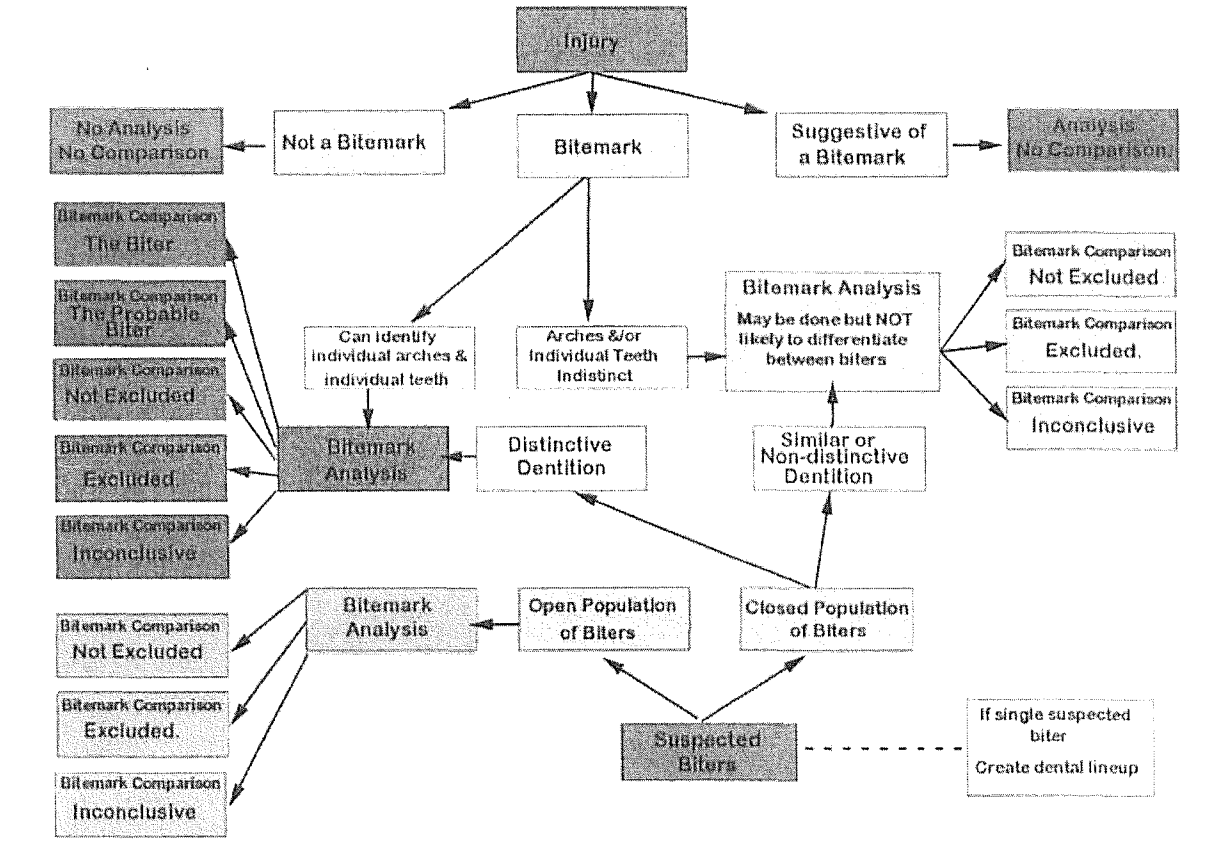
- A physical alteration in a medium caused by the contact of teeth.
- A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark
A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.[1]

When applying the ABFO definition of the expected appearance of a human bitemark in human skin to the patterned injuries on the penis in this case, the patterned injuries in this case do ***not*** meet the definition of representing a human bitemark.

The ABFO Bitemark Flowchart[1] (Decision Tree)

The ABFO advocates the use of the flowchart shown below. This flowchart demonstrates the methodology that should be incorporated when working a bitemark case. The flowchart is based on the ABFO Bitemark Terminology Guidelines and acts to guide the bitemark examiner investigating the case to its proper conclusion.



On the top aspect of the flowchart, the patterned injury is analyzed to determine if it represents a human bitemark. There are three choices in the gray boxes. If the injury is determined to represent a human bitemark, the pathways allow for analysis and possible comparison to a biter or biters. Assuming the patterned injury is "suggestive of a bitemark", biter identity is not sanctioned as a possible conclusion to any suspected biters. If the patterned injury is "not a bitemark" neither analysis nor comparison to any suspected biter is sanctioned.

Using the ABFO Bitemark Terminology Guidelines and ABFO Bitemark Decision Tree to define the characteristics of a bitemark, it is clear that not only doesn't this injury represent a human bitemark but biter identity is not a possibility. When a patterned injury is defined by the ABFO Bitemark Terminology Guidelines as not representing a human bitemark, analysis and comparison to any suspected biter is not sanctioned.

In 1985, the ABFO Bitemark Flowchart did not exist. Also, the first version of the ABFO Bitemark Terminology Guidelines had just been established (1984 ABFO Bitemark Workshop). While these early iterations of the guidelines did not include the contemporary terminology used today, one of the early terms defining a patterned injury as a possible bitemark was the term "irregular shape". Those

guidelines then went on to state that the examiner will at some time describe the characteristics of the injury that support calling it a bitemark. The patterned injury on the penis of the victim in this case did not meet the criteria of representing a human bitemark in 1985 nor does it today.

Patterned Injuries on the Penis in this case:

The presence of the injuries on the penis in this case provide significant problems in trying to interpret the injuries and attempt to analyze them as being possible human bitemarks. The most significant of these, as was pointed out at trial, was the disposition of the penis as far as being erect or flaccid when the injuries occurred. This attack was not witnessed by anyone other than the perpetrator and therefore no one outside of the perpetrator will ever know for sure which state the penis was in. For purposes of analyzing the injuries as possible human bitemarks, this unknown information creates a huge problem as the size, shape and appearance of the injuries would be significantly affected by the state of erection (or not) of the penis. It is nothing more than a blind guess to try to say one way or the other with virtually no physical proof to support either position. Lacking this information, there is no supportable bitemark analytical scientific methodology that would allow comparison of any suspected biter to the injuries that were present on the penis.

Dr. Lowell Levine's Opinion Letter and Testimony Summary:

In both his opinion letter and in his testimony, Dr. Levine opines that he feels the injuries on the penis of the victim represent a bitemark. He further stated that either suspected biter he examined in this case could have been the biter, with Mr. Hill's dentition perhaps matching better. Logically, a single bitemark could not have been inflicted by two individuals. In effect, he negates his opinion of demonstrating any linking of either suspected biters' teeth to the patterned injuries on the penis. What his opinion really meant was either the patterned injuries had no specificity such that either of the two suspected biters could have been the biter (and perhaps a few million other people's teeth as well) or that the biters' dentitions were nearly identical such that either of them biting human skin would leave a pattern that would be indiscernible when comparing those potential biters.

November 19, 1985

Dear Mister Watkins,

Re: Ohio ys.Dqnny Lee.Hill & Timothy P.. Combs

I have examined numerous photographs and dental casts of the above.
It is my opinion:
1. The patterned injury on the penis of the homicide victim was caused by human teeth.
2. I cannot interpret sufficient characteristics to determine with scientific certainty whether one or both defendants caused injury pattern.
3. It is likely that one portion of the patterned injury was caused by Hall.[2]

In this case, the injury patterns on the penis do not raise to the level of meeting the ABFO definition of a human bitemark so any attempt at comparison to any suspected biters' teeth has no meaning. If Dr. Levine did feel the injuries represented a human bitemark, the absolute fact is that only one person

could have been the biter yet his opinion found that either of the two suspected biters in this case could have been the biter.

Dr. Curtis Mertz's Opinion Letter and Testimony Summary:

(Note: Dr. Mertz, who passed away in 2005, was my mentor and a great teacher and scholar in forensic odontology. He showed me this case when I was preparing to take my ABFO certification examination. This was sometime around the late summer or early fall of 1988. We again discussed this case probably later in the 1990's. In both of those conversations, Dr. Mertz confided to me that he would not have had the same opinion in this case (biter identification) as he had in his original opinion and testimony. He indicated he was not as sure the injury was a definite bitemark nor was he so sure, if the injury was a bitemark, that he could identify a biter.)

Dr. Mertz opined in his letter to Prosecutor Watkins and testified that he could associate the injury patterns on the penis of the victim as human bitemarks created by the teeth of Danny Lee Hill.

"... That, a reasonable degree of Medical-Dental probability, bite marks found on the penis of Raymond Fife match those of the models of the teeth of Danny Lee Hill.

Curtis A. Mertz, Diplomate, American Board of Forensic Odontology
CAM/im "[3]

Dr. Mertz testifies that

"... the bite to be one-third less, the space between the teeth; the diastema, the fractured tooth, the alignment of the teeth, or arch form, were all consistent with the bite. But I was not there. I have no idea of the size of the penis at the time of the bite. "[4]
further testimony,

"That the probability that the penis was in an erected state at the time was the explanation of why the consistent smaller size tooth marks when they're accurately measured, or as accurately as I can measure them."[5]

These represent contradictory statements. If Dr. Mertz had no idea of the size of the penis at the time of the bite, he cannot make any statement about measurements attempting to relate the injuries on the penis and biter's teeth. He was guessing, which is not a scientific method.

Dr. Mertz then testifies:

"I feel that under most circumstances, that the penis would be less than an ideal bite place to have a bite mark."[6]

This portion of the testimony states that the penis is not an ideal place to analyze a bitemark and then goes on further to say he didn't consider the patterns left by what he felt were the lower teeth.

Dr. Mertz in his opinion letter dated November 4, 1985[3] states that Mr. Hill's teeth match the patterned injuries on the victim's penis to a reasonable degree of medical-dental certainty. Yet, in his testimony, he states that he doesn't know if the penis was flaccid or erect, he guesses that it may have been erect (but cannot support that conclusion scientifically), that he used measurements made on the flaccid penis and extrapolated those measurements creating a mathematical model to support his conclusions (predictive outcome bias and conformational bias), that the penis is not a good place to do bitemark analysis and finally he chose only to describe those aspects of the injury he felt he could link between the biter's teeth and the patterns while ignoring other aspects of the same injury that he could not explain.

Opinion:

It is my opinion, to a reasonable degree of medical/dental certainty, that the patterned injury on the penis of the victim is not a human bitemark. It does not meet the definition of an injury being caused by human teeth. Further, based on my opinion that the patterned injury is not a bitemark, neither analysis nor comparison is done. Biter identity in not sanctioned. Dr. Mertz erred in his opinion in conclusively defining the patterned injury on the penis of the victim as having the characteristics of human bitemark and, remarkably, identifying the biter.

Conclusion:

I do not believe the patterned injury on the penis of the victim represents a human bitemark. If this evidence was considered by the jury or judge presiding over this case in leading to the conviction of the defendant, the case should be reconsidered without this evidence. There is no scientifically supportable conclusion that could, in any way, attempt to identify a possible biter based on the injury on the penis of the victim. The conclusions of the bitemark analysis and comparison reached by Dr. Mertz are not supported by the scientific methodology used in 1985 nor today.

Cordially,

Franklin D. Wright, DMD, D-ABFO

Franklin D. Wright, DMD, D-ABFO

I have been an American Board of Forensic Odontology(ABFO) board certified practicing forensic dentist since 1989 and have investigated, consulted on and reviewed hundreds of bitemark cases. My research interests lie in bitemark evidence collection, analysis and comparison, where I have been published in numerous textbooks, journals and other forensic and dental publications. I am a past president of the ABFO and have served on the ABFO Board of Directors, chaired numerous ABFO committees and currently chair the ABFO Bitemark Proficiency Examination Development Committee. I have been the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office since 1986. It has been my honor to have presented lectures and workshops in forensic odontology throughout the United States, Europe and Central and South America. On January 12, 2011, I delivered a presentation to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science on human bitemarks.

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PUBLICATIONS, LECTURES, AFFILIATIONS

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- Hamilton County Dental Mass Disaster Team, "Dentistry's Role in a Mass Disaster in Cincinnati", January 6, 1990

- "Dental Identification" -Cincinnati Dental Society, March 12, 1990

- "Forensic Dentistry" - Lima Dental Study Club, January 14, 1992

- "Forensic Dentistry"- All Ohio Dental Career Day, The Ohio State University
March 1992; April 1993

- "Distortional Correction in Bitemark Photography - an Unusual Case" &
"Problems and Solutions to the Formation of a Statewide Dental Disaster Team"
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- "Forensic Dentistry- A Look At Dentistry As You Have Never Seen It Before"
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"Forensic Dentistry, Pattern Injuries, Photography", 10/17/96, 9/9/97, 9/98; 9/99

- "Evidence Recovery with Dental Materials", FBI Evidence Recovery Team, Cincinnati Office, 10/18/96

- "Bitemark Evidence Recovery", Hamilton Co. Sexual Assault Team, 1991,1993, 1997

- "Computers in Dental Identification"; "Human Abuse"; "Bitemark Update: Computers, DNA and Digital Images" IX Congress de la Instituto de Medicina Legal y Ciencias Forenses, Bogotá, Colombia, S.A. Sept. 17-20, 1997

- George Furst Bitemark Seminar, AAFS meeting, 2/14/98 case presentation, San Francisco, CA

- "Forensic Dentistry: the basics and some nuggets for your office" Cincinnati Dental Society, 3/9/98

- "Forensic Evidence" keynote speaker, Domestic Violence Conference "Effective Investigation and Prosecution" workshop, Cincinnati, 4/2/98

- "Forensic Photography" California Attorney General's National Missing & Unidentified Persons Violent Crime Workshop, 7/21-7/25/98, Sacramento, California

- "Forensic Dentistry- It's All in How You Look at It!"
University of Kentucky- Commonwealth Continuing Dental Education
University of Kentucky, 8/28/98

- "Child Abuse" & "Forensic Dentistry" Division of Pediatric Dentistry, Children's Hospital Medical Center, Montgomery Inn, Cincinnati, Ohio 2/4/99

- 2nd George Furst Bitemark Seminar, AAFS Annual Meeting "Forensic Photography" and "Overlay Fabrication", Saturday, 2/20/1999, Orlando, FL

- "Forensic Dentistry" Northwest (Ohio) Dental Society, Lima, Ohio, 3/17/99

- "Forensic Photography" - Ohio State Coroners Association Annual Meeting Columbus, Ohio, 5/14/99

- "The ODA Mass Disaster Identification Team and Forensic Dentistry: an Introduction" Ohio Dental Association Annual Session, Columbus, Ohio, 9/23/99

- "Forensic Dentistry" T.I. Law Dental Study Club, Cincinnati, Ohio, 9/27/99

- 3rd George Furst Bitemark Seminar AAFS Annual Meeting Three part Course Review and Summary, Reno, NV, February 19,2000

- "Forensic Dentistry: Dental Identification Exercise and Bitemark Case Analysis" University of Kentucky College of Dentistry-Commonwealth Dental Continuing Education, Lexington, KY, 3/24/00

- "Forensic Dentistry: Bitemarks – Who did It?"
Ohio Dental Association Annual Session, Columbus, Ohio, 9/16/00

-" Human Abuse", teacher in-service: Lawrenceburg School System
Lawrenceburg, Indiana, January 10, 2001

-"The Trials and Tribulations of Bitemarks Analysis: Seeing What is Really There"
AAFS annual meeting Abstract presentation, Thursday February 22,2001
Seattle, Washington

-"Forensic Odontology 2001", Instituto de Medica Legal y Ciencias Forenses
June 3-9, 2001, Bogotá, Colombia, South América

- "Forensic Dental Identification Workshop" Annual Session, Ohio Dental Association, September 14, 2001 Columbus, Ohio

-Dental Identification Unit, Office of the Chief Medical Examiner, New York City, NY
World Trade Center Disaster (Dental Identification of WTC victims) 9/15-9/23/01; 12/5-12/10/01

-VI Jornada de Medican Legal, Ministerio Publico: Instituto de Medicina Legal
"Forensic Evaluation: Collection and Process of Identification at the Scene of the Crime"; "Identification by Human Bitemarks", "Identification by Forensic Dentistry", "DNA in Forensic Dentistry", Panama City, Republic of Panama, Central America
October 23-25, 2002

-"Forensic Dentistry: Crime Scene Incidents"
Northern Kentucky University Advanced Crime Scene Class
Friday 11/8/02 - Prof. Jill Shelley, Highland Heights, KY 41099

-"Forensic Dentistry", Cincinnati Dental Hygienists Association
Raymond Walters College, University of Cincinnati, 11/12/02, Cincinnati, Ohio

-"Advanced Forensic Photography" University of Texas, San Antonio
San Antonio, TX December 6-8, 2002, lecture & workshop; with Dr. Greg Golden, Upland, CA and Dr. James Lewis, Alabama

-ABFO Bitemark Workshop #5: Didactic Lecture: "ABFO Bitemark Terminology and Report Writing"; Moderator: oral presentations by candidates, AAFS Annual Meeting, Chicago, IL Sunday February 16, 2003

-"Dental Identification Workshop Using Computers", sponsored by the Ohio Dental Association at the Ohio State University College of Dentistry April 12, 2003 Columbus, Ohio

-"Mass Disaster Identification Workshop", Tennessee Dental Association Annual Meeting, Nashville, TN May 22, 2003

-"Introduction to Forensic Dentistry", Ohio Dental Association Annual Session, Columbus, Ohio September 13, 2003

"Ominous Signs of Abuse, including Bite Mark Analysis and Patterned Injuries", Ohio Sexual Assault Nurses Association/Forensic nurses, MedCentral Hospital, Mansfield, Ohio Nov. 5,2003

"Photography in documentation of bitemark and patterned injuries in child abuse and assault" Multi-disciplinary Child Abuse Team- Cincinnati Children's Hospital Medical Center, Mayerson Center for Child Abuse, Children's Hospital, Cincinnati, Ohio November 21, 2003

"Forensic Dentistry: A Look at Dentistry as You Have Never Seen It Before", Lorain County Dental Society, Holiday Inn, Ohio St. Rt. 57, Lorain, Ohio, January 21, 2004

"Forensic Dentistry" Northern Kentucky University Criminal Justice Seminar Farris Auditorium, NKU Campus 3/26/04

"Advanced Forensic Photography: Human Bitemarks: Detection, Photography and other Evidence Collection", NYU College of Dentistry/New York Society of Forensic Dentistry 345 E. 24th St. NY, NY 3/29/04

"Be Careful Who You Bite: An Introduction to Bitemark Analysis" Cincinnati Dental Society Scientific Meeting Monday 4/19/04 Gregory Conference Center Cincinnati, Ohio

"Forensic Dentistry: CSI" University of Kentucky College of Dentistry Continuing Education Network, Lexington, KY 12/3/04

"Forensic Dentistry: An Introduction for Dental Hygienists" Ohio Dental Hygiene Association Annual Meeting, Cincinnati, Ohio 1/22/05

"Forensic Dentistry: An Introduction" Ohio Dental Association Annual Session Saturday 9/17/05 Greater Columbus Convention Center Columbus, Ohio

"Forensic Dentistry CSI" North Central Hygiene Association October 7, 2005 Sandusky, Ohio

"Forensic Dentistry: A Look as Dentistry as You've Never Seen it Before Toledo Dental Society October 19, 2005 Toledo, Ohio

"Forensic Dentistry in Child Abuse: First Annual James Steiner Lecture Series Cincinnati Children's Hospital Medical Center, Oct. 31, 2005

"Photography in Forensic Dentistry to Document Bitemarks and Patterned Injuries Grand Rounds, Cincinnati Children's Hospital Medical Center November 1, 2005

"Photographic Documentation of Bitemarks and Patterned Injures in Child Abuse and Domestic Violence" Kentucky Association of Sexual Assault Programs annual Meeting Marriott Griffin Gate Resort, Lexington, KY 12/8/05

-"Patterned Injuries in Sexual Assault" Innovative Healthcare for Victims- Kentucky Association of Sexual Assault Programs; University of Kentucky Medical Center Lexington, KY 2/7/06

-"Forensic Dentistry CSI" Hocking Valley Dental Hygiene Association Lancaster, Ohio 2/06

-"Report Writing in Bitemark Analysis" American Board of Forensic Odontology Bitemark Workshop Seattle, Washington 2/19/06

-"Forensic Dentistry Introduction" and Ohio State Dental Board Update, Stark County

Dental Society, Akron, Ohio 4/4/06
-"Forensic Photography in the Documentation of Bitemarks and Other Patterned Injuries Pediatric Sexual Assault Nurse Examiners Annual Meeting, Columbus, Ohio Children's Hospital, Columbus 4/28/06
-"Introduction to Forensic Dentistry" part of forensic series in collegiate course titled "Introduction to Forensic Science", University of Cincinnati, Professor Gideon Labiner, 5/3/06; also 5/2009
-"Mass Disaster Training and Preparation" National Mass Fatalities Institute Seminar sponsored by the Hamilton County Coroner's Office, Cincinnati, OH Scarlet Oaks Joint Vocational School 5/25/06
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry University of Texas-San Antonio, San Antonio, TX 6/8- 6/10/06
-"Bitemarks" US Public Health Service Annual Session, Dental Category, Cincinnati, Ohio June 5, 2007
-"Forensic Odontology and the Coroner/Medical Examiner"; International Association of Coroners and Medical Examiners, millennium Hotel, Cincinnati, Ohio June 10, 2008
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry, University of Texas-San Antonio, San Antonio, TX 6/4-6/7/2008
-"Forensic Dentistry; CSI" Ohio Expanded Function Dental Auxiliaries, Columbus, Ohio; 6/27/2008
- "Effects of the National Academy of Science (NAS) Preliminary Report on the Practice of Forensic Odontology, American Academy of Forensic Science Annual Meeting, Denver, CO, 2/2009

-"Bitemark Workshop", Ohio Dental Association Forensic Dental Team; Annual Meeting of the Ohio Dental Association, Greater Columbus Convention Center, Columbus, Ohio, September, 2009

- "Forensic Dentistry" Santiago, Chile, South America, 10/3- 10/12/2009; Inaugural meeting of the Latin American Society of Forensic Dentistry, at the invitation of the Division of Medicina Legal, Attorney General's Office, Country of Chile

-"Summary of the Findings of the National Academy of Science" American Academy of Forensic Sciences Annual Meeting, Denver, Colorado 2/20/2009
-"Forensic Dentistry- Human Abuse and Dental-Legal Issues" Ohio Dental Hygienists Association Annual Meeting, 4/23/10, Mason, Ohio
-Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director 5/12/10 Cincinnati, Ohio
-"Introduction to Forensic Dentistry", Guest Lecturer, Advanced General Dentistry Program, Un. of Cincinnati, Dr. Jerome McMahon, Program Director
-Southwest Symposium on Forensic Dentistry, "Bitemark Analysis" and "Advanced Forensic Photography", Un of Texas- San Antonio, San Antonio, TX; June 9-12, 2010
-"The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology", International Organization of Forensic Odonto-Stomatology, Lueven, Belgium September 2010
-"Human Bitemarks, NAS Report and *Daubert"* Executive Office of the President of the United States National Science and Technology Council, Committee on

Science, Subcommittee on Forensic Science, Washington, DC; January 12,2011
-"Forensic Dentistry and the NAS Report: then and now, really?" American Society of Forensic Odontology Annual Meeting, Chicago, Ill February 22, 2011
-"Pitfalls of Bitemark Analysis: where does one end and the other begin?" American Academy of Forensic Sciences, Hyatt Regency Hotel, Chicago, Ill, February 24, 2011
-"Bitemark Management 2011" American Board of Forensic Odontology Bitemark Workshop, Hyatt Regency Hotel, Chicago, Ill February 25, 2011
-"Forensic Odonotology" Ohio Association of Pediatric Dentistry, Nationwide Children's Hospital, Columbus, Ohio March 4, 2011
-"Bitemark Analysis, Conclusions and Report Writing" American Society of Forensic Odontology Annual Meeting February 21, 2012 Atlanta, GA

-"Bitemark Analysis" University of Kentucky College of Dentistry- Senior Elective April, 2012, Lexington, KY
-"The Dental Record- Saving or Kicking your Butt", Cincinnati Dental Society May 7, 2012 Cincinnati, Ohio
- Introduction to Forensic Dentistry, University of Cincinnati, Advanced Dental Practice Residency May 10, 2012 Cincinnati, Ohio
-Southwest Symposium on Forensic Dentistry-Bitemark , University of Texas, San Antonio; San Antonio, TX June 6-9, 2012
-"The Use of Bitemark Evidence, Analysis and Comparison in Violent Crime; 43rd Annual Session of the American Society of Forensic Sciences, Feb. 19, 2013 Washington, DC
-"Bitemark Analysis: Foundation, lessons from the Past and the Paradigm Shift to the Present and the Future"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Does Bitemark Evidence Meet Modern Evidentiary Reliability Standards? A Subject Expert Panel Discussion"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Human Bitemark Analysis"; University of Kentucky, College of Dentistry; Lexington, KY 3/8/2013
-" Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director Cincinnati, Ohio 4/4/2013
-"Forensic Dentistry" University of Cincinnati, Advanced Dental Practice Residency May 9, 2013 Cincinnati, Ohio
-"Human Abuse in the Practice of Dentistry" Cincinnati Children's Hospital Medical Center Pediatric Residency Program, Montgomery Inn, Montgomery, Ohio October 8, 2013; Cincinnati, Ohio
-"Contemporary Forensic Dentistry: Bites, Burns, Slaps, Age and Dental Record- Where Modern Dentistry Meets the Law"; University of Kentucky College of Dentistry, October 25, 2013; Lexington, KY

Affiliations:

Diplomat, American Board of Forensic Odontology (1989-) (ABFO)
Member, American Society of Forensic Odontology (1986-) (ASFO)
Fellow, American Academy of Forensic Sciences (1992-) (AAFS)
Fellow, International College of Dentists (2000-2010)
Member, PANDA Coalition- Delta Dental of Ohio and the Ohio Dental Association (1994-) (PANDA =prevent abuse and neglect through dental

awareness)
National Dental Advisor, Parents of Murdered Children (1993-)
Hamilton Co. Coroner's Office, Forensic Dental Consultant (1986-)
Disaster Committee Member, Greater Cincinnati- Northern Kentucky International Airport, Dental Mass Disaster Team (1988-)
American Dental Association, Ohio Dental Association (ODA)
Cincinnati Dental Society (CDS) (1984-)
CDS Council Member (1997-2005) Delegate, ODA (1998-2005)
-Chairman, CDS Public Relations Committee (2004-08)
Forensic dental consulting provided in many states throughout the US, Central and South America, Europe

Offices Held:

Forensic Dental Consultant, Hamilton Co. Coroner's Office (1986-)
Chairman, Mass Disaster Identification Team, Ohio Dental Association (1990-1998)
Chairman, Forensic Dental Team, Ohio Dental Association (1998-2010)
Chief, Hamilton County, Ohio-Dental Disaster Team (1986-)
American Board of Forensic Odontology (ABFO):
- Board of Directors, A.B.F.O. (1994-1997) (1998-2001) (2004-2005)
-ABFO Bitemark Proficiency Examination Development Committee (2011-..)
-ABFO Ethics Committee (2013-2016)
-ABFO Immediate Past President (2011-2012)
-ABFO President (2010-2011)
-ABFO President-Elect (2009-2010)
-ABFO Vice President (2008-09)
-ABFO Secretary (2006-08)
-Member, ABFO Human Abuse, Bitemark and Mass Disaster Committees Certification and Examination Committee, Human Identification Committee, Executive Committee, Nominating Committee
-Chairman, ABFO Strategic Plan Committee (2003-2006)
-Cincinnati Center for Children's Dentistry, Board of Directors, Trustee (2006-)
Chairman, Cincinnati Dental Society Forensic Dental Team (2002-)
Chairman, Human Abuse Committee, A.B.F.O. (2000-2002)
Board of Governors- A.S.F.O. (1995- 1998)
Editorial Board, A.S.F.O. Newsletter (1999- 2006)
Odontology Section Program Chairman, A.A.F.S. (1997-1999)
Odontology Section Secretary, A.A.F.S. (1999-2001)
Odontology Section Chairman, A.A.F.S. (2001-2003)
AAFS: Local Arrangements, Cincinnati, 1990
Continuing Education Committee (1997-2003)
Nominating Committee (2000- 2002)
Ethics Committee (2000- 2002)
Council (1998-2002)
Journal of Forensic Sciences, Peer Review, scientific articles (2009-)

Ohio State Dental Board :
Term: 4/04 through 3/31/08
Committees: Policy Committee (2004 -08)
Laws & Rules Committee (2004 - 08)
Communication Committee (2004- 08)
Scope of Practice (2004- 08)

Recognized Meetings:

Symposium on Mass Disasters, A.D.A. Headquarters, Chicago, Illinois, March 1986
Airport Disaster Exercise, Greater Cincinnati International Airport
October 1988-December 1991, September 1993-September 1996
September 1997- present
American Academy of Forensic Sciences (AAFS)- Annual Meeting
Cincinnati, Ohio – February 1990
Anaheim, California – February 1991
New Orleans, LA – February 1992
Boston, MA – February 1993
San Antonio, TX – February 1994
Seattle, WA – February 1995
Nashville, TN - February 1996
New York, NY – February 1997
San Francisco, CA - February 1998
Orlando, FL - February 1999
Reno, NV - February 2000
Seattle, WA - February 2001
Atlanta, GA - February 2002
Chicago, IL - February 2003
Dallas, TX – February 2004
New Orleans, LA February, 2005
Seattle, WA February 2006
San Antonio, TX February, 2007
Washington DC February, 2008
Denver, CO February 2009
Seattle, WA February 2010
Chicago, IL February 2011
Atlanta, GA February 2012
Washington DC February 2013
American Society of Forensic Odontology Annual Meeting: 1986- present
American Board of Forensic Odontology Annual Diplomates Meeting 1989- present
Second Symposium on Mass Disaster, ADA Headquarters, Chicago, Illinois, 6/96
Mass Disaster Workshop, ADA Headquarters, April 1997
C.A.R.E. Symposium (Child Abuse Recognition Education),
ADA Headquarters, 7/31- 8/1/98

Continuing Education:

- "Forensic Odontology", Armed Forces Institute of Pathology Washington, D.C. September 1986
- "Forensic Odontology", University of Louisville, Louisville, KY
Mark Bernstein, D.D.S. 1985
- "Forensic Odontology", ADA Mid-Winter Meeting, Chicago, Illinois
John Kenney, D.D.S. 1987
-Mini- A.F.I.P Course, Indiana University- Purdue University, Indianapolis, IN
A.F.I.P. Faculty, 1988,
- Annual A.A.F.S meeting: 1990- 2013, Annual A.S.F.O. meeting: 1990- 2013; A.B.F.O. Annual meeting: 1989-2013

Research Interest:

- Photo-documentation of patterned injuries using non-visible light (Infra-red and ultra violet light)- research on-going

- Digital Imaging and Enhancement, on-going

I have been involved in litigation, both in civil and criminal cases, as well as the review of many cases that were not litigated Specifics available upon request.

IN THE UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

DANNY LEE HILL,	)	**Case No. 99-4317**
	)	
Appellant/Petitioner,	)	**District Court Case No. 96-CV-795**
	)	
v.	)	***Capital Habeas Corpus Case***
	)	
CARL ANDERSON, Warden,	)	
	)	
Appellee/Respondent.	)	

REQUEST FOR AUTHORIZATION FOR HABEAS COUNSEL TO CONDUCT STATE COURT LITIGATION

Appellant, Danny Lee Hill, through undersigned counsel, requests from the Court authorization to conduct state court litigation. Specifically, Mr. Hill requests permission to litigate a Motion for New Trial under Ohio Crim. R. 33, in order to exhaust newly discovered evidence before the state court as required by Supreme Court precedent *Cullen v. Pinholster*, 131 S. Ct. 1388 (2011). This newly discovered evidence indicates Mr. Hill may be innocent of the horrendous murder of Raymond Fife and thus entitled to a new trial. *State v. Petro*, 76 N.E.2d 370, 371 (Ohio 1947). Counsel is required to obtain judicial authorization to initiate state court litigation. *See* Declaration of Dennis G. Terez, Exhibit A.

Pursuant to 6 Cir. R. 25(h), counsel also requests permission to file the Report of Bitemark Analysis and Comparison by Dr. Franklin Wright dated March 30, 2014 (Exhibit B), and CV of Dr. Franklin Wright (Exhibit C), that is the basis of the newly discovered evidence under seal. While counsel recognizes the Court prefers that all documents should be available to the public, the sensitive nature of the information contained within the report compels counsel to proceed with great caution. If counsel were not required by current policies and procedures to obtain judicial authorization to initiate state court litigation, there would be no need to file the report under seal. Counsel will serve a copy of the report to counsel for the Warden, Stephen Maher, Assistant Attorney General via email when this motion is filed.

This Court has jurisdiction to consider this request

Mr. Hill filed his original petition for writ of habeas corpus December 2, 1996. The district court denied the petition September 29, 1999. Mr. Hill appealed the denial of the habeas petition to this Court. The appeal had been fully briefed and argued when the Supreme Court issued its opinion in *Atkins v. Virginia*, 536 U.S. 304 (2002), banning the execution of the mentally retarded. In light of the fact that Mr. Hill's intellectual disability was a central issue in his case, the Court remanded to the district court with instructions to counsel for Mr. Hill to commence a state court

action raising the *Atkins* claim. *Hill v. Anderson*, 300 F.3d 679 (6th Cir. 2002). The Circuit retained jurisdiction over the appellate case.

The *Atkins* claim was litigated fully in state court. On August 26, 2009, the Warden filed a motion to reopen the habeas case, notifying the district that the state litigation on the *Atkins* claim had been accomplished. (Motion to Reopen Case Due to Completion of State Court Proceedings, R. 63, PageID 1-2). Counsel for Mr. Hill filed a similar motion September 22, 2009. (Motion to Reopen Case and Conduct a Status Conference, R. 65, PageID 6-8). On October 1, 2009, the district court granted the motions to reopen. (Order, R. 68, PageID 12).

On November 25, 2009, the district court appointed undersigned counsel with the Capital Habeas Unit of the Office of the Federal Public Defender for the Northern District of Ohio to represent Mr. Hill in the habeas proceeding. (Order, R. 85, PageID 113-114). The Amended Habeas Petition was filed on March 15, 2010. (Amended Petition for Writ of Habeas Corpus, R. 94, PageID 134-216). The Warden filed a Supplemental Return of Writ on April 30, 2010. (Supplemental Return of Writ, R. 98, PageID 283-289). Counsel for Mr. Hill filed a Traverse on August 2, 2010. (Traverse to Return of Writ, R. 102, PageID 295-391).

Counsel for Mr. Hill filed a Motion for Discovery September 20, 2010. (Motion for Discovery, R. 117, PageID 449-467). The district court granted the

motion in part December 14, 2010. (Memorandum of Opinion and Order, R. 132, PageID 620-638). Discovery was completed and filed with the district court April 27, 2011. (Motion to Expand the Record with Discovery, R. 140, PageID 670-681). The district court granted the motion to expand the record with the discovery "for the sole purpose of determining whether an evidentiary hearing is appropriate." (Marginal Entry Order, R. 145, PageID 694). As of the filing of this motion, the district court has yet to rule on the request for an evidentiary hearing or the Amended Habeas Petition.

Statute contemplates authorization for habeas counsel

The plain language of 18 U.S.C. § 3599 provides that the appointment of counsel shall extend to subsequent state court proceedings. If the language is not clear enough, dicta contained in the Supreme Court's decision in *Harbison v. Bell*, 556 U.S. 180 (2009), confirms that with the federal court's permission, the appointment of counsel under § 3599 may be properly extended to state court proceedings that are being litigated in the context of the habeas case to comply with the state exhaustion requirements of the AEDPA. Because Ohio law does not provide for the appointment of counsel at all, much less "adequate representation," to pursue subsequent state court exhaustion, there are no barriers to Mr. Hill's counsel's continued representation.

Section 3599, titled "Counsel for financially unable defendants," provides for the appointment of counsel for two classes of indigents, described, respectively, in subsections (a)(1)[1] and (a)(2). Subsection (a)(2) states:

> In any post conviction proceeding under section 2254 or 2255 of title 28, United States Code, seeking to vacate or set aside a death sentence, any defendant[2] who is or becomes financially unable to obtain adequate representation or investigative, expert, or other reasonably necessary services shall be entitled to the appointment of one or more attorneys and the furnishing of such other services in accordance with subsections (b) through (f).

After subsections (b) through (d) discuss counsel's necessary qualifications, subsection (e) sets forth counsel's responsibilities. It provides:

> Unless replaced by similarly qualified counsel upon the attorney's own motion or upon motion of the defendant, each attorney so appointed shall represent the defendant throughout every subsequent stage of available judicial proceedings, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, and all available post-conviction process, together with applications for stays of execution and other appropriate motions and procedures, and shall also represent the defendant in such competency proceedings and proceedings for executive or other clemency as may be available to the defendant.

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[1] Subsection (a)(1) describes federal capital defendants and is not relevant to this discussion.

[2] § 3599 uses the term "defendant" to describe post-conviction litigants.

Under the plain language of the statute, subsection (a)(2) triggers the appointment of counsel for habeas petitioners, and subsection (e) governs the scope of appointed counsel's duties. See § 3599(a)(2) (stating that habeas petitioners challenging a death sentence shall be entitled to "the furnishing of ... services in accordance with subsections (b) through (f)"). The scope of appointed counsel's duties is very broad under the statute. Thus, once federally funded counsel is appointed to represent a state prisoner in § 2254 proceedings, he "shall represent the defendant throughout . . . all available post-conviction process." § 3599(e). *See also Martel v. Clair*, 132 S. Ct. 1276, 1283 (2012) ("Section 3599 first guarantees that indigent defendants in federal capital cases will receive the assistance of counsel. From pretrial proceedings through stay applications. See §§ 3599(a)(1), (a)(2), (e). It next grants a corresponding right to people like Clair who seek federal habeas relief from a state death sentence, for all post-conviction proceedings and related activities.")

The broad language of the appointment statute extends habeas counsel's appointment to the state court proceedings that are contemplated here, which are "post-conviction proceedings and related activities." These proceedings are within the scope of the appointment. The litigation could be a "subsequent stage of available judicial proceedings, including . . . motions for new trial," in that these state

proceedings are "subsequent" to the filing of Mr. Hill's federal habeas petition. Further, the litigation could be characterized as an "available post-conviction process" and/or "other appropriate motion[]and procedure[]," as Mr. Hill will be pursuing a "post-conviction process" which is still "available" to him, and he is for these reasons also pursuing an "appropriate motion and procedure." *See Martel v. Clair*, 132 S. Ct. at 1283.

As the state court proceedings constitute a "subsequent stage of available judicial proceedings," "available post-conviction process," and/or "other appropriate motions and procedures," their pursuit is unambiguously within the scope of the appointment statute because that statute mandates that counsel's appointment "shall" extend to "**every**" "subsequent stage of available judicial proceedings" and "**all**" "available post-conviction process" and/or "other appropriate motions and procedures." Congress used the terms "every" and "all," and excluded nothing from the statute's resulting broad scope, to make clear that the scope of the appointment extends to exactly the type of proceedings at issue here. The language also confirms Congressional intent to provide to indigent state capital prisoners seeking §2254 relief a correspondingly broad scope of appointed counsel – from inception of the appointment through all subsequent proceedings through and including stays of the client's execution – as provided to indigent federal capital prisoners.

Harbison v. Bell

The Supreme Court in *Harbison v. Bell* confirmed the broad scope of the appointment statute insofar as it applies to state clemency proceedings. *Harbison v. Bell*, 556 U.S. at 194 ("We . . . hold that § 3599 authorizes federally appointed counsel to represent their clients in state clemency proceedings and entitles them to compensation for that representation.") In so doing, the Court rejected the Government's arguments that this statute as a whole was intended to furnish representation only in federal proceedings, that all proceedings listed in subsection (e) should be understood to be federal, and that the statute should not be read expansively:

> We also note that the Government's proposal to read the word "federal" into § 3599(e) would lead to absurd results. It is clear, for example, that a state inmate faced with an imminent execution might be required to apply for a stay from a state court before seeking such relief in a federal court. On our reading of the statute, federally appointed counsel would be permitted to represent her client pursuant to subsection (e)'s reference to "applications for stays of execution and other appropriate motions and procedures." But on the Government's reading, the inmate would have to secure new counsel to file the stay request because his federal counsel would not be authorized to represent him. Such a rigid limit on the authority of appointed federal counsel would be inconsistent with the basic purpose of the statute. Cf. *McFarland v. Scott,* 512 U.S. 849, 854–857, 114 S. Ct. 2568, 129 L. Ed. 2d 666 (1994); *Id.* at 188 ("The directive that counsel "shall represent the defendant throughout every subsequent stage of available judicial proceedings, including ... all available post-conviction process," for example, hardly suggests a limitation on the scope of representation.").

Harbison, 556 U.S. at 187, fn.6; *see generally*, *id.* at 186-188.

The Court also addressed the issue of habeas counsel's representation in "state habeas proceeding occurring after [counsel's] appointment because such proceedings are also 'available post-conviction process.'" *Id.* at 189. The Court noted that one relevant clause of the statute requires representation in "subsequent" stages of available judicial proceedings and "[s]tate habeas is not a stage 'subsequent' to federal habeas. Just the opposite: Petitioners must exhaust their claims in state court before seeking federal habeas relief." *Id.* at 189-90. But the Court also noted that another relevant clause of the statute, which is not prefaced by the "subsequent stage" language, mandates that the representation shall apply to "other appropriate motions and procedures." *Id.* The Court said this latter clause can be applied to extend the appointment of federal habeas counsel to at least some state post-conviction proceedings in which the petitioner is seeking to exhaust a claim in the course of the federal habeas representation:

> Pursuant to § 3599(e)'s provision that counsel may represent her client in "other appropriate motions and procedures," a district court may determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation. This is not the same as classifying state habeas proceedings as "available post-conviction process" within the meaning of the statute.

Id. at 190 & n.7 (emphasis supplied).

No state counsel available in Ohio for Mr. Hill

It is simply not feasible for Mr. Hill to obtain new counsel, nor does Ohio law provide for appointment of counsel, much less adequate representation of counsel. Mr. Hill is intellectually challenged and unable to proceed *pro se* in state court. Accordingly, there is no barrier under § 3599 to the continued representation by Mr. Hill's habeas counsel in subsequent state court proceedings.

A panel of the Circuit has interpreted *Harbison* in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011). In that case, a Tennessee petitioner filed a motion requesting authorization of federal funding pursuant to § 3599 for his federally appointed counsel to represent him in the reconsidering of his state post-conviction, competency-to-be-executed, and clemency proceedings. The district court granted the motion with respect to clemency proceedings, but denied it as to the state post-conviction and competency proceedings on the basis that § 3599 applies only when adequate representation is unavailable. *Id.* at 291.

On appeal, the Circuit affirmed, holding that:

> We adopt the district court's holding in this case. The district court correctly analyzed Irick's claims. In *Harbison*, the Supreme Court arrived at its holding only after noting that state law did not authorize the appointment of state public defenders for the purpose of pursuing state clemency proceedings. *Id.* at 1484. The Court further emphasized that "[§3599](a)(2) provides for counsel only when a state petitioner is unable to obtain adequate representation." *Id.* at 1488. *See also Rosales*

> *v. Quarterman*, 565 F.3d 308, 312 (5th Cir. 2009) (denying defendant's §3599 request for counsel where the defendant already had adequate representation for the proceeding at issue); *Hill v. Mitchell*, 2009 WL 2898812 at * 4-6 (S.D. Ohio Sept. 4, 2009) (denying defendant's § 3599(e) request for federally appointed counsel for his *Atkins* proceeding because state law entitled him to appointed counsel). **Absent clear direction from the United States Supreme Court or Congress, we decline to obligate the federal government to pay for counsel in state proceedings where the state itself has assumed that obligation**.

Id. (emphasis added). Because Tennessee state law authorized appointed counsel in state competency-to-be-executed proceedings, the Court found Irick's attorneys were not entitled to compensation pursuant to § 3599. *Id.* at 291-92.

With regard to Irick's efforts to reconsider his state post-conviction proceedings, the Court found that Irick was not entitled to federally appointed counsel because his state post-conviction proceedings constituted "the commencement of new judicial proceedings," rather than a stage "subsequent to federal habeas." *Id.* at 292. However, the Court noted that "Irick is not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather he is re-opening a state judgment on state-law grounds." *Id.* However, the Court further noted that Irick had a statutory right under Tennessee law to appointed counsel in post-conviction proceedings. Thus, it held that "**even if § 3599 would otherwise apply to Irick's state postconviction proceedings, he would not be eligible for federal**

funding because state law affords him 'adequate representation.'" *Id.* (emphasis added).

That is not the case in Ohio. Ohio law does not provide representation, let alone "adequate representation" to a state capital post-conviction petitioner such as Mr. Hill. While Ohio Revised Code § 2953.21calls for the appointment of counsel to "a person sentenced to death," the appointment clause only applies to one filing a first petition under that statute. (Appointment of counsel applies to one who "intends to file a petition under *this section.*" [2953.21]).

Mr. Hill, on the other hand, plans on filing a Request for Leave to File a Motion for New Trial pursuant to Ohio Crim. R. 33 to further develop his claims with evidence discovered after undersigned counsel's appointment. There is no provision in Ohio law for the appointment of counsel on a motion for a new trial. *See, State v. Clumm*, No. 08-ca-32, 2010 WL 364460 (Ohio App. January 28, 2010).

No available state counsel for Mr. Hill

The Trumbull County Branch of the Ohio Public Defender's office would not be able to take on the representation of Mr. Hill as it was conflicted from representing Mr. Hill at the state *Atkins* hearing. In addition to ineffective assistance of counsel claims against the Public Defender Office that are presently pending before this Court, Morris Hill, the former Warren Police Detective and uncle to Mr. Hill, was

hired by the Public Defender Office as an investigator. Detective Hill extracted a coerced confession from Mr. Hill, which is also the subject of the appeal pending in this Court. *See Hill v. Anderson*, 300 F.3d at 681.

Further, the post conviction unit of the Ohio Public Defender Office is also conflicted from representing Mr. Hill. That office was appointed to represent Mr. Hill at the *Atkins* hearing after the Trumbull County Branch was allowed to withdraw. There have been ineffective assistance of counsel claims lodged against the OPD in the Amended Habeas Petition. Over the years, Mr. Hill has been represented by several different lawyers in Ohio, both within the OPD and privately appointed counsel. To locate a well qualified counsel with sufficient experience to take on the representation of Mr. Hill at this juncture would be impracticable, if not impossible. New counsel would also have to become completely familiar with the case which would delay the proceedings even further.

Conclusion

Therefore, counsel for Mr. Hill requests authorization to conduct state court litigation on the newly discovered evidence that undermines dramatically the legitimacy of the forensic evidence in this case. Counsel requests a reasonable amount of time by which to file the Request for Leave to File a Motion for New Trial in the

Trumbull County Court of Common Pleas.[3] Counsel is not filing this motion for purposes of delay, but to exhaust and preserve critical claims in Mr. Hill's case that directly impact whether he may be innocent of the horrendous murder of Raymond Fife. Counsel is not requesting that the current Amended Habeas Petition pending with the district court be stayed.

Respectfully submitted,

/s/ Vicki Ruth Adams Werneke
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vicki_werneke@fd.org

Counsel for Appellant/Petitioner
Danny Hill

[3] Counsel also represents Arthur Tyler who is scheduled to be executed by the State of Ohio on May 28, 2014. The clemency hearing for Mr. Tyler is scheduled for April 24, 2014.

CERTIFICATE OF SERVICE

I hereby certify that on March 31, 2014, a copy of the foregoing **Request for Authorization for Habeas Counsel to Conduct State Court Litigation** was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic filing receipt. All other parties will be served by regular U.S. Mail. Parties may access this filing through the Court's system.

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE
Assistant Federal Public Defender

Counsel for Appellant/Petitioner
Danny Hill

Declaration of Dennis G. Terez

I, Dennis G. Terez, declare as follows:

1. I am the Federal Public Defender for the Northern District of Ohio. In June 2008, our office created a capital habeas unit to represent clients on Ohio's death row to whom we are appointed.

2. Vicki Werneke, an assistant federal public defender with that unit, requested this declaration to clarify when she is permitted to represent her client, Danny Hill, before an Ohio state court.

3. The federal statutes that are most relevant are 18 U.S.C. §§ 3006A and 3599. Assistant federal public defenders are prohibited from initiating new state court actions without prior federal judicial authorization unless the representation is considered one of the "ancillary matters appropriate to the proceedings," as 18 U.S.C. § 3006A(c) provides. The underlying purpose of this language is to ensure that federal funds are spent primarily representing individuals in federal proceedings.

4. While an "ancillary matter" may extend in the habeas context to initiating new state court proceedings, it is the practice of the Defender Services Office and of our office to require prior federal judicial authorization. Since the appointment power in § 3006A rests with federal judicial officers, this approach is consistent with the language and intent of the statute.

5. The second, more specific statute states that capital counsel "shall represent the [client] throughout *every subsequent stage of available judicial proceedings, . . . and all available post-conviction process*, together with stays of execution and *other appropriate motions and procedures, . . .*" *See* § 3599(e). Seeking prior judicial authorization is consistent with *Harbison v. Bell*, 129 S. Ct. 1481, 1489 n.7 (2009) ("Pursuant to § 3599(e)'s provision that counsel may

represent her client in 'other appropriate motions and procedures,' a district court may determine on a case-by case basis that it is appropriate for federal counsel exhaust a claim in the court of her federal habeas representation.")

6. Furthermore, prior authorization is required because a new trial motion has the potential of triggering an entirely new case, which would likely entail the expenditure of significant resources. Before that step is taken, I would want the assurance of a federal judicial officer that the appointment power initially allowing our office to represent the defendant extends to the anticipated state court proceeding so that federal resources can be expended even though the representation will be carried out in state court.

7. It is also not feasible for Ms. Werneke to file with the Trumball County Court of Common Pleas a request for appointment as it is not one of the judicial bodies in which § 3006A vests appointment authority. Although common pleas judges often welcome the appearance of an assistant federal public defender in state court proceedings, the permission to make such an appearance should first come from a federal judicial officer or be embodied in § 3006A as an ancillary matter appropriate to the ongoing federal proceedings.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 25th of March, 2014.

Dennis G. Terez

NOT RECOMMENDED FOR FULL-TEXT PUBLICATION

Case No. 99-4317

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

FILED
Apr 18, 2014
DEBORAH S. HUNT, Clerk

Danny Hill,

Petitioner,

v.

Betty Mitchell, Warden,

Respondent.

ORDER

Before: MERRITT, MOORE, and CLAY, Circuit Judges.

Petitioner Danny Hill, an Ohio death-row prisoner represented by counsel, filed a motion with our court requesting that counsel currently representing Hill in a pending habeas case in federal district court[1] be appointed to represent Hill in his request for a new trial in state court based on newly discovered evidence. *See* 18 U.S.C. § 3599(e).[2]

[1] *Hill v. Anderson*, No. 96-cv-795 (N.D. Ohio).

[2] 18 U.S.C. § 3599(e) says:

> [E]ach attorney so appointed shall represent the defendant throughout every subsequent stage of available judicial proceedings, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, and all available post-conviction process, together with applications for stays of execution and other appropriate motions and procedures, and shall also represent the defendant in such competency proceedings and proceedings for executive or other clemency as may be available to the defendant.

Hill v. Mitchell
No. 99-4317

The district court has Hill's pending habeas petition before it, and that court is in a better position to rule on the merits of Hill's motion concerning his request for counsel to represent him in further state proceedings. Ruling on Hill's motion would require us to admit and consider new evidence, and we do not generally allow a party to supplement the record with evidence not put before the district court in the first instance. *Taft Broad. Co. v. United States*, 929 F.2d 240, 243 (6th Cir. 1991) (arguments should be presented in the first instance to the district court). We have adhered to this rule "[i]n the interests of judicial economy . . . and mindful of our role as an appellate court." *Sigmon Fuel Co. v. Tenn. Valley Auth.*, 754 F.2d 162, 164 (6th Cir. 1985).

Hill is directed to file his request with the district court. His motions to file various documents under seal in this court are denied. The Warden's motion for a procedural order regarding the pendency before the district court of the same motion requesting the same relief as that sought before this court is denied as moot.

Accordingly, it is so ordered.

ENTERED BY ORDER OF THE COURT

Deborah S. Hunt, Clerk

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT
100 EAST FIFTH STREET, ROOM 540
Deborah S. Hunt
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Filed: April 18, 2014

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Re: Case No. 99-4317, *Hill v. Anderson*
Originating Case No. : 96-00795

Dear Sir or Madam,

The Court issued the enclosed Order today in this case.

Sincerely yours,

s/Jill Colyer
Case Manager
Direct Dial No. 513-564-7024

cc: Ms. Amanda P. Lenhart
Mr. Christopher R. McDowell
Geri M. Smith
Mr. Mark A. Vander Laan
Mr. Charles L. Wille

Enclosure

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	)	**CASE NO. 4:96-CV-795**
	)	
Petitioner,	)	**JUDGE JOHN ADAMS**
	)	
v.	)	
	)	***Capital Habeas Corpus Case***
CARL ANDERSON, Warden,	)	
	)	
Respondent.	)	

PETITIONER'S REQUEST FOR AUTHORIZATION
FOR HABEAS COUNSEL TO CONDUCT STATE COURT LITIGATION

Appellant, Danny Lee Hill, through undersigned counsel, requests from the Court authorization to conduct state court litigation. Specifically, Mr. Hill requests permission to litigate a Motion for New Trial under Ohio Crim. R. 33, in order to exhaust newly discovered evidence before the state court as required by Supreme Court precedent *Cullen v. Pinholster*, 131 S. Ct. 1388 (2011). this newly discovered evidence indicates Mr. Hill may be innocent of the horrendous murder of Raymond Fife and thus entitled to a new trial. *State v. Petro*, 76 N.E.2d 370, 371 (Ohio 1947). Counsel is required to obtain judicial authorization to initiate state court litigation. *See* Declaration of Dennis G. Terez, Exhibit A.

The newly discovered evidence

On March 30, 2014, counsel obtained the Report of Bitemark Analysis and Comparison (Exhibit B) from Franklin D. Wright, D.M.D., a forensic dental consultant (Exhibit C, Dr. Wright's CV). In that report, Dr. Wright stated that in his opinion, "to a reasonable degree of medical/dental certainty, that the patterned injury on the penis of the victim is not a human bitemark." (Report at

page 6). Further, Dr. Wright shared for the first time that Dr. Mertz, the state's expert at the 1986 trial, who was a friend and mentor of Dr. Wright, had reservations about this opinion in this case, and about whether the injury was even a bitemark. (Report at page 5).

This Court has jurisdiction to consider this request

Mr. Hill filed his original petition for writ of habeas corpus December 2, 1996. The district court denied the petition September 29, 1999. Mr. Hill appealed the denial of the habeas petition to the Sixth Circuit Court of Appeals. The appeal had been fully briefed and argued when the Supreme Court issued its opinion in *Atkins v. Virginia*, 536 U.S. 304 (2002), banning the execution of the mentally retarded. In light of the fact that Mr. Hill's intellectual disability was a central issue in his case, the Circuit remanded to the district court with instructions to counsel for Mr. Hill to commence a state court action raising the *Atkins* claim. *Hill v. Anderson*, 300 F.3d 679 (6th Cir. 2002).

The *Atkins* claim was litigated fully in state court. On August 26, 2009, the Warden filed a motion to reopen the habeas case, notifying the district that the state litigation on the *Atkins* claim had been accomplished. (Motion to Reopen Case Due to Completion of State Court Proceedings, R. 63, PageID 1-2). Counsel for Mr. Hill filed a similar motion September 22, 2009. (Motion to Reopen Case and Conduct a Status Conference, R. 65, PageID 6-8). On October 1, 2009, the district court granted the motions to reopen. (Order, R. 68, PageID 12).

On November 25, 2009, the district court appointed undersigned counsel with the Capital Habeas Unit of the Office of the Federal Public Defender for the Northern District of Ohio to represent Mr. Hill in the habeas proceeding. (Order, R. 85, PageID 113-114). The Amended Habeas Petition was filed on March 15, 2010. (Amended Petition for Writ of Habeas Corpus, R. 94, PageID 134-216). The Warden filed a Supplemental Return of Writ on April 30, 2010. (Supplemental Return

of Writ, R. 98, PageID 283-289). Counsel for Mr. Hill filed a Traverse on August 2, 2010. (Traverse to Return of Writ, R. 102, PageID 295-391).

Counsel for Mr. Hill filed a Motion for Discovery September 20, 2010. (Motion for Discovery, R. 117, PageID 449-467). The district court granted the motion in part December 14, 2010. (Memorandum of Opinion and Order, R. 132, PageID 620-638). Discovery was completed and filed with the district court April 27, 2011. (Motion to Expand the Record with Discovery, R. 140, PageID 670-681). The district court granted the motion to expand the record with the discovery "for the sole purpose of determining whether an evidentiary hearing is appropriate." (Marginal Entry Order, R. 145, PageID 694). As of the filing of this motion, the district court has yet to rule on the request for an evidentiary hearing or the Amended Habeas Petition.

Counsel for Mr. Hill filed a Request for Authorization for Habeas Counsel to Conduct State Court Litigation with the Circuit on March 31, 2014. On April 18, 2014, the Circuit directed counsel for Mr. Hill to file the request with the district court. This Court has jurisdiction to address this request.

Statute contemplates authorization for habeas counsel

The plain language of 18 U.S.C. § 3599 provides that the appointment of counsel shall extend to subsequent state court proceedings. If the language is not clear enough, dicta contained in the Supreme Court's decision in *Harbison v. Bell*, 556 U.S. 180 (2009), confirms that with the federal court's permission, the appointment of counsel under § 3599 may be properly extended to state court proceedings that are being litigated in the context of the habeas case to comply with the state exhaustion requirements of the AEDPA. Because Ohio law does not provide for the appointment of

counsel at all, much less "adequate representation," to pursue subsequent state court exhaustion, there are no barriers to Mr. Hill's counsel's continued representation.

Section 3599, titled "Counsel for financially unable defendants," provides for the appointment of counsel for two classes of indigents, described, respectively, in subsections (a)(1)[1] and (a)(2). Subsection (a)(2) states:

> In any post conviction proceeding under section 2254 or 2255 of title 28, United States Code, seeking to vacate or set aside a death sentence, any defendant[2] who is or becomes financially unable to obtain adequate representation or investigative, expert, or other reasonably necessary services shall be entitled to the appointment of one or more attorneys and the furnishing of such other services in accordance with subsections (b) through (f).

After subsections (b) through (d) discuss counsel's necessary qualifications, subsection (e) sets forth counsel's responsibilities. It provides:

> Unless replaced by similarly qualified counsel upon the attorney's own motion or upon motion of the defendant, each attorney so appointed shall represent the defendant throughout every subsequent stage of available judicial proceedings, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, and all available post-conviction process, together with applications for stays of execution and other appropriate motions and procedures, and shall also represent the defendant in such competency proceedings and proceedings for executive or other clemency as may be available to the defendant.

Under the plain language of the statute, subsection (a)(2) triggers the appointment of counsel for habeas petitioners, and subsection (e) governs the scope of appointed counsel's duties. See § 3599(a)(2) (stating that habeas petitioners challenging a death sentence shall be entitled to "the furnishing of ... services in accordance with subsections (b) through (f)"). The scope of appointed

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[1] Subsection (a)(1) describes federal capital defendants and is not relevant to this discussion.

[2] § 3599 uses the term "defendant" to describe post-conviction litigants.

counsel's duties is very broad under the statute. Thus, once federally funded counsel is appointed to represent a state prisoner in § 2254 proceedings, he "shall represent the defendant throughout . . . all available post-conviction process." § 3599(e). *See also Martel v. Clair*, 132 S. Ct. 1276, 1283 (2012) ("Section 3599 first guarantees that indigent defendants in federal capital cases will receive the assistance of counsel. From pretrial proceedings through stay applications. See §§ 3599(a)(1), (a)(2), (e). It next grants a corresponding right to people like Clair who seek federal habeas relief from a state death sentence, for all post-conviction proceedings and related activities.")

The broad language of the appointment statute extends habeas counsel's appointment to the state court proceedings that are contemplated here, which are "post-conviction proceedings and related activities." These proceedings are within the scope of the appointment. The litigation could be a "subsequent stage of available judicial proceedings, including . . . motions for new trial," in that these state proceedings are "subsequent" to the filing of Mr. Hill's federal habeas petition. Further, the litigation could be characterized as an "available post-conviction process" and/or "other appropriate motion[]and procedure[]," as Mr. Hill will be pursuing a "post-conviction process" which is still "available" to him, and he is for these reasons also pursuing an "appropriate motion and procedure." *See Martel v. Clair*, 132 S. Ct. at 1283.

As the state court proceedings constitute a "subsequent stage of available judicial proceedings," "available post-conviction process," and/or "other appropriate motions and procedures," their pursuit is unambiguously within the scope of the appointment statute because that statute mandates that counsel's appointment "shall" extend to "**every**" "subsequent stage of available judicial proceedings" and "**all**" "available post-conviction process" and/or "other appropriate motions and procedures." Congress used the terms "every" and "all," and excluded nothing from the

statute's resulting broad scope, to make clear that the scope of the appointment extends to exactly the type of proceedings at issue here. The language also confirms Congressional intent to provide to indigent state capital prisoners seeking §2254 relief a correspondingly broad scope of appointed counsel – from inception of the appointment through all subsequent proceedings through and including stays of the client's execution – as provided to indigent federal capital prisoners.

Harbison v. Bell

The Supreme Court in *Harbison v. Bell* confirmed the broad scope of the appointment statute insofar as it applies to state clemency proceedings. *Harbison v. Bell*, 556 U.S. at 194 ("We . . . hold that § 3599 authorizes federally appointed counsel to represent their clients in state clemency proceedings and entitles them to compensation for that representation.") In so doing, the Court rejected the Government's arguments that this statute as a whole was intended to furnish representation only in federal proceedings, that all proceedings listed in subsection (e) should be understood to be federal, and that the statute should not be read expansively:

> We also note that the Government's proposal to read the word "federal" into § 3599(e) would lead to absurd results. It is clear, for example, that a state inmate faced with an imminent execution might be required to apply for a stay from a state court before seeking such relief in a federal court. On our reading of the statute, federally appointed counsel would be permitted to represent her client pursuant to subsection (e)'s reference to "applications for stays of execution and other appropriate motions and procedures." But on the Government's reading, the inmate would have to secure new counsel to file the stay request because his federal counsel would not be authorized to represent him. Such a rigid limit on the authority of appointed federal counsel would be inconsistent with the basic purpose of the statute. Cf. *McFarland v. Scott,* 512 U.S. 849, 854–857, 114 S. Ct. 2568, 129 L. Ed. 2d 666 (1994); *Id.* at 188 ("The directive that counsel "shall represent the defendant throughout every subsequent stage of available judicial proceedings, including ... all available post-conviction process," for example, hardly suggests a limitation on the scope of representation.").

Harbison, 556 U.S. at 187, fn.6; *see generally, id.* at 186-188.

The Court also addressed the issue of habeas counsel's representation in "state habeas proceeding occurring after [counsel's] appointment because such proceedings are also 'available post-conviction process.'" *Id.* at 189. The Court noted that one relevant clause of the statute requires representation in "subsequent" stages of available judicial proceedings and "[s]tate habeas is not a stage 'subsequent' to federal habeas. Just the opposite: Petitioners must exhaust their claims in state court before seeking federal habeas relief." *Id.* at 189-90. But the Court also noted that another relevant clause of the statute, which is not prefaced by the "subsequent stage" language, mandates that the representation shall apply to "other appropriate motions and procedures." *Id.* The Court said this latter clause can be applied to extend the appointment of federal habeas counsel to at least some state post-conviction proceedings in which the petitioner is seeking to exhaust a claim in the course of the federal habeas representation:

> Pursuant to § 3599(e)'s provision that counsel may represent her client in "other appropriate motions and procedures," a district court may determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation. This is not the same as classifying state habeas proceedings as "available post-conviction process" within the meaning of the statute.

Id. at 190 & n.7 (emphasis supplied).

The state court litigation proposed is that contemplated by Harbison v. Bell

The *Harbison* Court provided this Court with guidance as to what constitutes "subsequent litigation." Although the Court observed that state habeas litigation typically is not "subsequent to" federal habeas proceedings, it acknowledged that "state postconviction litigation sometimes follows the initiation of federal habeas because a petitioner has failed to exhaust [a claim]." *Id.* at 190. The Government in that case argued that, taken to an extreme, this interpretation could permit federal

habeas counsel to represent a successful habeas petitioner at his state retrial. The Court rejected this argument. *Id.* at 189. In a separate, concurring opinion, Justice Roberts further explained the types of litigation that would be excluded from § 3599's purview. He noted, for example, that the "subsequent stage[s]" provision of § 3599 did not include "a challenge to prison conditions or a suit for divorce in state court, even if these available judicial proceedings occur subsequent to federal habeas."*Id.* at 195. The Supreme Court contemplated permitting federal habeas counsel to do precisely what Mr. Hill's counsel have requested here, i.e., return to state court to litigate an issue appurtenant to his habeas litigation.

No state counsel available in Ohio for Mr. Hill

It is simply not feasible for Mr. Hill to obtain new counsel, nor does Ohio law provide for appointment of counsel, much less adequate representation of counsel. Mr. Hill is intellectually challenged and unable to proceed *pro se* in state court. Accordingly, there is no barrier under § 3599 to the continued representation by Mr. Hill's habeas counsel in subsequent state court proceedings.

A panel of the Circuit has interpreted *Harbison* in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011). In that case, a Tennessee petitioner filed a motion requesting authorization of federal funding pursuant to § 3599 for his federally appointed counsel to represent him in the reconsidering of his state post-conviction, competency-to-be-executed, and clemency proceedings. The district court granted the motion with respect to clemency proceedings, but denied it as to the state post-conviction and competency proceedings on the basis that § 3599 applies only when adequate representation is unavailable. *Id.* at 291.

On appeal, the Circuit affirmed, holding that:

> We adopt the district court's holding in this case. The district court correctly analyzed Irick's claims. In *Harbison*, the Supreme Court arrived at its holding only after noting that state law did not authorize the appointment of state public defenders for the purpose of pursuing state clemency proceedings. *Id.* at 1484. The Court further emphasized that "[§3599](a)(2) provides for counsel only when a state petitioner is unable to obtain adequate representation." *Id.* at 1488. *See also Rosales v. Quarterman*, 565 F.3d 308, 312 (5th Cir. 2009) (denying defendant's §3599 request for counsel where the defendant already had adequate representation for the proceeding at issue); *Hill v. Mitchell*, 2009 WL 2898812 at * 4-6 (S.D. Ohio Sept. 4, 2009) (denying defendant's § 3599(e) request for federally appointed counsel for his *Atkins* proceeding because state law entitled him to appointed counsel). **Absent clear direction from the United States Supreme Court or Congress, we decline to obligate the federal government to pay for counsel in state proceedings where the state itself has assumed that obligation**.

Id. (emphasis added). Because Tennessee state law authorized appointed counsel in state competency-to-be-executed proceedings, the Court found Irick's attorneys were not entitled to compensation pursuant to § 3599. *Id.* at 291-92.

With regard to Irick's efforts to reconsider his state post-conviction proceedings, the Court found that Irick was not entitled to federally appointed counsel because his state post-conviction proceedings constituted "the commencement of new judicial proceedings," rather than a stage "subsequent to federal habeas." *Id.* at 292. However, the Court noted that "Irick is not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather he is re-opening a state judgment on state-law grounds." *Id.* However, the Court further noted that Irick had a statutory right under Tennessee law to appointed counsel in post-conviction proceedings. Thus, it held that "**even if § 3599 would otherwise apply to Irick's state postconviction proceedings, he would not be eligible for federal funding because state law affords him 'adequate representation.**'" *Id.* (emphasis added).

That is not the case in Ohio. Ohio law does not provide representation, let alone "adequate representation" to a state capital post-conviction petitioner such as Mr. Hill. While Ohio Revised Code § 2953.21 calls for the appointment of counsel to "a person sentenced to death," the appointment clause only applies to one filing a first petition under that statute. (Appointment of counsel applies to one who "intends to file a petition under *this section.*" [2953.21]).

Mr. Hill, on the other hand, plans on filing a Request for Leave to File a Motion for New Trial pursuant to Ohio Crim. R. 33 to further develop his claims with evidence discovered after undersigned counsel's appointment. There is no provision in Ohio law for the appointment of counsel on a motion for a new trial. *See State v. Clumm*, No. 08-ca-32, 2010 WL 364460 (Ohio Ct. App. Jan. 28, 2010).

No available state counsel for Mr. Hill

The Trumbull County Branch of the Ohio Public Defender's office would not be able to take on the representation of Mr. Hill as it was conflicted from representing Mr. Hill at the state *Atkins* hearing. In addition to ineffective assistance of counsel claims against the Public Defender Office that are presently pending before this Court, Morris Hill, the former Warren Police Detective and uncle to Mr. Hill, was hired by the Public Defender Office as an investigator. Detective Hill extracted a coerced confession from Mr. Hill, which is also the subject of the appeal pending in the Sixth Circuit. *See Hill v. Anderson*, 300 F.3d at 681.

Further, the post conviction unit of the Ohio Public Defender Office is also conflicted from representing Mr. Hill. That office was appointed to represent Mr. Hill at the *Atkins* hearing after the Trumbull County Branch was allowed to withdraw. There have been ineffective assistance of counsel claims lodged against the OPD in the Amended Habeas Petition. Over the years, Mr. Hill

has been represented by several different lawyers in Ohio, both within the OPD and privately appointed counsel. To locate a well qualified counsel with sufficient experience to take on the representation of Mr. Hill at this juncture would be impracticable, if not impossible. New counsel would also have to become completely familiar with the case which would delay the proceedings even further.

The Warden has no stake in this request

The Warden has no stake in the outcome of Mr. Hill's request and the Court, therefore, should not consider his position as to how the Court should decide this request. The Warden here is similarly situated to Respondent Bell in *Harbison v. Bell*, 556 U.S. 180 (2009). There, the Supreme Court interpreted the scope of capital counsel's appointment pursuant to 18 U.S.C. § 3599 and whether it included representation during state clemency proceedings. Warden Bell determined that because he "ha[d] no real stake in whether an inmate receives federal funding for clemency counsel, respondent expresse[d] no view on Question 1." (Brief of Respondent at 7, *Harbison v. Bell*, 556 U.S. 180 (2009) (No. 07-8521)). Similarly, the Warden should not be permitted to take a position here because the Warden's interests are neither advanced nor subverted regardless of the outcome of the motion.

Conclusion

Therefore, counsel for Mr. Hill requests authorization to conduct state court litigation on the newly discovered evidence that undermines dramatically the legitimacy of the forensic evidence in this case. Counsel requests a reasonable amount of time by which to file the Request for Leave to File a Motion for New Trial in the Trumbull County Court of Common Pleas. Counsel is not filing

this motion for purposes of delay, but to exhaust and preserve critical claims in Mr. Hill's case that directly impact whether he may be innocent of the horrendous murder of Raymond Fife.

Respectfully submitted,

/s/ Vicki Ruth Adams Werneke
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vicki_werneke@fd.org

Counsel for Petitioner
Danny Hill

CERTIFICATE OF SERVICE

I hereby certify that on April 21, 2014, a copy of the foregoing **Petitioner's Request for Authorization for Habeas Counsel to Conduct State Court Litigation** was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic filing receipt. All other parties will be served by regular U.S. Mail. Parties may access this filing through the Court's system.

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE
Assistant Federal Public Defender

Counsel for Petitioner
Danny Hill

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	:	**CASE NO. 4:96 CV 00795**
	:	
Petitioner,	:	
	:	**JUDGE JOHN R. ADAMS**
vs.	:	
	:	
CARL ANDERSON, Warden,	:	
	:	**MEMORANDUM OF OPINION**
Respondent.	:	**AND ORDER**

This matter is before the Court upon Petitioner Danny Lee Hill's ("Hill" or "Petitioner") Request for Authorization for Habeas Counsel to Conduct State Court Litigation. (ECF No. 156.) The Respondent, Warden Carl Anderson ("Respondent"), filed an Opposition to Appointment of Counsel to Conduct State Court Litigation. (ECF No. 157.) Hill filed a Reply to Respondent's opposition. (ECF No. 158.) For the following reasons, Hill's request is denied.

I. Relevant Procedural History

On February 28, 1986, a three-judge panel sentenced Hill to death for the aggravated murder of twelve-year-old Raymond Fife ("Fife"). Timothy Combs also was charged and convicted in a separate trial as a principal offender in Fife's murder. *See State v. Combs,* No. 1725, 1988 WL 129449 (Ohio Ct. App. Dec. 2, 1988).

The Ohio Supreme Court summarized the evidence adduced at Hill's trial as follows:

Among the voluminous testimony from witnesses and the numerous exhibits, the

following evidence was adduced:

> Defendant's brother, Raymond L. Vaughn, testified that he saw defendant wash his gray pants on the night of the murder as well as on the following two days. Vaughn identified the pants in court, and testified that it looked like defendant was washing out "something red. * * * It looked like blood to me * * *."
>
> Detective Sergeant William Carnahan of the Warren Police Department testified that on September 15, 1985 he went with eyewitness Donald Allgood to the place where Allgood stated he had seen defendant and Combs coming out of the wooded field, and where he had seen defendant toss "something" into the woods. Carnahan testified that he returned to the area with workers from the Warren Parks Department, and that he and Detective James Teeple found a stick about six feet from the path where Allgood saw defendant and Combs walking.
>
> Dr. Curtis Mertz, a forensic odontologist, stated that: "It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and the photographs that I had, made the bite on Fife's penis."
>
> The defense called its own forensic odontologist, Dr. Lowell Levine, who stated that he could not conclude with a reasonable degree of certainty as to who made the bite marks on the victim's penis. However, Levine concluded: "What I'm saying is either Hill or Combs, or both, could have left some of the marks but the one mark that's consistent with the particular area most likely was left by Hill."
>
> Doctor Howard Adelman, the pathologist who performed the autopsy of the victim's body, testified that the size and shape of the point of the stick found by Detective Carnahan was "very compatible" with the size and shape of the opening through the victim's rectum. Adelman described the fit of the stick in the victim's rectum as "very similar to a key in a lock."

State v. Hill, 64 Ohio St. 3d 313, 316, 595 N.E.2d 884, 889 (Ohio 1992).

Hill's conviction and sentence were left undisturbed on direct appeal. *See State v. Hill*, Nos. 3720, 3745, 1989 WL 142761 (Ohio Ct. App. Nov. 27, 1989); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (Ohio 1992), *reh'g denied*, 65 Ohio St. 3d 1421, 598 N.E.2d 1172 (Ohio 1992); and *Hill v. Ohio*, 507 U.S. 1007 (1993). Hill also was unsuccessful in state post-

conviction proceedings. (*See* App. to Return of Writ, Exs. FF, GG.) *See also State v. Hill*, No. 94-T-5116, 1995 WL 418683 (Ohio Ct. App. June 16, 1995); *State v. Hill*, 74 Ohio St. 3d 1456, 656 N.E.2d 951 (Ohio 1995) (Table).

Hill filed a petition for writ of habeas corpus with this Court on November 27, 1996. (ECF No. 18.) He asserted twenty-eight grounds for relief in his petition. In his third ground for relief, Hill argued that because of his "mental deficiencies," he was "incompetent" to waive his *Miranda* rights and a jury trial, violating his rights under the Fifth, Sixth, Eighth, and Fourteenth Amendments. (*Id.* at 10-11.) Hill also asserted three claims that referenced the bite mark found on Fife. Specifically, in his eighth ground for relief, Hill alleged that photographs of the bite marks that were delivered by the State to him at the time of trial, should have been produced by the State during pre-trial discovery. (*Id.* at 15-16.) In his tenth ground, he alleged the prosecutor improperly stated during closing arguments that the bite mark was Hill's "calling card." (*Id.* at 18.) And in his twenty-sixth ground, Hill alleged that the state post-conviction court should have granted his request for appointment of a new expert to reexamine the bite-mark evidence that was litigated during the trial. (*Id.* at 36-37.) Another judge on this Court denied Hill's petition on September 29, 1999, but granted a certificate of appealability as to several of Hill's claims, including his third, eighth, and twenty-sixth grounds for relief. (ECF No. 54.)

Hill appealed this Court's decision denying the writ to the Sixth Circuit Court of Appeals. While his appeal was pending, the United States Supreme Court decided *Atkins v. Virginia,* 536 U.S. 304 (2002), which held that the execution of mentally retarded offenders violates the Eighth Amendment's prohibition against cruel and unusual punishment. Less than two months later, on August 13, 2002, the Sixth Circuit returned Hill's case to this Court with instructions that it

"remand Hill's *Atkins* claim to a state court and stay his remaining claims pending resolution of the retardation issue." *Hill v. Anderson*, 300 F.3d 679, 680 (6th Cir. 2002). The court explained that it did not dismiss Hill's "mixed petition" containing exhausted claims along with the unexhausted *Atkins* claim, as it was authorized to do under § 2254(b)(2) of the Antiterrorism and Effective Death Penalty Act of 1996 ("AEDPA"), because the issue of Hill's Eighth Amendment mental retardation claim had not been exhausted or conceded, and Ohio should have the opportunity to develop its own procedures for determining whether a particular claimant is retarded and ineligible for death. *Id.* at 682. It also found that Hill's mental status raised "a serious question" regarding the voluntariness of his confession to police. *Id.* at 682-83. The court emphasized the limited nature of its remand, however, stating:

> In *Zarvela v. Artuz*, the Second Circuit faced a similar mixed petition problem. *See* 254 F.3d 374, 380 (2001), *cert. denied*, 534 U.S. 1015, 122 S.Ct. 506, 151 L.Ed.2d 415 (2001). Crafting a solution consistent with the purposes of the Antiterrorism Act, the court remanded to the district court with instructions to dismiss the unexhausted claim and stay the exhausted claims, but conditioned the stay on the petitioner promptly seeking state remedies and, when the state remedies were exhausted, promptly returning to federal court. *See id.* at 381. *Zarvela* has been cited with approval by this Court. *See Palmer v. Carlton,* 276 F.3d 777, 778 (6th Cir.2002).
>
> Here we adopt *Zarvela*'s approach and remand Hill's case to district court with instructions to dismiss his *Atkins* claim to be considered by state court and to stay his remaining claims pending exhaustion of state court remedies. To ensure that Hill does not draw out his state court proceedings, we instruct the district court to condition the stay on Hill's seeking relief from a state court on his *Atkins* claim within 90 days of the date the mandate issues from this Court.

Id. at 683.

In accordance with the Sixth Circuit's remand instructions, this Court dismissed Hill's *Atkins* claim on August 20, 2002, and stayed his remaining claims pending exhaustion of his

state-court remedies. (ECF No. 60.) Hill then filed a petition to vacate his death sentence with the state trial court on November 27, 2002, and an amended petition to vacate on January 17, 2003. (Supp. App., Disc 1, 31-32.) Hill, assisted by appointed counsel and two appointed experts, conducted substantial briefing and discovery regarding his claims. (*See id.* at 1-33.) The trial court, in accordance with the procedures established by the Ohio Supreme Court in *State v. Lott*, 97 Ohio St. 3d 303, 779 N.E.2d 1011 (Ohio 2002), held a twelve-day hearing, at which Hill submitted more than 500 pages of evidence. (*See* Supp. App., Disc 1, 486-1013.) At its conclusion, the trial court issued an 84-page opinion, which thoroughly examined the evidence and explained its decision. (*See id.* at 3399-3483.) Hill then was provided with appointed counsel to appeal the decision. (*See id.* at 3496-4517.) The Ohio court of appeals affirmed the trial court's decision on July 11, 2008. *State v. Hill*, 177 Ohio App. 3d 171, 894 N.E.2d 108 (Ohio Ct. App. 2008). The Ohio Supreme Court declined to review the case on August 26, 2009, with two justices dissenting. *State v. Hill*, 122 Ohio St. 3d 1502, 912 N.E.2d 107 (Ohio 2009) (Table).

After Hill exhausted his *Atkins* claims in state court, both parties promptly moved this Court to "reopen" Hill's habeas action. (ECF Nos. 63, 65.) The Court granted the motions on October 1, 2009, declaring Hill's habeas case "REOPENED" and ordering Hill to file a "supplement" to his petition that "shall contain only those new claims generated by the state court *Atkins* proceedings and shall not re-state the claims contained in the initial petition in this matter." (ECF No. 68.) On March 15, 2010, Hill filed an amended habeas petition in this Court, asserting his *Atkins* and *Atkins*-related claims. (ECF No. 94.) Respondent filed a supplemental return of writ on April 30, 2010. (ECF No. 98.) Hill filed his traverse on August 2, 2010. (ECF

No. 102.) Hill then requested, and was granted permission to conduct limited discovery, which he completed on April 13, 2011. (*See* ECF Nos. 132, 135.) Hill requested additional discovery on May 23, 2012, which this Court denied on July 10, 2012. (ECF No. 148.) Hill's *Atkins* petition currently is pending before this Court.

On March 31, 2014, Hill filed a motion in the Sixth Circuit requesting that it authorize his federally appointed and funded counsel who currently represent him in his habeas case to represent him in state-court litigation. Specifically, he wants his habeas counsel to assist him in obtaining a new trial in state court based on newly obtained evidence, a report from a forensic dental consultant who opines that the bite mark found on Fife "is not a human bitemark [*sic*]." (ECF No. 156, 1-2.) Hill filed a motion with this Court that same day, requesting permission to file his motion with the Sixth Circuit under seal. (ECF No. 150.) The Court granted Hill's motion on April 3, 2014, and Hill filed the sealed document with this Court that day. (ECF Nos. 151, 152, respectively.)

On April 18, 2014, the Sixth Circuit ordered Hill to file his motion with this Court, because, it stated, "[r]uling on Hill's motion would require [the court] to admit and consider new evidence, and [the court does] not generally allow a party to supplement the record with evidence not put before the district court in the first instance." (ECF No. 155, 2 (citations omitted).) Hill complied by filing his request with this Court on April 21, 2014. (ECF No. 156.) Respondent opposed the motion, and Hill replied to Respondent's opposition. (ECF Nos. 157, 158, respectively.)

II. Analysis

A. § 3599 and *Harbison v. Bell*

An indigent federal habeas corpus petitioner is entitled to the appointment of "one or more attorneys" and additional services that are "reasonably necessary" for "adequate representation" pursuant to18 U.S.C. § 3599(a)(2). Subsection (e) of § 3599 outlines the scope of that representation. It provides:

> each attorney so appointed shall represent the defendant *throughout every subsequent stage of available judicial proceedings*, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, *and all available post-conviction process*, together with applications for stays of execution and *other appropriate motions and procedures* . . . .

18 U.S.C. § 3599(e) (emphasis added).

The Supreme Court interpreted § 3599 in *Harbison v. Bell*, 556 U.S. 180 (2009), holding that the statute "authorizes federally appointed counsel to represent their clients in state clemency proceedings and entitles them to compensation for that representation." *Id.* at 194. The Supreme Court explained, "[u]nder a straightforward reading of the statute, subsection (a)(2) triggers the appointment of counsel for habeas petitioners, and subsection (e) governs the scope of appointed counsel's duties." *Id.* at 185. The Court noted, however, that appointed counsel is not expected to provide each of the many services enumerated in section (e) for every client. Rather, "counsel's representation includes only those judicial proceedings transpiring 'subsequent' to her appointment." *Id.* at 188. Thus, "[i]t is the sequential organization of the statute and the term 'subsequent' that circumscribe counsel's representation, not a strict division between federal and state proceedings." *Id.*

Of particular relevance here, the *Harbison* Court addressed the Government's concern that under the Court's interpretation of § 3599, federally appointed counsel would be required to represent their clients in state retrial or state habeas proceedings that occur after counsel's appointment because such proceedings are also "available post-conviction process." The Court explained that § 3599(e) does not apply to either of those proceedings because they are not "properly understood as a 'subsequent stage' of judicial proceedings but rather as the commencement of new judicial proceedings." *Id.* at 189. As to state habeas proceedings in particular, the Court noted,

> State habeas is not a stage "subsequent" to federal habeas. Just the opposite: Petitioners must exhaust their claims in state court before seeking federal habeas relief. *See* § 2254(b)(1). That state postconviction litigation sometimes follows the initiation of federal habeas because a petitioner has failed to exhaust does not change the order of proceedings contemplated by the statute.

Id. at 189-90. It added in a footnote,

> Pursuant to § 3599(e)'s provision that counsel may represent her client "in other appropriate motions and procedures," a district court may determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation. This is not the same as classifying state habeas proceedings as "available post-conviction process" within the meaning of the statute.

Id. at 190 n.7. The Court further explained that § 3499(a)(2) "provides for counsel only when a state petitioner is unable to obtain adequate representation," and that appointed counsel is constitutionally required for state indigent defendants on retrial. *Id.* at 189.

The Sixth Circuit interpreted *Harbison* in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011). The court affirmed a Tennessee district court's ruling granting a habeas petitioner's authorization for funding pursuant to § 3599 for his federally appointed counsel to represent him in clemency

proceedings, but denying it for the reopening of his state post-conviction and competency-to-be-executed proceedings. *Id.* at 291. It noted that in *Harbison,* the Supreme Court interpreted § 3599 to "provide[] for counsel only when a state petitioner is unable to obtain adequate representation," and concluded that "[a]bsent clear direction from the United States Supreme Court or Congress, we decline to obligate the federal government to pay for counsel in state proceedings where the state itself has assumed that obligation." *Id.* The court then held that because Tennessee law authorized appointed counsel in state competency and post-conviction proceedings, Irick's attorneys were not entitled to compensation for services related to those proceedings under § 3599. *Id.* at 291-92. The court further found that the state post-conviction proceedings at issue fell outside the scope of § 3599(e) because they were "the commencement of new judicial proceedings," rather than a stage "subsequent to federal habeas," and Irick was "not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather, he [was] re-opening a state judgment on state-law grounds." *Id.* at 292.

In this case, Hill argues that his habeas counsel's appointment is appropriate under the plain language and broad scope of § 3599 as a "subsequent stage of available judicial proceedings[,]" "available post-conviction process" and/or "other appropriate motions and procedures" referenced in § 3599(e). (ECF No. 156, 3-6.) Hill further contends the appointment is authorized by the Supreme Court's dicta in *Harbison* regarding federal funding of counsel for state habeas proceedings, because the state-court proceedings for which Hill seeks representation "are being litigated in the context of the habeas case to comply with the state exhaustion requirements of the AEDPA." (*Id.* at 3, 6-8.) Finally, Hill asserts that Ohio law does not provide for the appointment of counsel for the proceedings at issue. (*Id.* at 8-10.)

Respondent counters that Hill has no "pending" habeas action from which to seek appointment of counsel under § 3599, because his first habeas petition has been denied and reduced to judgment and the claim he wishes to present to state court is not related to his second, *Atkins* habeas action. (ECF No. 157, 1.) He argues that, as in *Irick*, Hill seeks to re-open his state judgment on state-law grounds, under which circumstances he is not entitled to federally funded counsel, rather than exhaust a claim in state court for the purpose of later presenting it in this habeas action in this Court. (*Id.* at 1-2.) This is apparent, he maintains, because the evidence at issue will not support a viable or cognizable federal habeas claim: the expert report is merely a new opinion on a fully litigated topic and therefore does not qualify as "newly discovered evidence"; the Supreme Court has not recognized a freestanding "actual innocence" claim in habeas; and Hill has not identified how such a claim could be used in his habeas case as a gateway to excuse an untimely petition or a procedurally defaulted claim. (*Id.* at 11-12.)

Hill replies that his habeas *Atkins* petition is in fact pending before this Court, and that his request falls within the scope of § 3599(e) because he must move for a new trial based on this evidence "for purposes of exhaustion in anticipation of federal habeas litigation, regardless of how it is subsequently fashioned." (ECF No. 158, 5.) He states that his new claim is "grounded in federal due process concerns." (*Id.* at 2-3.) Hill further argues that Ohio law does not provide "guaranteed" state-appointed counsel for the proceedings at issue. (*Id.* at 3-4.)

B. Exhaustion of Federal Habeas Claims vs. Commencement of New Judicial Proceedings

The Court agrees with Respondent that Hill's request is not authorized by § 3599 because Hill seeks to initiate new state-court proceedings based on new, potentially exculpatory evidence,

rather than exhaust a federal claim related to his pending habeas petition. Although the majority in *Harbison* stated in dicta that district courts "*may* determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation," it expressly noted that "[t]his *is not* the same as classifying state habeas proceedings as 'available post-conviction process' within the meaning of the statute." *Harbison,* 556 U.S. at 190 n.7 (emphasis added). In fact, the Court was clear that the opposite is true: "State habeas is not a stage 'subsequent' to federal habeas," and therefore does not fall within the scope of § 3599. *Id.* at 189. The Sixth Circuit emphasized this point in *Irick* when it noted that the petitioner was "not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather, he [was] re-opening a state judgment on state-law grounds." *Irick*, 636 F.3d at 292.

Here, Hill requests federal funding of habeas counsel for the "commencement of new judicial proceedings" in order to attack his state-court conviction and sentence, placing this case squarely within *Irick*. All that is currently pending in this Court is Hill's amended habeas petition regarding his Eighth Amendment mental retardation claims. The Sixth Circuit was explicit in its limited remand to this Court: it instructed the Court to remand only Hill's *Atkins* claim to state court and to stay his remaining claims pending resolution of that issue alone. *Hill*, 300 F.3d at 680. This Court also has been clear about the limits of Hill's reopened habeas action. Once Hill completed his state-court *Atkins* proceedings, this Court ordered that Hill's supplemental habeas petition should "contain only those new claims generated by the state court *Atkins* proceedings and . . . not re-state the claims contained in the initial petition in this matter." (ECF No. 68.) Hill's alleged "newly discovered evidence" is completely unrelated to Hill's *Atkins* claims, and

any claims founded on that evidence would not be related to, or necessary for, the full disposition of Hill's pending petition. Although that evidence may relate to certain claims in Hill's initial habeas petition, the Court has ruled on those claims and that petition is no longer within this Court's jurisdiction.

The procedural posture of Hill's case is different than a habeas case in which the district court stays proceedings pursuant to *Rhines v. Weber*, 544 U.S. 269 (2005), to allow a petitioner to return to state court to exhaust certain claims asserted in a pending federal habeas petition. *See, e.g., Conway v. Houk*, No. 3:07 CV 345, 2013 WL 6170601, at *3 (S.D. Ohio Nov. 22, 2013); *Gapen v. Bobby*, No. 3:08 CV 280, 2013 WL 5539557, **4-5 (S.D. Ohio Oct. 8, 2013) (both finding it appropriate for federal habeas counsel to represent petitioner in state court to exhaust pending federal habeas claims). The Eleventh Circuit case, *Gary v. Warden, Georgia Diagnostic Prison*, 686 F.3d 1261 (11th Cir. 2012), is instructive. In *Gary*, a federal habeas petitioner sought federal funding under § 3599 for, among other things, an expert to assist appointed counsel in pursuing DNA testing, the results of which might serve as the basis for a motion for new trial. The court of appeals affirmed the district court's denial of funding. It explained,

> As the language of § 3599(e) and the Court's opinion in *Harbison* indicate, federally-funded counsel is available only for *certain* subsequent proceedings. A state court motion for DNA testing does not ordinarily follow the commencement of a federal habeas action and is, therefore, not a subsequent proceeding contemplated by § 3599(e), even when filed after the prisoner's federal habeas case has concluded.

Id. at 1274-75 (emphasis original). The court distinguished the petitioner's request from the scenario contemplated in the *Harbison* footnote regarding habeas petitioners' efforts to exhaust certain claims in a mixed petition. It noted that "[i]t is quite another matter, however, for an

indigent prisoner to expect federally-funded counsel to initiate an entirely *new* state court proceedings to obtain relief from a conviction and death sentence on a state law ground – in Gary's case, on the ground of newly discovered evidence." *Id.* at 1277 (emphasis original).

Similarly, here, Hill does not seek to exhaust a federal habeas claim currently pending before this Court. Instead, he requests funding for counsel to initiate an entirely new state-court proceeding by filing a motion for a new trial based on newly discovered evidence–wholly outside the context of his pending habeas case and clearly outside the scope of § 3599(e).

C. Available State-Funded Representation

Furthermore, even if Hill's request for federally funded counsel were appropriate and authorized by § 3599, it would be precluded under *Harbison* because Hill has not demonstrated that Ohio does not provide "adequate representation" for him in his efforts to obtain a new trial. Indigent criminal defendants have a right to appointed counsel under the United States and Ohio Constitutions, which "extends to the first appeal of right, and no further." *Pennsylvania v. Finley*, 481 U.S. 551, 555 (1987); *State v. Crowder,* 60 Ohio St. 3d 151, 573 N.E.2d 652, syllabus ¶ 1 (Ohio 1991) ("an indigent petitioner does not have a state or a federal constitutional right to representation by an attorney in a postconviction proceeding"). Accordingly, Ohio Rule of Criminal Procedure 44(A) requires the appointment of counsel for indigent defendants "from [a defendant's] initial appearance before a court through [the defendant's] appeal as of right . . . ." Ohio R. Crim. P. 44(A). And Ohio Rev. Code § 2953.21(I) provides for the appointment of counsel for indigent capital petitioners in a *first* post-conviction proceeding. But Ohio courts of appeals have held that § 2953.21(I) does not allow for appointment of counsel in successive post-conviction proceedings, including motions for a new trial. *See State v. Conway*, No. 12AP-412,

2013 WL 4679318, at *13 (Ohio Ct. App. Aug. 29, 2013) ("appointment of counsel is required [under § 2953.21(I)] only in the case of a timely-filed first petition for post-conviction relief"); *State v. Clumm*, No. 08 CA 32, 2010 WL 364460, at *2 (Ohio Ct. App. Jan. 28, 2010) (finding no right to appointed counsel to file motion for new trial twenty-eight years after court decided defendant's first appeal).

Nevertheless, Hill may be able to obtain state-funded representation under Ohio's Public Defender Act. The Act provides:

> (A)(1) The county public defender shall provide legal representation to indigent adults and juveniles who are charged with the commission of an offense or act that is a violation of a state statute and for which the penalty or any possible adjudication includes the potential loss of liberty and in postconviction proceedings as defined in this section.

Ohio Rev. Code § 120.16(A)(1). As Hill notes, this representation is not guaranteed. The Act also states:

> (D) The county public defender shall not be required to prosecute any appeal, postconviction remedy, or other proceeding, unless the county public defender is first satisfied there is arguable merit to the proceeding.

Ohio Rev. Code § 120.16(D). *See also Crowder*, 60 Ohio St. 3d at 153, 573 N.E.2d at 654 (recognizing that in post-conviction proceedings, "the petitioner, pursuant to R.C. 120.16(A)(1) and (D), is entitled to representation by a public defender at such a proceeding if the public defender concludes that the issues raised by the petitioner have arguable merit"). Still, as long as Ohio law affords Hill with an opportunity for "adequate representation" in his state-court proceedings, federally funded counsel is not permitted under *Harbison*. *See Harbison*, 556 U.S. at 189 ("[§ 3599(a)(2)] provides for counsel only when a state petitioner is unable to obtain adequate representation").

Hill argues that the Ohio Public Defender's Office cannot represent him because the Trumbell County branch and the post-conviction unit of the office represented him during his state *Atkins* proceedings and are currently the subject of ineffective-assistance and other claims in his habeas action. (ECF No. 156, 10.) He also cites the difficulty in finding qualified counsel and the potential delay caused by the involvement of new counsel in his case as reasons supporting his current habeas counsel's appointment. (*Id.* at 10-11.) The Court notes again, however, that Hill's *Atkins* claims are separate and distinct from the claims Hill now wishes to pursue in state court. The Court is not convinced that the Ohio Public Defender cannot provide Hill with effective and efficient representation.

III. Conclusion

Accordingly, Hill's request that the Court authorize his federally appointed and funded counsel who currently represent him in his habeas case in this Court to represent him in state-court litigation is denied.

IT IS SO ORDERED.

/s/ John R. Adams
JOHN R. ADAMS
UNITED STATES DISTRICT JUDGE

May 15, 2014

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	)	**CASE NO. 4:96-CV-795**
	)	
Petitioner,	)	**JUDGE JOHN ADAMS**
	)	
v.	)	
	)	***Capital Habeas Corpus Case***
CARL ANDERSON, Warden,	)	
	)	
Respondent.	)	

MOTION TO RECONSIDER MEMORANDUM OF OPINION AND ORDER DENYING REQUEST FOR AUTHORIZATION FOR HABEAS COUNSEL TO CONDUCT STATE COURT LITIGATION

On April 21, 2014, counsel for Petitioner Danny Hill filed with this Court a *Request for Authorization for Habeas Counsel to Conduct State Court Litigation*. (ECF #156). On May 15, 2014, the Court denied the request. (ECF #159). In light of additional information, counsel respectfully requests the Court to reconsider and find sufficient cause to allow habeas counsel to conduct state court litigation on behalf of Mr. Hill.

I. THE OHIO PUBLIC DEFENDER CANNOT PROVIDE MR. HILL WITH EFFECTIVE AND EFFICIENT REPRESENTATION

In the order denying the request for authorization, the Court stated it was "not convinced that the Ohio Public Defender cannot provide Hill with effective and efficient representation." (ECF #159, at 15, PageID #894). During the state *Atkins* proceedings, OPD counsel Gregory Meyers filed two pleadings with the state court detailing the conflicts with Mr. Hill: Petitioner Hill's Counsel Gregory W. Meyers' Motion to Withdraw (Supplemental Atkins Appendix at 461-469); and Attorney Affidavit Attesting to Danny L. Hill's Indigency and to a Conflict Between the Office of

the Ohio Public Defender and Petitioner Hill that Prevents Attorneys from the Ohio Public Defender's from Representing Petitioner Hill on Appeal (Supplemental Atkins Appendix at 3484-3485). Mr. Meyers made it abundantly clear that there were "irreconcilable differences" between Mr. Hill and himself (Motion at 8, Appx at 468), as well as with "all lawyers employed by the Office of the Ohio Public Defender." (Affidavit at ¶ 7).

Pamela J. Prude-Smithers, the current Chief Counsel of the Death Penalty Division for the Office of the Ohio Public Defender states in an affidavit that "the Ohio Public Defender is unable to represent Danny Hill in state court proceedings" because of a "strong conflict" and lack of adequate resources. (Exhibit A, ¶ 5, 6, 7.) The conflict between Mr. Hill and the Ohio Public Defender cannot be isolated to just the *Atkins* proceedings in state court.

II. THE SIGNIFICANCE OF THE NEWLY DISCOVERED EVIDENCE

The newly discovered evidence is based on the report from Dr. Franklin Wright from his review of the purported bitemark on the homicide victim in this case. (ECF #156-2, PageID #838-845, Exhibit B, Report of Franklin Wright, DMD, D-ABFO; ECF #156-3, PageID #846-857, Exhibit C, CV of Franklin Wright, DMD, D-ABFO). Dr. Wright's review of the relevant materials in this case reveals that the injury to the homicide victim was not even a human bitemark. Therefore, any trial testimony that Mr. Hill inflicted a bitemark on the victim was erroneous. The State's reliance on the bitemark evidence was critical to their case against Mr. Hill, both to secure a conviction and a death sentence against him. The Ohio appellate courts relied on the bitemark evidence to uphold the convictions and death sentence against Mr. Hill. *State v. Hill*, 595 N.E.2d 884 (Ohio 1992). The bitemark evidence was the only forensic evidence presented at trial that directly implicated Mr. Hill in the assault and murder of the victim. Further, Dr. Wright knew Dr. Mertz who confided to him

that he "was not as sure the injury was a definite bitemark nor was he so sure, if the injury was a bitemark, that he could identify a biter." (ECF #156-2, PageID #842). The significance of this newly discovered evidence cannot be overstated.

A. The Transcripts Illustrate The Government's Reliance On The Bitemark Evidence.

1. Prosecutor's Opening Statement and Closing Argument

Both the prosecutor's opening and closing statements referred extensively to the bitemark evidence against Mr. Hill. While the opening statement laid out a time line of the events regarding the analysis of the bitemarks, the closing argument is where the prosecutor emphasized the paramount importance of this evidence. In his opening statement, the prosecutor explained that during the autopsy, Dr. Adelman, the coroner, first noticed the marks on the victim's penis and thought they could be human bitemarks. (Trial Tr. Vol. 1 at 30). Adelman was not an odontologist, and therefore not an expert in the field, something the prosecutor admitted. (*Id.*) Adelman contacted Dr. Mertz, a forensic odontologist, to examine the bitemarks further. (*Id.*) Dr. Mertz examined the victim's corpse, requested dental impressions of the suspects, and eventually determined that the bitemarks on the victim's penis must have come from Mr. Hill, who therefore must have raped the boy by way of fellatio. (*Id.* at 32.)

In the context of this sequence of events, it is important to note that Adelman was the person who first identified the marks as bitemarks, even though he was not an expert. Therefore, when Adelman contacted Dr. Mertz and told him about the marks, Dr. Mertz was pre-disposed to believe the marks were bitemarks, even though Adelman did not necessarily have the background to make

such a determination.[1] In regard to the prosecutor's description of these events, he noted early on that teeth leave the same kind of identifying characteristics as fingerprints. (*Id.*) The prosecutor tried to imply that a potential bitemark was as probative as if Mr. Hill's fingerprints had been found on the body. The science of forensic odontology though does not support that conclusion.

In his closing argument, the prosecutor mentioned multiple times how important the bitemark evidence was and concluded his argument by relying on the expert testimony from both Dr. Mertz and Dr. Levine. The prosecutor began his argument by specifically noting Mr. Hill's confession, but then indicated that "more importantly, the other evidence proves beyond question that this defendant was a principal in the offense." (Trial Tr. Vol. 4 at 1166.) Mr. Hill's confession and the physical bitemarks were the two most important pieces of evidence in the case, but the prosecutor specifically stated in the beginning of his closing argument that the "other evidence," which included the bitemark, was more important than the confession. Therefore, without the bitemark evidence, the government would no longer have the means of proving Mr. Hill was principal offender.

Throughout his story of the case, the prosecutor made a couple of vague references to the bitemark before he analyzed the expert testimony. (*Id.* at 1167, "Wherein he destroyed and devoured a little boy."); (*id.* at 1170, "So, we use circumstantial evidence, which alone, if shown to exclude a reasonable hypothesis of innocence, is sufficient to convict."). The prosecutor concluded by discussing the bitemark evidence and the testimony from both Dr. Mertz and Dr. Levine. Once again, the prosecutor stated that the odontology evidence was "important evidence" and "especially significant." (*Id.* at 1199.) He emphasized the fact that both experts implicated Mr. Hill in at least

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[1] Dr. Wright's report states that Dr. Mertz admitted he was influenced by the heinous nature of the crime and regretted his conclusions and testimony.

one of the bites and that Mr. Hill's broken tooth was the "best evidence because that's what Doctor Mertz says is a trademark and blueprint that we can follow in the pattern of injury on that little boy's private." (*Id.* at 1200.) Not only did the prosecutor conclude with what he believed to be his strongest piece of evidence, but he also came full circle by referring to the bitemark as a blueprint, much like the reference in his opening statement to the bitemark being like a fingerprint.

Clearly defense counsel recognized how much the prosecution relied on the bitemark evidence, because he spent a significant portion of his closing argument attempting to explain the "battle of the experts." (*Id.* at 1240-45.) Finally, in response to defense counsel's explanation of the experts, the prosecution once again referenced the bitemark evidence in rebuttal, and highlighted the fact that Dr. Mertz had the opportunity to examine the victim's body in person, unlike Levine, who only looked at photographs. (*Id.* at 1266.) Based on the explicit references to the importance of the bitemark evidence, as well as its placement as the final piece of evidence in the prosecutor's closing argument, the bitemarks clearly represented the government's key evidence of guilt.

2. Witness And Expert Testimony

Five different non-expert witnesses testified regarding the bitemark evidence throughout the trial. Therefore, in addition to using an expert forensic odontologist to connect Mr. Hill to the crime, the government also used lay witnesses to describe, explain, and validate the bitemark findings. For example, Detective Teeple's testimony described what Dr. Walton, the dentist, did when he took dental impressions of Mr. Hill and Combs, as well as how the government protected that evidence. (Trial Tr. Vol. 1 at 149.) Sergeant Stewart's testimony referenced the search warrants used for the dental impressions. (Trial Tr. Vol. 2 at 546.) In Dr. Walton's testimony, he discussed his process and the distinctions in Mr. Hill's teeth, but also noted that such distinctions are common. (Trial Tr. Vol.

3 at 826.) Although Walton's testimony did not specifically address the bitemarks on the penis, the extensive questioning and testimony helped prove that Walton's methods were legitimate. Dr. Adelman stated he discovered contusions and abrasions around the penis and that the abrasions "appeared" to be bitemarks. (Trial Tr. Vol. 2 at 363). Adelman continued to use "contusion" and "abrasion" interchangeably throughout his testimony, indicating that the marks varied in their extent of injury. Finally, like in the prosecutor's opening statement, Adelman explained that, "[A] bitemark can be as specific as a fingerprint." (*Id.* at 364.) Not only was this statement misleading, because in fact the government did not have any evidence of Mr. Hill's fingerprints, but it was improper coming from someone who is not a forensic odontologist, and therefore, not an expert.

After questioning an array of witnesses who referenced the bitemark evidence, the government presented its main expert witness, Dr. Mertz, a forensic odontologist. Dr. Mertz's testimony is hundreds of pages long and goes into significant detail regarding his examination and determination that the bitemarks came from Mr. Hill. Dr. Mertz, like the prosecutor and Adelman, analogized a bitemark to a fingerprint. (Trial Tr. Vol. 3 at 912.) Although this comment was slightly more legitimate coming from an expert, it was still misleading based on the fact that the government did not possess any fingerprint evidence against Mr. Hill. Although Dr. Mertz admitted in the beginning of his testimony that bitemark evidence usually is not strong enough to make a solid determination, in this case he ended up testifying "with reasonable degree of medical certainty, that Mr. Hill's teeth, as depicted by the models and the photographs that I had, made the bite on the victim's penis." (*Id.* at 915, 937.) Despite his "reasonable degree of medical certainty," Dr. Mertz later cited an attenuated study of 18 year old male erections in order to explain why his measurements between the marks and impressions were off. (*Id.* at 956.) The trial transcripts

illustrate that the three-judge panel picked up on this uncertainty, the judges began asking many questions about Dr. Mertz's analysis. (*Id.* at 942.) These questions continued throughout Dr. Mertz's testimony and are the only portion of the trial where the judges are so actively vocal.

Unfortunately, defense's expert witness, Dr. Levine, did not do much to discredit Dr. Mertz's testimony. In fact, as described above, the prosecutor was able to rely on both Dr. Mertz's and Levine's testimony in his closing argument. Although Levine testified on direct that he could not come to a conclusion with a reasonable degree of certainty, he admitted that the marks could have been made by both suspects, and that one mark in particular was likely made by Mr. Hill. (Trial Tr. Vol. 4 at 1145-46, 1153.) The prosecutor was able to bolster his own argument by again getting Levine to admit that Mr. Hill likely made one of the bitemarks, "to the exclusion of Timmy Combs." (*Id.* at 1158.)

B. The State Appellate Courts Relied On The Bitemark Evidence.

1. State Court Direct Appeal

a. Court of Appeals of Ohio

The Court of Appeals decision referenced the bitemark evidence in both the fact and analysis sections. *See State v. Hill*, Nos. 3720, 3745, 1989 WL 142761, at *1 (Ohio App. 11 Dist. Nov. 27, 1989). The factual description of the autopsy indicated that an inspection of the victim's body "disclosed teeth marks on his penis." *Id.* at *1. The opinion noted that a forensic odontologist "concluded that appellant inflicted the bitemarks on the victim's penis" and that the defense's expert also concluded that Mr. Hill likely left one of the marks. *Id.* at *2-3. The analysis first discussed the bitemarks in Assignment #3 regarding Adelman's testimony about asphyxiation. The court not only decided that Adelman's testimony was probative because it helped explain Dr. Mertz's testimony,

but also that the testimony "shed[] light on precisely what occurred that fateful day." *Id.* at *16. This statement indicates that the court believed that the bitemark evidence, as explained by Dr. Mertz and Adelman, is what told the true story of what happened to the victim, even though there is no way of truly knowing what happened. The next significant discussion of the bitemark evidence occurred in Assignment #19, reviewing the factors related to Mr. Hill's death sentence. *Id.* at *28. The court described the different pieces of evidence that made up the "evidential table," which included the expert testimony from Dr. Mertz and Dr. Levine. *Id.* ("The evidential table is more than sufficient to permit a finding of guilt."). The court also noted that the biting of the penis acted as evidence of rape. *Id.* at *29. Although the court admitted that "the exact sequence and extent of appellant's actual direct involvement is not specifically detailed in the evidence," it was satisfied with the direct and circumstantial evidence proving that Mr. Hill engaged in the assault. *Id.* at 31 ("This direct evidence base provides, at the very least, that appellant was the only other person when the victim was experiencing the pinnacle of excruciating pain from these egregious assaults.").

Finally, and most importantly, the court highlighted the importance of the bitemark evidence in its discussion of Mr. Hill's participant versus co-principal claim. "Appellant's contention suggesting that he merely observed while co-defendant Timothy Combs tortured and assaulted the victim is *overwhelmingly negated* by his personal odontological 'signature' on the penis of the victim." *Id.* at *33 (emphasis added). This quote illustrates the fact that the court considered the bitemark evidence to be much more valuable than any statements made by Mr. Hill regarding his involvement in the crime. Therefore, without that "personal signature," the "direct physical evidence" demonstrating Mr. Hill's guilt is lost. *Id.* at *35.

b. Supreme Court of Ohio

The Supreme Court of Ohio opinion is similar to the Court of Appeals opinion. *See State v. Hill*, 595 N.E.2d 884 (Ohio 1992). The facts are basically identical and many of the findings the same. The most significant portion of the opinion is in regard to Mr. Hill's contention that he was denied his right to due process when he was denied his statutory right to counsel. *Id.* Although the court determined that Mr. Hill's confession was valid despite his lack of an attorney at the time, the court also examined the effect if the confession were not valid. *Id.* at 320 ("Even assuming, *arguendo*, that defendant's statements should have been suppressed, the other evidence in the instant cause is so overwhelming as to render any error harmless beyond a reasonable doubt."). Although the court did not specifically reference the bitemark evidence, it is appropriate to infer based on the way the prosecutor presented his case and the state courts came to their conclusions, that the bitemark was the most significant physical evidence. Additionally, the Supreme Court used the same language of "overwhelming" that the Court of Appeals used when referencing the bitemark evidence. *Id.*; *see also Hill*, 1989 WL 142761, at *33.

III. NEED FOR EXHAUSTION OF FEDERAL HABEAS CLAIMS

As the above detail illustrates, the bitemark evidence used by the prosecution to secure a conviction and death sentence against Mr. Hill was exceedingly significant. As Justice Breyer stated in his concurrence to in *Cullen v. Pinholster,* 131 S. Ct. 1388, 1412-13 (2011), the factual bases for any claim must be fully exhausted before a federal habeas court may even consider a request to file a successor habeas petition. If counsel would attempt to supplement the record with Dr. Wright's report in support of claims pending on appeal to the Sixth Circuit, counsel suspects the Warden would object to such as the report would be unexhausted.

Further, if Mr. Hill were not indigent and could retain counsel, then counsel would not need to seek authorization from the Court, but could initiate the state court proceedings unfettered. To deny appointed counsel authorization would be to deny Mr. Hill equal protection under the law and therefore a denial of due process.

IV. CONCLUSION

Counsel respectfully requests the Court to reconsider the request for authorization to conduct state court litigation in light of the additional information provided. Counsel has demonstrated more thoroughly that there is no efficient and effective representation available to Mr. Hill in state court, the significance of this newly discovered evidence to the entire case, and that the facts generated by this newly discovered evidence need to be exhausted in state court before Mr. Hill may initiate any federal habeas proceedings.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on May 23, 2014, a copy of the foregoing **Motion to Reconsider Memorandum of Opinion and Order Denying Request for Authorization for Habeas Counsel to Conduct State Court Litigation** was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic filing receipt. All other parties will be served by regular U.S. Mail. Parties may access this filing through the Court's system.

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE
Assistant Federal Public Defender

Counsel for Petitioner, Danny Hill

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	:	**CASE NO. 4:96 CV 00795**
	:	
Petitioner,	:	
	:	**JUDGE JOHN R. ADAMS**
vs.	:	
	:	
CARL ANDERSON, Warden,	:	
	:	**MEMORANDUM OF OPINION**
Respondent.	:	**AND ORDER**

This matter is before the Court upon Petitioner Danny Lee Hill's ("Hill" or "Petitioner") Motion for Reconsideration Memorandum of Opinion and Order Denying Request for Authorization for Habeas Counsel to Conduct State Court Litigation. (ECF No. 160.) The Respondent, Warden Carl Anderson ("Respondent"), filed an Opposition to Reconsideration. (ECF No. 160.) For the following reasons, Hill's motion is denied.

I. Relevant Background

Hill currently has pending in this Court an amended habeas petition asserting claims under *Atkins v. Virginia,* 536 U.S. 304 (2002), which held that the execution of intellectually disabled offenders violates the Eighth Amendment's prohibition against cruel and unusual punishment. (ECF No. 94.) On April 21, 2014, Hill filed a motion in this Court requesting that it authorize his federally appointed and funded counsel who currently represent him in his habeas *Atkins* case to represent him in state-court litigation. Specifically, he wants his habeas counsel to

assist him in obtaining a new trial in state court based on newly obtained evidence, a report from a forensic dental consultant who opines that the bite mark found on Fife "is not a human bitemark [*sic*]." (ECF No. 156, 1-2.)

On May 15, 2014, this Court denied Hill's request. (ECF No. 159.) It concluded that Hill's request does not meet the requirements of 18 U.S.C. § 3599, which authorizes federal funding for indigent petitioners in capital habeas cases, or the United States Supreme Court decision interpreting that statute, *Harbison v. Bell*, 556 U.S. 180 (2009). It explained that Hill seeks to initiate new state-court proceedings based on new, potentially exculpatory evidence, rather than exhaust a federal claim related to his pending habeas petition. And, furthermore, even if Hill's request for federally funded counsel were appropriate and authorized by § 3599, it would be precluded because Hill has not demonstrated that Ohio does not provide "adequate representation" for him in his efforts to obtain a new trial.

Hill now argues that the Court should reconsider that ruling. (ECF No. 160.) He states, with a supporting affidavit, that the Ohio Public Defender's Office cannot represent him because attorneys from the office had represented him in the past, resulting in a "strong conflict," and because the office lacked adequate resources. (ECF No. 160, 2; ECF No. 160-1.) He also explains in detail the significance of the newly discovered evidence upon which he plans to seek a new trial. (ECF No. 160, 2-9.) Finally, Hill stresses his obligation to exhaust any potential federal habeas claim. (ECF No. 160, 9-10.)

Respondent counters that neither the ability and/or willingness of the Ohio Public Defender's Office to represent Hill in this matter nor the significance of the newly discovered evidence changes the fact that Hill's new claim is unrelated to his *Atkins* claims and would

therefore support an entirely new state-court proceeding for which federally funded counsel is not authorized under § 3599.

II. Analysis

The Court agrees with Respondent. An indigent federal habeas corpus petitioner is entitled to the appointment of "one or more attorneys" and additional services that are "reasonably necessary" for "adequate representation" pursuant to18 U.S.C. § 3599(a)(2). Subsection (e) of § 3599 outlines the scope of that representation. It provides:

> each attorney so appointed shall represent the defendant *throughout every subsequent stage of available judicial proceedings*, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, *and all available post-conviction process*, together with applications for stays of execution and *other appropriate motions and procedures* . . . .

18 U.S.C. § 3599(e) (emphasis added).

In *Harbison*, however, the Supreme Court explained that, although district courts "*may* determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation . . ., [t]his *is not* the same as classifying state habeas proceedings as 'available post-conviction process' within the meaning of [§ 3599(e)]." *Harbison,* 556 U.S. at 190 n.7 (emphasis added). In fact, the Court was clear that the opposite is true: "State habeas is not a stage 'subsequent' to federal habeas," and therefore does not fall within the scope of § 3599. *Id.* at 189. The Sixth Circuit emphasized this point in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011), when it concluded that the habeas petitioner in that case was "not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather, he [was] re-opening a state judgment on state-law grounds." *Irick*, 636 F.3d at 292.

As the Court explained, Hill's request for federal funding of habeas counsel, as in *Irick*, is for the "commencement of new judicial proceedings" in order to attack his state-court conviction and sentence. All that is currently pending in this Court is Hill's amended habeas petition regarding his *Atkins* claims. The Sixth Circuit was explicit in limiting its remand of Hill's petition to this Court to litigation of Hill's *Atkins* claims. *Hill*, 300 F.3d at 680. Hill's alleged "newly discovered evidence" is completely unrelated to Hill's *Atkins* claims, and any claims founded on that evidence would not be related to, or necessary for, the full disposition of Hill's pending petition. Although that evidence may relate to certain claims in Hill's initial habeas petition, the Court has ruled on those claims and that petition is no longer within this Court's jurisdiction.

Accordingly, the ability and/or willingness of the Ohio Public Defender's Office to represent Hill in seeking a new trial based on allegedly new evidence is irrelevant and does not alter the Court's decision regarding Hill's request.

III. Conclusion

Hill's motion to reconsider the Court's denial of his request that the Court authorize his federally appointed and funded counsel who currently represent him in his habeas case in this Court to represent him in state-court litigation is therefore denied.

IT IS SO ORDERED.

/s/ John R. Adams
JOHN R. ADAMS
UNITED STATES DISTRICT JUDGE

June 25, 2014

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	)	CASE NO.: 4:96CV795
	)	
Petitioner,	)	JUDGE JOHN ADAMS
	)	
	)	
	)	
CARL ANDERSON, Warden,	)	**JUDGMENT ENTRY**
	)	
Defendant.	)	
	)	

For the reasons set forth in the Memorandum of Opinion filed contemporaneously with this Judgment Entry, IT IS HEREBY ORDERED, ADJUDGED and DECREED that Danny Lee Hill's Amended Petition for a Writ of Habeas Corpus is hereby DENIED. The Court further certifies, pursuant to 29 U.S.C. § 1915(a)(3), that an appeal from this decision as to Hill's first ground for relief can be taken in good faith and hereby issues a certificate of appealability for solely that ground for relief.

IT IS SO ORDERED.

June 25, 2014

/s/ John R. Adams
JUDGE JOHN R. ADAMS
UNITED STATES DISTRICT JUDGE

IN THE COURT OF COMMON PLEAS
FOR TRUMBULL COUNTY

STATE OF OHIO,	)	CASE NO. 85-CR-317
	)	
Plaintiff/Respondent,	)	CAPITAL CASE
	)	
vs.	)	
	)	
DANNY LEE HILL,	)	
	)	
Defendant/Petitioner.	)	

PROPOSED MEMORANDUM IN SUPPORT OF PETITIONER'S MOTION FOR NEW TRIAL

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PRELIMINARY STATEMENT

Pursuant to Ohio Rule of Criminal Procedure 33(B), Defendant Danny Lee Hill ("Mr. Hill") respectfully submits this memorandum of law in support of his motion for a new trial. Mr. Hill's conviction and sentencing for the assault and murder of Raymond Fife constitute precisely the circumstances for which Rule 33(B) was intended to provide relief. In light of newly discovered material evidence, which calls Mr. Hill's conviction into serious doubt, including a recantation by the State's "bite-mark" expert responsible for the only "physical" evidence purportedly tying Mr. Hill to the crime, a new trial should be ordered.

Mr. Hill has always maintained his innocence – an innocence wrongly obscured at his trial by the State's presentation of inflammatory pseudoscience under the imprimatur of objective expert opinion. In place of empirically verifiable evidence, the prosecution relied on the baseless testimony of two experts, Dr. Curtis Mertz and Dr. Howard Adelman. Dr. Mertz, a dentist and oral surgeon, testified that an injury found on Raymond Fife's penis could be definitively linked to the dentition of Mr. Hill, to the exclusion of any other possible contributor. Dr. Adelman, a pathologist, opined that a stick found by police near the scene fit like a "key in a lock" into the injuries found to Fife's anus and internal organs. Both experts testified that there was medical support for the probability that Fife sustained an erection during his attack due to asphyxiation. The State supplemented this testimony with a purported confession obtained from Mr. Hill over three separate interviews, which included sustained custodial interrogation.

The asphyxiation/erection testimony provided by Drs. Mertz and Adelman was not just sensational and inflammatory, it was also fundamental to the bite-mark identification used to convict Mr. Hill. Dr. Mertz originally found he could not "use direct measurements with any degree of great accuracy" to match the marks found on Fife to Mr. Hill. 12/19/1985 Notes on Fife Bite Mark Procedures and Findings – Fife Homicide, at 2 ("Mertz Notes") (attached as Ex.

A). Only by speculating that Fife's "penis may have been in a state of full or partial erection at the time the bite was inflicted" could Dr. Mertz "explain" the one-third disparity in size and scale between the marks on Fife and Mr. Hill's teeth. *Id.*; Trial Transcript at 956:5-17 (attached as Ex. B). Dr. Mertz's testimony, which the State characterized as "especially significant" and as its "best evidence" in its closing arguments, Trial Tr. at 1199:8-1200:7, constituted the only evidence presented that directly tied Mr. Hill to the scene of the crime. And yet, years later, while Mr. Hill awaited execution on death row, Dr. Mertz twice recanted his entire opinion to his friend and mentee, Dr. Franklin Wright.[1]

There are four categories of new, material evidence, each of which was discovered subsequent to Mr. Hill's 1986 trial and conviction, and each of which, standing alone, warrants granting Mr. Hill a new trial. In the aggregate, this evidence undeniably demands a new trial. *See State v. Gillispie*, 2d Dist. No. 24456, 2012-Ohio-1656, ¶ 58 ("[N]ewly discovered evidence [may be] considered cumulatively). The four categories of evidence are:

> (1) The Relevant Scientific Community Has Now Recognized That It Is Impossible To Identify a Single Biter to the Exclusion of All Others: As evidenced by a recent, authoritative report from the National Academy of Sciences ("NAS"), it is not scientifically possible to positively match a single biter to a patterned injury, as Dr. Mertz purported to do at Mr. Hill's trial. In August 2013, the American Board of Forensic Odontology ("ABFO"), the organization responsible for accrediting and establishing standards for bite-mark analysts, stated for the first time, in its *Reference Manual*, that the identification of a single biter from an open population of possible biters (like Dr. Mertz's identification of Mr. Hill) is no longer sanctioned.
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> (2) New Expert Bite-Mark Opinions – Including that of Dr. Mertz – Confirm that the Patterned Injury on Raymond Fife Was Not Even a Human Bite-Mark: Dr. Mertz, the centerpiece of the State's prosecution, recanted his trial testimony, and admitted not only that he could not reliably identify Mr. Hill as the source of Fife's injury, but also that he could not reliably determine that the relevant injury was even a human bite-mark. Further, Drs. Franklin Wright and Iain Pretty, respected odontologists, have independently concluded (i) that Dr. Mertz's

[1] Dr. Mertz died in 2005.

opinion deviated from the methodology established by the ABFO; (ii) that Dr. Mertz's opinion was unreliable and unscientific; and (iii) that the injury was not a human bite-mark.

(3) New Pathology Evidence Undermines the State's Asphyxiation Theory: Independent pathologist Dr. Zhongxue Hua has determined that the opinions presented by Drs. Mertz and Adelman regarding the injuries found to and on Fife were speculative and unscientific, and that there was no basis to conclude that Fife sustained a genital erection at the time of his attack or to extrapolate a size differential for that hypothetical erection.

(4) New Evidence Relating To Mr. Hill's Confession: Dr. Debra Davis, a renowned psychology professor and expert on the psychology surrounding confessions in criminal cases, has provided testimony that (i) the "confession" solicited from Mr. Hill is unreliable; (ii) that scientific research over the last ten years has confirmed that the application of interrogation techniques like those used on Mr. Hill pose a significant risk of producing a false confession; and (iii) that Mr. Hill, who was mentally retarded and without counsel, was particularly susceptible to falsely confessing.

These new facts and opinions, which sever any and all ties between Mr. Hill and Fife, are powerful proof of Mr. Hill's actual innocence. At a minimum, these new revelations indisputably raise a "strong probability" that Mr. Hill would not be convicted and sentenced to death for the rape and murder of Fife if he were to be retried.

None of the new evidence cited above was available to Mr. Hill at the time of his trial. His ability to present it now results from fundamental changes in the scientific understanding of the evidence presented at trial – changes which have brought to light many wrongful convictions.[2] In this case, the evidence presented against Mr. Hill at trial was so flawed and scientifically baseless that it led to a subsequent recantation by the State's "especially significant" expert witness, as well as the excoriating analysis of independent experts. Finally, Mr. Hill's

[2] At least sixteen prisoners who were "matched" to a crime by bite-mark evidence and convicted have been exonerated by DNA evidence since Mr. Hill's trial. They include Robert Lee Stinson, Willie Jackson, Roy Brown, Ray Krone, Calvin Washington, Joe Sidney Williams, James O'Donnell, Levon Brooks, Kennedy Brewer, Bennie Starks, Michael Cristini, Jeffrey Moldowan, Anthony Keko, Harold Hill, Dan Young Jr., and Greg Wilhoit. *See* Appendix A for a description of these cases.

conviction on the basis of since-discredited evidence constitutes a violation of his Fifth, Eighth, and Fourteenth Amendment rights. For all of the reasons above and those further discussed below, Mr. Hill's conviction should be vacated and a new trial ordered.

PROCEDURAL HISTORY

The Trumbull County Grand Jury indicted Mr. Hill for the September 10, 1985 aggravated murder of Raymond Fife. On January 7, 1986, Mr. Hill executed a waiver of his right to a jury trial. A three-judge panel presided over his trial during January 21-31, 1986. After a five-hour deliberation, the panel unanimously found Mr. Hill guilty of capital felony murder. The panel held a mitigation hearing beginning on February 26, 1986, and concluded that the aggravating circumstances outweighed the mitigating factors beyond a reasonable doubt. Two days later, on February 28, 1986, the panel sentenced Mr. Hill to twenty-five years' imprisonment for aggravated arson and kidnapping, life imprisonment for rape and felonious sexual penetration, and the death penalty for aggravated murder with specifications.

Mr. Hill appealed his conviction and sentence to the Eleventh District Court of Appeals and the Ohio Supreme Court on the basis that he was intellectually disabled, and that, because of his condition, his constitutional rights were violated during the police interrogation and trial. The Ohio courts affirmed his conviction and sentence on direct appeal. Having exhausted all avenues for relief in state court, Mr. Hill filed a habeas petition in the U.S. District Court for the Northern District of Ohio, again rooted in his intellectual disability claims. The Northern District of Ohio denied that petition on September 29, 1999, and Mr. Hill timely appealed to the Sixth Circuit. While that appeal was pending, the Supreme Court decided *Atkins v. Virginia*, 536 U.S. 304, 122 S. Ct. 2242, 153 L. Ed. 2d 335 (2002), which barred the execution of intellectually disabled offenders.

Mr. Hill filed a petition to vacate his death sentence with this Court based on an *Atkins* claim on November 27, 2002, and filed an amended petition to vacate on January 17, 2003. This Court denied the *Atkins* petition on February 15, 2006. The Eleventh District Court of Appeals affirmed that decision on July 11, 2008, *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509, 894 N.E.2d 108, and on August 26, 2009, the Ohio Supreme Court declined to review the case. *State v. Hill*, 122 Ohio St. 3d 1502, 2009-Ohio-4233, 912 N.E.2d 107 (table). Mr. Hill then filed a habeas petition in the Northern District of Ohio on March 15, 2010. On June 25, 2014, the Northern District of Ohio denied Mr. Hill's habeas petition. That decision is currently being appealed to the Sixth Circuit Court of Appeals.

LEGAL STANDARD

A trial court may grant a motion for a new trial based on newly discovered evidence when such evidence is material and "could not with reasonable diligence have [been] discovered and produced at the trial." Crim. R. 33(A)(6).[3] In order to warrant a new trial based on newly discovered evidence, the defendant must "show that the new evidence (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence." *See State v. Petro*, 148 Ohio St. 505, 505, 76 N.E.2d 370 (1947). The *Petro* test was not intended to "establish[] a *per se* rule excluding newly discovered evidence as a basis for a new trial simply because that evidence is in the nature of impeaching or contradicting evidence." *City of Dayton v. Martin*, 43 Ohio App. 3d

[3] This Court has "jurisdiction to decide a motion for a new trial based on newly discovered evidence when the specific issue has not been decided upon direct appeal," as is the case here. *State v. Davis*, 131 Ohio St. 3d 1, 2011-Ohio-5028, 959 N.E. 2d 516, 524, ¶ 37.

87, 90, 539 N.E.2d 646 (2d Dist. 1987). Instead, the question is whether the "newly discovered evidence, though it is impeaching or contradicting in character, would be likely to change the outcome of the trial." *Id.*

The *Petro* analysis is not applied in a vacuum; where, as here, the evidence offered at trial is weak, "the less compelling the newly discovered evidence would have to be in order to produce a strong probability of a different result." *Gillispie* at ¶ 35. Further, "[w]hile the granting of a new trial based on newly discovered evidence obviously involves consideration of newly discovered evidence, the requirement that there be a strong probability of a different result less obviously requires consideration of the evidence adduced at trial." *Id.* Finally, because the ultimate burden of proof in criminal cases rests with the prosecution, "newly discovered evidence need not conclusively establish a defendant's innocence in order to create a strong probability that a jury in a new trial would find reasonable doubt." *Id.*

THE EVIDENCE AGAINST DANNY LEE HILL

Danny Lee Hill's conviction for the assault and murder of Raymond Fife rests solely on circumstantial evidence and expert opinion testimony. The State acknowledged as much in its opening and closing statements, admitting it would "like to have . . . forensic evidence," but conceding it could point to "no evidence of blood" and "no blood test" linking Mr. Hill to the crime. Trial Tr. at 21:22-22:4; 1196:4. In fact, there was no physical evidence linking Mr. Hill to the scene of the crime: there was no DNA, no blood, no fingerprints, no hair, and no skin found on the victim or at the crime scene. In the absence of biological evidence, the State offered pseudoscience under the guise of expert testimony regarding (i) an injury found on Fife's penis that purportedly matched the dentition of Mr. Hill, and (ii) a stick that the State's expert pathologist, Dr. Howard Adelman, testified "fit" the injuries to Fife's anus and internal organs like a "key in a lock." The State suggested – falsely – that Fife's injuries could be analyzed and

interpreted in a distinctive, singular fashion, like a "fingerprint," "blueprint," or "trademark," which tied Mr. Hill, and only Mr. Hill, to the crime. Trial Tr. at 383:1-3; *see also id.* at 1192:15-25 ("[W]e don't even have to have Danny admit [it] because Doctor Adelman . . . gave excellent testimony."); *id.* at 1200:1-10. This, in addition to a rambling, incoherent statement that Mr. Hill provided the police over three separate interrogations without legal representation,[4] in which he never once deviated from his assertion that he did not assault or harm Fife, constituted the core of the State's case against him.

I. THE BITE-MARK OPINION AND TESTIMONY OF DR. MERTZ WAS BASELESS AND UNSCIENTIFIC

A. Mr. Hill's Conviction Was Based in Large Part on Dr. Mertz's Unscientific Identification of Mr. Hill as "the Biter" of Raymond Fife

Crucial to the State's case against Mr. Hill was the testimony of Dr. Curtis Mertz, a dentist and oral surgeon who, at the time of trial, was Chief of Dental Staff at Ashtabula Medical Center, in Ashtabula, Ohio. Dr. Mertz was also a Diplomate, and former President, of the American Board of Forensic Odontology ("ABFO"). *See* Trial Tr. at 908:5-6; *id.* at 908:11-909:7. "On or about September 13th, 1985," the Trumbull County Coroner's Office contacted Dr. Mertz and asked him to "come down and view what the pathologist felt may well be a bite mark on a homicide victim" Raymond Fife. *Id.* at 917:5-11. Dr. Mertz testified unequivocally at trial that the injuries found on Fife's penis were human bite-marks caused by Mr. Hill. *See id.* at 937:1-7 ("It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and photographs that I had, made the bite on [the victim]."). He also testified that he could ascertain the precise mechanism or method through which Mr. Hill left the marks on Fife. *See id.* at 941:18-942:5 ("And the bites undoubtedly were inflicted in this

[4] *See infra* Part III for more on Mr. Hill's interrogation and so-called "confession."

manner.") (emphasis added). Departing from the scientific protocols that governed at the time of his testimony, Dr. Mertz assured the court: "My opinion is very strong that you can exclude [co-defendant], and my opinion is, if you want to put it on a varying scale, slightly stronger that it is [Mr. Hill's] bite." *Id.* at 952:18-20.

The State, aware that the bite-mark evidence constituted the only "physical" evidence linking Mr. Hill to the crime, emphasized it repeatedly in both its opening and closing arguments:

> Evidence will show that in odontology, that teeth, like fingerprints in a way, leave identifying characteristics . . . Doctor Mertz will tell this Court that in his opinion, with reasonable medical and dental certainty, that the teeth marks on the private part of Raymond Fife were made by [Mr. Hill] . . . [Mr. Hill] has a rotated tooth and a chipped tooth which is sufficient enough for Doctor Mertz to come to the conclusion that [Mr. Hill]'s teeth marks are on [the victim].
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> I think that especially significant is the odontology evidence in this case . . . [N]ot only do we have exclusion of [co-defendant], we have, with reasonable medical certainty from Doctor Mertz, that [Mr. Hill's] tooth . . . gives us the best evidence because that's what Doctor Mertz says is a trademark and blueprint that we can follow in the pattern of injury on [the victim].

Trial Tr. at 30:23-32:8; *id.* at 1199:8-1200:7 (emphasis added).[5] According to the State, Dr. Mertz was able to identify a distinct, direct, and exclusive similarity between Fife's injuries and Mr. Hill's dentition. But, as explained in detail below, bite-mark evidence is not like fingerprint evidence, and even under the best of conditions, a human bite-mark left in human skin is not a

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[5] In addition to Dr. Mertz, another forensic odontologist, Dr. Lowell Levine, testified as a defense witness that it was "likely that one portion of the patterned injury was caused by [Mr. Hill]." Tr. at 1157; *see also* Tr. at 1158. Dr. Levine originally consulted on the case at the behest of the State, and did not reach the same conclusions as Dr. Mertz. Regardless, Drs. Wright and Pretty explain in their attached affidavits that Dr. Levine's testimony was vague and unscientific, and deviated from the relevant standards. *See* 9/22/2014 Affidavit of Dr. Franklin Wright (attached as Ex. C); 9/29/2014 Statement of Dr. Iain Pretty (attached as Ex D). It should be accorded no weight.

"trademark" or "blueprint" that can be traced back to a single individual. Here, moreover, the conditions were far from ideal – the marks on Fife's penis were irregular and indistinct, and located in an area prone to gross distortion. In fact, Dr. Mertz wrote in his notes that he could not "use direct measurements with any degree of great accuracy" and thus could not match the injury to Mr. Hill without unsupported statistical manipulation and speculation about the supposed size and state of Fife's penis at the time of the injury. Mertz Notes at 2. Only through this baseless manipulation and speculation was Dr. Mertz able supposedly match this injury to Mr. Hill's dentition.

B. Since Mr. Hill's Conviction, Bite-Mark Identification of a Single "Biter," Like That Proffered Against Mr. Hill, Has Been Rejected

In the twenty-eight years since Mr. Hill's conviction, the erroneous nature of Dr. Mertz's testimony – that the marks on Fife could be conclusively and reliably linked to Mr. Hill, and only Mr. Hill – has become abundantly clear. Not only has subsequent expert opinion revealed flaws specific to his testimony, but a searching examination of bite-mark analysis as a forensic science by the National Academy of Sciences ("NAS") has eroded the biological, statistical, and, finally, epistemological foundation of the field. The resulting, authoritative, 2009 report, *Strengthening Forensic Science in the United States: A Path Forward* ("NAS Report") (relevant pages attached as Ex. F), subjected bite-mark evidence to a scathing critique.[6] Although the report discussed

[6] Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council (2009). The 2009 NAS Report was the culmination of nearly four years of work by a select committee of members of the forensic, scientific and legal communities, who were directed by Congress to assess the current state of forensic science in this country and make recommendations to strengthen it. The committee heard extensive testimony from a vast array of scientists, law enforcement officials, medical examiners, crime laboratory officials, investigators, attorneys and leaders of professional and standard-setting organizations. The NAS Report is the most comprehensive assessment of bite-mark evidence to date, and was conducted by highly-respected members of the scientific and legal communities, including a federal judge, prosecutor and defense attorney.

numerous forensic fields and specializations, no other subject was so severely critiqued as bite-mark evidence. Tellingly, the NAS Report constituted the first independent examination of the validity and reliability of bite-mark evidence by a neutral committee of scientists. Up until that point, forensic odontologists had set their own standards, approved their own methodologies, and identified the permissible scope of their own testimony. Under the independent analysis of NAS scrutiny, however, any pretense of validity and reliability for bite-mark "science" disappeared. The report's conclusions were damning. Specifically, the NAS concluded that:

> (1) The uniqueness of the human dentition has not been scientifically established.
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> (2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.
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> (3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

NAS Report at 175-76. In reaching its conclusions, the NAS heard testimony from leading experts in the field, including then-ABFO president Dr. David Senn, and conducted an extensive review of recent bite-mark literature and research. Based on its review, the NAS concluded that, at a minimum, there existed "considerable dispute" in the scientific community "about the value and reliability" of bite-mark evidence. NAS Report at 176. This is due to the "inherent weaknesses" and "basic problems inherent in bite mark analysis" which have "led to questioning of the value and scientific objectivity" of the discipline. *Id.* at 174, 176.

The only way to validate a scientific discipline and establish its reliability is by testing its basic hypotheses through the scientific method. Even assuming an injury can be determined to be a bite-mark – and, as explained below, it is clear that no such determination was proper in this case – the identification of a single "biter" to the exclusion of anyone else, like that proffered against Mr. Hill, rests on two hypotheses. First, that a properly trained forensic dentist can

determine that a bite-mark and a suspect's dentition are indistinguishably similar, i.e., a "match." Second, that once an association is made, a forensic dentist can provide a scientifically valid estimate of the rareness or frequency of that association. Neither of these hypotheses has ever been scientifically validated. In fact, the NAS determined that there are no criteria and no objective standards to render conclusions about whether a particular suspect's dentition can be reliably associated with a bite-mark. The NAS Report found that no scientifically valid studies had ever been conducted to determine what aspects of the teeth and bite-mark should be measured to make any such comparisons.[7] No study has demonstrated whether the instruments dentists use for measurements or comparisons are reliable under non-ideal and non-uniform conditions, or whether, after a measurement is taken, that measurement would be considered "unique" or "different" enough to distinguish the bite-mark or teeth from the general population.

Dr. Mertz identified the biter of Fife as Danny Lee Hill. But the NAS study found that there is "no science" establishing how to quantify the probability of a "match," and "no evidence of an existing scientific basis for identifying an individual to the exclusion of all others." NAS Rep. at 176 (emphasis added). According to the NAS, forensic odontologists lack "the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source," *id.* at 7, and thus "[a]lthough forensic odontologists understand the anatomy of teeth and the mechanics of biting . . . the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match." *Id.* at 175 (emphasis added). Moreover, there is no way to determine the probability of a match because "there is no established science indicating what percentage of the population or subgroup of the population

[7] NAS Report at 176 ("A standard for the type, quality and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.").

could also have produced the bite." *Id.* at 174. In other words, there is no existing scientific basis for the bite-mark testimony that Dr. Mertz provided at Mr. Hill's trial.

In addition to these substantial shortcomings and inherent flaws, the NAS also recognized the bias risk posed by a pressurized legal or judicial context in which biter-identification analysis takes place:

> [F]orensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which to choose in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect.

Id. at 175. In doing so, the NAS perfectly described Mr. Hill's prosecution – not only did the State and Dr. Mertz fall prey to these methodological issues, but the investigation and trial created a pressurized, sensationalized environment.

The NAS criticism did not go unnoticed by the ABFO. For decades, ABFO board-certified dentists have claimed (with no basis in science) the ability to identify "the Biter": the single individual responsible for a bite-mark to the exclusion of all other potential sources. No longer. In the wake of wrongful convictions and indictments, lawsuits against the dentists who proffered false and misleading testimony, the devastating conclusions of the NAS Report, and mounting criticism from independent researchers,[8] the ABFO, in August 2013, finally conceded

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[8] The amount of research and analysis questioning the validity of bite-mark analysis since the NAS report in 2009 (and Mr. Hill's 1986 trial and conviction) is substantial. *See* Bush, M.A., Bush, P.J., and Sheets, H.D., *A Study of Multiple Bitemarks Inflicted in Human Skin by a Single Dentition Using Geometric Morphometric Analysis*, For. Sci. Int'l 211:1-8 (2011); Bush, M.A., Miller, R.G., Bush, P.J., and Dorion, R.B., *Biomechanical Factors in Human Dermal Bitemarks in a Cadaver Model,* J. Forensic Sci. 54(1):167-176 (2009); Sheets, H.D., Bush, P.J., Brzozowski, C., Nawrocki, L.A., Ho, P., and Bush, M.A., *Dental Shape Match Rates in Selected and Orthodontically Treated Populations in New York State: A Two Dimensional Study*, J. Forensic Sci. 56(3):621-626 (2011); Bush, M.A., Bush, P.J., and Sheets, H.D., *Similarity and Match Rates of the Human Dentition In 3 Dimensions: Relevance to Bitemark Analysis*, Int'l J. Leg. Med. 125(6):779-784 (2011); Bush, M.A., Bush,

that individualization claims are invalid in "open" or "undefined population" cases – cases like Mr. Hill's in which the universe of potential suspects (and thus potential biters) is unknown. Previously, "the Biter," i.e., a single individual responsible for the bite-mark at issue, was the highest level of certainty sanctioned by the ABFO. That conclusion was authorized until August of 2013, when the ABFO Reference Manual was updated. *See* American Board of Forensic Odontology, Inc. Diplomates Reference Manual, 2013 ABFO Standards for Bite Mark Terminology at 117 ("The ABFO does not support a conclusion of 'The Biter' in an open population case(s)").[9] Additionally, current president-elect of the ABFO, Dr. Peter Loomis, stated in July, 2013 that bite-mark evidence "shouldn't be used to identify a suspect," and that it should only "'be used to either include or exclude' a suspect,'" rather than to individualize in open population cases. Jack Nicas, *Flawed Evidence Under a Microscope: Disputed Forensic Techniques Draw Fresh Scrutiny; FBI Says It Is Reviewing Thousands of Convictions*, Wall St. J., July 18, 2013. This dramatic and unprecedented change in the guidelines is a tragically overdue admission that this testimony is scientifically baseless. Put differently, both the

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P.J., and Sheets, H.D., *Statistical Evidence for the Similarity of the Human Dentition,* J. Forensic Sci. 56(1):118-123 (2011); Bush, M.A., Thorsrud, K., Miller, R.G., Dorion, R.B.J., and Bush, P.J., *The Response of Skin to Applied Stress: Investigation of Bitemark Distortion in a Cadaver Model*, J. Forensic Sci. 55(1):71-76 (2010); Miller, R.G., Bush, P.J., Dorion, R.B., and Bush, M.A., *Uniqueness of the Dentition as Impressed in Human Skin: A Cadaver Mode*l, J. Forensic Sci. 54(4):909-914 (2009); Bush, M.A., Cooper, H.I., and Dorion, R.B., *Inquiry into the Scientific Basis For Bitemark Profiling and Arbitrary Distortion Compensation*, J. Forensic Sci. 55(4):976-983 (2010); Sheets, H.D., and Bush, M.A., *Mathematical Matching of a Dentition to Bitemarks: Use and Evaluation of Affine Methods*, Forensic Sci. Int'l 207(1-3):111-118 (2011); Sheets, H.D., Bush, P.J., and Bush, M.A., *Bitemarks: Distortion and Covariation of the Maxillary and Mandibular Dentition as Impressed in Human Skin*, Forensic Sci. Int'l (2012). Broadly speaking, this research scientifically establishes that, even assuming the uniqueness of human dentition, human skin is not capable of capturing that uniqueness with sufficient fidelity to identify a "biter," as Dr. Mertz purported to do in this case.

[9] The relevant portions of the 2012 and 2013 Reference Manual are attached as Ex. G.

relevant, and objective, scientific community as well as Dr. Mertz's erstwhile peers in the ABFO have rejected as invalid – and, in fact, as scientifically indefensible – the forensic opinions and conclusions proffered to the trial court and used to convict Mr. Hill and sentence him to death.

Other Ohio trial courts have recognized the dramatic changes in the scientific perception of bite-mark evidence. The Summit County Court of Common Pleas concluded just last year that, "'new [bite mark] research and studies [including the NAS Report] cast serious doubt to a degree that was not able to be raised by the expert testimony presented at the original determination of guilt by the fact-finder [in a trial held in 1998].'" *State v. Prade*, Summit C.P., No. CR 1998-02-0463, 2013 WL 658266 (Jan. 29, 2013) (citation omitted), rev'd, 9th Dist. No. 26775, 2014-Ohio-1035, 9 N.E. 3d 1072. The *Prade* court based its recognition that "forensic odontology is a field in flux" in part on the NAS Report. *Id.* at 14.[10]

C. Independent Experts Dr. Franklin Wright and Dr. Iain Pretty Agree That Dr. Mertz's Testimony Was Baseless, Unscientific, and Contrary to ABFO Standards

Even if bite-mark identification had not fallen into broad and general disrepute, independent forensic odontologists, applying ABFO-approved methodology, have found that Dr. Mertz's opinions about the bite-marks found on Fife amount to nothing more than inflammatory pseudoscience. Indeed, as Drs. Wright and Pretty explain, Dr. Mertz's testimony cannot meet even the AFBO standards – a fact Dr. Mertz conceded in the years subsequent to Mr. Hill's trial, when he privately recanted his testimony to Dr. Wright.

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[10] The trial court's opinion in *Prade* was reversed on appeal based on the Ohio Supreme Court's rejection of "actual innocence" due to the "enormity of the evidence in support of Prade's guilt." *State v. Prade*, 9th Dist. No. 26775, 2014-Ohio-1035, 9 N.E. 3d 1072, ¶ 130. Dr. Wright testified for the State in *Prade*, in defense of the bite-mark evidence. That he has chosen to criticize the testimony offered at Mr. Hill's trial is telling.

Dr. Franklin D. Wright, a forensic dental consultant to the Hamilton County, Ohio Coroner's Office since 1986, is a Diplomate and past president of the ABFO. Over nearly thirty years in the field, Dr. Wright has investigated, consulted on, and reviewed hundreds of bite-mark cases. He has been proffered as a bite-mark expert on behalf of the State of Ohio in numerous trials, including homicides. Wright Affidavit at ¶ 4. At the behest of Mr. Hill's counsel, Dr. Wright recently analyzed the photographs, expert opinions, and expert testimony relating to the alleged bite-marks on the victim attributed to Mr. Hill. Wright Affidavit at ¶ 8.

According to Dr. Wright, Dr. Mertz served as his "mentor" and he considered Dr. Mertz "a respected teacher and scholar in the forensic odontology community." Wright Affidavit at ¶ 20. Nonetheless, during Dr. Wright's review of the materials, he revealed to Mr. Hill's counsel that Dr. Mertz had privately recanted all of the testimony he proffered at trial, acknowledging that it was scientifically unsupportable and that, if asked to testify again that Mr. Hill bit Fife, he would not have given the same testimony. Wright Affidavit at ¶ 20, ¶ 22. This recanted testimony included not only Dr. Mertz's identification of Mr. Hill as the source of the victim's injury, but even his conclusion that the injury could be classified as a human bite-mark. *Id.* at ¶ 22. Dr. Mertz related these doubts to Dr. Wright on two separate conversations, telling him that he "regretted the testimony" against Mr. Hill. *Id.* at ¶ 20.

As noted above, Dr. Wright also conducted his own review of the materials from the 1986 trial. His opinions help explain Dr. Mertz's post-trial recantation. According to Dr. Wright, Dr. Mertz's testimony and opinions are wholly unsupported, and unsupportable; Dr. Wright further states not only that – given the available evidence – "analysis and comparison to any suspected biter is not sanctioned [by ABFO-approved methodology]," but also that "the patterned injury on the victim . . . is not a human bitemark." Wright Affidavit at ¶¶ 11-12.

According to Dr. Wright, Dr. Mertz's testimony was speculative and biased, and the underlying assumptions Dr. Mertz accepted in an attempt to make his analysis coherent "suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias." Wright Affidavit at ¶ 18.[11] Further, Dr. Mertz selectively analyzed "only those aspects of the patterned injury that he felt he could link to Mr. Hill's dentition," and ignored "other aspects of the patterned injury that he could not link to Mr. Hill," which only make this bias more apparent. Wright Affidavit at ¶ 19.

Dr. Wright's opinions are corroborated, and elaborated upon, by Dr. Iain Pretty, a British dental surgeon and forensic odontologist, and current president of the American Academy of Forensic Science's Odontology Section. Unlike Dr. Wright, Dr. Pretty has no personal connection to Dr. Mertz, the State of Ohio, or Mr. Hill's conviction. His review of the same materials likewise found that a "conclusion of a definite human bitemark cannot be reached" under current forensic standards and that:

> there is insufficient evidence to reach a conclusion at any level of certainty regarding the causation of the small circular wounds to the glans penis of Raymond Fife. Given this conclusion, any further analysis of the injury is inappropriate. Even if the evidence had supported a conclusion of "suggestive of a bitemark" (which it does not) further analysis, according to the ABFO decision model, would still be considered inappropriate.

Pretty Statement at ¶ 3.6. According to Dr. Pretty, the bite-mark analysis used to convict Mr. Hill "offer[ed] little in the way of scientific justification" and was "not based on scientific

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[11] "Bias" as the term is used here is not a form of conscious prejudice. Rather, studies have increasingly shown that "contextual contamination" – the exposure of otherwise objective scientists to "contextual cues, irrelevant details of the case, prior experiences, expectations and institutional pressures," among other things – affects the interpretation and analysis of evidence. *See generally* Edmond, G. et al, *Contextual Bias and Cross-contamination in the Forensic Sciences: the Corrosive Implications for Investigations, Plea Bargains, Trials and Appeals*, Law Prob & Risk (2014); Page, M. et al, *Context Effects and Observer Bias-Implications for Forensic Odontology*, 57 J Forensic Sci, 108-111 (Jan. 2012).

principles or processes." *Id.* at ¶ 6.5. Further, Dr. Mertz was guilty of relying on "spurious data to account for inconsistencies in measurements." *Id.* at ¶¶ 6.6-6.7.

D. Dr. Mertz's Bite-Mark Opinions Embody the Lack of Standards Criticized By the NAS

The subjectivity and speculation in Dr. Mertz's opinions are even more troubling when viewed in light of the NAS's analysis of the field of bite-mark evidence. At the core of the NAS's criticism is the need for standardized metrics, a validated measurement or comparison process, and a substantiated statistical basis in order for a reliable bite-mark identification to be feasible. *See* Subsection B, *supra*, at 10-11. As the NAS made clear, in the absence of these elements, an expert's opinion is impossible to verify, reducing acceptance to an article of faith – a faith Mr. Hill's trial court far-too-readily extended to Dr. Mertz, who did not even bring his measurements and calculations with him to trial so that they could be reviewed on cross-examination. *See* Trial Tr. at 977:14-22 ("I do not have the measurements here with me . . . And I do not have them from memory nor do I have a metal rule with me to give you the measurements.") Dr. Mertz's opinions and testimony – speculative, subjective, and unsupported – embody the fundamental flaws and limitations inherent in bite-mark comparison analysis.

As noted above, the ability of skin to retain a reliable impression or injury such that a match to human dentition can be ascertained has been called into question over the last five years. *See*, Subsection B, *supra*, at 12. But even if human skin was not unreliable, "the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question." Wright Affidavit at ¶ 18. According to Dr. Pretty, this is because

> [t]he tissue is highly distortable and it is, of course, impossible to assess if the penis was flaccid, erect or semi-erect during the infliction of the injury. The surface is curved, soft and the risk of postural distortion high.

Pretty Statement at ¶ 3.1. The injury on Fife was located on the *glans*, or "corona," of the penis. Rather than acknowledging the impossibility of drawing a reliable conclusion from Fife's injury, however, Dr. Mertz instead relied on the variability in penile skin as an explanation for why his measurements were off by "consistently about a third." Trial Tr. at 956:13-17; *id.* at 979:10-12. Indeed, Dr. Mertz accounted for this difference in scale by opining that (i) Fife's penis was erect at the time of the purported bite as a result of his asphyxiation, and (ii) that the erection accounts for the "approximately" 33% size differential between the marks in Fife's skin and Hill's teeth. To be clear, Dr. Mertz's opinion rests entirely on these assumptions, which were the only means by which Dr. Mertz could match the marks on Fife to Hill's teeth – no "direct measurements" with any "great accuracy" were otherwise feasible. Mertz Notes, at 2.

As Dr. Wright explains, Dr. Mertz's methods suggest serious confirmation bias – a bias Dr. Mertz implicitly conceded at trial when he explained that "the reason [he] went to [the medical] literature" was to find something to "explain[] the difference in the measured size of approximately a third less than in the measurements when teeth mark sizes are compared." Trial Tr. at 954:7-23; *id.* at 956:14-17; *id.* at 979:8 ("I didn't know anything about the 1.307 until after I had made all the measurements."). It is telling that Dr. Mertz expressed his confidence that "the bitemarks found on the penis of Raymond Fife match those of the models of the teeth of Danny Lee Hill" in a November 4, 1985 letter to prosecutor Dennis Watkins, nearly a month and a half before the December 19, 1985 date on the "notes" he "made in studying these cases." *Id.* at 947:1-6. Put plainly, contrary to the basic tenets of independent scientific analysis, Dr. Mertz sought out obscure literature in a conscience effort to concoct a theory that would allow him to "match" Mr. Hill to the injury.

Not surprisingly, two forensic odontologists and a pathologist who reviewed Dr. Mertz's testimony each characterized his opinions regarding asphyxiation, genital erection, and penis size as baseless and irresponsible. Dr. Wright characterizes this portion of Dr. Mertz's testimony as "nothing but a blind guess," impermissible under the ABFO guidelines. Wright Affidavit at ¶ 18. Dr. Pretty labels this testimony as "unscientific, unsubstantiated, and speculative." Pretty Statement at ¶ 5.2. And Dr. Hua, and independent pathologist, has opined that "Dr. Mertz ignore[d] both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed." Hua Affidavit, attached as Ex. E, at ¶ 21.

Dr. Mertz cited just two sources in support of his foundational opinion that Fife "probably" sustained an erection while being asphyxiated: the introduction to a chapter on asphyxiation from the 1968 edition of *Gradwohl's Legal Medicine* (attached as Ex. H), and a 1971 article by L.G. Farkas, "Basic Morphological Data of External Genitals in 177 Healthy Central European Men," in the American Journal of Physical Anthropology (attached as Ex. I.)[12] This "review of the literature was cursory and inadequate, and the texts he relied upon inapposite and outdated." Hua Affidavit at ¶ 17. To be sure, Dr. Mertz's testimony regarding these articles was inexpert to the point of fantasy and fabrication. In using the introduction to a chapter on various forms of asphyxiation in *Gradwohl's Legal Medicine*, Dr. Mertz:

> Selectively ignored the qualifications provided by his own authority, including the fact that there is 'undoubtedly great variation' and there are 'many factors [that]

[12] To the extent that Dr. Mertz's entire opinion is based on the validity of medical literature authored by others, it should have been excluded at the time of his trial. *See Beard v. Meridia Huron Hosp.*, 106 Ohio St.3d 237, 240, 2005-Ohio-4787, 834 N.E.2d 323, ¶ 23 (2005), *citing Piotrowski v. Corey Hosp.*, 172 Ohio St. 61, 69, 173 N.E. 2d 355 (1961) (exclusion required where expert relies on "statements from professional literature to prove the truth of the matter asserted in those statements [because] the witness would be acting as a conduit for the out-of-court statements of the authors of those literary works").

> may interfere' with the symptoms listed, as well as the statement that 'it is usually difficult or impossible to predict the physiological results' of asphyxia 'with any accuracy at all.' No reliable opinion that a penile erection was 'probable' during manual strangulation could be based upon these limited findings.

Hua Affidavit at ¶ 18. Similarly, Dr. Mertz's "explanation" for his identification of Mr. Hill in spite of the absence of an actual match in size and scale, Farkas's *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men*, also does not support his opinion:

> First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve-year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault.

Hua Affidavit at ¶ 21.

As Dr. Hua concludes, Dr. Mertz's opinion is "post-hoc guesswork" and "do[es] not constitute reliable scientific opinion." Hua Affidavit at ¶ 22. Among his errors, Dr. Mertz ignored the fact that the Farkas study was based on circumference measured at "the mid portion of the penile shaft," Farkas at 325, while the injury on Fife was located on the *glans*. Dr. Mertz provided no evidence that the increase of the size of the *glans* occurs in the same proportion as the increase in the size of the shaft, nor did he look at any medical literature discussing studies of the growth of the glans during erection. Further, Dr. Mertz's calculations – the statistical manipulations necessary to match the injury to Mr. Hill – are erroneous. Even assuming some scientific foundation for these calculations existed (and none did), Dr. Mertz ignored the lack of uniformity in the underlying data: the Farkas study actually indicates flaccid-to-erect size differential can range between 1.307 and 1.5.[13] In other words, Dr. Mertz's attempt to extrapolate an "average" increase in erect state is rebutted by his own evidence.

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[13] The underlying study on which Farkas relied for his 20-30mm increase actually found a "medium measurement" of 90 mm after that 20-30 mm increase in circumference, for an

II. NEW EVIDENCE ESTABLISHES THAT THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN WAS UNSCIENTIFIC AND UNRELIABLE

The State also presented Dr. Howard Adelman, a Warren County, Ohio pathologist, who performed an autopsy on Raymond Fife on September 13, 1985. Dr. Adelman identified blunt force trauma; ligature strangulation; subdural hemorrhage; retroperitoneal and abdominal contusions; penetration and perforation of the anus, the rectum, and urinary bladder; and third-degree burns. *See* Trial Tr. at 349-63. Like Dr. Mertz, Dr. Adelman testified that it was "know[n] that asphyxia can cause erections, and in legal hangings, it's been described that there are erections and ejaculations that occur." *Id.* at 418:5-14. And like Dr. Mertz's testimony on this subject, Dr. Adelman proffered nothing but empty speculation. Dr. Adelman also testified that a stick found near the scene fit Fife's anus like a "key in a lock." *Id.* at 383:1-3. The State linked Dr. Adelman's testimony regarding the stick to "the specificity and the fine description of the stick that [Mr. Hill] had." *Id.* at 1194:1-5.

Neither opinion was challenged with expert testimony at trial. And neither can withstand scrutiny. As Dr. Hua makes clear, "Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion [on Fife's possible erection] is . . . inappropriate and renders his opinions in this specific case speculative and unreliable." Hua Affidavit at ¶ 11.[14] There was no basis, for instance, for the speculation that Fife could have sustained an erection during his assault based on judicial hanging and autoerotic asphyxia because, as we know now, "the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects

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average flaccid circumference of 60-70mm. This indicates that the ratio of flaccid-to-erect circumference can range up to 1.5. *See* Farkas at 327.

[14] Dr. Adelman admitted he was "not exactly sure of the mechanism" through which asphyxia causes an erection, but rather that it "just occurs." Trial Tr. at 418:16-17.

of one to the others is baseless." Hua Affidavit at ¶ 12. As for the stick, "it [was] not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock." Hua Affidavit at ¶ 8. Like the testimony of Dr. Mertz, Dr. Adelman's opinions amount to nothing more than speculation: a purportedly "scientific" discipline stretched beyond recognition in an attempt to compensate for the glaring holes in the State's case.

III. MR. HILL WAS SUBJECTED TO INTERROGATION TECHNIQUES THAT THE SCIENTIFIC AND LEGAL COMMUNITIES BOTH NOW RECOGNIZE GREATLY INCREASE THE RISK OF INDUCING A FALSE CONFESSION

Beyond the expert testimony described above, the State's remaining evidence against Danny Lee Hill was a statement he gave to the police over three separate interviews and interrogations. There is no basis to refer to any of Mr. Hill's statements as a "confession." But the circumstances of that purported "confession" are as troubling as the rampant speculation of the State's expert witnesses. At the time of Mr. Hill's trial, there had never been a case where a confession had been proven false post-trial by DNA evidence. Today, we know that false confessions are common. Medical professionals, social scientists, and the United States Supreme Court have all acknowledged the mounting evidence that interrogation techniques like that used against Mr. Hill produce false confessions at an alarming rate. These authorities and studies also acknowledge that the rate of false confessions increases dramatically when the techniques are applied to highly-susceptible individuals like Mr. Hill.

Mr. Hill was 18 years old when he "confessed" to being present (but not a participant) when Raymond Fife was assaulted and killed. Mr. Hill has been identified as intellectually disabled (also known as mentally retarded) all of his life. *See* 4/27/2011 Report of Dr. Stephen Greenspan at 23 (attached as Ex. J). By the time of the crime, his IQ had been estimated at

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various times to be between 49 and 70. He struggled most with vocabulary, spelling, and word recognition. Given all of this, it is not surprising that Mr. Hill was not aware that he could refuse to talk to the police and was not competent to understand his rights when he was subjected to repeated, lengthy interviews.[15] Nor was he capable of comprehending the grave and complicated long-term ramifications of waiving those rights.[16] Already highly susceptible to influence given his age and mental capacity,[17] Mr. Hill's pliability was augmented by the fact that the police used a family member and authority figure, his uncle Morris Hill, a police detective, to apply pressure. The State relied heavily on Mr. Hill's statements to the police during its closing argument, cherry-picking details in a protracted recounting that takes up pages of the trial transcript. *See, e.g.*, Trial Tr. at 1179:21-1184:18; *id.* at 1190:15-1195:24.

In the years since Mr. Hill's conviction, the Supreme Court has repeatedly acknowledged the grave threat posed by false confessions, identifying "mounting empirical evidence that these pressures [associated with custodial police interrogation] can induce a frighteningly high percentage of people to confess to crimes they never committed." *Corley v. United States*, 556 U.S. 303, 321, 129 S. Ct. 1558, 173 L.Ed. 2d 443 (2009) (citing Drizin & Leo, *The Problem of False Confessions in the Post–DNA World*, 82 N.C. L. Rev. 891, 906-07 (2004)); *accord J.D.B. v. North Carolina*, -- U.S. --, 131 S. Ct. 2394, 2401 (2011). The Innocence Project, which tracks

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[15] In fact, an attorney, Roger Bauer, did appear at the police station and tried to advise Mr. Hill not to talk to the police. Attorney Bauer was removed by the interrogating detectives, however. The Warren Police Department later filed a grievance against Attorney Bauer. 9/8/2014 Affidavit of Roger Bauer (attached as Ex. K).

[16] *See, e.g.*, Steinberg, L., et al., *Age differences in future orientation and delay discounting,* 80 Child Dev. 1, 28-44 (2009).

[17] *See, e.g.*, Grisso, T., et al., *Juveniles' Competence to Stand Trial: A Comparison of Adolescents' and Adults' Capacities as Trial Defendants*, 27 Law Hum. Behav. 4, 333-363 (2003); Cleary, Hayley, M.D., *Police Interviewing and Interrogation of Juvenile Suspects: A Descriptive Examination of Actual Cases*, 38 Law Hum. Behav. 3, 271-28 (2014).

DNA exonerations nationally, reports that innocent individuals have falsely confessed in approximately 27% of 321 known DNA exonerations, and that false confessions are the leading cause of wrongful conviction in homicide cases, "contributing to 64 (62%) of the 104 homicide wrongful convictions that were overturned by DNA evidence."[18] The National Registry of Exonerations, which has compiled data on all wrongful convictions since 1989 (whether uncovered by DNA evidence or otherwise), has identified at least 177 false confessions among 1,405 known wrongful convictions nationwide (12.5%).[19] Even more troubling, however, is the greatly increased risk of a false confession when tactics like those espoused in the "Reid Technique," a "method" developed and refined by John E. Reid & Associates, Inc. over the last 70 years, are deployed against children, adolescents, or functional adolescents like Mr. Hill. *See* Inbau, Reid, Buckley & Jayne, *Criminal Interrogations and Confessions* (5th ed. 2013); Kassin et al., *Police-Induced Confessions: Risk Factors and Recommendations*, 34 Law & Hum. Behav. 3, 20 (2010).[20]

There is no question that Mr. Hill was subjected to interrogation techniques designed to produce a confession. Indeed, whether they knew it or not, the Trumbull police officers who

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[18] Innocence Project, Know the Causes, False Confessions, http://www.innocenceproject.org/understand/False-Confessions.php (last checked November 5, 2014).

[19] National Registry of Exonerations, Browse the Cases, Filtered by False Confession, available at https://www.law.umich.edu/special/exoneration/Pages/browse.aspx?View={B8342AE7-6520-4A32-8A06-4B326208BAF8}&FilterField1=Contributing%5Fx0020%5FFactors%5Fx0020&FilterValue1=False%20Confession (last checked November 5, 2014).

[20] The Reid Technique *begins* with the assumption that the interviewee is guilty. *See also* Meyer & Reppucci, *Police Practices and Perceptions Regarding Juvenile Interrogation and Interrogative Suggestibility*, 25 Behav. Sc. L. 1, 1-24 (2007).

interrogated him hewed closely to the now-archetypal blueprint of the Reid Technique. Among the techniques applied during Mr. Hill's interviews and interrogations:

- The Trumbull police separated Hill from his family and friends and isolated him in a small interrogation room specially designed to increase his anxiety. *See* Kassin et al., 34 Law & Hum. Behav. at 7, 16.
- The officers attempted to build rapport with Mr. Hill before deploying a series of tactics intended to shake his adherence to his claim of innocence. *Id.* at 11-12; *see also* 9/16/85 Interview Transcript Part 1, at pp. 45-46 (attached as Ex. L); 9/16/85 Interview Transcript Part 2 at p. 3 (attached as Ex. M).
- The officers became confrontational, directly and repeatedly accusing Hill of lying, refusing to listen to his claims of innocence, and exuding unwavering confidence in his guilt. *See* Ofshe & Leo, *The Decision to Confess Falsely: Rational Choice and Irrational Action*, 74 Den. U. L. Rev. 979, 990 (1997); *see also* 9/16/85 Interview Tr. Part 1 at pp. 35, 42-43.
- The officers invented incriminating evidence to convince Mr. Hill that his guilt was a foregone conclusion and that nothing he said would change their mind about this "fact" in an attempt to make Mr. Hill feel thoroughly hopeless and trapped. *See* Kassin *et al*, 34 Law & Hum. Behav. at 16-17; *see also* 9/16/85 Interview Tr. Part 1 at p. 42; 9/16/85 Interview Tr. Part 2 at pp. 15-16, 33, 40-41.
- The officers then provided Mr. Hill a way out: confession, minimizing or rationalizing his purported involvement in the crime, focusing on his role as a witness, in an attempt to make confessing seem less damaging. *See* Drizin & Leo, 82 N.C. L. Rev. at 1056-60; *see also* 9/16/85 Interview Tr. Part 1 at p. 44.
- The officers assured Mr. Hill that confessing was in his best interests, playing on Mr. Hill's lack of knowledge about the adult justice penal system. *See id.*; *see also* 9/16/85 Interview Tr. Part 1 at pp. 42-43.

By deploying these tactics at the right psychological pressure points, experienced interrogators can be extraordinarily effective in causing a suspect to produce self-incriminating information. With Mr. Hill, a functional adolescent suffering from severely diminished intellectual capacity and denied unconflicted familial or legal assistance, the success of these techniques was a foregone conclusion.

In fact, the interrogators were so effective at soliciting their own version of events from Mr. Hill that they could not help but comment on the efficacy of their techniques during the

interrogation, stating to Mr. Hill "it seems like everything we suggest to you, you agree with us [.]" 9/16/85 Interview Tr. Part 2 at 35; 9/3/14 Affidavit of Dr. Debra Davis at ¶ 32 (attached as Ex. N). As Dr. Debra Davis, a psychologist at the University of Nevada, Reno who specializes in false confessions, points out, the videos and transcripts make it clear that Mr. Hill received prompts and was provided facts from his interrogators, through suggestive questions and outright factual assertions. Davis Affidavit at ¶ 34. In other words, rather than revealing knowledge and culpability, Mr. Hill's "confession" amounts to nothing more than his "answers essentially agreeing with what he was asked." *Id.* The State thought otherwise, however, and during closing argument the State leaned heavily on the "confession" as proof not only of Mr. Hill's culpability, but also his alleged depravity. *See* Trial Tr. at 1169:6-8 ("But I submit the term "animal" . . . does not fit. It's too kind!"). As Dr. Davis's opinion illustrates, however, the substantial prejudice of the State's argument far outweighs the "confession's" probative value, and thus it never should have been admitted:

> Given Danny Hill's personal characteristics and vulnerability to influence, his personal history with his interrogators, the demands placed on him to confess, and the way in which the content of his confession was fed to him, little weight should be given to his confession as evidence of his guilt.

Davis Affidavit at ¶ 39.

At no point during these extensive interviews and interrogations did Mr. Hill fashion a coherent narrative; repeatedly he proved incapable of getting the timing, the setting, and the actual events correct. At various points he stated that the attack took place over two or three hours, when in fact it was likely no more than fifteen minutes in duration. *See* 9/16/85 Interview Tr. Part 1 at p. 23; 9/16/85 Interview Tr. Part 2 at p. 27. At another point, Mr. Hill testified that Timothy Combs (who was also charged with the crime) had torn Fife's penis wholly from his body. *See* 9/16/85 Interview Tr. Part 2 at p. 10. As Dr. Davis explains, Mr. Hill's story is "not

plausible . . . because he didn't know the real facts," and its inconsistencies are the result of a give-and-take in the interrogation room, where the officers "corrected him and told him what they believe happened" whenever "he gave an answer inconsistent with what interrogators knew (or thought they knew)." Davis Affidavit at ¶ 34. To compensate for these inconsistencies, the State's closing argument cherry-picked isolated pieces from his interrogations, stringing them together to "prove" that Hill was able to "describe[ ] [events] to a tee." Trial Tr. at 1190:15-20. The State also argued that Mr. Hill's inability to construct a coherent narrative of events – that he instead gave "the most ridiculous, unbelievable story"[21] – was in fact proof of his guilt under the law:

> This defendant on Thursday and Friday comes back to the police station and gives an exculpatory story; he lies and this leads police officers . . . The general rule in this country "is that guilty knowledge, as well as intent to violate the law, may be shown by any false or misleading statements that the defendant makes to arresting officers demonstrated by independent evidence to have been made for the purpose of misleading the officer or warding off suspicion. . . . '[A]n attempt to fabricate evidence is to be considered as evidence of guilt as to the main facts charged.'

Id. at 1172:2-1173:7.

Although the State acknowledged Mr. Hill's limited mental capacity, calling him "stupid," it suggested he was not "stupid" enough to be fooled into confessing to a crime he did not commit. Trial Tr. at 1191:2-16; *id.* at 1267:18-21. In the last ten years, an increasing number of DNA exonerations and clinical studies have shown that one does not need to be "stupid" to confess falsely to a crime – individuals of varying intelligence and aptitude have falsely confessed to crimes when subjected to the interrogation techniques used on Mr. Hill. These exonerations and clinical studies have also shown that the application of these techniques

[21] Trial Tr. at 1173:8-20.

to the young and/or mentally-challenged (like Mr. Hill) significantly heightens the risk that a false confession will be elicited.

IV. THE NEWLY DISCOVERED EVIDENCE SATISFIES THE *PETRO* TEST

As noted above, in order to warrant a new trial based on newly discovered evidence, a defendant must show that the new evidence "(1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence." *Petro*, *supra,* at 505. Mr. Hill has provided abundant new evidence in the form of the expert affidavits of Drs. Davis, Hua, Pretty, and Wright. This "newly discovered evidence, when considered cumulatively, may be of even greater significance . . . when considered in light of studies . . . that have been conducted in the years since [defendant's] trial." *Gillispie, supra,* at ¶ 58; *see also id.* (considering developments in the field of eyewitness testimony to buttress new evidence).

First, none of the evidence discussed in this motion and memorandum existed as of January 21-31 1986, the time of Mr. Hill's trial, and thus no amount of diligence would have allowed its discovery before trial.

- The NAS Report, which was the first independent and comprehensive assessment of the scientific reliability of bite-mark evidence, was not completed until August 2009. The ABFO did not stop supporting individual "biter" identification until 2013.
- The first time that Dr. Wright learned that Dr. Mertz had doubts about his trial testimony was more than two years *after* Mr. Hill's trial concluded. Further, Mr. Hill could not have known about Dr. Mertz's change of heart – it was only by happenstance that, when Mr. Hill's counsel solicited an opinion from Dr. Wright, Dr. Wright revealed Dr. Mertz's related recantation.
- Neither Dr. Wright nor Dr. Pretty became board-certified forensic odontologists until after trial, and it was only through the application of an

evolving understanding of bite-mark methodology and recently adopted ABFO Guidelines (which did not exist at the time of Mr. Hill's trial) that they were able to provide the specific opinion testimony they provide here.

- Dr. Hua's testimony reflects changes in the study of pathology since Mr. Hill's trial. For instance, the science regarding hangings and asphyxiation has been in constant development in the years subsequent to Mr. Hill's conviction, with the analysis of the mechanisms intensifying over the last ten years. *See, e.g.*, Rutty, et al (ed.), *Essentials of Autopsy Practice*, Springer (2014) ("Despite great advances in the forensic sciences in the last few decades our understanding of the pathophysiology of hanging, as summarized previously, is still largely based on historical writings and experimentation from the end of the nineteenth and beginning of the twentieth centuries. Since that time, there were very limited advances in our knowledge of the pathophysiology of hanging until recent studies of filmed hangings by the Working Group on Human Asphyxia.").
- The work of Dr. Davis is based on voluminous evidence regarding false confessions that has accumulated after 1986. It has only been in the last fifteen years that significant empirical evidence regarding the psychological and statistical impact of interrogation techniques like that used against Mr. Hill has become available. *See* Cleary, *Police Interviewing and Interrogation of Juvenile Suspects: A Descriptive Examination of Actual Cases*, 38 Law & Hum. Behav. 3, 271-282 (2014) ("Although empirical attention to police interrogation has gained traction in recent years, comparatively few studies have examined interrogation of juvenile suspects, and virtually none have examined actual interrogations.").[22]

Second, there can be no genuine dispute that the newly discovered evidence is both material and relevant to the issues surrounding Mr. Hill's conviction. The case against Mr. Hill was long on innuendo, hyperbole, and pseudoscience but remarkably threadbare when it came to evidence tying Mr. Hill to the crime. The facts and expert opinion provided with this motion serve to sever the last threads tying Mr. Hill to the crime, and reveal, for the first time, the total lack of valid and reliable scientific evidence supporting the State's case. In sum, nothing could be more material than new evidence that calls into question – in fact, negates – the very evidence

[22] *See also* Brodsky, *Psychological Assessments of Confessions and Suggestibility in Mentally Retarded Suspects*, 33 J. Psych. & Law 359-366 (2005); O'Connell, *Miranda Comprehension in Adults with Mental Retardation and the Effects of Feedback on Style and Suggestibility*, 29 Law & Hum. Behav. 359-369 (2005).

the prosecution itself characterized as "especially significant." Trial Tr. at 1199:8-1200:7; *see Ege v. Yukins*, 485 F.3d 364, 377 (6th Cir. 2007) ("If the prosecution felt that the bite mark evidence was so important, it does not take much of a cognitive leap to believe that the jury viewed it as important as well."); *see also Ege v. Yukins*, 380 F. Supp. 2d 852, 880 (E.D. Mich. 2005), *aff'd in relevant part*, 485 F.3d 364 (6th Cir. 2007) (finding bite mark analysis evidence "plainly . . . 'material in the sense of a crucial critical highly significant factor'") (citation omitted). The significance and materiality of the expert evidence used to convict Mr. Hill is only heightened in this case by the notable absence of any corroborating physical evidence tying Mr. Hill to the crime.

Third, the newly discovered evidence is not cumulative to evidence introduced at trial, nor is it mere impeachment testimony. Mr. Hill never benefited from testimony about the limits of forensic odontology as a field, nor did any expert testify that the injury found on Fife could not even be classified as a human bite-mark. Mr. Hill's confession was never challenged by expert evidence regarding the general and case-specific psychological effects of coercive interrogation techniques. And Mr. Hill never benefited from an expert pathologist who could challenge the grossly unscientific testimony of Drs. Adelman and Mertz.

For all of these reasons, the newly proffered evidence cannot be characterized as impeachment evidence. Instead, it calls into question the very "rationale that [the expert] used to reach his conclusion provided at trial," and necessarily would have resulted in "different testimony and different evidence to be considered by the jury." *State v. Holzapfel*, 10th Dist. Nos. 10AP-17, 10AP-18, 2010-Ohio-2856, ¶ 24. As the Ohio Court of Appeals in *Holzapfel* noted, new evidence that "provides specific areas of conflict between the two experts and their analysis . . . is not 'merely cumulative' nor 'merely' contradictory." *Id.* There can be little

question that, if proffered today, the testimony and evidence from Drs. Adelman and Mertz would be inadmissible. Absent this evidence, it is unlikely that Mr. Hill would have faced trial, let alone a conviction for murder.

V. THE TRIAL AND CONVICTION OF MR. HILL VIOLATED HIS FIFTH, EIGHTH, AND FOURTEENTH AMENDMENT RIGHTS

The egregiousness of the prosecution and conviction of Mr. Hill on the basis of unscientific bite-mark evidence constitutes a violation of his Due Process rights pursuant to *Chambers v. Mississippi*, 410 U.S. 284, 294, 93 S. Ct. 1038, 35 L. Ed. 2d 297 (1973); *see also Napue v. Illinois*, 360 U.S. 264, 271, 79 S. Ct. 1173, 3 L. Ed. 2d 1217 (1959) (conviction based on misleading evidence a violation of Due Process); *Alcorta v. Texas*, 355 U.S. 28, 31, 78 S. Ct. 103, 2 L. Ed. 2d 9 (1957) (same).[23]

Courts around the country – including the federal Sixth Circuit Court of Appeals, in a bite-mark case – have recognized that the Constitution's fundamental guarantee of due process requires courts to intervene and overturn a conviction when the basic tenets of fairness have been violated. *See Ege*, *supra*, at 376-78. In *Ege*, the Sixth Circuit held that the use of erroneous and unreliable scientific evidence – that a bite-mark on the victim established 3.5–million–to–one odds that anyone but the defendant could have made the bite mark – violated the defendant's Due

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[23] The bite-mark evidence may also constitute a *Brady* violation. Under *Brady v. Maryland*, "the suppression by the prosecution of evidence favorable to an accused upon request violates due process where the evidence is material either to guilt or punishment, irrespective of the good faith or bad faith of the prosecution." 373 U.S. 83, 87, 83 S. Ct. 1194, 10 L. Ed. 2d 215 (1963). "There are three components of a true *Brady* violation: The evidence at issue must be favorable to the accused, either because it is exculpatory, or because it is impeaching; that evidence must have been suppressed by the State, either willfully or inadvertently; and prejudice must have ensued." *Strickler v. Greene*, 527 U.S. 263, 281-82, 119 S. Ct. 1936, 144 L. Ed. 2d 286 (1999). Further, "the nondisclosure" must have been "so serious that there is a reasonable probability that the suppressed evidence would have produced a different verdict." *Id.* at 281.

Process right to a fair trial. *Id.*[24] The testimony proffered by Dr. Mertz against Mr. Hill goes far beyond the trumped-up odds ratio at issue in *Ege*, however; in addition to testifying beyond the limits of his field, Dr. Mertz also opined outside his expertise, manipulated his data, and eventually (and privately) recanted his testimony while Mr. Hill awaited execution. In hindsight, Dr. Mertz's trial testimony was so contrary to science and logic – so demonstrably false at the time he gave it – that it can only be labeled pure fabrication.[25]

As other courts have noted, the threat to Due Process posed by false expert testimony, particularly testimony by forensic scientists (a leading cause of wrongful conviction), is far greater than that of a lay witness.[26] The authority granted, and ceded to, forensic scientists is enormous – the veneer of scientific objectivity combined with subject matter beyond the knowledge of a lay-person risks placing the testimony beyond the reach of informed critique. When experts parade pseudoscience before a fact-finder that is unable to challenge its veracity, the adversarial process is denied its essential truth-seeking function.

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[24] *See also Han Tak Lee v. Glunt*, 667 F.3d 397 (3d Cir. 2012); *Maxwell v. Roe*, 628 F.3d 486, 507 (9th Cir. 2010); *United States v. Young*, 17 F.3d 1201 (9th Cir. 1994); *Armstead v. Maryland*, 342 Md. 38, 84, 673 A.2d (1996); *Ex Parte Turner*, 394 S.W.3d 513 (Tex. Crim. App. 2013).

[25] For instance, Dr. Mertz testified that his opinion was "very strong that you can exclude [co-defendant]," while simultaneously being "slightly stronger that it is [Mr. Hill's] bite." Trial Tr. at 952:18-20. But this is fundamentally impossible: a bite-mark identification is based on the "exclusion of all others" and thus the confidence in an exclusion necessarily must be stronger than the confidence in an inclusion

[26] Approximately 50% of all wrongful convictions overturned through post-conviction DNA evidence involved the use of invalid or improper forensic science. *See* INNOCENCE PROJECT, *Unreliable or Improper Forensic Science*, http://www.innocenceproject.org/understand/Unreliable-Limited-Science.php (last visited Feb. 11, 2014); *Hinton v. Alabama*, -- U.S. --, 134 S. Ct. 1081, 1090, 188 L. Ed. 2d 9 (2014) ("we have recognized the threat to fair criminal trials posed by the potential for incompetent or fraudulent prosecution forensics experts" and "that '[s]erious deficiencies have been found in the forensic evidence used in criminal trials'").

Here, in particular, the introduction of the now discredited bite-mark evidence, proffered to the panel and hyped by the State as infallible "scientific" evidence of guilt – a trademark stamped by Mr. Hill (that could only have been stamped by Mr. Hill) on the adolescent body of Raymond Fife – was so unfair it resulted in just such a "breakdown in the adversarial process." *Strickland v. Washington*, 466 U.S. 668, 696, 104 S. Ct. 2052, 80 L. Ed. 2d 674 (1984); *see also Brecht v. Abrahamson,* 507 U.S. 619, 639, 113 S. Ct. 1710, 123 L. Ed. 2d 353 (1993) (Stevens, J., concurring) ("The Fourteenth Amendment prohibits the deprivation of liberty 'without due process of law'; that guarantee is the source of the federal right to challenge state criminal convictions that result from fundamentally unfair trial proceedings.").[27]

The trial court's abdication of its gatekeeping role goes far beyond the decision to let Dr. Mertz take the stand. Once there, he was permitted to opine about anatomy, biomechanics, sexuality, and other topics far beyond his expertise. He testified, under oath, that he could be "certain" of his identification of Danny Lee Hill – a conclusion that is now recognized as scientifically indefensible. Dr. Mertz's inaccurate and pseudoscientific opinions about asphyxiation, erection, and genital size differential were essential to his opinions tying Mr. Hill to the murder and were likely the primary factor in Mr. Hill's conviction and sentencing. The violation of Mr. Hill's constitutional rights is only exacerbated by the fact that Dr. Mertz privately recanted his testimony in the years after he presented it, while Mr. Hill awaited execution on death row. In light of the above, it is clear that the events that led to Mr. Hill's conviction constitute a violation of his Fifth, Eighth, and Fourteenth Amendment rights. Now that we have the benefit and clarity of time, and an evolved understanding of the science at issue, letting the conviction stand in spite of the facts would constitute an even more egregious

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[27] *See also Estelle v. McGuire*, 502 U.S. 62, 70, 12 S. Ct. 475, 116 L. Ed. 2d 385 (1991); *Spencer v. Texas,* 385 U.S. 554, 563-64, 87 S. Ct. 648, 17 L. Ed. 2d 606 (1967).

violation – of Mr. Hill's rights, but also of the principles of fairness and justice the Fifth, Eighth and Fourteenth Amendment were enacted to guarantee.

CONCLUSION

For the reasons set forth above, Danny Lee Hill respectfully requests that this Honorable Court grant his motion for a new trial.

Respectfully Submitted,

DRAFT

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **MEMORANDUM IN SUPPORT OF MOTION FOR NEW TRIAL** was hand delivered to the Trumbull County Prosecutor's Office and to the Honorable Andrew D. Logan on this _____ day of _____, 2014.

DRAFT

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DESCRIPTION OF BITE MARK EXONERATIONS SINCE HILL CONVICTION

1. **Willie Jackson:** On May 26, 2006, Willie Jackson was exonerated after post-conviction DNA testing proved his innocence in a 1986 sexual assault case. He had spent 17 years in prison for a crime he did not commit. At Jackson's trial, Dr. Robert Barsley, past president of the American Board of Forensic Odontology (ABFO), told the jury that the bite marks on the victim matched Jackson, testifying: "My conclusion is that Mr. Jackson is the person who bit this lady." Ultimately, DNA evidence showed that it was Willie Jackson's brother, Milton Jackson, who attacked and raped the victim.[1]

2. **Roy Brown:** In January 2007, Roy Brown was exonerated of stabbing and strangling Sabina Kulakowski after spending 15 years in prison. He was convicted of her murder in January 1992 based on bite mark evidence which was the centerpiece of the prosecution's case against Brown. Kulakowski's body had been discovered with multiple bite marks on her back, arm and thigh, all of which board-certified ABFO Diplomate Dr. Edward Mofson[2] claimed matched Brown's teeth. Mofson testified to a "reasonable degree of dental certainty" that Brown's dentition was "entirely consistent" and "completely consistent" with all of the bite marks, noting that the bite marks depicted the absence of the same two teeth Brown was missing.

   15 years after the conviction, however, DNA testing performed on saliva stains left by the perpetrator excluded Brown and matched another suspect, Barry Bench. Nevertheless, citing the prosecution's bite mark evidence at the original trial, which the jury asked to review during deliberations, the judge in the case initially refused to release Brown. Ultimately, in January 2007, the district attorney acknowledged Brown's innocence and he was exonerated after spending 15 years in prison for a murder he did not commit.[3]

3. **Ray Krone:** On December 31, 1991, Ray Krone was arrested and charged with the murder, kidnapping, and sexual assault of a woman who worked at a bar he frequented. Police asked had a Styrofoam impression made of Krone's teeth for comparison to bite marks found on the victim's body and thereafter, he became known in the media as the "Snaggle Tooth Killer" due to his crooked teeth. Dr. Raymond Rawson, a board-

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[1] *The Innocence Project – Know the Cases: Browse Profiles: Willie Jackson, http://www.innocenceproject.org/Content/Willie_Jackson.php*; *Jackson v. Day*, No. Civ. A. 95-1224, 1996 WL 225021, at *1 (E.D. La. May 2, 1996), *rev'd*, 121 F.3d 705 (5th Cir. 1997); Barsley 1989 trial court testimony, *transcript available at http://www.law.virginia.edu/pdf/faculty/garrett/innocence/jackson.pdf.*

[2] All representations that the dentists at issue in this appendix were "board certified ABFO Diplomates" are based on the *American Board of Forensic Odontology Diplomate Information, available at http://www.abfo.org/wp-content/uploads/2012/08/ABFO-Diplomate-Information-revised-November-2012.pdf.*

[3] Fernando Santos, *In Quest for a Killer, an Inmate Finds Vindication*, N.Y. Times (Dec. 21, 2006), *http://www.nytimes.com/2006/12/21/nyregion/21brown.html?pagewanted=all&_r=0*; *The Innocence Project - Know the Cases: Browse Profiles: Roy Brown, http://www.innocenceproject.org/Content/Proven_Innocent_by_DNA_Roy_Brown_Is_Fully_Exonerated.php*; Brandon L. Garret, *Convicting the Innocent: Where Criminal Prosecutions Go Wrong* 172 (Harvard University Press 2011); Mofson 1992 trial court testimony, *transcript available at http://www.law.virginia.edu/pdf/faculty/garrett/innocence/brown1.pdf.*

certified ABFO Diplomate, testified that the bite marks found on the victim's body matched Krone's teeth. Based on this, Krone was convicted of murder and kidnapping, and sentenced to death.

In 1996, Krone won a new trial on appeal, but was convicted again based mainly on the state's supposed expert bite mark testimony. This time, however, the judge sentenced him to life in prison, citing doubts about whether or not Krone was the true killer. It was not until 2002, after Krone had served more than 10 years in prison, that DNA testing proved his innocence.[4]

4. **Calvin Washington & Joe Sidney Williams:** Calvin Washington was convicted of capital murder in 1987 after a woman was found beaten, raped, and murdered in Waco, Texas. It was alleged that Washington and Williams murdered and sexually assaulted the victim in the course of committing a burglary. Forensic dentist and former president of the American Academy of Forensic Sciences, Dr. Homer Campbell testified that a bite mark found on the victim was "consistent with" Williams' dentition. While Campbell excluded Washington as the source of the bite mark, his bite mark testimony about Williams (which was given at Washington's trial) tied Washington to the crime.

   After serving more than 13 years of this sentence, Washington was finally exonerated in 2000 when DNA testing showed that blood on a shirt found in Washington's home did not come from the victim, as previously asserted; testing conducted a year later pointed to another man as the perpetrator.[5] Prior to Washington's exoneration, the Texas Court of Criminal Appeals had set aside Williams' conviction in 1992 and dismissed the charges against him on June 30, 1993.

5. **James O'Donnell:** James O'Donnell was convicted in 1998 of attempted sodomy and second-degree assault. Board-certified ABFO Diplomate, Dr. Harvey Silverstein, opined that a bite mark on the victim's hand was consistent with O'Donnell's dentition. Based on the eyewitness identification and the bite mark evidence, and despite testimony from his wife and son that he had been at home with them when the crime occurred, the jury convicted O'Donnell. He was sentenced to three and a half to seven years in prison.

   In 2000, after DNA samples from a rape kit excluded O'Donnell as the source of the semen found on the victim, his conviction was formally vacated.[6]

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[4] *The Innocence Project – Know the Cases: Browse Profiles: Ray Krone, http://www.innocenceproject.org/Content/Ray_Krone.php.*

[5] *The Innocence Project – Know the Cases: Browse Profiles: Calvin Washington, http://www.innocenceproject.org/Content/Calvin_Washington.php*; Michael Hall, *The Exonerated*, Texas Monthly (Nov. 2008), *available at http://www.texasmonthly.com/story/exonerated.*

[6] *The Innocence Project – Know the Cases: Cases Where DNA Revealed That Bite Mark Analysis Led to Wrongful Arrests and Convictions, http://www.innocenceproject.org/Content/Cases_Where_DNA_Revealed_that_Bite_Mark_Analysis_Led_to_Wrongful_Arrests_and_Convictions.php*; Silverstein 1998 trial court testimony, *transcript available at http://www. law.virginia.edu/pdf/faculty/garrett/innocence/odonnell.pdf.*

6. **Levon Brooks:** Levon Brooks spent16 years in prison for the rape and murder of a three-year-old girl that he did not commit. Forensic dentist Dr. Michael West claimed that the marks on the victim's body were human bite marks and he testified at Brooks' trial that, of 13 suspects whose bite marks he had compared to the ones on the victim's body, Brooks' teeth "matched" the marks on the victim. As he explained, "it could be no one but Levon Brooks that bit this girl's arm." Based on this, Brooks was convicted of capital murder and sentenced to life in prison.

   In 2001, DNA testing and a subsequent confession revealed that Justin Albert Johnson committed the murder. Johnson had been one of the 12 other suspects whose dental impressions Dr. West had determined did not match the bite marks on the victim's body. Following Johnson's confession, Brooks was freed on February 15, 2008.[7]

7. **Kennedy Brewer:** In 1992, Kennedy Brewer was arrested in Mississippi and accused of killing his girlfriend's three-year-old daughter. The medical examiner who conducted the autopsy, Steven Hayne, testified that he had found several marks on the victim's body that he believed to be bite marks. Hayne called in Dr. West to analyze the marks and Dr. West concluded that 19 marks found on the victim's body were "indeed and without a doubt" inflicted by Brewer. Brewer was convicted of capital murder and sexual battery on March 24, 1995, and sentenced to death. His conviction was based almost entirely on the bite mark evidence.

   In 2001, DNA tests proved that Justin Albert Johnson, not Kennedy Brewer, committed the crime. Johnson was the same perpetrator responsible for murdering the child in the Levon Brooks case. As a result of the DNA testing, Brewer's conviction was overturned. He had served seven years on death row and one year in jail awaiting trial.[8]

8. **Robert Lee Stinson:** Robert Lee Stinson served over 23 years in a Wisconsin prison for a brutal rape and murder of 63-year-old victim Ione Cychosz. The only physical evidence against Stinson at his 1985 trial was the bite mark testimony of two board certified ABFO Diplomates, Drs. Lowell Thomas Johnson and Raymond Rawson. Dr. Johnson concluded that the bite marks "had to have been made by teeth identical" to Stinson's, and claimed that there was "no margin for error" in his conclusion. Dr. Rawson, the chairman of the Bite Mark Standards Committee of the ABFO testified that the bite mark evidence was "high quality" and "overwhelming." Both experts testified "to a reasonable degree of scientific certainty", that the bite marks on the victim had been inflicted at or near the time of death, and that Stinson was the only person who could have inflicted the wounds. After examining Dr. Johnson's workup, Dr. Rawson stated that the methods Dr. Johnson used in gathering the evidence complied with the "standards of the American Board of Forensic Odontology."

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[7] *The Innocence Project – Know the Cases: Browse Profiles: Levon Brooks, http://www.innocenceproject.org/Content/Levon_Brooks.php.*

[8] *The Innocence Project – Know the Cases: Browse Profiles: Kennedy Brewer, http://www.innocenceproject.org/Content/Kennedy_Brewer.php.*

The Wisconsin Innocence Project accepted Stinson's case in 2005, and sought DNA testing of saliva and blood-stains on the victim's sweater, which ultimately excluded Stinson. On January 30, 2009, Stinson, then 44, was freed and his conviction was vacated.[9]

9. **Bennie Starks:** Bennie Starks was convicted of raping and assaulting a 69-year-old woman in 1986, based in part on testimony by two forensic dentists, Drs. Russell Schneider and Carl Hagstrom. Both dentists testified that a bite mark on the victim's shoulder matched Starks' dentition. Starks spent 20 years in prison before an appeals court ordered a new trial after DNA testing on semen recovered from the victim excluded Starks. On January 7, 2013, the district attorney dismissed all charges against Starks.[10]

10. **Michael Cristini & Jeffrey Moldowan:** In 1991, Michael Cristini and Jeffrey Moldowan were convicted of the rape, kidnapping, and attempted murder of Moldowan's ex-girlfriend, Maureen Fournier. At trial, two board-certified ABFO Diplomates, Drs. Allan Warnick and Dr. Pamela Hammel, testified that bite marks on the victim's body had to have come from both defendants, to the exclusion of all others. Both men were convicted. Cristini was sentenced to 44 to 60 years, and Moldowan to 60 to 90 years.

    After the conviction, an investigator hired by the Moldowan family found a witness who said he had seen four black men standing around a naked woman at the scene of the crime. The witness' story contradicted Fournier's, as Cristini and Moldowan are both white. Dr. Hammel then recanted her testimony, saying that she had been uncertain that either defendant had in fact been responsible for the bite marks. According to Dr. Hammel, she had agreed to testify only when Dr. Warnick had assured her that a third odontologist had also confirmed that the bite marks could be matched to Cristini and Moldowan to the exclusion of all others.

    On October 20, 2003, the Macomb County Circuit Court granted Cristini a new trial, citing the new eyewitness evidence, Dr. Hammel's recantation, and stronger alibi evidence. Cristini was acquitted by a jury on April 8, 2004, after having served 13 years in prison. Later, Cristini filed wrongful conviction lawsuits against the city of Warren, Macomb County, and Dr. Warnick. The suit against Dr. Warnick was settled quickly for an undisclosed amount.

    In 2002, the Michigan Supreme Court reversed Moldowan's conviction. On retrial, in February 2003, Moldowan was acquitted of all charges and released, having served

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[9] *The Innocence Project – Know the Cases: Browse Profiles: Robert Lee Stinson, http:// www.innocenceproject.org/ Content/Robert_Lee_Stinson.php*; *State v. Stinson*, 134 Wis. 2d 224, 228, 231, 397 N.W.2d 136, 137-38 (Ct. App. 1986).

[10] *The Innocence Project – Innocence Blog: Bennie Starks Exonerated After 25 Year Struggle to Clear His Name, http://www.innocenceproject.org/Content/Bennie_Starks_Exonerated_After_25_Year_Struggle_to_Clear_His_Nam e.php*; Lisa Black, *Exonerated Man's Ordeal Ends: 'I Am Overwhelmed with Joy'*, Chicago Tribune (Jan. 7, 2013), *http://articles.chicagotribune.com/2013-01-07/news/chi-bennie-starks-lake-county-charges-dropped_1_bennie-starks-mike-nerheim-ordeal-ends*; Donna Domino, *Dentists Sue Over Bite Mark Testimony, http://www.drbicuspid. com/index.aspx?sec=nws&sub=rad&pag=dis&ItemID=309572.*

nearly twelve years in prison. Moldowan's lawsuit was settled for $2.8 million in 2011.[11]

11. **Anthony Keko:** Anthony Keko was convicted in 1994 for the 1991 murder of his estranged wife Louise Keko. Dr. Michael West testified that a bite mark on the victim's shoulder matched Anthony Keko's dentition. Dr. West's testimony was the only direct evidence linking Keko to the crime, and prosecutors conceded that without the bite mark evidence there was no case. Keko was found guilty and sentenced to life in prison. In December 1994, however, the trial judge became aware of previously undisclosed disciplinary proceedings against Dr. West. The judge began to express doubts regarding West's forensic abilities and ultimately reversed Keko's conviction.[12]

12. **Harold Hill & Dan Young Jr.:** Harold Hill was 16 when he and his co-defendant, Dan Young, Jr. were convicted of the rape and murder of 39-year-old Kathy Morgan in 1990. Both men would end up spending 15 years in prison for a crime they did not commit. At trial, board-certified ABFO Diplomate Dr. John Kenney linked a bruise and a bite mark on the victim's body to Hill and Young. Both were found guilty and sentenced to life in prison without parole. It wasn't until 2004 that DNA tests excluded both Hill and Young as the source of DNA evidence found on the victim. In 2005 prosecutors finally dismissed the charges against both men. Dr. Kenney later said that the prosecution pushed him to exaggerate his results.[13]

13. **Greg Wilhoit:** Greg Wilhoit's wife, Kathy, was murdered in Tulsa, Oklahoma in June 1985. Wilhoit was left to raise his two daughters – a 4-month-old and a 1-year-old. A year later, he was arrested and charged with the murder based on the opinions of two forensic odontologists, Drs. R.T. Glass and R.K. Montgomery, that his dentition matched a bite mark on his wife's body. Wilhoit was found guilty and sentenced to death.

    During his appeal, other forensic odontologists examined the bite mark evidence and independently concluded that the bite mark could not be matched to Wilhoit. He was released on bail for two years and when a retrial was finally held in 1993 the judge issued a directed innocence verdict. In total, Wilhoit dealt with this tragedy for 8 years, fighting

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[11] *People v. Moldowan*, 466 Mich. 862, 643 N.W.2d 570 (2002); *Moldowan v. City of Warren*, 578 F.3d 351 (6th Cir. 2009); Ed White, *Warren Settles Rape Case Lawsuit for $2.8 Million – Falsely Imprisoned Man Sued for Violation of His Civil Rights*, Detroit Legal News (Oct. 19, 2011). *http://www.legalnews.com/detroit/1109085*; Jameson Cook, *Michael Cristini Wants Bigger Settlement than Jeffrey Moldowan*, Macomb Daily (Dec. 25, 2012), *http://www.macombdaily.com/article/20121225/NEWS01/121229769/michael-cristini-wants-bigger-settlement-than-jeffrey-moldowan#full_story*; Michael S. Perry, *Exoneration Case Detail: Michael Cristini*, Nat'l Registry of Exonerations, *http://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3133* (last visited Apr. 12, 2013); Hans Sherrer, *Prosecutor Indicted For Bribery After Two Men Exonerated of Kidnapping and Rape*, Justice: Denied, no. 27, 2005, at 10, *available at http://www.justicedenied.org/issue/issue_27/Moldowan_cristini_exonerated.html*.

[12] *A Dentist Takes The Stand*, The Daily Beast, Newsweek & The Daily Beast (Aug. 19, 2001, 8:00 P.M.), *http://www.thedailybeast.com/newsweek/2001/08/20/a-dentist-takes-the-stand.html*; Mark Hansen, *Out of the Blue*, ABA J., Feb. 1996, *available at http://www.abajournal.com/magazine/article/out_of_the_blue/print/*.

[13] Ctr. on Wrongful Convictions, *Exoneration Case Detail: Harold Hill*, Nat'l Registry of Exonerations, *http://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3296* (last visited Apr. 12, 2013).

a case built entirely on bite mark analysis. Wilhoit's story was documented by John Grisham in "The Innocent Man".[14]

[14] *Greg Wilhoit: Unsung Hero from Death Row to Freedom Witness to Innocence*, Greg Wilhoit: Philadelphia, PA, *available at http://www.witnesstoinnocence.org/view_stories.php?Greg-Wilhoit-19*

NOTES ON FIFE BITE MARK PROCEDURES AND FINDINGS---FIFE HOMICIDE

Following a thorough visual study of the body of Fife in the morgue, materials used in the analysis of this case---15 8 x 12 color enlargements of original color slides, 6 Black & White (Panatomic X film) prints and enlargements, models of the teeth and arches of both Hill and Combs. Records of a comple oral examination and complete mouth radiographs, of both suspects, were provided. Measurments were made with a magnifying glass, dividers, and a metal rule.

Upon receipt of the models of the suspects Hill & Combs I made comparisons of the teeth and arch forms of both.

Combs's arch of the maxilla is slighly smaller than that of Hill. The lower teeth of Combs, when the mouth is closed together, occlude lingual to and closer to the incisal angles of his upper anterior teeth. This relationship of the lower to the upper teeth would, in all likelyhood, have left clear incisal marks on the penis of Fife following a bite.

Combs

Tooth #11, the upper left cuspid, of Combs is missing. There is no area of tissue entrapment on the bite marks on the penis.

There is a diastema, abnormal space between the upper right central incisors (#8) and the upper left central incisor (#9), present in the maxillary arch of Mr. Combs. This has been reported in the Journal of Prosthetic Dentistry by McVay and Latta, Vol 52, Number 6, December 1984 to be present in 3.5% in whites, 5.2% in blacks, and 3.4% in Mongolians of the American population in the 18 to 25 year age range.

Combs

It is my conclusion that Combs, in all likelyhood, did not make the bite on the penis of Fife.

The study of Hill's models and all materials reveals the following:

The arch form, tooth arrangment and size of Hill's mouth is consistant with the marks found on the penis of Fife.

The upper right central incisor (#8) has a sharp mesio-incisal angle and the distal, incisal, and lingual surfaces are fractured on an angle. This would give a sharp mesial cervical incisal mark found on the penis of Fife. Because of the angle of the fracture, as expected, a less sharp wound was present. Distal

#8

1 through 16 - typed lower

1

A diastema, or space, was found between the upper right central incisor (#8) and the mark left by the upper left central incisor (#9) on the penis of Fife. This matches the model of HILL's teeth and arch form.

The model of Hill's maxillary teeth reveal that the upper right lateral incisor, (#7), has a slighly longer point located about midway between the mesial and distal incisal surfaces on the incisal edge. The tooth is set back from the distal of #8. This is consistant with the bite mark on the penis of Fife.

The upper left lateral incisor of HILL is about one mm shorter(incisally) to the adjacent tooth, (#9). The position of the lightly marked area on the penis of Fife would be consistant with a mark left by this tooth.

The arch form of Hill's mandible is consistant with the bite mark left on Fife's penis. (Black & White Picture #2 and Color enlargment # III)

The bite was inflicted on the penis in a slighly rotated (not perpendicular) to its shaft.

The reason the marks of the lower teeth do not match or imprint clearly is becasuse when the teeth are closed the lower incisors occlude with the lingual high up near the beginning of the hard palate(roof of the mouth) and leave only puncture marks of #26(the lower right lateral incisor) and possibly #24, the lower left central incisor.

Usually in a bite on a flat or slightly curved surface of more stable skin the lower teeth will leave a more distinct impression because the mandibular lower teeth are forcing the tissue to move upward against the lingual and incisal edges of the upper teeth with more firm tissue in between.

Both Hill and Combs have a midline(#8--#9) diastimas.

The reason that you cannot use direct measurments with any degree of great accuracy(like would be possible in a piece or cheese or an apple) is that the penis may have been in a state of full or partial erection at the time the bite was inflicted.This often occurs following in partial strangulations or in hangings.

Curtis A. Mertz, D. D. S.
Diplomate, American Board of Forensic Odontology
December 19, 1985

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NORTHERN DISTRICT OF OHIO
CLEVELAND

99-4317

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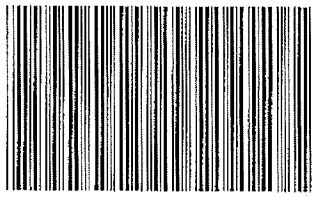
STATE OF OHIO

VS.

DANNY LEE HILL

CASE NO. 85-CR-317

TRIAL TRANSCRIPT
(VOLUME 3)



26

we're objecting to this document as well. Same basis.

JUDGE McLAIN: Overruled at this time. Go ahead.

A This was measuring the difference in the sizes of the flaccid penis and the erect penis in a hundred and seventy-seven healthy men aged 18 to 20 years of age. And in here -- if I can find the spot -- well, it ends up with the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state. Now, there's a lot of other things in here, but that is what I think is significant in this case.

Q (By Attorney Watkins) Why is it significant?

A Because based on this research; in my mind, valid research, this explains the difference in the measured size of approximately a third less than in the measurements when teeth mark sizes are compared.

Q Now, I notice that was studied for 18-year olds.

A Yeah.

Q Did you look for studies, if there are any known, as to young 12-year olds, 14-year olds --

A The -- our hospital librarian could not find any reference to size differentials in younger individuals. There may be in the literature.

Q From your own experiences, would you have an opinion as

PENGAD/INDY. MUNCIE, IN 47302
SF-AZ-13

IN THE COURT OF COMMON PLEAS
TRUMBALL COUNTY, OHIO

THE STATE OF OHIO,	:	
Plaintiff,	:	
v.	:	Case No.: 85-CR-317
DANNY LEE HILL,	:	
Defendant.	:	

AFFIDAVIT OF FRANKLIN D. WRIGHT, D.M.D.

I, Dr. Franklin D. Wright, hereby declare as follows:

BACKGROUND

1. I am a board-certified practicing forensic dentist with nearly three decades of experience as the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office. I have presented lectures and workshops in forensic odontology throughout the United States, Europe, Central America, and South America, including to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science.

2. I am a past president of the American Board of Forensic Odontology ("ABFO"), and currently chair of the ABFO Bitemark Proficiency Examination Development Committee.

3. I have reviewed, investigated, and consulted on hundreds of bite-mark cases.

4. I have been retained by the State of Ohio on numerous occasions to analyze bitemarks in criminal investigations and trials. I have also testified on behalf of the State of Ohio in criminal trials, including homicides.

5. A detailed curriculum vitae is attached as Exhibit A to this Affidavit.

6. On January 26, 2014, Counsel for Danny Lee Hill requested that I review certain case files and evidence relating to the prosecution of Mr. Hill for the murder of Raymond Fife. I understand that Mr. Hill was tried and convicted in the Trumbull County Court of Common Pleas in January 1986. At that trial, the court heard testimony relating to alleged bitemark evidence from two forensic dentists: Dr. Curtis Mertz and Dr. Lowell Levine. Such evidence is directly in my field of expertise.

7. After my review of the materials provided to me, I authored a letter to Mr. Hill's counsel, dated March 30, 2014, in which I reported my findings. This Affidavit confirms and supplements my findings as set forth in that letter, which is incorporated by reference and a copy of which is attached as Exhibit B to this Affidavit.

MATERIALS CONSIDERED

8. In reaching my opinions and as part of preparing this Affidavit, I have reviewed the following materials: Report of Dr. Curtis Mertz Report, Report of Dr. Lowell Levine, Trial Testimony of Dr. Mertz, Trial Testimony of Dr. Levine, and twenty-two black-and-white images that were photographs of the victim in the case of *State v. Danny Lee Hill*. I have been informed these were admitted as evidence during the trial of Danny Lee Hill.

9. In addition, I have relied on the experience and training acquired over my nearly three-decade career as a forensic dentist and consultant.

10. Finally, I have considered conversations that I had with Dr. Curtis Mertz, who is now deceased.

OPINION

11. It is my opinion, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim, Raymond Fife, is not a human bitemark.

12. Using the ABFO Bitemark Decision Tree first adopted by the ABFO in February 2013, when a patterned injury is defined by the ABFO Bitemark Terminology Guidelines as not representing a human bitemark, then analysis and comparison to any suspected biter is not sanctioned under any circumstances, and as a rule cannot be performed to a reasonable degree of medical/dental certainty.

13. Even if the patterned injury on the victim was a human bitemark, which it is not, its location on the penis of the victim makes the scientifically supportable identification of a particular biter impossible.

~~14.~~ It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that patterned injury on Raymond Fife's penis was created by a human teeth.

15. It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that the patterned injury on Raymond Fife's penis was created by Danny Lee Hill to the exclusion of millions of other individuals in the open universe of possible biters.

THE TESTIMONY AND OPINION OF DR. CURTIS MERTZ

16. Dr. Mertz erred when he conclusively identified Mr. Hill as the source of the patterned injury on the victim.

17. In my opinion, applying the current guidelines and standards of the ABFO, there is no scientific support for the conclusion that Mr. Hill left any portion of the patterned injury on the victim.

18. Furthermore, it is my opinion that the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question. Dr. Mertz's assertion that Mr. Hill caused the injury on the victim's penis required him to speculate that the victim's penis was erect when the bite occurred, that this erect penis would have been one and a third the size of a flaccid penis, and that therefore the dimensions of the bite-mark that were actually measured were approximately a third smaller than the dentition of the alleged biter. This speculation is nothing but a blind guess. Such blind guessing is not a reasonable or reliable scientific methodology, nor is it permitted under the ABFO Guidelines (or the ABFO-recommended "Decision Tree" based on those Guidelines). In my opinion, the extrapolations that Dr. Mertz made from his actual measurements (based on his speculation regarding the presence of erection and erect versus flaccid penis circumference) are not scientifically supportable, and suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias.

19. This bias is evidenced by the fact that Dr. Mertz chose to address only those aspects of the patterned injury that he felt that he could link to Mr. Hill's dentition, ignoring other aspects of the patterned injury that he could not link to Mr. Hill.

DR. MERTZ'S POST-TRIAL STATEMENTS

20. Dr. Mertz passed away in 2005. He was my mentor, as well as a respected teacher and scholar in the forensic odontology community. However, Dr. Mertz confided in me

that he regretted the testimony that he gave in this case, and that he did not believe that it was scientifically supportable.

21. These statements, or statements like them, were made to me by Dr. Mertz on two occasions. I discussed this case with Dr. Mertz at the time that I was preparing to take my ABFO certification examination in 1988 and then again in the 1990s. During both conversations, Dr. Mertz and I discussed the testimony that he gave in Mr. Hill's case.

22. On both occasions, in 1988 and again in the 1990s, Dr. Mertz confided to me that he no longer believed, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim in this case was a human bitemark. He also stated, on both occasions, that he no longer believed, to a reasonable degree of medical/dental certainty, that Mr. Hill's dentition was the source of that injury. Dr. Mertz clarified that if he had the opportunity to give further testimony in proceedings involving Mr. Hill, he would not have given the same opinion and testimony that the Court admitted as evidence.

THE TESTIMONY AND OPINION OF DR. LOWELL LEVINE

23. Dr. Lowell Levine erred when he opined that the injury on the victim represents a human bitemark.

24. Dr. Levine further erred when he stated (i) that either Mr. Hill, or his co-defendant, Tim Combs, could have been the biter, and (ii) that it is likely that one portion of the patterned injury was caused by Mr. Hill.

25. In my opinion, the only reasonable and reliable scientific conclusion that could be asserted given Dr. Levine's recorded observations about the patterned injury was either (i) that the patterned injury lacked specificity, and thus could not supply a basis for identifying either

Mr. Hill or Mr. Combs (or anyone else) as the biter, or (ii) that Mr. Hill's and Mr. Comb's dentitions were similar enough that a bitemark left by either of them would leave a pattern indiscernible from a bitemark pattern left by the other.

I declare under penalty of perjury that the foregoing is true and correct.

Franklin D. Wright, D.M.D.

Executed this 22 day of September, 2014.

Subscribed and sworn to me by the person known to me as Franklin D. Wright, D.M.D., this 22 day of September, 2014.

Notary Public: Melanie Sauter

My commission number: 3/3/2018

My commission expires: 3/3/2018

NOTARY PUBLIC STATE OF OHIO

MELANIE A. SAUTER
Notary Public, State of Ohio
My Commission Expires
March 3, 2018

FRANKLIN D. WRIGHT, D.M.D.

FORENSIC DENTAL CONSULTANT

FRANKLIN D. WRIGHT, D.M.D

GENERAL INFORMATION

EMAIL:	**frankwright@msn.com**
OFFICE:	Full Time Family Practice 1055 Nimitzview Dr. Cincinnati, Ohio 45230 PHONE (513) 231-5353 FAX (513) 231-6404
EDUCATION:	
	University of Kentucky College of Dentistry A.B. Chandler Medical Center Lexington, Kentucky
GRADUATE:	**1984**
	University of Kentucky College of Arts and Sciences Lexington, Kentucky
GRADUATE:	May 1980
	Anderson Senior High School Cincinnati, Ohio 45255
GRADUATE:	1976

PUBLICATIONS, LECTURES, AFFILIATIONS

Publications:

- Cincinnati Dental Society "Bulletin"
"Forensic Odontology", April 1988 Vol. 57 No. 4 Pg. 16

Manual of Forensic Odontology
(A publication of the Amer. Society of Forensic Odontology)

- "Postmortem Dental Radiography", Second Edition, 1991

- Chapter 2,"Dental Identification", Third Edition, 1995

- Dental Identification, Fourth Edition, 2007

-Chapter 7 Bitemark Analysis, Fifth Edition, 2012

- Forensic Dentistry, Chapter 6 "Forensic Photography"; first edition, 6/97, CRC Press, Boca Raton, FL

- Photography in Bite Mark and Patterned Injury Documentation, Part 1 and part 2- a case study, Journal of Forensic Sciences, vol.43; num.5; pgs 871-881; July 1998

- Dental Clinics of North America: Forensic Odontology, Bitemark Chapter, April, 2001, pgs 365-397

- Bitemark Evidence, edited by Dr. Robert B.J. Dorion, {photography- chapter 7}"Collection of Evidence: Non-invasive Analyses: Photography" First edition 2004;

- Forensic Dentistry, 2nd edition, edited by Drs. David Senn and Paul Stimson, Ch.11 Forensic Photography (January, 2010)

-The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology, Forensic Science International, vol. 201 Nos. 1-3, September, 2010; pgs 59-67

-Bitemark Evidence, edited by Dr. Robert B. J. Dorion, {photography- chapter 7}"Collection of Evidence: Non-invasive Analyses: Photography" Second Edition, January ,2011

- Forensic Science: Current Issues, Future Directions; Odontology- Dentistry's Contribution to Truth and Justice; (publication of the American Academy of Forensic Sciences) Pretty, I.; Barsley, R.; Bowers, C.M.; Bush, M.; Bush, P.; Clement, J.; Dorion, R.; Freeman, A.; Lewis, J.; Senn, D.; Wright, F. September 2012; pgs 179-210

-Manual of Forensic Odonotology 5th edition, edited by David R. Senn; Richard A. Weems; Chapter 9; CRC Press, Boca Raton, FL February, 2013

-"Patterned bruises on 2 infants"; Luyet, F.; Feldman, K.; Wright, F.; Knox, B.;

Page 9 of 18

Contemporary Pediatrics; February 2013; pgs 21-22

Lectures:

- "Forensic Dentistry"- Cincinnati Dental Assistant's Society,
October 17, 1988 - March 20, 1991 - March 21, 1994 - April 21, 1997

- Hamilton County Dental Mass Disaster Team, "Dentistry's Role in a Mass Disaster in Cincinnati", January 6, 1990

- "Dental Identification" -Cincinnati Dental Society, March 12, 1990

- "Forensic Dentistry" - Lima Dental Study Club, January 14, 1992

- "Forensic Dentistry"- All Ohio Dental Career Day, The Ohio State University
March 1992; April 1993

- "Distortional Correction in Bitemark Photography - an Unusual Case" &
"Problems and Solutions to the Formation of a Statewide Dental Disaster Team"
American Academy of Forensic Sciences - Annual Meeting, Boston February 1993

- "Forensic Dentistry- A Look At Dentistry As You Have Never Seen It Before"
Radisson Hotel, Lexington Kentucky, Sponsored by the University of Kentucky, College of Dentistry - Commonwealth Continuing Education Dept., August 28, 1993 and
December 16, 1994

-"Forensic Dentistry- A New Look at an Old Friend", Eastside Dental Study Club
May 1994

-"Forensic Dentistry- Course and Workshop", Republica de Colombia Instituto Nacional de Medicina Legal y Ciencias Forenses Bogotá, Colombia, South América,
December 12-17, 1994

-"Bitemark Case Workup" - A.S.F.O. Annual Meeting, Seattle, WA February 14, 1995

-"Forensic Dentistry: A Look at Dentistry as You've Never Seen It Before"
:Ohio Expanded Dental Function Assistants Association at the Annual Meeting of the Ohio Dental Association, September 1995
:Stark County (Canton, Ohio) Dental Society, November 1995
:Greater Cincinnati Oral Health Council, December 1995
:Raymond Walters College- Dental Hygiene Program University of Cincinnati,
January 1996
:Greater Cincinnati Dental Study Club, October 1996
:Cincinnati Dental Hygienists' Association, November 1997

-Death Investigation Seminar, Hamilton Co. Coroner's Office, Odontology Presentation-

"Forensic Dentistry, Pattern Injuries, Photography", 10/17/96, 9/9/97, 9/98; 9/99

- "Evidence Recovery with Dental Materials", FBI Evidence Recovery Team, Cincinnati Office, 10/18/96

- "Bitemark Evidence Recovery", Hamilton Co. Sexual Assault Team, 1991,1993, 1997

- "Computers in Dental Identification"; "Human Abuse"; "Bitemark Update: Computers, DNA and Digital Images" IX Congress de la Instituto de Medicina Legal y Ciencias Forenses, Bogotá, Colombia, S.A. Sept. 17-20, 1997

- George Furst Bitemark Seminar, AAFS meeting, 2/14/98 case presentation, San Francisco, CA

- "Forensic Dentistry: the basics and some nuggets for your office" Cincinnati Dental Society, 3/9/98

- "Forensic Evidence" keynote speaker, Domestic Violence Conference "Effective Investigation and Prosecution" workshop, Cincinnati, 4/2/98

- "Forensic Photography" California Attorney General's National Missing & Unidentified Persons Violent Crime Workshop, 7/21-7/25/98, Sacramento, California

- "Forensic Dentistry- It's All in How You Look at It!" University of Kentucky- Commonwealth Continuing Dental Education University of Kentucky, 8/28/98

- "Child Abuse" & "Forensic Dentistry" Division of Pediatric Dentistry, Children's Hospital Medical Center, Montgomery Inn, Cincinnati, Ohio 2/4/99

- 2nd George Furst Bitemark Seminar, AAFS Annual Meeting "Forensic Photography" and "Overlay Fabrication", Saturday, 2/20/1999, Orlando, FL

- "Forensic Dentistry" Northwest (Ohio) Dental Society, Lima, Ohio, 3/17/99

- "Forensic Photography" - Ohio State Coroners Association Annual Meeting Columbus, Ohio, 5/14/99

- "The ODA Mass Disaster Identification Team and Forensic Dentistry: an Introduction" Ohio Dental Association Annual Session, Columbus, Ohio, 9/23/99

- "Forensic Dentistry" T.I. Law Dental Study Club, Cincinnati, Ohio, 9/27/99

- 3rd George Furst Bitemark Seminar AAFS Annual Meeting Three part Course Review and Summary, Reno, NV, February 19,2000

- "Forensic Dentistry: Dental Identification Exercise and Bitemark Case Analysis" University of Kentucky College of Dentistry-Commonwealth Dental Continuing Education, Lexington, KY, 3/24/00

- "Forensic Dentistry: Bitemarks – Who did It?"
Ohio Dental Association Annual Session, Columbus, Ohio, 9/16/00

-" Human Abuse", teacher in-service: Lawrenceburg School System
Lawrenceburg, Indiana, January 10, 2001

-"The Trials and Tribulations of Bitemarks Analysis: Seeing What is Really There"
AAFS annual meeting Abstract presentation, Thursday February 22,2001
Seattle, Washington

-"Forensic Odontology 2001", Instituto de Medica Legal y Ciencias Forenses
June 3-9, 2001, Bogotá, Colombia, South América

- "Forensic Dental Identification Workshop" Annual Session, Ohio Dental Association, September 14, 2001 Columbus, Ohio

-Dental Identification Unit, Office of the Chief Medical Examiner, New York City, NY
World Trade Center Disaster (Dental Identification of WTC victims) 9/15-9/23/01; 12/5-12/10/01

-VI Jornada de Medican Legal, Ministerio Publico: Instituto de Medicina Legal
"Forensic Evaluation: Collection and Process of Identification at the Scene of the Crime"; "Identification by Human Bitemarks", "Identification by Forensic Dentistry", "DNA in Forensic Dentistry", Panama City, Republic of Panama, Central America
October 23-25, 2002

-"Forensic Dentistry: Crime Scene Incidents"
Northern Kentucky University Advanced Crime Scene Class
Friday 11/8/02 - Prof. Jill Shelley, Highland Heights, KY 41099

-"Forensic Dentistry", Cincinnati Dental Hygienists Association
Raymond Walters College, University of Cincinnati, 11/12/02, Cincinnati, Ohio

-"Advanced Forensic Photography" University of Texas, San Antonio
San Antonio, TX December 6-8, 2002, lecture & workshop; with Dr. Greg Golden, Upland, CA and Dr. James Lewis, Alabama

-ABFO Bitemark Workshop #5: Didactic Lecture: "ABFO Bitemark Terminology and Report Writing"; Moderator: oral presentations by candidates, AAFS Annual Meeting, Chicago, IL Sunday February 16, 2003

-"Dental Identification Workshop Using Computers", sponsored by the Ohio Dental Association at the Ohio State University College of Dentistry April 12, 2003 Columbus, Ohio

-"Mass Disaster Identification Workshop", Tennessee Dental Association Annual Meeting, Nashville, TN May 22, 2003

-"Introduction to Forensic Dentistry", Ohio Dental Association Annual Session, Columbus, Ohio September 13, 2003

"Ominous Signs of Abuse, including Bite Mark Analysis and Patterned Injuries", Ohio Sexual Assault Nurses Association/Forensic nurses, MedCentral Hospital, Mansfield, Ohio Nov. 5,2003

"Photography in documentation of bitemark and patterned injuries in child abuse and assault" Multi-disciplinary Child Abuse Team- Cincinnati Children's Hospital Medical Center, Mayerson Center for Child Abuse, Children's Hospital, Cincinnati, Ohio November 21, 2003

"Forensic Dentistry: A Look at Dentistry as You Have Never Seen It Before", Lorain County Dental Society, Holiday Inn, Ohio St. Rt. 57, Lorain, Ohio, January 21, 2004

"Forensic Dentistry" Northern Kentucky University Criminal Justice Seminar Farris Auditorium, NKU Campus 3/26/04

"Advanced Forensic Photography: Human Bitemarks: Detection, Photography and other Evidence Collection", NYU College of Dentistry/New York Society of Forensic Dentistry 345 E. 24th St. NY, NY 3/29/04

"Be Careful Who You Bite: An Introduction to Bitemark Analysis" Cincinnati Dental Society Scientific Meeting Monday 4/19/04 Gregory Conference Center Cincinnati, Ohio

"Forensic Dentistry: CSI" University of Kentucky College of Dentistry Continuing Education Network, Lexington, KY 12/3/04

"Forensic Dentistry: An Introduction for Dental Hygienists" Ohio Dental Hygiene Association Annual Meeting, Cincinnati, Ohio 1/22/05

"Forensic Dentistry: An Introduction" Ohio Dental Association Annual Session Saturday 9/17/05 Greater Columbus Convention Center Columbus, Ohio

"Forensic Dentistry CSI" North Central Hygiene Association October 7, 2005 Sandusky, Ohio

"Forensic Dentistry: A Look as Dentistry as You've Never Seen it Before Toledo Dental Society October 19, 2005 Toledo, Ohio

"Forensic Dentistry in Child Abuse: First Annual James Steiner Lecture Series Cincinnati Children's Hospital Medical Center, Oct. 31, 2005

"Photography in Forensic Dentistry to Document Bitemarks and Patterned Injuries Grand Rounds, Cincinnati Children's Hospital Medical Center November 1, 2005

"Photographic Documentation of Bitemarks and Patterned Injures in Child Abuse and Domestic Violence" Kentucky Association of Sexual Assault Programs annual Meeting Marriott Griffin Gate Resort, Lexington, KY 12/8/05

-"Patterned Injuries in Sexual Assault" Innovative Healthcare for Victims- Kentucky Association of Sexual Assault Programs; University of Kentucky Medical Center Lexington, KY 2/7/06

-"Forensic Dentistry CSI" Hocking Valley Dental Hygiene Association Lancaster, Ohio 2/06

-"Report Writing in Bitemark Analysis" American Board of Forensic Odontology Bitemark Workshop Seattle, Washington 2/19/06

-"Forensic Dentistry Introduction" and Ohio State Dental Board Update, Stark County

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Dental Society, Akron, Ohio 4/4/06
-"Forensic Photography in the Documentation of Bitemarks and Other Patterned Injuries Pediatric Sexual Assault Nurse Examiners Annual Meeting, Columbus, Ohio Children's Hospital, Columbus 4/28/06
-"Introduction to Forensic Dentistry" part of forensic series in collegiate course titled "Introduction to Forensic Science", University of Cincinnati, Professor Gideon Labiner, 5/3/06; also 5/2009
-"Mass Disaster Training and Preparation" National Mass Fatalities Institute Seminar sponsored by the Hamilton County Coroner's Office, Cincinnati, OH Scarlet Oaks Joint Vocational School 5/25/06
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry University of Texas-San Antonio, San Antonio, TX 6/8- 6/10/06
-"Bitemarks" US Public Health Service Annual Session, Dental Category, Cincinnati, Ohio June 5, 2007
-"Forensic Odontology and the Coroner/Medical Examiner"; International Association of Coroners and Medical Examiners, millennium Hotel, Cincinnati, Ohio June 10, 2008
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry, University of Texas-San Antonio, San Antonio, TX 6/4-6/7/2008
-"Forensic Dentistry; CSI" Ohio Expanded Function Dental Auxiliaries, Columbus, Ohio; 6/27/2008
- "Effects of the National Academy of Science (NAS) Preliminary Report on the Practice of Forensic Odontology, American Academy of Forensic Science Annual Meeting, Denver, CO, 2/2009

-"Bitemark Workshop", Ohio Dental Association Forensic Dental Team; Annual Meeting of the Ohio Dental Association, Greater Columbus Convention Center, Columbus, Ohio, September, 2009

- "Forensic Dentistry" Santiago, Chile, South America, 10/3- 10/12/2009; Inaugural meeting of the Latin American Society of Forensic Dentistry, at the invitation of the Division of Medicina Legal, Attorney General's Office, Country of Chile

-"Summary of the Findings of the National Academy of Science" American Academy of Forensic Sciences Annual Meeting, Denver, Colorado 2/20/2009
-"Forensic Dentistry- Human Abuse and Dental-Legal Issues" Ohio Dental Hygienists Association Annual Meeting, 4/23/10, Mason, Ohio
-Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director 5/12/10 Cincinnati, Ohio
-"Introduction to Forensic Dentistry", Guest Lecturer, Advanced General Dentistry Program, Un. of Cincinnati, Dr. Jerome McMahon, Program Director
-Southwest Symposium on Forensic Dentistry, "Bitemark Analysis" and "Advanced Forensic Photography", Un of Texas- San Antonio, San Antonio, TX; June 9-12, 2010
-"The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology", International Organization of Forensic Odonto-Stomatology, Lueven, Belgium September 2010
-"Human Bitemarks, NAS Report and *Daubert"* Executive Office of the President of the United States National Science and Technology Council, Committee on

Science, Subcommittee on Forensic Science, Washington, DC; January 12,2011
-"Forensic Dentistry and the NAS Report: then and now, really?" American Society of Forensic Odontology Annual Meeting, Chicago, Ill February 22, 2011
-"Pitfalls of Bitemark Analysis: where does one end and the other begin?" American Academy of Forensic Sciences, Hyatt Regency Hotel, Chicago, Ill, February 24, 2011
-"Bitemark Management 2011" American Board of Forensic Odontology Bitemark Workshop, Hyatt Regency Hotel, Chicago, Ill February 25, 2011
-"Forensic Odonotology" Ohio Association of Pediatric Dentistry, Nationwide Children's Hospital, Columbus, Ohio March 4, 2011
-"Bitemark Analysis, Conclusions and Report Writing" American Society of Forensic Odontology Annual Meeting February 21, 2012 Atlanta, GA

-"Bitemark Analysis" University of Kentucky College of Dentistry- Senior Elective April, 2012, Lexington, KY
-"The Dental Record- Saving or Kicking your Butt", Cincinnati Dental Society May 7, 2012 Cincinnati, Ohio
- Introduction to Forensic Dentistry, University of Cincinnati, Advanced Dental Practice Residency May 10, 2012 Cincinnati, Ohio
-Southwest Symposium on Forensic Dentistry-Bitemark , University of Texas, San Antonio; San Antonio, TX June 6-9, 2012
-"The Use of Bitemark Evidence, Analysis and Comparison in Violent Crime; 43rd Annual Session of the American Society of Forensic Sciences, Feb. 19, 2013 Washington, DC
-"Bitemark Analysis: Foundation, lessons from the Past and the Paradigm Shift to the Present and the Future"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Does Bitemark Evidence Meet Modern Evidentiary Reliability Standards? A Subject Expert Panel Discussion"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Human Bitemark Analysis"; University of Kentucky, College of Dentistry; Lexington, KY 3/8/2013
-" Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director Cincinnati, Ohio 4/4/2013
-"Forensic Dentistry" University of Cincinnati, Advanced Dental Practice Residency May 9, 2013 Cincinnati, Ohio
-"Human Abuse in the Practice of Dentistry" Cincinnati Children's Hospital Medical Center Pediatric Residency Program, Montgomery Inn, Montgomery, Ohio October 8, 2013; Cincinnati, Ohio
-"Contemporary Forensic Dentistry: Bites, Burns, Slaps, Age and Dental Record- Where Modern Dentistry Meets the Law"; University of Kentucky College of Dentistry, October 25, 2013; Lexington, KY

Affiliations:

Diplomat, American Board of Forensic Odontology (1989-) (ABFO)
Member, American Society of Forensic Odontology (1986-) (ASFO)
Fellow, American Academy of Forensic Sciences (1992-) (AAFS)
Fellow, International College of Dentists (2000-2010)
Member, PANDA Coalition- Delta Dental of Ohio and the Ohio Dental Association (1994-) (PANDA =prevent abuse and neglect through dental

awareness)
National Dental Advisor, Parents of Murdered Children (1993-)
Hamilton Co. Coroner's Office, Forensic Dental Consultant (1986-)
Disaster Committee Member, Greater Cincinnati- Northern Kentucky International Airport, Dental Mass Disaster Team (1988-)
American Dental Association, Ohio Dental Association (ODA)
Cincinnati Dental Society (CDS) (1984-)
CDS Council Member (1997-2005) Delegate, ODA (1998-2005)
-Chairman, CDS Public Relations Committee (2004-08)
Forensic dental consulting provided in many states throughout the US, Central and South America, Europe

Offices Held:

Forensic Dental Consultant, Hamilton Co. Coroner's Office (1986-)
Chairman, Mass Disaster Identification Team, Ohio Dental Association (1990-1998)
Chairman, Forensic Dental Team, Ohio Dental Association (1998-2010)
Chief, Hamilton County, Ohio-Dental Disaster Team (1986-)
American Board of Forensic Odontology (ABFO):
- Board of Directors, A.B.F.O. (1994-1997) (1998-2001) (2004-2005)
-ABFO Bitemark Proficiency Examination Development Committee (2011-..)
-ABFO Ethics Committee (2013-2016)
-ABFO Immediate Past President (2011-2012)
-ABFO President (2010-2011)
-ABFO President-Elect (2009-2010)
-ABFO Vice President (2008-09)
-ABFO Secretary (2006-08)
-Member, ABFO Human Abuse, Bitemark and Mass Disaster Committees Certification and Examination Committee, Human Identification Committee, Executive Committee, Nominating Committee
-Chairman, ABFO Strategic Plan Committee (2003-2006)
-Cincinnati Center for Children's Dentistry, Board of Directors, Trustee (2006-)
Chairman, Cincinnati Dental Society Forensic Dental Team (2002-)
Chairman, Human Abuse Committee, A.B.F.O. (2000-2002)
Board of Governors- A.S.F.O. (1995- 1998)
Editorial Board, A.S.F.O. Newsletter (1999- 2006)
Odontology Section Program Chairman, A.A.F.S. (1997-1999)
Odontology Section Secretary, A.A.F.S. (1999-2001)
Odontology Section Chairman, A.A.F.S. (2001-2003)
AAFS: Local Arrangements, Cincinnati, 1990
Continuing Education Committee (1997-2003)
Nominating Committee (2000- 2002)
Ethics Committee (2000- 2002)
Council (1998-2002)
Journal of Forensic Sciences, Peer Review, scientific articles (2009-)

Ohio State Dental Board :
Term: 4/04 through 3/31/08
Committees: Policy Committee (2004 -08)
Laws & Rules Committee (2004 - 08)
Communication Committee (2004- 08)
Scope of Practice (2004- 08)

Recognized Meetings:

Symposium on Mass Disasters, A.D.A. Headquarters, Chicago, Illinois, March 1986
Airport Disaster Exercise, Greater Cincinnati International Airport
October 1988-December 1991, September 1993-September 1996
September 1997- present
American Academy of Forensic Sciences (AAFS)- Annual Meeting
Cincinnati, Ohio – February 1990
Anaheim, California – February 1991
New Orleans, LA – February 1992
Boston, MA – February 1993
San Antonio, TX – February 1994
Seattle, WA – February 1995
Nashville, TN - February 1996
New York, NY – February 1997
San Francisco, CA - February 1998
Orlando, FL - February 1999
Reno, NV - February 2000
Seattle, WA - February 2001
Atlanta, GA - February 2002
Chicago, IL - February 2003
Dallas, TX – February 2004
New Orleans, LA February, 2005
Seattle, WA February 2006
San Antonio, TX February, 2007
Washington DC February, 2008
Denver, CO February 2009
Seattle, WA February 2010
Chicago, IL February 2011
Atlanta, GA February 2012
Washington DC February 2013
American Society of Forensic Odontology Annual Meeting: 1986- present
American Board of Forensic Odontology Annual Diplomates Meeting 1989- present
Second Symposium on Mass Disaster, ADA Headquarters, Chicago, Illinois, 6/96
Mass Disaster Workshop, ADA Headquarters, April 1997
C.A.R.E. Symposium (Child Abuse Recognition Education),
ADA Headquarters, 7/31- 8/1/98

Continuing Education:

- "Forensic Odontology", Armed Forces Institute of Pathology Washington, D.C.
September 1986
- "Forensic Odontology", University of Louisville, Louisville, KY
Mark Bernstein, D.D.S. 1985
- "Forensic Odontology", ADA Mid-Winter Meeting, Chicago, Illinois
John Kenney, D.D.S. 1987
-Mini- A.F.I.P Course, Indiana University- Purdue University, Indianapolis, IN
A.F.I.P. Faculty, 1988,
- Annual A.A.F.S meeting: 1990- 2013, Annual A.S.F.O. meeting: 1990- 2013; A.B.F.O. Annual meeting: 1989-2013

Research Interest:

- Photo-documentation of patterned injuries using non-visible light (Infra-red and ultra violet light)- research on-going

- Digital Imaging and Enhancement, on-going

I have been involved in litigation, both in civil and criminal cases, as well as the review of many cases that were not litigated Specifics available upon request.

Odontology Report

In the matter of Danny Hill v. Betty Mitchell, Warden

Report consists of 7 Pages, 2 Figures, 0 Appendices and 0 Attachments

My name is Iain Alastair PRETTY and I am a qualified dental surgeon. I obtained my dental qualification, BDS(Hons), in 1998 from the University of Newcastle upon Tyne. I have obtained a further qualification in forensic dentistry, MSc, from the University of British Columbia, Vancouver, BC, Canada, a doctoral degree (PhD) from the University of Liverpool and a Masters of Public Health (MPH) from the University of Manchester. I am a member of the American Society of Forensic Odontology, a fellow of the American Academy of Forensic Sciences, a fellow of the Forensic Science Society, a member of the British Association of Forensic Odontology and the British Academy of Forensic Science. I am a Fellow of the Royal College of Surgeons of Edinburgh. I have published numerous articles and several book chapters on various aspects of forensic dentistry, in particular bitemark injuries and their analysis. A copy of my curriculum vitae has been previously provided.

I have been instructed by attorneys representing Mr. Danny Hill. In particular, I have been asked to examine a number of photographs documenting injuries to a child (Raymond Fife) - and to consider:

a) Is the injury to Raymond's penis consistent with a bitemark?
b) If so, are there sufficient details to enable a comparison with a suspect's dentition
c) The reports of Drs Mertz and Levine.

1. MATERIALS SUPPLIED

1.1 I have been supplied with the following materials:

a) Reports of Drs Mertz (November 4, 1985) and Levine (November 19, 1985)
b) Collection of black and white photographs (9)
c) Autopsy report of Dr Adelman (23rd October 1985)
d) Trial testimony
e) Defendant's dental records

2. INJURIES

2.1 When considering whether or not an injury is a bitemark there are a number of possible conclusion levels that can be drawn. These conclusion levels are those of the American Board of Forensic Odontology and have been recently adopted by the British Association of Forensic Odontology:

- Insufficient evidence
- Not a human bitemark
- Suggestive of a human bitemark
- A human bitemark

2.2 Bitemarks typically present as two semi-circular injuries that are separated at their open ends, and there may be an area of unaffected tissue in the centre. Bitemarks can present with a range of differing severities but a common feature is that focal points of bruising or laceration can be seen that relate to the class characteristics of teeth. Bitemarks vary in size but fall within an accepted range.

2.4 In preparing this report I have relied upon the photographs supplied to me in order to render my opinion.

3. SUSPECTED BITEMARK INJURY TO RAYMOND FIFE

3.1 I have studied the photographs supplied to me carefully. There is a single anatomical location that is of interest – the glans of the penis. Injuries to the penis are difficult to assess. The tissue is highly distortable and it is, of course, impossible to assess if the penis was flaccid, erect or semi-erect

during the infliction of the injury. The surface is curved, soft and the risk of postural distortion high. Indeed, looking at the photographs supplied the positioning of the metal scale and the holding of the penis by forceps demonstrates this. The injury in question is shown in Figures 1 and 2 attached to this report.

3.2 The injury appears to consist of a number of roughly circular injuries that may be lacerations. As I am basing my assessment purely from photographs (which is not unusual) I cannot be sure of the exact nature of the marks. I am not helped by the reports of either Levine of Mertz who do not describe the injuries in any detail other than stating that the injuries represent a bitemark. There are no measurements, descriptors or locators present in their written reports. One would normally expect a bitemark to be described in detail, with salient features supporting the conclusion that the injury was caused by human teeth.

3.3 Each of the individual circular injuries ranges from approximately 2 through 4mm. The appearance of these injuries is inconsistent with the appearance of human incisor teeth – but demonstrate *some* of the class characteristics of canine teeth. However, the arrangement, spacing, and overall morphological appearance of these marks is inconsistent with the normal arrangement of a dental arch.

3.4 The forensic significance of the injury is *extremely low*. This is largely due to the anatomical location, which, for reasons described in 3.1 is difficult to assess. It is impossible to identify a dental midline, maxillary or mandibular arches, or class characteristics of incisor teeth. It is my opinion that the identification of these gross characteristics are essential before the identification of a bitemark can be made.

3.5 The absence of these features, and the presence of the injury on a highly distortable anatomical location, mean that a conclusion of a definite human bitemark cannot be reached. Indeed it is my opinion that there is simply insufficient evidence presented to reach any conclusion regarding the

likely the nature of these wounds. I understand that the body was discovered with the genitals exposed – raising the suspicion that the injuries may be related to animal predation in the peri-mortem period.

3.6 It is therefore my conclusion that there is insufficient evidence to reach a conclusion at any level of certainty regarding the causation of the small, circular wounds to the glans penis of Raymond Fife. Given this conclusion, any further analysis of the injury is inappropriate. Even if the evidence had supported a conclusion of "suggestive of a bitemark" (which it does not) further analysis, according the ABFO decision model, would still be considered inappropriate.

4. LEVINE

4.1 Levine provides a one-page report in the form of a letter with three bullet points. I am not aware if a more comprehensive report was generated – with details of measurements undertaken, reasons for conclusions or the scientific processes underpinning those conclusions. Levine simply states that human teeth caused the patterned injury, that he cannot be sure if one or both defendants caused the injury but that he feels it is "likely" that "Hall" *sic* caused one portion of it. There is no information to support which element. There is no level of certainty provided to indicate what "likely" means – for example if it is at the level of medical certainty or below.

4.2 In his Court testimony, at 1143 – 4 he accepts that the condition of the penis is unknown in such cases and "could either be flaccid or erect....you really don't know.." Nothing else is provided in his testimony that enables us to understand how he reached his conclusion that this collection of injuries was a bitemark, nor was he asked in detail to support this conclusion. The majority of the testimony concerns his linkage of suspects to the alleged bite. Cross-examination is limited and is largely based on trying to get Levine to provide a level of certainty for his "Likely" conclusion. He concedes that the injury could have been produced by several bites and possibly from both defendants. This goes to support the lack of forensic significance of the

injury.

5. MERTZ

5.1 Mertz's report is again a single page of conclusions, although there are two pages of notes that accompany it. Again, these are focussed mainly on the comparative analysis and offer us no further insight into the reasons why the odontologist reached his conclusion that this collection of injuries should be considered a bitemark.

5.2 Testimony again is unhelpful and concentrates largely on the comparison of the injury to the dentition of the two suspects, without any real assessment of why Mertz felt that the injury was a bitemark. Mertz states that the measurements he took were inconsistent between the dentition of Hill and the injuries on the penis, to a "consistent" one-third. He states that, had the penis been erect during the time of biting, this would account for this difference. This is clearly unscientific, unsubstantiated and speculative.

5.3 In cross examination, we find that the injuries are described as "areas of ecchymosis" (970-10) rather than "indentations". The remainder of the testimony is a tortuous examination of the erect vs. flaccid argument in relation to the measurements of teeth and features such as diastemas.

6. CONCLUSIONS

6.1 Returning to my original instructions I can conclude that:

6.2 There is insufficient evidence within the photographs supplied to me to reach a conclusion regarding the causation of this injury.

6.3 It is impossible to identify crucial elements of a bitemark injury including the midline, the maxillary or mandibular teeth, or class characteristics of human incisors.

6.4 Current bitemark standards would indicate that no further analysis of the injuries would take place.

6.5 The reports of Levine and Mertz offer little in the way of scientific justification for their conclusions that the injuries are caused by human teeth.

6.6 It is my conclusion that this injury should not have been considered a bitemark and should not have been compared to the dentitions of the suspects.

6.7 The opinions rendered by Drs Levine and Mertz in this case are not based on scientific principles or processes – each odontologist agrees that bitemarks on the penis are difficult to assess and subject to distortion. These facts alone should suggest a cautious approach. Mertz utilised unrelated and spurious data to account for inconsistencies in his measurements compared to his favoured biter. I would hope that in a contemporary Court such evidence would not be allowed.

7. CONFLICTS OF INTEREST

7.1 I confirm that I have no conflict of interest of any kind in this case.

7.2 I will advise the party by whom I am instructed if, between the date of this report and the final hearing, there is any change in circumstances which affects my position in relation to conflicts of interest.

Overriding duty to the Court

'I understand my duty to the Court and I have complied with that duty.'

Statement of truth
'I confirm that insofar as the facts stated in my report are within my own knowledge I have made clear which they are and I believe them to be true, and that the opinions I have expressed represent my true and complete professional opinion.'

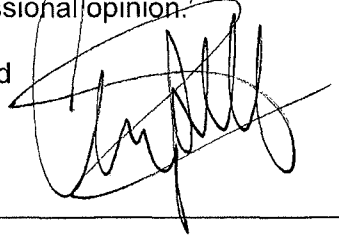
Signed  Date 29th September 2014

FIGURE 1 Injury to penis of Raymond Fife – view 1.

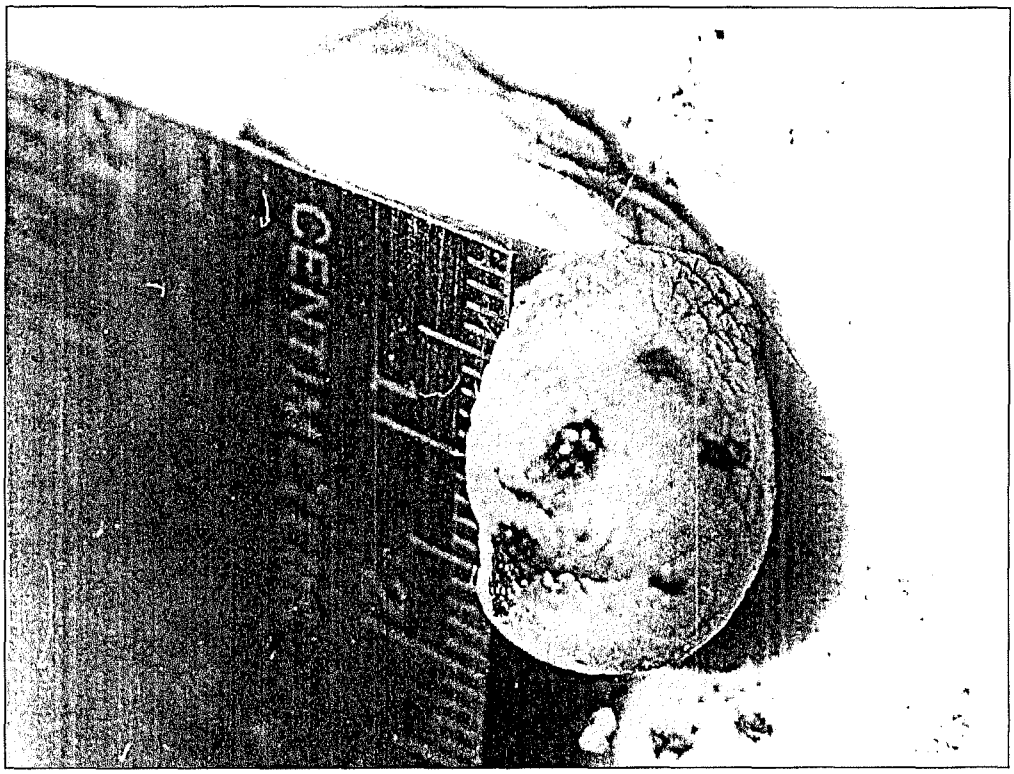
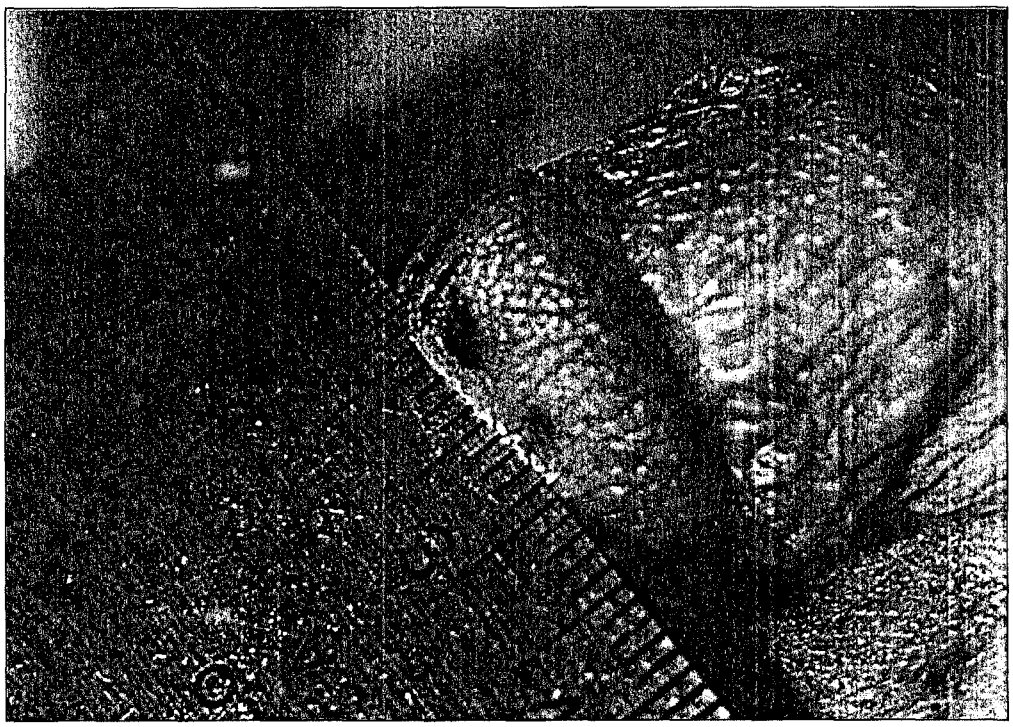


FIGURE 2 Injury to penis of Raymond Fife – view 2.





Forensic Curriculum Vitae

Dr. Iain A Pretty

BDS(Hons), MSc, MPH, MFSSoc, PhD, MFDS RCS(Ed)

DR. IAIN A PRETTY

Personal Details

Name	Iain Alastair Pretty
Date of Birth	30th December 1974
Nationality	British

Education

1998	Bachelor of Dental Surgery, (BDS) with Honours Faculty of Medicine, Sub-Faculty of Dentistry University of Newcastle upon Tyne Merit awarded in Restorative Dentistry Merit awarded in Child Dental Health
2000	Master of Science, Dental (MSc) Faculty of Dentistry University of British Columbia, Vancouver, Canada
2003	PhD Faculty of Medicine, Department of Clinical Dental Sciences University of Liverpool, Liverpool, England
2004	MFDS Royal College of Surgeons of England

Professional Credentials

1998 - Present	Licensed dental practitioner in Great Britain General Dental Council Registration number: - 74417
2004 – Present	Member of the Royal College of Surgeons of Edinburgh

Professional Associations

1996 - Present	British Dental Association
1997 - Present	Forensic Science Society of Great Britain
1997 - Present	American Society of Forensic Odontology
2000 - Present	International Association for Dental Research, (British Division)
2000 - Present	British Association of Forensic Odontology
2000 - Present	British Academy of Forensic Sciences
2000 - Present	American Academy of Forensic Sciences (Member)
2001 - Present	European Organisation for Caries Research

Honours & Awards

1998	Award for Excellence in Health Care University of British Columbia
1998	Dental Protection & Deans' Prize University of Newcastle Upon Tyne
1998	John Hopkins' Prize University of Newcastle Upon Tyne
1999	George S. Beagrie Scholarship University of British Columbia
1999	Part Time Faculty Teaching Award – Clinical Instructor University of British Columbia
1999	University Graduate Fellowship (Full) University of British Columbia
1999	Forensic Scholarship for Research Forensic Science Society, UK
2000	Full Studentship University of Liverpool
2001	Travel award British Society of Dental Research

Court Appearances

Recognised as an expert and provided testimony in Crown, Magistrate and Coroner's Courts throughout the UK. Extensive experience in child care proceedings.

Teaching Experience & Professional Presentations

1998 - 2000	Graduate teaching assistant, undergraduate medical and dental students University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Clinical supervision (Conservation, Periodontics, Oral Surgery) University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Didactic teaching and invited lecturer Simon Fraser University, Vancouver, B.C., Canada Kwantlen University College, Vancouver, B.C., Canada
2000 - Present	Invited Speaker, Police National Training Centre, Fire Investigators Course National Fire College, Moreton-in-Marsh, Oxford
2000 - Present	Invited Speaker, Police National Training Centre, Scene of Crime Officers Course NTC, Co. Durham
2000 - Present	Invited Speaker, Undergraduate Forensic Science Course John Moores University, Liverpool, England

Nov 2000	Research Seminar, "QLF – A New Light in Dentistry" The University of Liverpool - Dental School
Nov 2000	Presentation, "Effect of Ambient Light on QLF Analyses" Light in Dentistry – University of Gronigen
July 2000	Lecture, Forensic dentistry in the investigation of murder and rape Forensic Science Society, Summer Meeting, York
March 2001	Research Seminar, "Research Focus in Forensic Dentistry" The University of Liverpool - Dental School
August 2001	Lecturer, "The use of light in diagnostic dentistry" The University of British Columbia, Vancouver, Canada
November 2001	Presentation, "Molecular Biology and Forensic Odontology" Annual Meeting of the Liverpool Medical Inst.
2001 – Present	Invited Speaker, "Topics in Forensic Science" The University of Huddersfield
February 2002	Invited Speaker, "A new diagnostic tool in dentistry – QLF" The University of Newcastle Upon Tyne
April 2002	Invited Speaker, "Developments in forensic dentistry" North West Odontological Society

Service

June - August 1998	Clinical assistant in general dental practice, Jarrow, Tyneside
March 2000- Present	Forensic dentist serving North West Region
March 2000 - Present	Clinical assistant in general dental practice, Northwich, Cheshire
September 2002- Present	Senior Lecturer, The University of Manchester

Publications

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Yin W., Feng Y, Hu D.Y., Fan X· Zhang Y.P., Pretty I.A., Ellwood R.P. "A clinical investigation using Quantitative Light Induced fluorescence (QLF) of the anticaries efficacy of a dentifrice containing 1.5% Arginine and 1450 ppm F as sodium monofluorophosphate." Journal of Clinical Dentistry, In Review

Richmond R, Pretty IA. "The Use of Radio-Frequency Identification Tags for Labelling Dentures – Scanning properties." Journal of Forensic Sciences, In Review

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Other publications

MSc Thesis – 2000 – Diagnostic accuracy within forensic odontology

PhD Thesis – 2003 – Diagnostic applications of quantitative light-induced fluorescence

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IN THE COURT OF COMMON PLEAS
TRUMBULL COUNTY, OHIO

STATE OF OHIO,	)	
	)	
PLAINTIFF,	)	
	)	
v.	)	Case No. 85-CR-317
	)	
DANNY LEE HILL,	)	
	)	
DEFENDANT.	)	
	)	

AFFIDAVIT OF ZHONGXUE HUA, M.D., Ph.D.

I, Dr. Zhongxue Hua, being duly sworn under oath, hereby state to the best of my knowledge and belief as follows:

1. I am a forensic pathologist and neuropathological consultant; an assistant clinical professor of pathology at Albert Einstein College of Medicine, Bronx, New York; and an attending neuropathologist and assistant laboratory director at Jacobi Medical Center and North Central Bronx Hospital, New York. Previously, I served as Chief County Medical Examiner, Union County, New Jersey (9/2007 to 9/2012); Chief Regional Medical Examiner, counties of Essex, Hudson, Passaic and Somerset, New Jersey (7/2005 to 9/2007), and Assistant State Medical Examiner, State of New Jersey (2004-2007). I obtained my medical degree from Peking Union Medical College, Beijing, China (1989 M.D.), and a doctorate degree in biochemistry from the University of Rochester, Rochester, New York (1995 Ph.D.). I was a resident in pathology at the Albert Einstein College of Medicine, Bronx, New York (7/1995 to 6/1998), a fellow in neuropathology at Columbia Presbyterian Medical Center, Columbia University, New York, NY (7/1998 to 6/2000), and worked with the City Medical Examiner, Office of the Chief Medical

Examiner, New York, New York (7/2000 to 6/2001). A full list of my educational background, work history, publications, and professional credentials is contained in my annexed curriculum vitae.

2. I submit this Affidavit in support of the Motion for New Trial for Danny Lee Hill at the request of his attorneys. Mr. Hill was convicted and sentenced to death in 1986 for the murder of Raymond Fife, a 12 year old boy.

3. I have been asked to review the scientific and medical opinions, conclusions and testimony proffered by pathologist Dr. Howard Adelman and forensic odontologist Dr. Curtis Mertz concerning the cause and nature of Raymond Fife's injuries and death. I am qualified to comment on these matters because of my training and experience.

4. The victim Raymond Fife was attacked on September 10, 1985, and his death two days later was undisputedly caused by that attack. However, the testimony and opinions of Dr. Adelman and Dr. Mertz about the source, extent, cause and/or mechanism of Raymond Fife's injuries are not based on sound scientific principles. Indeed, the theories advanced by these experts at trial were based on unsupportable assumptions and gross inaccuracies. They do not constitute reliable, objective scientific testimony.

5. There was, and is, no scientific basis for three significant areas of the testimony and conclusions of Drs. Adelman and Mertz. First, there existed no scientific basis at the time of trial which would have supported the conclusions about the varying size of the child's penis in a flaccid or erect state. Second, there was no scientific basis at the time of trial that could have supported the conclusion that the child would have had an erect penis as a result of being strangled. Third, Dr. Adelman's testimony that a stick introduced into evidence fit the injuries to the child's rectum and bladder like a "key in a

lock" was entirely without scientific support. None of these conclusions have any more scientific support today than they did when originally given.

6. I have reviewed the following materials: 11/4/1985 Letter from Curtis Mertz to Dennis Watkins re: Bitemark; 12/19/1985 Curtis Mertz, Notes on Fife Bite Mark; Trial Testimony of Dr. Adelman; Trial Testimony of Dr. Mertz; Autopsy Report; Coroner's Verdict; St. Joseph Riverside Hospital Records on Victim; Photographs of the Victim Raymond Fife; Affidavit of Dr. Deborah Davis re: Hill; Affidavit of Dr. Franklin Wright; *Grandwohl's Legal Medicine; Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas.

THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN

7. At no point, including at the time the opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony regarding the nature of the wounds to Raymond Fife's rectum, or any object purportedly used to create those wounds.

8. There is no reliable scientific basis for Dr. Adelman's opinion and testimony that the piece of wood entered into evidence as Exhibit 47 at trial fit Raymond Fife's anus and/or wounds like a "key in a lock." Most importantly, it is not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Raymond Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock. The absence of blood or other biological material tying the object to Fife's injuries strongly indicates that it was not the object used to inflict the injuries. Dr.

Adelman's testimony on this point is unsupported speculation, and his comparison to a key and lock is unscientific and inflammatory pseudo-science.

9. At no point, including at the time Dr. Adelman's opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony that strangulation like that sustained by Raymond Fife causes penile erection to a specific degree.

10. As Dr. Adelmen testified, there have been historical observations that judicial hanging can cause erection and/or ejaculation in its victims. Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion is likewise inappropriate and renders his opinions in this specific case speculative and unreliable.

11. Although he claimed that there existed medical articles supporting his opinions, Dr. Adelman did not cite any of those articles. At trial, he conceded that he was "not exactly sure of the mechanism" through which asphyxiation caused penile erection. Dr. Adelman's admission of ignorance was the only part of his testimony regarding asphyxia and erection that was not unscientific or speculative.

12. Even setting aside the absence of a scientific foundation for his opinions, however, the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects of one to the others is baseless.

13. It is entirely speculative to conclude from such limited observations that the asphyxiation of a prone 12-year-old boy would result in an erection to a very specific degree or that it did so in this case. I am not aware of a single scientific study to support this theory, much less am I aware of any that include children the age of the victim in this

case. Put simply, there is no sound science to support the conclusion that asphyxia under these circumstances causes erection to a specific degree.

14. In sum, Dr. Adelman's testimony analogizing autoerotic asphyxiation and judicial hanging to Raymond Fife's strangulation is wholly without reliable, scientific basis.

OPINION AND TESTIMONY OF DR. CURTIS MERTZ

15. Dr. Curtis Mertz testified that the "probability that [Raymond Fife's] penis was in an erected state" was the basis for his opinion that the pattern injury on his penis matched the teeth of Danny Lee Hill.

16. At no point – including at the time Dr. Mertz proffered his opinions and testimony, in 1985-86, or today – has there been a scientifically reliable method of determining through post-mortem examination the probability that an erection may have occurred during an assault.

17. Dr. Mertz's review of the literature was cursory and inadequate, and the texts he relied upon were inapposite and outdated.

18. Dr. Mertz's reliance on *Grandwohl's Legal Medicine*, edited by Franci Camp, to support his opinion that it was probable Raymond Fife had an erection is misplaced and in error. Dr. Mertz selectively ignored the qualifications provided by his own authority, including the fact that there is "undoubtedly great variation" and there are "many factors [that] may interfere" with the symptoms listed, as well as the statement that "it is usually difficult or impossible to predict the physiological results" of asphyxia "with an accuracy at all." No reliable opinion that a penile erection was "probable" during strangulation could be based upon these limited findings.

19. Dr. Mertz testified that "the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state." He further testified that "this explains the difference in the measured size of approximately a third less" when comparing the purported bite marks on Raymond Fife's penis and the teeth of Danny Lee Hill.

20. Dr. Mertz's claim that there are scientific studies that supported his calculation that the erect penis of a 12-year-old boy is one-third larger than a flaccid penis is unfounded. As far as I am aware, there have never been any such studies, medical or forensic, to support such a theory.

21. The sole study that Dr. Mertz cited, *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas does not support his opinion. First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault. As a result, Dr. Mertz ignores both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed.

22. Dr. Mertz's opinions regarding Raymond Fife and the "probability" of his penile erection, as well as any resulting specific size differences between flaccid and erect states, are unsupported and speculative. They are post-hoc guesswork and do not constitute reliable scientific opinion.

Dr. Zhongxue Hua

Sworn to this 16th day of October, 2014

STEFANOPOULOS VITENTIA
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01ST6099670
Qualified in Queens County
Commission Expires 10/06/2015

Notary Public

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- Neuropathology
- Anatomic Pathology

Current Employment

- Forensic Pathology & Neuropathology Consultant (since 2012)
- Forensic Pathologist (since 2008), Rockland County, New York
- Assistant Clinical Professor of Pathology (since 2001), Albert Einstein College of Medicine, Bronx, New York
- Attending Neuropathologist (since 2001), Jacobi Medical Center and North Central Bronx Hospital, Bronx, New York
- Assistant Laboratory Director (since 2001), Jacobi Medical Center and North Central Bronx Hospital, Bronx, New York

Prior Employment

- Chief, County Medical Examiner (2007 to 2012), Union County, NJ
- Chief, Regional Medical Examiner (2005 to 2007), Counties of Essex, Hudson, Passaic and Somerset, NJ
    - Interim Regional Medical Examiner (07/2004 to 12/2004)
    - Associate Medical Examiner (2003 to 2004)
    - Assistant Medical Examiner (2001 to 2003)
- Director of Forensic Neuropathology (2004 to 2007)
- Director of Forensic Fellowship Training Program (2005 to 2007)
- Toxicology/Medical Review Officer for Law Enforcement Drug Testing Program in the State of New Jersey (2004-2007)
- Assistant State Medical Examiner in the State of New Jersey (2004-2007)

Post-graduate Training

- City Medical Examiner (2000 to 2001), Office of the Chief Medical Examiner, New York, New York
- Fellowship in Neuropathology (1998 to 2000), Columbia Presbyterian Medical Center, Columbia University, New York, New York
- Resident in Pathology (1995 to 1998), Albert Einstein College of Medicine, Bronx, New York

Education

- M.D. in Medicine (1981 to 1989): Peking Union Medical College, Beijing, China
    - **Award**: Exchange Medical Student at Harvard Medical School (Boston, MA) during spring of 1989.
- Ph.D. in Biochemistry (1989 to 1995): University of Rochester, Rochester, New York

Medical Licensure

- State of New Jersey, since 2001, active
- State of New York, since 1999, active
- State of Rhode Island, since 2008, active

Publications & Presentations

Fuschino, ME., Hua, Z, et al., Detection of coxsackievirus A10 in multiple tissues of a fatal infant sepsis case. Journal of Clinical Virology. Epub ahead of print, 2011, December 30

Hua, Z., Overview of Forensic Medicine in China and Taiwan. 2010 Annual Meeting Presentation, American Academy of Forensic Science, Seattle, WA

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STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES

A PATH FORWARD

Committee on Identifying the Needs of the Forensic Science Community

Committee on Science, Technology, and Law
Policy and Global Affairs

Committee on Applied and Theoretical Statistics
Division on Engineering and Physical Sciences

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By contrast, much more research is needed on the natural variability of burn patterns and damage characteristics and how they are affected by the presence of various accelerants. Despite the paucity of research, some arson investigators continue to make determinations about whether or not a particular fire was set. However, according to testimony presented to the committee,[118] many of the rules of thumb that are typically assumed to indicate that an accelerant was used (e.g., "alligatoring" of wood, specific char patterns) have been shown not to be true.[119] Experiments should be designed to put arson investigations on a more solid scientific footing.

FORENSIC ODONTOLOGY

Forensic odontology, the application of the science of dentistry to the field of law, includes several distinct areas of focus: the identification of unknown remains, bite mark comparison, the interpretation of oral injury, and dental malpractice. Bite mark comparison is often used in criminal prosecutions and is the most controversial of the four areas just mentioned. Although the identification of human remains by their dental characteristics is well established in the forensic science disciplines, there is continuing dispute over the value and scientific validity of comparing and identifying bite marks.[120]

Many forensic odontologists providing criminal testimony concerning bite marks belong to the American Board of Forensic Odontology (ABFO), which was organized in 1976 and is recognized by the American Academy of Forensic Sciences as a forensic specialty. The ABFO offers board certification to its members.[121]

Sample Data and Collection

Bite marks are seen most often in cases of homicide, sexual assault, and child abuse. The ABFO has approved guidelines for the collection of evidence from bite mark victims and suspected biters.[122] The techniques for obtaining bite mark evidence from human skin—for example, various forms of photography, dental casts, clear overlays, computer enhancement, electron microscopy, and swabbing for serology or DNA—generally are

[118] J. Lentini. Scientific Fire Analysis, LLC. Presentation to the committee. April 23, 2007. Available at www7.nationalacademies.org/stl/April%20Forensic%20Lentini.pdf.

[119] NFPA 921 Guide for Explosion and Fire Investigations, 2008 Edition. Quincy, MA: National Fire Protection Association.

[120] E.g., J.A. Kieser. 2005. Weighing bitemark evidence: A postmodern perspective. *Journal of Forensic Science, Medicine, and Pathology* 1(2):75-80.

[121] American Board of Forensic Odontology at www.abfo.org.

[122] Ibid.

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well established and relatively noncontroversial. Unfortunately, bite marks on the skin will change over time and can be distorted by the elasticity of the skin, the unevenness of the surface bite, and swelling and healing. These features may severely limit the validity of forensic odontology. Also, some practical difficulties, such as distortions in photographs and changes over time in the dentition of suspects, may limit the accuracy of the results.[123]

Analyses

The guidelines of the ABFO for the analysis of bite marks list a large number of methods for analysis, including transillumination of tissue, computer enhancement and/or digitalization of the bite mark or teeth, stereomicroscopy, scanning electron microscopy, video superimposition, and histology.[124] The guidelines, however, do not indicate the criteria necessary for using each method to determine whether the bite mark can be related to a person's dentition and with what degree of probability. There is no science on the reproducibility of the different methods of analysis that lead to conclusions about the probability of a match. This includes reproducibility between experts and with the same expert over time. Even when using the guidelines, different experts provide widely differing results and a high percentage of false positive matches of bite marks using controlled comparison studies.[125]

No thorough study has been conducted of large populations to establish the uniqueness of bite marks; theoretical studies promoting the uniqueness theory include more teeth than are seen in most bite marks submitted for comparison. There is no central repository of bite marks and patterns. Most comparisons are made between the bite mark and dental casts of an individual or individuals of interest. Rarely are comparisons made between the bite mark and a number of models from other individuals in addition to those of the individual in question. If a bite mark is compared to a dental cast using the guidelines of the ABFO, and the suspect providing the dental cast cannot be eliminated as a person who could have made the bite, there is no established science indicating what percentage of the population or subgroup of the population could also have produced the bite. This follows from the basic problems inherent in bite mark analysis and interpretation.

As with other "experience-based" forensic methods, forensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which

[123] Rothwell, op. cit.
[124] American Board of Forensic Odontology, op. cit.
[125] Bowers, op. cit.

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to choose from in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect. Blind comparisons and the use of a second expert are not widely used.

Scientific Interpretation and Reporting of Results

The ABFO has issued guidelines for reporting bite mark comparisons, including the use of terminology for conclusion levels, but there is no incentive or requirement that these guidelines be used in the criminal justice system. Testimony of experts generally is based on their experience and their particular method of analysis of the bite mark. Some convictions based mainly on testimony by experts indicating the identification of an individual based on a bite mark have been overturned as a result of the provision of compelling evidence to the contrary (usually DNA evidence).[126]

More research is needed to confirm the fundamental basis for the science of bite mark comparison. Although forensic odontologists understand the anatomy of teeth and the mechanics of biting and can retrieve sufficient information from bite marks on skin to assist in criminal investigations and provide testimony at criminal trials, the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match. In fact, one of the standards of the ABFO for bite mark terminology is that, "Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion."[127]

Some of the basic problems inherent in bite mark analysis and interpretation are as follows:

(1) The uniqueness of the human dentition has not been scientifically established.[128]
(2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.[129]
    i. The ability to analyze and interpret the scope or extent of distortion of bite mark patterns on human skin has not been demonstrated.
    ii. The effect of distortion on different comparison techniques is not fully understood and therefore has not been quantified.

[126] Bowers, op. cit.
[127] American Board of Forensic Odontology, op. cit.
[128] Senn, op. cit.
[129] Ibid.

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(3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

Summary Assessment

Despite the inherent weaknesses involved in bite mark comparison, it is reasonable to assume that the process can sometimes reliably exclude suspects. Although the methods of collection of bite mark evidence are relatively noncontroversial, there is considerable dispute about the value and reliability of the collected data for interpretation. Some of the key areas of dispute include the accuracy of human skin as a reliable registration material for bite marks, the uniqueness of human dentition, the techniques used for analysis, and the role of examiner bias.[130] The ABFO has developed guidelines for the analysis of bite marks in an effort to standardize analysis,[131] but there is still no general agreement among practicing forensic odontologists about national or international standards for comparison.

Although the majority of forensic odontologists are satisfied that bite marks can demonstrate sufficient detail for positive identification,[132] no scientific studies support this assessment, and no large population studies have been conducted. In numerous instances, experts diverge widely in their evaluations of the same bite mark evidence,[133] which has led to questioning of the value and scientific objectivity of such evidence.

Bite mark testimony has been criticized basically on the same grounds as testimony by questioned document examiners and microscopic hair examiners. The committee received no evidence of an existing scientific basis for identifying an individual to the exclusion of all others. That same finding was reported in a 2001 review, which "revealed a lack of valid evidence to support many of the assumptions made by forensic dentists during bite mark comparisons."[134] Some research is warranted in order to identify the circumstances within which the methods of forensic odontology can provide probative value.

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[130] Ibid.

[131] American Board of Forensic Odontology, op. cit.

[132] I.A. Pretty. 2003. A Web-based survey of odontologists' opinions concerning bite mark analyses. *Journal of Forensic Sciences* 48(5):1-4.

[133] C.M. Bowers. 2006. Problem-based analysis of bite mark misidentifications: The role of DNA. *Forensic Science International* 159 Supplement 1:s104-s109.

[134] I.A. Pretty and D. Sweet. 2001. The scientific basis for human bitemark analyses—A critical review. *Science and Justice* 41(2):85-92. Quotation taken from the abstract.

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American Board of Forensic Odontology

Diplomates Reference Manual

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- Variation from normal, unusual, infrequent.
- Not one of a kind but serves to differentiate from most others.
- Highly specific, individualized.
- Lesser degree of specificity than unique.

Bitemark Definitions

Bitemark:

• A physical alteration in a medium caused by the contact of teeth.

• A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark

A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.

Variations:

1. Additional features:

    - Central Ecchymosis (central contusion).
    - Linear Abrasions, Contusions or Striations
    - Double Bite - (bite within a bite)
    - Weave Patterns of interposed clothing.
    - Peripheral Ecchymosis

2. Partial Bitemarks

3. Indistinct/Faded Patterned Injury (e.g., fused or closed arches, solid ring pattern)

4. Multiple Bites.

5. Avulsive Bites.

Terms Indicating Degree of Confidence That an Injury is a Bitemark:

Bitemark - Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: pattern conclusively illustrates a) classic features. b) all the characteristics, or c) typical class characteristics of dental arches and human teeth in proper arrangement so that it is recognizable as an impression of the human dentition.

Suggestive – The pattern is suggestive of a bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a bitemark – Teeth did not create the pattern.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

ABFO Standards for "Bitemark Terminology"

The following list of Bitemark Terminology Standards has been accepted by the American Board of Forensic Odontology.

1. Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion.

2. Terms used in a different manner from the recommended guidelines should be explained in the body of a report or in testimony.

3. All boarded forensic odontologists are responsible for being familiar with the standards set forth in this document.

2/2006

American Board of Forensic Odontology

Diplomates Reference Manual

August 2013 Edition

Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

Human Bitemark – Human Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: the injury pattern displays features that reflect the class and individual characteristics of human teeth.

Suggestive – The pattern is suggestive of a human bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as individual tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a human bitemark – Human teeth did not create the injury.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

The ABFO does not support a conclusion of "The Biter" in an open population case(s).

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

GRADWOHL'S
LEGAL MEDICINE

EDITED BY

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SECOND EDITION, LARGELY REWRITTEN WITH MANY NEW ILLUSTRATIONS

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CHAPTER 18

UNNATURAL DEATH DUE TO ASPHYXIA

GENERAL CONSIDERATIONS

THE term 'asphyxia' is commonly applied to a variety of conditions in which interference with respiratory exchange plays a greater or lesser part. Many of these conditions vary so greatly in their physiological mechanisms and in the pathological appearances they present that the use of the term is best avoided whenever possible.

It is usual to divide the effects of 'asphyxia' into a number of stages, but it is probably only in deaths in which the predominant mechanism is one of respiratory obstruction with hypoxia and carbon-monoxide retention that these stages are seen. There is undoubtedly great variation in the time of appearance of these manifestations, and many factors may interfere with their production, which will be considered under the individual mechanisms causing the obstruction. The stages as usually described are:—

1. A stage of inspiratory dyspnoea, with deep and forceful respiration, and more or less cyanosis, lasting for a minute or so.
2. Spasmodic efforts at expiration: the stage of expiratory dyspnoea. Consciousness is lost and the pupils become dilated. The pulse slows and the blood-pressure rises.
3. The blood-pressure falls, pulse-rate increases, and it is in this stage that spontaneous defaecation, erection, and ejaculation may occur.
4. Respiratory movements cease except for terminal irregular occasional respirations, the heart often continuing to beat for 10–15 minutes.

These sequences have been arrived at in the past by observation on man and experimental animals.

Swann and Brucer (1949) produced anoxia in a variety of ways in unanaesthetized dogs. They found that when the dog's respiration was obstructed by a face mask the animals continued to make violent struggles or to have convulsions even up to the point of heart failure. Rhythmic breathing movements continued right through to circulatory failure. Within 90 seconds the pulse slowed and the slowing was accompanied by a great rise in systolic and a drop in diastolic pressure. Heart failure occurred very abruptly, although electrical activity continued in the heart for about 12 minutes after heart failure.

During the process of pure respiratory obstruction in these animals arterial oxygen-saturations fell progressively and the heart failed about 2 minutes after the oxygen-saturation had fallen below 10 per cent. The carbon-dioxide content at first rose rapidly then, as the blood lactate started to rise, the carbon-dioxide content fell until at death it was similar to the initial content. The carbon-dioxide tension rose throughout and reached very high levels terminally.

It seems probable that the classic description of the sequence of events in 'asphyxia' in man is a compilation of the effects of an obstructed airway, compression of the vessels in the neck, direct stimulation of the carotid sinuses, of the circulatory and biochemical effects of drowning, and possibly other phenomena, formerly all thought to cause death solely by anoxia.

In the sorts of assaults and injuries that result in interference with respiratory exchange in man it is usually difficult or impossible to predict the physiological results with any accuracy at all, and certainly the stages described above are not always followed.

THE INTERPRETATION OF POST-MORTEM APPEARANCES IN DEATH FROM RESPIRATORY OBSTRUCTION AND COMPRESSION OF THE NECK

It is doubtful if there are any constant post-mortem changes produced by the direct effect of anoxia upon the tissues, except the appearance of cyanosis. Most of the abnormal appearances in cases of respiratory obstruction are the result of the local effects of the obstructing or constricting agent, of raised intravascular pressure, and of the terminal heart failure.

Cyanosis

The significance of cyanosis in the cadaver must be evaluated very critically. If the body is examined within a few hours of death the presence of intense cyanosis is of some significance. The loss of oxygen by cadaveric blood is very variable, but certainly after 24 hours the appearance of cyanosis may be due entirely to post-mortem changes. Furthermore, the absence of cyanosis within a few hours of

burial by sand, earth, rock, or fallen masonry, in train crashes and similar accidents, and in crushing by other bodies in crowd accidents. The results are partly due to failure of respiratory exchange and partly to interference with the circulation. If severe crushing takes place cyanosis and congestive changes are very severe. The face is congested, swollen, and covered with petechial haemorrhages. The conjunctivae are oedematous and often there is confluent subconjunctival haemorrhage. The petechiae extend on to the neck and trunk and are often found on the limbs. They tend to form wide bands of congestion, cyanosis, and haemorrhage, and may in places follow the lines of folds in the clothing.

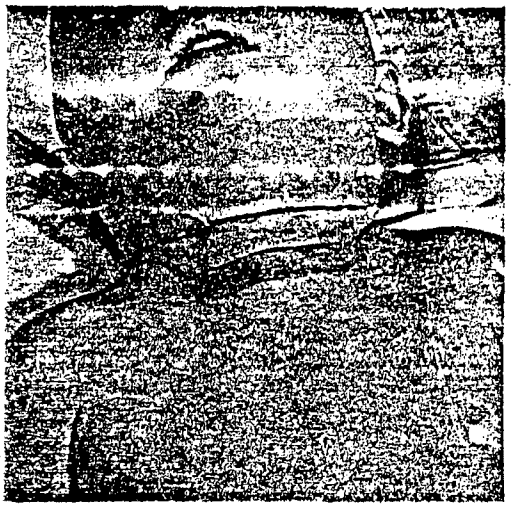


Fig. 229.—Mark caused by attempted strangulation by a nylon stocking 7 days previously. (There is strapping over a tracheostomy performed because of concomitant head injury).

THE LATE EFFECTS OF RESPIRATORY OBSTRUCTION AND TRAUMATIC ASPHYXIA

If the victim survives strangulation the congestive petechial haemorrhages persist for several days. A ligature mark will rapidly become red and swollen and a crust may form on the epidermis if it has been abraded (*Fig.* 229). The mark will gradually disappear over a period of one or two weeks. Bruising from manual strangulation will follow the course of bruising anywhere else in the body. If laryngeal injury has occurred there will be difficulty in swallowing, sore throat, and a hoarse voice for some days or weeks after. Fractures heal by bony and not fibrous union (Thomas and Kluyskens, 1962).

If the period of cerebral anoxia has been long enough, coma may be irreversible. In cases that have recovered from coma there may be changes in consciousness, amounting to a psychosis, sometimes with transient or permanent neurological damage, and retrograde amnesia is common (Gamper and Stiefler, 1937).

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PLAINTIFF'S EXHIBIT 19
PENGAD-Bayonne, N.J.

Basic Morphological Data of External Genitals in 177 Healthy Central European Men

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The Research Institute, The Hospital for Sick Children, Toronto, Ontario, Canada

ABSTRACT **Five basic measurements were made of the penis, the scrotum and the testicles of 177 healthy Bohemian (Czechoslovakian) men, 18–20 years of age. The average length of the penis was 72.18 mm. The average circumference of the penis was 95.65 mm. The length of the right testicle was 47.37 mm, the length of the left was 45.17 mm.**

In 16.2% of those examined slight deformations of the urethral opening and mild malformations of the prepuce and the frenum were found. These defects did not disturb function. The method of measurement used has been described.

As a continuation of some recent studies (Trosev, '69; Farkas et al., '68) on the postnatal development of the penis from birth until the age of six or seven years in members of two national populations, I measured the male genitals in normal adults. The information gained might be useful to the surgeon and other specialists dealing with congenital and acquired defects of the male genitalia.

MATERIAL

One hundred and seventy-seven healthy men 18 to 20 years of age, selected at random from among personnel of military units stationed in Prague (Czechoslovakia) were examined during the first half of 1968.

METHOD

Five objective basic measurements of the genitals obtained by anthropometry, and three qualitative signs related to the penis, assessed by anthroposcopy, were recorded in each case. The subject was recumbent during the examination. Measurements were made with the penis flaccid. The maximum-minimum measurements in millimeters were recorded on coded charts and the mean and standard deviations calculated. All measurements were performed by one person.

Measurements

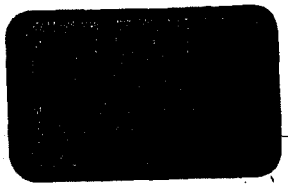
1. The total length of the penis: measured by sliding calipers on the dorsal side of the penis between the root of the penis and the tip of the glans (fig. 1).
2. The circumference of the penis: measured by measuring tape in the mid portion of the penile shaft (fig. 1).
3. The circumference of the scrotum: measured by measuring tape from the right scrotal base along its circumference to the left scrotal base (fig. 1).
4. The size of each testicle: (a) the length: measured by sliding calipers between the two most distant points of its longitudinal axis (fig. 2), (b) the width: measured by sliding calipers in the mid portion of the testicle (fig. 2).

Qualitative signs

1. The site and the shape of the urethral orifice.
2. The shape and the state of development of the frenum.
3. The prepuce: its size, configuration, the size of the opening of the preputial pouch.

RESULTS

The results are shown in table 1 and table 2.



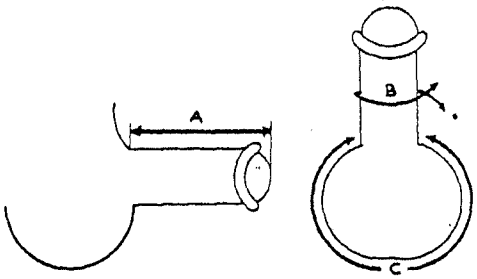


Fig. 1 Showing method of measuring penile length (A) and circumference (B) in flaccid state and circumference of the scrotum (C).

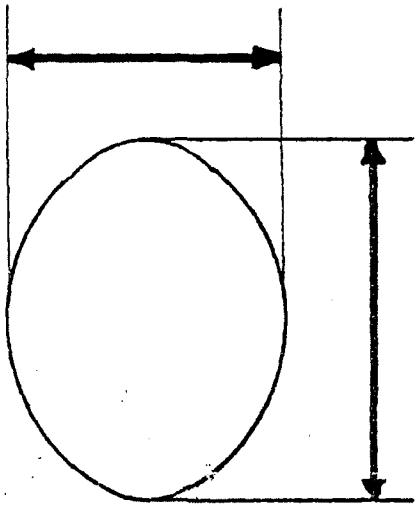


Fig. 2. Showing method of measuring testes.

DISCUSSION AND CONCLUSIONS

The findings in both age groups (18 to 19 years and 19 to 20 years) were analyzed in one group because in my experience the size of the genitalia does not change significantly between 18 and 20 years of age. Other authors' findings support this suggestion (Schonfeld, '43; Figalova et al., '68).

The men in this study group were healthy adults, found fit for military service by a military medical committee and were under constant medical supervision. None of them had pathological body configuration, abnormal body size, or manifested endocrine disturbances.

No measurements other than those of the genitalia were undertaken.

The surgeon repairing congenital or acquired defects of the genitalia prefers to use penile skin (or scrotal skin) for correction of the failure. The length and circumference of the penis in the flaccid state are of great value in the planning

TABLE 1

Metric data of external genitals in study group in millimeters

Region	Sign	N	Max-Min	Mean	SD
Penis	Length	177	110-45	72.18	11.24
	Circumference	176	120-77	95.65	8.31
Scrotum	Circumference	177	250-105	195.14	22.43
Right testicle	Length	176	65-34	47.37	4.71
	Width	176	42-17	28.02	3.44
Left testicle	Length	176	62-34	45.17	4.78
	Width	176	36-15	27.42	3.22

TABLE 2

Qualitative signs of external genitals in study group

Region	Sign	N	%
Urethral orifice	Markedly elongated ventrally	17	9.6
	Blind hole on the tip of glans and the separated urethral meatus situated ventrally	10	5.6
Frenum	Only one of its roots was developed and placed obliquely	1	0.5
Prepuce	Phimosis	1	0.5
Total		29	16.2

of corrective surgery. The circumference of the flaccid hypospadiac penis can be decisive in choosing the method of the urethroplasty (Farkas, '68). For these practical reasons the penis was measured in the flaccid state in all studies dealing with boys with hypospadias and also in controls (Farkas et al., '68; Farkas, '70).

The penis was measured between the same landmarks used by Schonfeld ('43). In only a few cases I found similar difficulties in the localization of the landmark at the penopubic junction as Schonfeld. I do not agree with Schonfeld that assessment of the length of the stretched penis is more precise than that of the flaccid penis. Both methods are open to inaccuracy. The error in measurement of length of the penis was estimated by me ± 1—2 mm, established by repeated measurement in cases where the landmark at the penopubic junction was not sufficiently visible.

The inaccuracies in measuring the scrotal circumference are even greater (± 2—3 mm) than in the length of the penis because it is difficult to determine the exact base of the scrotum.

The thickness of the scrotal skin makes the measured length and width of the testicles greater than they really are.

The average length of the penis (72.18 mm) in the study group is considerably less than the 100—120 mm recorded in some textbooks of anatomy (Borovansky, cited by Hromada), but the method of measuring is not known.

The length of the penis in this study group cannot be compared directly with the data in Schonfeld's paper because of the difference in measurement techniques. In my experience a flaccid penis 72 mm in length can be extended by approximately one-half of the original length when stretched. Thus the length of the penis of men in my study group would be markedly shorter (about 118 mm) in comparison with the findings given by Schonfeld (130 mm).

Hajnis and coworkers ('70) measuring the length of the penis between the tip of the glans and penoscrotal angle in normal Czech boys, from birth to six years of age, found the length of the erect penis almost double the length of the flaccid penis. However, the small number of the observations makes a valid conclusion impossible.

If Schonfeld's calculation is correct stating that on an average there is about 20—30 mm difference between the circumference of a flaccid and erect penis, then the circumference of the penis in males of this study group, recorded in flaccid state as 95.6 mm would be about 125 mm in state of erection which is markedly more than the medium measurement of Schonfeld (90 mm). The differences found between the Schonfeld norms and the study group are not surprising. There are similar differences between the size of the penis of normal Czech and Bulgarian boys from birth up to six years of age (Farkas et al., '68; Trosev, '69) using the same method of measurement.

The method of assessment of the size of testicles I used differed from that used by others (Albert, '53; Schonfeld, '43), which excludes a comparison of the findings. The right testicle in men studied was larger than the left, in accordance with the observation of Trosev ('69) in normal Bulgarian boys, and of Hajnis and coworkers ('70) in normal Czech boys. Schonfeld ('43) found a larger right testis in 23% of boys studied.

The relatively high frequency in my study of slight morphological changes of the urethral orifice and the shape of the frenum is unusual but similar to those found in slight degrees of hypospadias (Farkas, '70). The question remains: which anatomical changes of the urethral opening should be considered as variations of normal state, and which should be classified as microforms (forme frustes or minor defects), of hypospadias or epispadias? A larger sample of the general population would yield more reliable results.

Precise measurements of male genitals would be helpful for evaluating the effect of treatment on hypospadias, epispadias and for establishing the growth potential of the congenitally damaged penis (Figalova et al., '68).

The above mentioned findings in different populations and those observed during my long clinical practice in Central Europe, support our belief that there

exists differences between populations (of the same racial origin) in some anthropometric signs probably caused by different ethnic, social, alimentary, geographical and other factors.

However, a man's reticence to undergo this type of examination limits the number of subjects and makes it difficult to establish the reported or valid norms for each population.

Although the sample studied cannot be regarded as representative of the general population, it offers some valuable information about the size and configuration of the genitalia of adult males.

ACKNOWLEDGMENTS

I am especially indebted to Professor D. R. Hughes and Mr. James Webb of the Department of Anthropology, University of Toronto, for the statistical evaluation of data.

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DECLARATION OF STEPHEN GREENSPAN, Ph.D.

I, Stephen Greenspan, declare and state as follows:

All of the facts contained in this declaration are known to me personally and if called as a witness, I could and would testify thereto.

BACKGOUND

1. Danny Lee Hill is a 44-year-old Ohio prison inmate who was condemned to death for his participation in the 1985 rape-murder in Warren, Ohio, of a 12-year-old child: Raymond Fife. Mr. Hill drew attention to himself by presenting himself two days later at the Warren police station, where he volunteered information about the crime in an attempt to collect a $5,000 reward. Following a state "Atkins" hearing held in 2004, Mr. Hill was found not to have mental retardation, and his petition for relief from the death penalty was, consequently, denied. That ruling was subsequently upheld by the Ohio Supreme Court. My understanding is that Mr. Hill's current *habeas* counsel is appealing that decision in Federal court, and that my declaration likely will be used in support of that appeal.

2. My role in this case is that of a teaching expert, informing the court about methodological and conceptual guidelines that should be followed in diagnosing mental retardation in criminal cases, and opining as to whether those guidelines were sufficiently understood or followed by various testifying experts, and as reflected in the 2004 court ruling. My opinions in this declaration are based on a review of various documents, including testimony transcripts. I have not interviewed the defendant, and I do not attempt to make a formal diagnosis. In the interest of full disclosure, I do know three (one now deceased) of the five experts who testified in this case, but I have never discussed the facts of this case with any of them.

3. The standard used by the Ohio court in the earlier Atkins proceeding was spelled out in the Ohio Supreme Court's 2002 *State v. Lott* ruling. As I understand it, the framework laid down in Lott is a clinical definition derived from the section on mental retardation contained in the 2000 Diagnostic and Statistical Manual, 4th edition—text revision (DSM4-TR) published by the American Psychiatric Association. The constitutive definition has three prongs: (a) significant impairments in intellectual functioning, (b) associated with impairments in adaptive functioning, and with (c) onset of the disorder within the developmental years (i.e., prior to the age of 18). That constitutive definition is identical to, and derived from, the definition first developed in 1961 by the American Association on Mental Retardation (now known as the American Association on Intellectual and Developmental Disabilities).

4. In the five decades since that constitutive definition was first propounded, it has remained essentially unchanged (except that initially prong three was set at onset prior to age 16). What has changed over the course of several decades is more in the operational definition: for example, IQ ceiling scores, and criteria for determining prong two (adaptive functioning) deficits. These operational criteria will be discussed in relevant following sections.

MY QUALIFICATIONS

5. Over the past several years, I have been qualified as an expert in psychology and mental retardation, now increasingly referred to as Intellectual Disabilities (ID) by 15 state or Federal judges, in so-called "Atkins" (death penalty exemption) proceedings, at various stages: pre-trial, penalty and habeas. In addition, I have been used as a consultant in numerous other cases. In a sizeable percentage of these cases, I have not supported a diagnosis of ID.

6. I am a Clinical Professor of Psychiatry at the University of Colorado Health Sciences Center, and Emeritus Professor of Educational Psychology at the University of Connecticut. I received a Ph.D. in Developmental Psychology from the University of Rochester, and was a Postdoctoral Fellow in MR and Developmental Disabilities at the UCLA's Neuropsychiatric Institute.

7. I have been elected "Fellow" (a designation given only to the most qualified members) by the MR/ ID division of the American Psychological Association and by the American Association on Intellectual and Developmental Disabilities. I was also elected to a term as President of the Academy on Mental Retardation (the most prestigious research organization in the field) and received a license to practice psychology in the states of Nebraska (expiration January 2013) and Tennessee (status: inactive). I also currently hold temporary visiting psychology licenses in the states of Oregon and Texas.

8. I have published extensively on ID, with particular emphasis on "adaptive behavior." I am a leading scholar in the ID field, as seen in the most recent diagnostic manual of the American Association on Intellectual and Developmental Disabilities MENTAL RETARDATION: DEFINITION, CLASSIFICATION AND SYSTEMS OF SUPPORTS (11th Edition, 2010). I was also the most-cited authority in its predecessor manual, published in 2002. My 2006 book WHAT IS MENTAL RETARDATION, co-edited with H. Switzky, is considered one of the standard reference works in the ID field, and has been described as "the best book ever published on the definition and diagnosis of mental retardation". In 2008, AAIDD granted me its highest honor, the Gunnar and Rosemary Dybwad Award for Humanitarianism. In August 2011, the Intellectual Disability division of the American Psychological Association will award me its highest honor: the John Jacobson Award for critical contributions to the field of ID theory and practice.

9. In the past year, I have testified as a defense expert in Atkins proceedings in three federal district courts (in Ohio, Idaho and Louisiana). In the Ohio case (*in re Antun Lewis*), the judge cited my testimony extensively in support of a positive ruling (the other two cases have not yet been decided). In addition my scholarly writings were cited in support of the ruling by a federal judge in a Maryland capital proceeding (*in re Earl Davis*) in which I did not testify, and an affidavit submitted by me was cited as the basis for a ruling by a federal judge in a Texas case (i*n re Yokoman Hearn*).

MATERIALS REVIEWED

10. The following materials were reviewed by me:

- Video Depositions of Annette Campbell and Debbie Flaherty
- Judge Curran Judgment Entry (Findings of Fact and Conclusions of Law)
- Declaration of Kevin Keith
- Declaration of Gary Johnson
- Declaration of Percy Hutton
- Declaration of Gerald "Bob" Hand
- Dr. Huntsman Atkins Evaluation Report of 6/15/2004
- Declaration of Joe D'Ambrosio
- Dr. Hammer Psychological Consultation Report of 6/5/2004
- Testimony of Dr. Olley
- Dr. Olley Psychological Report of 4/26/2004 through 4/28/2004
- Declarations of John H. Vermeulen, M.D. and his wife, Mary Louise Vermeulen
- Prison Records Review Prepared by Federal Public Defender Office
- Declaration of James Spindler
- Declaration of Annette Campbell
- Declaration of William "Bill" Baer
- Declaration of Karen Weiselberg-Ross
- Volume XI Transcripts of Mitigation Testimony
- Dr. Crush Neuropsychological Report of 2/25/1986
- Dr. Darnall Psychological Report of 1/10/1984
- Danny Hill School Records
- Declaration by Dr. Sara Sparrow
- Declaration by Dr. Timothy Hancock
- Video of police interview with Danny Hill
- Curriculum Vitae for all experts who testified in the Atkins proceeding
- Court transcript for the Atkins proceeding
- Declaration of Dr. J. Gregory Olley, September 2010
- Report by Dr. Hoi Suen on issues pertaining to the Vineland
- Transcript of deposition of Dr. J. Gregory Olley, April 11, 2011

QUESTIONS ADDRESSED IN THIS DECLARATION

11. The questions I address in this declaration are the following:

- Were appropriate methods used by the three psychological experts in conducting the evaluation of Mr. Hill?

- Did the experts who testified in this case have requisite qualifications needed to express an opinion about mental retardation or other matters relating to this case?

- Were the experts justified in their conclusions about prong one (intellectual impairment)?

- Were the experts justified in their conclusions about prong two (adaptive behavior)?

- Were the experts justified in their conclusions about prong three (developmental onset)?

- Were the experts justified in concluding that Mr. Hill was not putting forth an adequate effort?

WERE APPROPRIATE METHODS USED BY THE PANEL OF EXPERTS?

12. The court appointed three experts to participate in an evaluation of Mr. Hill. They were Dr. Hammer (retained by the defense), Dr. Olley (retained by the prosecution) and Dr. Huntsman (appointed by the court). They chose to evaluate Mr. Hill as a team, deciding on the tests to administer and then deciding who would administer which test. As noted by Dr. Olley in a recent declaration, this is a highly unusual approach. In fact, in 30 or more cases in which I testified or consulted, this is the first time I have heard of such an approach being used. In my opinion this group approach is problematic, for a number of reasons, to be discussed below.

13. Although appointed as a panel, the experts were expected to function independently, and to testify as to their individual opinions about Mr. Hill. Yet, human nature being what it is, a group dynamic tends to take over in such a collective approach, and it is possible, indeed likely, that individual perspectives and concerns became subsumed to this group dynamic. This is reflected in comments recently made by Dr. Olley, the expert retained by the prosecution. He now states that he had some reservations at the time about some of the things that were done, but these reservations were not sufficient to cause him to dissent from the group-affected decisions that were made.

14. The American Psychological Association (APA) ethics guidelines generally recommend against having third parties in the testing room, although this recommendation is aimed more at non-psychologists (such as attorneys and family members). There are two concerns stated for this recommendation: (a) protecting the copyright of test materials (not as much a relevant consideration in this instance), and (b) avoiding upsetting, disconcerting or affecting the performance of the subject. In fact, the only reason given by the APA (in a white paper by a special assessment committee) for when additional people should be in the testing room is if it would calm the subject (for example, when a child would be reassured by the presence of his mother) and facilitate better effort. In this case, there is evidence (the defendant struggling and breaking into tears twice) which suggest that the group format had a negative impact on Mr. Hill and was not, therefore, an appropriate testing climate.

15. Dr. Huntsman started off her evaluation by giving Mr. Hill a standard forensic statement warning him that the information obtained was not confidential and could be used against him in court. As Dr. Huntsman reported in a recent deposition, both Dr. Olley and Dr. Hammer "took her to task," because they felt she had delivered this warning in too strong a manner, that it appeared to upset Mr. Hill, and that it was not congruent with the friendly and supportive climate they believed was essential for psychological testing. This is another possible contributor to the performance which Dr. Huntsman used to support her diagnosis of malingering but which could have been an artifact of a far from optimal testing climate.

16. An even more serious deviation from recommended practice was the manner in which the videotaping of the session occurred. As with the presence of third parties, the APA's position is that this is not a generally recommended practice, but they stopped short of outlawing it. However, there is a clear instruction to conduct the taping in a way that is not intrusive and that does not affect the ability of the subject to concentrate and to give a maximum effort. Ideally, the videotaping should be done from a remote location or through an unmanned camera left running in the room. Allowing a prosecution investigator who had a negative history with Mr. Hill to be in the room, operating the camera, was a serious breach of assessment protocol. In a recent declaration, Dr. Olley states he was unaware of the identity of the camera operator and his history with Mr. Hill, and would have objected to the arrangement if he had possessed that knowledge. Dr. Huntsman has since stated that she was also unaware of the history between the defendant and the video camera operator as well.

DID THE EXPERTS POSSESS REQUISITE QUALIFICATIONS?

17. The court commented on the excellence of the five main psychologists who testified, almost terming them the "dream team of expert witnesses." At the risk of seeming overly critical, I think the characterization was only partially accurate, in that two, and possibly three, of the five witnesses, while highly qualified for tasks other than what was required of them in this case, lacked requisite qualifications for the testimony that they offered.

18. Two of the psychologists who assessed Mr. Hill--Dr. Hammer (appointed by the defense) and Dr. Olley (appointed by the prosecution)—possessed decades of deep and impressive training and experience in evaluating and working with people with MR. The third psychologist, Dr. Hunstsman (appointed by the court) was almost completely lacking in MR expertise. Looking at her CV, I saw only one item—an early article on which she was second author—that gave any indication that she had ever even been in the presence of someone with MR. That article described an experiment conducted with "retardates," (the title of the article), apparently in an institutional setting. Participating in one study, in the role of junior researcher, hardly qualifies Dr. Huntsman to evaluate individuals with mild MR who live outside of institutional settings.

19. In the past several years (after his testimony in the Hill case), the main prosecution expert, Dr. J. Gregory Olley, has written extensively on the credentials necessary to testify competently on the matter of MR in an Atkins case. He co-chaired a joint committee of the American Psychological Association divisions 33 (mental retardation) and 41 (law and psychology) which worked on the development of professional guidelines for psychologists involved in Atkins proceeding. Furthermore, he authored a frequently-cited article (in a special Atkins issue of APPLIED NEUROPSYCHOLOGY edited by me) which specifically addressed the qualifications needed for psychologists to diagnose MR in a forensic context.

20. In an Arizona case (*in re McGee*), Dr. Olley submitted a 2009 declaration in support of a defense effort to bar a psychologist with nonexistent MR experience comparable to Dr. Huntsman's from testifying. (I know about this, because he submitted the declaration in response to a request from me). In his declaration, Dr. Olley wrote: "Mental retardation is a specialty field within psychology, and, thus, an expert should have training in a doctoral program with specialization in developmental disabilities or should have participated in extensive continuing education in this area. The typical graduate program in clinical, counseling, or forensic psychology contains very little information on this topic, and a generic clinical, counseling, or forensic psychologist would not be expected to have the necessary background in this field. An expert in mental retardation would be expected to be a member of professional organizations that focus on developmental disabilities, ...[and to] be familiar with this [Atkins-related] scholarly literature. The expert should be familiar with the publications on the diagnosis of mental retardation..."

21. Dr. Huntsman clearly met none of these requirements, as reflected in the fact that of all of the experts, she is the only one who did not mention the clinical definition criteria for defining and diagnosing MR. She also demonstrated some of the mistaken stereotypic notions about MR that are held by lay people and by psychologists who lack specialized MR training. In his article about psychologist qualifications needed to conduct competent Atkins evaluations, Dr. Olley pointed to the holding of these stereotypes as the main reason why testimony by clinical psychologists without specialized MR training should not be given much weight by courts.

22. In a landmark Virginia Atkins proceeding for Daryl Atkins (the man after whom these kind of proceedings was named), the trial judge ruled against the Atkins petition, relying heavily on a psychological expert, Dr. Stanton Samenow. He is a highly qualified forensic psychologist, as is Dr. Huntsman, but he testified that he lacked any familiarity with clinical guidelines for defining MR and also that he lacked any specialized training or experience in MR. The high court of Virginia later reversed the judge's decision, citing the excessive reliance on an unqualified expert as a major reason. Given that the courts in Ohio seemed to place great stock on testimony by an equally unqualified expert, Dr. Nancy Huntsman, it seems to me that this is a source of legitimate concern.

23. Two other experts testified in the rebuttal phase of the hearing: Dr. Sara Sparrow (who passed away recently) for the defense and Dr. Timothy Hancock for the prosecution. Their testimony focused on a relatively narrow question, but one to which the court apparently attached great importance. It had to do with the extent to which the Vineland Social Maturity Scale (VSMS) on which Mr. Hill was rated when of school age, predicted a standardized score on its successor test, the Vineland Adaptive Behavior Scale (VABS) that was significantly lower. Dr. Sparrow, a psychologist who was an eminent Yale professor and one of the leading scholars in the MR field, was the senior author of the VABS, and someone well-qualified to talk about the VABS and its predecessor measure, the VSMS. However, she admitted on the stand that she was neither a statistician nor a psychometrist, and she stated that one should be brought in to address technical statistical issues pertaining to the reliability of her concluding from the earlier VSMS that Mr. Hill now met the requirement for adaptive deficits prior to the age of 18.

24. Dr. Timothy Hancock, a psychologist brought in by the prosecution in sur-rebuttal to Dr. Sparrow, described himself as a psychometrics expert, but in my view he lacked qualifications necessary to speak to the specific matter he addressed in the hearing. Dr. Hancock is a clinical psychologist at a mental health clinic, who maintains a consulting practice helping attorneys understand assessment issues. I do not doubt that he is a fine clinician, that he knows something about test construction, or for that matter that he knows about how to diagnose MR (which was not his assigned role in this case).

25. However, Dr. Hancock's CV does not list any academic affiliation or a single refereed publication, in test statistics or psychometrics (or anything else, for that matter). He is second author on one conference presentation with a psychometrics focus, but it is a stretch to describe him as a recognized authority on psychometrics. That impression was certainly reinforced for me by his testimony in this case. The problem with Dr. Hancock's testimony is that he mistakenly assumed that the central question the court should address was whether the VSMS was *equivalent* to the VABS, whereas in fact the central question (which Dr. Sparrow initially raised but was unable to subsequently explain) is whether a score on the VSMS could reliably *predict* a score on the VABS.

26. Dr. Hancock was correct in testifying that a correlation coefficient of 0.55 was insufficient to establish that VSMS and the VABS are equivalent tests (although even there, he committed a fundamental arithmetic error in calculating the degree of that non-equivalence). However, a correlation coefficient of 0.55 is more than sufficient for devising a prediction formula; in fact, many quite reliable prediction formulas have been devised in spite of correlations that are smaller than 0.55. The statistic which Dr. Hancock should have been discussing is not the correlation coefficient but rather the "standard error of estimate", which could have been derived from a prediction equation which likely was contained in an appendix to the VABS manual, where the data linking the VSMS and VABS was supposedly provided. One could then apply those statistics to the VSMS score of Mr. Hill and determine if the range of predicted VABS scores is below the cutoff predicted by the standard error of estimate. This is a very fundamental procedure that a psychometrics expert should be expected to understand and use.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG ONE?

27. The first prong of the Ohio legal definition of MR is significant impairments in intellectual functioning, and it can be met through various indices of cognitive incompetence. The most widely used index is an IQ score on an individually-administered comprehensive full-scale measure of intelligence (such as the Wechsler scales or the Stanford-Binet) that is below approximately 70-75.

28. Mr. Hill has taken a great many IQ tests, dating back to the childhood years. Without exception, they all fall in the range of mental retardation. That includes a Wechsler Adult Intelligence Scale, 4th edition (WAIS-4) administered by Dr. Huntsman, on which he received a full-scale IQ score of 58, which falls within the MR range. Dr. Huntsman characterized this as an invalid score, arguing that Mr. Hill was malingering. However, it is not dramatically different from earlier scores in the 60's obtained by Mr. Hill, all of which were also squarely in the MR range.

29. In my view, Dr. Huntsman's characterization of Mr. Hill as malingering is debatable, a view which I discuss at greater length later in this declaration. The other two experts agreed that Mr. Hill clearly met prong one of the Ohio definition of MR, a conclusion which to me appears justified. The judge concurred, and ruled that prong one was met. Therefore, I shall devote most of my attention in the remainder of this declaration to the other two prongs.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG TWO?

30. The decision to deny Atkins relief to Mr. Hill was based on the judge's view that the petitioner failed to meet prong two: impairments in adaptive functioning (which is termed "adaptive behavior" in the AAMR/ AAIDD manuals and in most other state Atkins statutes). In my view, there were many irregularities in the methods and arguments that led two of the three experts to conclude that prong two was not met. I believe that better methods, in addition to new information that has recently come to light, would almost certainly have led Dr. Olley, and possibly Dr. Hunstman, to reach a different conclusion.

31. One of the more questionable aspects of the earlier proceeding was the weight attached to a score on a single administration of a rating instrument, the Vineland Social Maturity Scale (VSMS) in 1984, administered when Danny was 17 years old and evaluated by the Juvenile Court. The informant was Mr. Hill's mother. The report, by psychologist Dr. Douglas Darnall, gave Mr. Hill a "social quotient" of 82.9, in the borderline range. Dr. Darnall observed that the informant, Ms. Vaughn, was motivated to make her son look more competent than he actually was, and he considered the score to overestimate Danny's actual adaptive functioning, which Dr. Darnell estimated to be in the "mildly retarded range."

32. The VSMS was developed in the 1930's, did not have adequate norms or meet other requirements for current psychometric instruments, and is very different in terms of its content from more recent rating measures of adaptive behavior. To counter the impression that the VSMS score might be a disqualifying factor for prong two, the defense brought in Dr. Sara Sparrow, an eminent psychologist and MR expert from Yale University. Dr. Sparrow was the senior author of the Vineland Adaptive Behavior Scale (VABS), a successor instrument to the VSMS, and an instrument with excellent psychometric properties which is widely used today in schools and legal settings. Dr. Sparrow discussed the results of a "linkage" study, with nearly 400 subjects rated on both the VSMS and the VABS, and which she testified enabled one to reliably predict a VABS score from a score on the VSMS. Based on that study, Dr. Sparrow testified that Mr. Hill would have received a much lower score on the VABS, one that was well under the ceiling for diagnosing MR. That conclusion was challenged by Dr. Timothy Hancock, who argued that the correlation between the VSMS and the VABS was insufficient to make such a prediction The judge sided with Dr. Hancock, and cited the results of the Vineland disputation in his order.

33. Unfortunately, neither Dr. Hancock nor Dr. Sparrow possessed the qualifications, in my opinion, to address adequately the complicated statistical issues raised by that question. I recently recommended to Mr. Hill's defense attorney that she seek an opinion on this controversy from Dr. Hoi Suen, who is Distinguished Professor of Educational Psychology at Pennsylvania State University and one of this country's most eminent psychometrics experts. I have seen a report from Dr. Suen, and he concludes that Dr. Sparrow was more correct than Dr. Hanock, in that the correlation of 0.55 was more than high enough to make a reliable prediction, and that the VABS score predicted by the linkage study would definitely be lower than the VSMS obtained from the rating of Mr. Hill as an adolescent. However, insufficient data was available for him to say with confidence exactly what the predicted score would be.

34. Aside from questions about the VSMS-to-VABS prediction, there is a problem in the reliance on a single adaptive behavior rater, because she could be biased or have a skewed view. Parents will often overstate the competence of their child, as was noted by Dr. Darnell, both because of shame about having a deficient family member, but also because they may also be impaired. Dr. Olley has himself subsequently written that one should rely on multiple raters, whenever possible.

35. Regardless of who was correct on the VSMS/ VABS prediction issue (and I believe that Dr Suen is justified in siding more with Dr. Sparrow), I consider it a trivial controversy, not deserving of the importance attached to it by the court. There is no requirement, in Ohio or in any clinical manual, that incompetence on prong two has to be quantified through use of a standardized instrument. One can rely on qualitative and descriptive information alone to see if someone does or does not meet prong two; there is an abundance of such information, including during the developmental period, which supports the view that Mr. Hill was significantly impaired. To dismiss the importance of such information because of a questionable number on an ancient test with inadequate norms and obtained from an unreliable informant is to raise the importance of numbers to an absurd level.

36. That said, it can be useful to obtain standardized prong two rating information, and the evaluators might have done so had they been willing or able to move outside of the prison environment physically or through telephone contact. The current standard practice for rating of adaptive behavior is to ask current raters to fill out a Vineland or ABAS (Adaptive Behavior Assessment System, which is also widely used) retrospectively. This involves asking the rater to answer each rating question as the ratee was at some point in the past, typically before the age of 18. This does two things: (a) it places less emphasis on evaluating the person in a highly structured and restricted prison context, where there are few opportunities to engage in most of the behaviors on the rating instrument and where the most likely informants (i.e., correctional officers) typically do not know the individual well enough to rate him validly; and (b) it enables one to gather additional information about how the individual functioned within the developmental (pre-18) period. The fact that such a method was not used by any of the evaluators in this case is, to me, a significant problem. I have no doubt that if this evaluation was being done today, such a method would have been used by one or more of the evaluators. I know it would have been done today, because Dr. Olley has co-authored a book chapter on using the ABAS in Atkins proceedings, in which he endorsed such a retrospective method.

37. As mentioned, competence within the prison setting is not a reliable source of data about prong two, because: (a) people with MR do much better in a highly restricted and controlled setting such as prison, and have few opportunities to perform most of the community-oriented items on adaptive behavior rating measures; and (b) informants, such as prison guards, even if one overlooks their

possible bias as state employees, typically do not know the individual well enough to rate him. Yet, the panel did collect and rely upon such information, even if they did not use formal rating instruments. It now turns out, from interviews with some of the guards who testified, that their testimony was misunderstood and that Mr. Hill was not as competent as portrayed by them. Furthermore, declarations from other inmates (who are better able than guards to recognize mental retardation in a peer) now provide a picture of Mr. Hill as someone less well able to function adequately than was portrayed to the experts. To my knowledge, none of the experts were allowed access to interview other inmates about Mr. Hill.

38. Two "direct" methods were used to assess prong two. By direct, I am referring to an interview or test session with the petitioner himself. Dr. Olley administered the Street Survival Skills Questionnaire (SSSQ), a measure of Practical Adaptive Skills, one of the three components of adaptive behavior identified by the AAIDD 2010 diagnostic manual, and based on a tripartite model of prong two generally attributed to me. Mr. Hill obtained a standard score of 43, which is within the range of moderate MR, and which could in itself be cited in support of prong two qualifying. Dr. Olley questioned the veracity of the score, noting that Mr. Hill responded in a slow fashion (slow responding, in my experience, is common in people with MR, reflecting a lack of confidence or certainty). There is a literature which today questions the validity of the SSSQ, and its norms are of questionable quality. Dr. Olley would probably not use the SSSQ today but there is nothing in the obtained results which dispute a diagnosis of MR and much which confirms it.

39. The other direct measure was the administration of the ABAS-2 to Mr. Hill as the rater, rating himself. The obtained standardized scores were in the MR range, but it is not recommended practice today to use the petitioner as a self-rater. That is because people with mild MR will typically overstate what they can do, although that does not appear to have occurred here. Mental retardation is a status ascribed by others—laypeople as well as professionals—and self-perception is generally not an adequate basis for making the diagnosis.

40. One of the factors which apparently contributed to the conclusion that Mr. Hill failed to meet prong two was his performance on the stand during the court proceedings before his Akins hearing. Dr. Olley, in particular, stated that this was a consideration which pushed him from (apparently) being on the fence about

prong two, to deciding that prong two was not met. As Dr. Olley is well-aware, the oral language of people with mild MR is generally relatively normal, as one would expect of anyone with a mental age of ten or eleven. It can, therefore, be highly misleading to use evidence of language competence as a basis for ruling out MR.

41. People in prison have much time and many opportunities to talk with others (inmates as well as attorneys) about their cases, and individuals with mild MR can often go on and on at great length about various twists and turns of their case, the problems they have had with various attorneys, the motions that were made or not made, etc. Although superficially impressive, such verbalizations often have an obsessive repetitive quality, are often inaccurate in the particulars (apparently the case here) and are usually not fully responsive or pertinent to the question being asked. The communicative incompetence of people with mild MR is typically more in the area of sociolinguistics (interpersonal uses of language) than in the area of psycholinguistics (formal structure of language). I have not seen anything in the language used by Mr. Hill that is inconsistent with a diagnosis of mild MR.

42. A related consideration, mentioned by Dr. Olley in his April, 2011 deposition is his opinion that people with MR cannot make attributions about feelings. He found it diagnostically indicative of non-MR, therefore, that Mr. Hill accused the judge of taking a break in the proceedings because he feared that he (the judge) was about to start crying on the bench. Ms. Werneke pointed out that the judge denied having that motivation and, therefore, that Mr. Hill's attribution was incorrect. Dr. Olley replied that what mattered was not the correctness of the emotion judgment but, rather, the making of an emotion judgment at all. He asserted that this was unusual in people with MR, citing both his own clinical experience and the research literature. I cannot speak to Dr. Olley's experience but I can speak to the research literature, and it is my view that Dr. Olley's interpretation of the research on this topic is incorrect. It is true that people with mild MR are less likely to interpret others' emotions correctly, and that in fact was the case here (as Dr. Olley acknowledged). However, people with MR can speak the language of emotion, as reflected in the fact that they can correctly identify emotions when they are obvious (as for example say that someone is sad when she is crying). Their problem in identifying emotion comes in when emotions are ambiguous, as for example when someone feels something different than one might expect. Normal children of ten or eleven can talk about emotions, sometimes correctly, often incorrectly. Adults with MR (who may have a mental

age as high as ten or eleven) function in the same inconsistent manner with regard to emotion recognition.

43. I speak to this point as a scholar who has written extensively about "social intelligence," a construct that includes emotion recognition as a sub-topic. I have authored two widely-cited chapters on social intelligence in people with MR, in which I reviewed the literature on emotion recognition among other sub-topics: see S. Greenspan (1979). Social intelligence in the retarded. In N.R. Ellis (Ed.), Handbook of mental deficiency: Psychological theory and research. 2nd ed. Erlbaum, and S. Greenspan & P. F. Love (1997). Social intelligence and developmental disorder: Mental retardation, learning disabilities and autism. In W.F. MacLean, Jr. (Ed.) Ellis' handbook of mental deficiency, 3rd ed. Erlbaum. This research shows, as I stated above, that adults with MR are poor affective perspective-takers, especially in situations of ambiguity.

44. In my view, however, Dr. Olley went too far in asserting that people with MR cannot attend to or talk about emotions. As example, a study in a British MR journal [R.P. Hobson, J. Ouston & A. Lee (1989). Naming emotion in faces and voices: Abilities and disabilities in autism and mental retardation. British Journal of Developmental Psychology, Vol 7(3)] found that people with MR were better at identifying emotion-in-context than people with autism, and that some people with MR were able to accurately identify emotion under some circumstances. Certainly, there was no evidence that people with MR could not talk about others' emotions at all. Thus, to the extent that Dr. Olley's diagnostic conclusion was, as he said, heavily influenced by his (to my mind, mistaken) view of that research literature, his diagnostic conclusion should be reexamined.

45. As part of her attempt to convince the court that Mr. Hill did not meet prong two of the Ohio definition of mental retardation, Dr. Huntsman characterized the Vineland Adaptive Behavior Scale (VABS) as a poor measure of adaptive functioning, and compared it unfavorably to the Scales of Independent Behavior, revised edition (SIB-R). In my opinion, this is a distinctly minority opinion, as the VABS (now VABS-2) is one of the most widely-used and respected measures in the fields of mental retardation and school psychology while the SIB-R, which is a test with inadequate and outdated norms, is rarely used. In the Atkins cases on which I have consulted or testified, the two most widely-used measures of adaptive functioning are the VABS and the Adaptive Behavior Assessment

System (ABAS, now ABAS-2), while the SIB-R is almost never used. Unless I misunderstood her testimony, if Dr. Huntsman was saying that the Vineland lacks scientific or professional support, then that is an opinion with which I disagree.

46. In this case, because Ohio relies on DSM4-TR (based on the 1992 AAMR manual), the standard used for establishing prong two impairment is not the one-out-of-three deficits approach reflected in the 2002 and 2010 AAMR/ AAIDD manuals, but rather the two-out-of-eleven deficits approach reflected in DSM4-TR. In this approach, one can qualify if one has significant impairments in at least two adaptive skill areas. The eleven skill areas are as follows: communication, community use, functional academics, home living, health, safety, leisure, self-care, self-direction, social and work. Dr. Olley and, I believe, Dr. Huntsman, felt that Mr. Hill was significantly impaired only in functional academics. Based on new information from Ms. Campbell and also from prison inmate informants about serious hygiene problems, Dr. Olley in a recent deposition indicated that he now believes that Mr. Hill is significantly impaired in self-care as well. Thus, prong two now perhaps appears to be met in the opinion of at least two of the evaluators.

47. Dr. Huntsman indicated that Mr. Hill's diagnosis of antisocial personality disorder explains his impaired adaptive functioning, because of the presence of "maladaptive behaviors" which might explain or mask the presence of adaptive behaviors. However, both DSM4-TR and the AAIDD "green book" both state that adaptive behavior deficits should be evaluated according to whether or not an individual can perform certain tasks, without regard for any inferred cause or explanation. Furthermore, the manuals make clear that MR is not an exclusionary diagnosis, and someone with MR can have other diagnoses. The existence of another diagnosis, regardless of how reliable or unreliable it might be, should not be used to argue against meeting prong two. Lastly, the notion of maladaptive behavior as a diagnostic construct was specifically excluded from both DSM and AAMR in the 1990's. This was partly in response to a paper by me in which I pointed out that MR is a disorder marked by an inability to perform age-expected tasks and is not defined by how "nice" or 'well-adjusted" one might be.

48. In sum, I believe that there is little credible evidence to justify the view that Mr. Hill does not meet prong two. To the contrary, there is much evidence which suggests that Danny Lee Hill has significant impairments in adaptive functioning, and that these impairments became evident at an early age.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG THREE?

49. Prong three refers to the requirement that the disability (as defined by deficits in prongs one and two) first manifest itself during the "developmental period," which is usually interpreted as before the age of 18 (in at least two states it is before the age of 22). Another way of framing prong three is as a failure to ever develop adult competencies beyond what would be expected of someone aged eleven or twelve. This reflects a view of MR as a "developmental disability," i.e., a disorder rooted in brain abnormality or insufficient brain development, and which is traceable to factors—known or unknown—which manifest early in life.

50. Prong three does not mean that there was a formal diagnosis of MR made during the developmental period, as that could be affected by many factors, including: availability of services; school policies and practices; location (rural versus urban); family resources and persistence, etc. Obviously, when a diagnosis occurs in childhood, establishing prong three is made easier.

51. Mr. Hill was evaluated for special education by Warren City Schools psychologist Karen L. Weiselberg in 1973, when he was six years old. He was given a diagnosis of "EMR" (Educable Mental Retardation, roughly comparable to mild MR). To my mind, this fact alone establishes that prong three has been met.

52. Many concerns were expressed about the developmental delays of Danny Lee Hill when he was a young person. These have recently been confirmed by new declarations of teachers who knew Danny as a child. At the time of the hearing, Dr. Hammer detailed Danny's developmental problems, and indicated a conviction that, in spite of a relative absence of school information, he felt that Danny met prongs one and two within the pre-18 period and also (despite some indication of poor effort) within adulthood as well. Based on what I have seen, I believe that Dr. Hammer's conclusions were justified.

WERE THE EXPERTS JUSTIFIED IN POINTING OUT MALINGERING?

53. A picture of Mr. Hill that was presented during the hearing, particularly by Dr. Huntsman, was one of Mr. Hill faking "dumb," that is deliberately giving a poor effort and consciously attempting to be seen as having mental retardation. Dr.

Huntsman even went so far as to give Mr. Hill an Axis-1 DSM4-TR diagnosis of "malingering disorder." This testimony, by an expert witness who in my view lacked sufficient training and expertise in diagnosing mental retardation, was apparently very persuasive, as it was cited heavily by Judge Curran in his ruling. However, in my view, the basis for Dr. Huntsman's diagnosis of malingering rests on very shaky ground.

54. A major reason given by Dr. Huntsman for concluding Mr. Hill was malingering was his low score on the Test of Memory Malingering (TOMM). That is a widely-used measure of effort on cognitive tasks, which is based on the notion that on tasks which are very easy, poor performance must be an indication of poor effort rather than poor task-relevant ability. A problem with Dr. Huntsman's reliance on the TOMM results is that the measure was developed for use with people with relatively intact intelligence, and it has never been validated for use with subjects with seriously impaired intelligence. In fact, the author of the test has acknowledged that individuals with MR were not included in the test standardization sample, and he has cautioned against using the TOMM to infer lack of efforts in subjects who have MR. The reason for this caution is that the assumption of test easiness is unproven for a MR population, and thus poor performance may reflect poor ability rather than poor effort.

55. Dr. Karen Salekin, a professor of psychology at the University of Alabama, has co-authored a widely-cited article on the validity of efforts tests (in a special Atkins issue of the journal APPLIED NEUROPSYCHOLOGY that I edited). Her conclusion, after reviewing the research on a number of measures, including the TOMM, was that these measures are of questionable validity for diagnosing malingering in people with IQs in or near the MR range, and should not be used with that population. Furthermore, psychologists who participate in Atkins evaluations typically administer two or three (sometimes more) measures of effort. That practice was not followed in this case.

56. Dr. Huntsman relied heavily in her conclusion that Mr. Hill was malingering on her belief that Mr. Hill was lying when he stated that he could not read or write. That belief was based on a statement by a person who said she had observed Mr. Hill writing. That witness has now clarified her testimony, by admitting that she observed him one time from a distance and did not know what he was writing. Furthermore, there are now statements from inmates who support

Mr. Hill's claim that he could not read or write. Thus, a major basis for Dr. Huntsman's diagnosis of malingering now appears to be of questionable validity.

57. Dr. Huntsman stated that it was her belief that Mr. Hill was malingering not only adaptive functioning but also a low score on the WAIS-4 which she administered. In support of this view, she also noted that his performance was variable, with good performance on hard items and poor performance on easy items, but she provided no specific details to support that observation. One way of determining the validity of an IQ score is to see if it agrees with earlier scores, and there is strong consistency across these many IQ tests, some of which were given long before Mr. Hill had any reason to fake a low score.

58. The diagnosis of malingering in an Atkins context rests on the assumption that the defendant understands that being diagnosed with MR would be to his benefit. I have participated in many Atkins proceeding and I have yet to encounter more than one or two defendants who: (a) fully understood the nature of the evaluation, and (b) wanted to be labeled as having MR, regardless of that understanding. MR is a label which people with MR hate (that is the main reason for switching to a new term "Intellectual Disability"). Many spend a lifetime trying to dispute or cover up their limitations (there is an extensive literature on such "passing", pioneered by UCLA professor Robert Edgerton under the rubric of "cloak of competence"). Malingering requires some degree of sophistication, and it does not appear to me that Mr. Hill possesses that degree of sophistication. There is an extensive research literature (by Yale professor Edward Zigler among others) which explains why people with mild MR often give up in testing situations, and it has to do not with malingering but with the fact that they have always failed on academic (including testing) tasks, and they find such tasks very aversive, threatening and difficult. In my professional opinion, a diagnosis of cognitive malingering should be backed up by at least some evidence that Mr. Hill was aware of the purpose of the evaluation and was motivated to support a diagnosis of MR, and I have not seen any discussion of such evidence.

59. A recent declaration by retired psychiatrist Dr. John H. Vermeulen, states that he diagnosed Mr. Hill as having mental retardation when he was first admitted to the Ohio adult correctional system. This was long before the Atkins decision and long before Mr. Hill had any motive to feign cognitive incompetence. Mr. Hill was first labeled as possessing mental retardation in elementary school and he was

also given that label as an adolescent, when he was evaluated by the juvenile justice system. Throughout his whole life he has scored in the range of mental retardation on standardized tests of intelligence. If this were not such a serious matter, I would say that it is laughable to assert that Danny Lee Hill has feigned, and continues to feign, mental retardation, especially given the questionable methods and evidence that were relied upon to reach that conclusion.

SUMMARY AND CONCLUSIONS

60. The evaluation of Danny Lee Hill occurred early in the history of Atkins proceedings, in Ohio and the United States, and many of the methods, concepts and arguments used in this case would today be considered inappropriate. The chief state expert, Dr. J. Gregory Olley, has become one of the leading published authorities on how to conduct such evaluations, and he has come out strongly against some of the approaches used in this evaluation. For example, he has argued in a series of papers on prong two (adaptive functioning) assessment that it is inappropriate to administer an adaptive behavior rating instrument to the defendant himself, and also that one should not rely on a single adaptive behavior rater. Yet, both of these were done in this case.

61. Dr. Hammer, the defense expert, and a man with decades of experience in the mental retardation field, testified that Mr. Hill qualified for a diagnosis of mental retardation under clinical and Ohio guidelines. I believe, if he were conducting the evaluation today and the methods that are now standard, that Dr. Olley (a man with experience comparable to Dr. Hammer's) would possibly reach the same conclusion.

62. Dr. Huntsman lacked, in my view, the experience and training needed to rule in or out a diagnosis of MR in this case. However, she was given misleading information by prison guards, about Mr. Hill's abilities, and that information factored into her conclusion that he was malingering mental retardation. Furthermore, Dr. Huntsman relied on an instrument (the TOMM) which, as a qualified forensic psychologist, she likely now understands to be inappropriate for use with low IQ subjects. For these reasons, I believe that Dr. Huntsman (who as the court's expert, was especially heavily relied upon) would today possibly reach a different conclusion as well.

63. There were significant problems with the group approach used by the panel of three experts in conducting their evaluation of Mr. Hill. It was a highly unusual practice, which blurred the ability of the experts to arrive at independent conclusions, and it appeared to have the effect of upsetting the defendant and thus created a non-optimal evaluation climate. An especially egregious aspect of the approach followed was allowing a prosecution employee with a negative history with Mr. Hill to conduct the videotaping while in the same room with him and the experts. In my view, these deviations from standard or optimal practice make it difficult to consider the experts' results, or conclusions drawn from those results, to be valid.

64. As reflected in the court's ruling, the judge relied on misleading and inadequate testimony regarding the linkage between the earlier and later Vineland rating scales. The evidence actually supports a different conclusion than was reached, but at any rate, the matter is in my view trivial and irrelevant, as there is an abundance of qualitative evidence regarding Mr. Hill's meeting prong two. There is no requirement in Ohio or in clinical manuals, which require that prong two data be quantified in order to be considered, and the whole controversy, in my view, placed way too much emphasis on the importance of a qualifying number however questionable the number or the norms on which it was based.

65. Mr. Hill is a person who has been viewed all of his life as having mental retardation. Everything that I have read suggests to me that the label still applies. Based upon all of these factors enumerated by me in this declaration, it is my scientific, professional, and expert opinion, which I provide with a reasonable degree of scientific certainty, that the evidence pertaining to Danny Lee Hill is much more congruent with a diagnosis of Intellectual Disability than was the conclusion reached by two of the three experts in the original hearing.

I declare under penalty of perjury under the laws of the State of Ohio and the United States of America that the foregoing is true and correct.

Executed this 27th day of April, 2011, at Littleton, Colorado.



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Married (Helen Apthorp), two children (Alex, Eli)

Education: Bronx H.S. of Science
Johns Hopkins University, BA (Liberal Arts)
Northwestern University, MA (History)
Univ. of Rochester, MA, PhD (Developmental Psychology)
UCLA, Post-Doc (Developmental Disabilities)

Employment: U.S. Army, Private soldier (Artillery), 1965-66
Research Analyst, Rochester Center for Governmental Research, 1966-1970.
Pre-Doc Fellow, U of Rochester, 1970-76
Post-Doc Fellow, UCLA, 1976-77
Assistant Professor of Psychology, George Peabody College for Teachers of Vanderbilt University, 1977-1979.
Scientist, Boys Town Center for the Study of Youth Development, Omaha, NE, 1979-1985. Also Visiting Assistant Professor (Ed. Psychology and Psychiatry), University of Nebraska, 1979-1985
University of Connecticut, Department of Educ. Psychology. Assoc. Prof.,1985-1994.Tenure-1989. Professor, 1995-. Emeritus 1998-.
University of Colorado Health Sciences Center, Clinical Professor of Psychiatry (psychology), 1999-present.

Scholarly Interests:
Adaptive behavior, multiple intelligences and personal competence
Gullibility and foolish action in at-risk populations
Classification and criminal justice issues in human services
Parenting competence and child adjustment outcomes
Ethics and professionalism in education and human services

Professional Affiliations:
American Psychological Association (Fellow)
American Psychological Society (Fellow)
American Association on Mental Retardation (Fellow)
National Board member, 1997-1998. President of Region 10, 1997-1998.
Academy on Mental Retardation, Board Member ('90-'99) President (95-97)

Certifications:

Licensed Psychologist, State of Nebraska (#100295, exp. Jan. 2013).
Licensed Psychologist, State of Tennessee (#P-636) inactive status.

References: A list of references will be furnished upon request.

Administrative/ Grant Experience:

Scientist, John F. Kennedy Center for Research on Education and Human Development, Peabody College of Vanderbilt University, 1977-1979 (Project Director for part of NICHD Program Project Grant).

Research Scientist, Boys Town Center for the Study of Youth Development, Omaha, Nebraska, 1979-1985. (Project Director for "social competence research program" funded through Boys Town endowment).

Director of Special Services, Father Flanagan HS (Boys Town Urban Program, 1982-1985.

Principal Investigator, "A comprehensive school-based approach to adolescent pregnancy and parenthood". Grant awarded by US Office of Adolescent Pregnancy Programs (HHS) to the Boys Town Urban Program for period 1983-86. Total awarded: $382,906.

Acting Director, Connecticut's University Affiliated Program on Developmental Disabilities. 1987-1988. (Principal Investigator for several Federal and state grants and contracts).

Acting Director, A.J. Pappanikou Center on Special Education and Rehabilitation, University of Connecticut, 1988-1990 (oversaw several million dollars in outside funding).

Principal Investigator, contract to evaluate foster care transition projects, CT Dept. of Child and Youth Services, $35,000, 1990.

Principal Investigator, contract to conduct utilization review of community residential services, CT Department of Mental Retardation, $30,000, 1991.

Principal Investigator, contract with Washington Legisl. Budget Comm. to study deinstitutionalization in the State of Washington, $60,000, 1992.

Coordinator, Program in Special Education, UConn, 1996-1998.

Editorial Work:

Special Services in the Schools, Editorial Bd., 1985-1989.

Newsletter of the Academy on Mental Retardation, Editor. 1991-1993.

Exceptional Children, Associate Editor, 1981-1984.

American Journal on Mental Retardation, Consulting Editor, 1978-80; 1993-1995.
Occasional editorial reviewing for:
Developmental Psychology, Child Development, School Psychology Review, Research in Developmental Disabilities, Int'l. J of Disability, Development & Education, Mental Retardation.
International Review of Research in Mental Retardation Monograph Series of AAMR, Member Ed. Adv. Comm., 1995-1997.
Editor, Special issue on diagnosing mental retardation in death penalty cases. Applied Neuropsychology, June 2009.

Major Consultancies/ Volunteer Activities

Chairperson, Behavior Programming Review Committee, Eastern Neb. Community Office on Retardation, '79-'81
Chief Hearing Officer for Client Appeals, Eastern Nebraska Community Office on Retardation, 1981-82.
Member, Nebraska Foster Care Review Board, 1982-1985.
Member, Program Review Committee, Mansfield Training School, CT Dept. of Mental Retardation, 1986-1987.
Member of Board, Connecticut Association of Residential Facilities, 1988-1989.
Peer Reviewer, National Institute for Child Health and Human Development, 1990.
Peer Reviewer, National Institute for Disability and Rehabilitation Research, 1985-1989, 1993- .
Panel member for selecting exemplary secondary schools, U.S Department of Education, 1991.
Board member, Hartford ARC, 1994-1996.
Member of Science and Policy Advisory Committee, for 1995 Int'l Spec. Olympics Summer Games, 1993-1995.
Diss. Examiner, Sydney & Adelaide Universities, '92 & '94
Member, Connecticut Developmental Disabilities Planning Council (Gubernatorial appointment), 1994-1998.
Chair, Connecticut Office of Protection and Advocacy for Persons with Disabilities (Governor's Appointment) 1997-1998.
Expert consultant in numerous Atkins (death penalty exemption) cases.
Charter Member, The Friends of Richard Lapointe, 1992 to present.

Corporate Status

Managing partner, Ethical Service Systems, LLC (a consulting firm providing psychological services around disability, forensic and organizational issues).

Community Service

Former president and lay leader, Beth Ami-Colorado Congregation for Humanistic Judaism, Denver and Boulder, Colorado.

Service to Own Institution

Member, Human Subjects Comm., Peabody College, 1978-1979.
Member,Boys Town Human Rights Review Committee (Institutional Review Board), 1980-85.
Member, Curriculum & Courses Committee of the UConn School of Education, 1986-1989, (Secretary in 1986-87), 1995- present.
Member, Promotion, Tenure & Reappointment Committee, Dept. of Educ. Psych., Univ. of Conn., '86-87.
Member, Graduate Faculty Council, University of Connecticut, 1988-1993.
Member, Executive Committee of the Graduate School, University of Connecticut, 1989-1993.
Chair, Committee on Faculty Standards, University of Connecticut Graduate Faculty Council, 1989-1993.
Chair, Blue Ribbon Panel on the Future of Doctoral Studies, University of Connecticut School of Education, 1989-1990.
Member, Ad-Hoc Review Panel on Visiting Lectureships, University of Connecticut Research Foundation, 1990.
Chair, Area Review Committee (Dissertation Prospectus Review Committee) in Education, 1990-1993.
Member, University Senate, University of Connecticut, Fall semester, 1990.
Chair, Harris Kahn Memorial Scholarship Committee, Department of Educational Psychology, 1991-1998.
Member, Committee on Research Misconduct, U Conn, 1994-1996.

Theoretical Contributions

Comprehensive model of personal competence and adaptive behavior (incorporating the tripartite model of intelligence)
Model of parenting competence (incorporating the nine-principle model of caregiver discipline)
Action model of gullibility, foolishness, common sense and wisdom

Honors

New York State Regents' Scholarship (declined to attend college out-of-state)
Woodrow Wilson Fellowship (Honorable Mention)
U.S. Public Health Service Predoctoral Fellow
National Institutes of Health Postdoctoral Fellow
Government Research Association, Prize for Best Research
Eric Denhof Memorial Lecturer, Brown University
Elected Fellow, American Psychological Association
Elected Fellow, American Psychological Society
Elected Fellow, American Assn. on Mental Retardation
Willowbrook Memorial Lecturer, CUNY-Staten Island
Dybwad Award for Humanitarianism, Amer. Assn. on Int. and Dev. Dis

Doctoral Advisees (Completed Only)

Gwyn Brown, EdD (Human Development), Vanderbilt, 1982
Mary Ellen Javel, PhD (Ed. Psych.), U. of Nebraska, 1983
Susan Gregory, PhD (Special Education), U Conn, 1988
James Granfield, PhD (Special Education), U Conn, 1990
Tom Callahan, PhD (Special Education), U Conn, I993
Diane Twachtman, PhD (Special Education), U Conn, 1994
Sally Swanson, PhD (School Psychology), U Conn, 1995
Elsy Negron, PhD (Special Education), U Conn, 1996
Timothy Shriver, PhD (Special Education), U Conn, 1997
Deborah Fritz, PhD (Special Education), U Conn, 1997.
Jean Gillen, PhD (School Psychology), U Conn, 1997.
Timothy Musheno, PhD (Special Education), U Conn, 1998.
Shira Yalom-Chamovitz, Phd (Special Education), UConn, 1999
John Driscoll, PhD (Ed Psych), U Conn, 2000
Peter Love, PhD (Special Ed), U Conn, 2002

PUBLICATIONS

Books, Monographs, Dissertation

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Columns

Monthly contributor of a column titled "Incompetence" to the on-line edition of Psychology Today. (http://www.psychologytoday.com/blog/incompetence)

Tests

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Wandersman, A. and Greenspan, S. (1979). The promise of interactional psychology. Contemporary Psychology, 24, 991-992. (Review).

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STATE OF OHIO)
) ss:
COUNTY OF TRUMBULL)

AFFIDAVIT OF ROGER R. BAUER

1. I have been a licensed attorney in the State of Ohio since 1973.
2. My practice has been in Warren, Trumbull County, Ohio.
3. In 1985, I was on contract with the Ohio Public Defender to provide legal representation to indigent people charged with crimes in Trumbull County.
4. I recall very clearly in September 1985, the case involving the brutal attack on Raymond Fife, a 12 year old boy from Warren, Ohio, who died a few days after the attack.
5. After the boy died, I learned from George Kalafaut, the head of the Ohio Public Defender office, that a suspect was at the Warren Police Station and probably about to be questioned. He directed me to go the Warren Police Department.
6. I recall that it was daylight when I was at the police station.
7. When I got there, I saw Danny Hill. I knew Morris Hill, Danny's uncle, who was a police detective. I believe I saw him there that day as well.
8. I spoke with Danny at the police station. I recall very clearly telling Danny to not talk to the police.
9. The detectives would not let me to talk to him anymore though, since I had not been appointed yet. I had to leave the police station then.
10. After the incident, a grievance was filed against me with the Trumbull County Bar Association. I believe it was filed by the Warren Police Department who said I did not represent Danny Hill and therefore could not advise him. I responded to the grievance at

the time with the details. The grievance was dismissed as unfounded. Unfortunately, I do not have the documents associated with the grievance in my possession.

11. When Danny Hill's case was returned to Trumbull County to litigate the *Atkins* claim, Danny contacted me requesting my assistance with his case. For a short time, I was involved in the litigation, but had to withdraw.

12. In 2004, Danny filed a grievance against me with the Disciplinary Counsel of the Ohio Supreme Court. I filed a response to that grievance on August 13, 2004. A copy of that response is attached to this affidavit.

13. None of Danny's attorneys over the years have ever asked me about my involvement with Danny's case at the beginning, or the grievance filed against me by the Warren Police Department. I would have provided this same information back then had anyone inquired.

FURTHER AFFIANT SAYETH NAUGHT.

Date

Roger R. Bauer

SWORN TO BEFORE ME, and subscribed in my presence, this 8 day of September, 2014.

NOTARY PUBLIC

MELANIE GADLEY
NOTARY PUBLIC
STATE OF OHIO
TRUMBULL COUNTY
My Comm. Exp.
October 16, 2017

ROGER R. BAUER
Attorney at Law

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RECEIVED
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AUG 1 8 2004
DISCIPLINARY COUNSEL
SUPREME COURT OF OHIO

August 13, 2004

Disciplinary Counsel
The Supreme Court of Ohio
Attn: Brian Shinn
250 Civic Centre Drive, Suite 325
Columbus, Ohio 43215-7411

RE: File No. A4-1779
Letter of Inquiry

Dear Mr. Shinn:

This letter is addressed as a response to the grievance filed by Mr. Danny Lee Hill. He has also filed a grievance against Attorney Greg Meyers and Attorney Maridee Costanzo.

Approximately in February of 2004, I was contacted by Mr. Hill via telephone. Mr. Hill told me that he trusted me and wanted my representation in his capital murder case. Attorney Costanzo, who practices in the same building, has also been contacted but I am not aware of the specifics.

Mr. Hill trusted me because I represented him when he was first arrested on the case for which he now sits on death row. I spoke to him early about not giving a statement and the Warren Police Department filed a grievance against me for consulting him. I was cleared on any wrong doing.

After I spoke with Attorney Costanzo, I called Attorney Meyers. It was my understanding that Attorney Meyers represented Mr. Hill in an effort to stop his execution for the reason that Mr. Hill was mentally retarded at the time of the act and still is retarded. It seemed to me that Attorney Meyers desired my assistance because Mr. Hill trusted me. I told Attorney Meyers, Attorney Costanzo and Mr. Hill that I would only work on the case only if Attorney Meyers

CASE NO. _____

CAPITAL CASE

IN THE UNITED STATES SUPREME COURT

DANNY LEE HILL,

Petitioner,

v.

TIM SHOOP, WARDEN,

Respondent.

APPENDIX TO PETITION FOR WRIT OF CERTIORARI

VOLUME 2 of 3

DANNY HILL:

(NOTE: INTERVIEW)

INTERVIEW:

By the Warren Police Department.

Q Dan, would you raise your right hand. Do you swear that the statement you are about to give is the truth, the whole truth, and nothing but the truth.

A I do.

Q Okay. Danny, for the record, state your name and your address and your age.

A I am 18. I stay at 1394 Fifth Street, Aparment 8, Hampshire House.

Q And, your full name is?

A Danny Lee Hill.

Q Okay, Danny, you have been advised of your Constitutional Rights?

A Yes.

Q You are aware of what your rights are?

A Yes.

Q They have been read to you several times; is that not true?

A Yes. Okay. We are going to question you in regards to the facts about the death of Raymond Fife, which was September 10, 1985. That was a Tuesday. Okay. You do understand that when Seargent and Detective Hill came to your residence, you were not under arrest. And, we told you that you weren't under arrest. We told you and your mother to come down to the Police Station, that we wanted to talk to you. Am I correct?

A Yes.

Q Okay. Danny, let's start on that particular day. Briefly, just what time did you get up in the morning, and what did you do the first part

of that morning and that afternoon --

INVESTIGATOR OLIVA: This initial Interview is September 10, 1985.

A 12:00. Around 12:00 in the afternoon, and I walked up to Southwest Park -- I had walked up there, and I seen these people that always be up there at the park that I know.

Q What are their names?

A Lewis -- I don't know his wife's name. And, I was up there talking to him.

Q What did you wear that day?

A A white jersey, No. 77, grey pants, and these tennis shoes.

Q The same shoes you have on now?

A Yes.

Q Okay.

A And, when they had left, I had left. And I went walking over towards Westlawn, and I had went over this girl's house, and I had came, I had came --

Q Who was at the girl's house when you got there?

A Maurice Lowery's cousin.

Q Virgil Lowery -- they call him Virgil?

A Yes.

Q And, you went in the girl's apartment?

A Yes.

Q Did you have anything to eat?

A No.

Q Did you have anything to drink?

A No.

Q No weed?

A No.

Q How long did you stay there?

A About three hours. At the most, three hours.

Q And, then, where did you go from there?

A I went back to the park.

Q Back to Southwest Park?

A Yes.

Q That's the park behind the fire station on Palmyra Road?

A Right.

Q Who was there the second time you went there on Tuesday?

B. Caldwell?

A Yes. B. Caldwell come and -- the first time, when I had walked back over to Southwest Park, there was this one dude that was sitting up there, and he said, "Have you seen B. Caldwell." I said, "No. They might be up there at -- (inaudible) -- Park. Then, about that time, B. Caldwell came up there and we had -- he said he only had two dollars on a 40, and he asked us did we have any change, because he was going to get two 40's. So, didn't nobody have no change, and he said he was going to walk to the store. And, we had walked to the store, and he had went and got one 40, and then we had went over B. Caldwell's house. And we had went there for about an hour and a half, and we had left.

Q So, you went from Thomas to -- (inaudible) -- and you went to B. Caldwell's house?

A Yes.

Q And you stayed there for about an hour and a half?

A Right.

Q And where did you go from B. Caldwell's house?

A I went back up towards the Southwest Park and walked down towards Valu-King. I went out by Colt Court.

Q Did you go to Colt Court?

A Yes. I had took the pathway that leads to Colt Court.

Q From Southwest Park?

A Yes. And, I was walking through there, and I had came out at Colt Court because I went over my cousin's house, Tysons, and they was looking for me anyways. So, when I had went over there, they said that they was gone looking for me. So, I had walked back towards Westlaw, and, then, that's when I seen Tim Combs.

Q What's Tim Comb's nickname?

A "Shmoo".

Q Okay. Have you known "Shmoo" for a long time?

A Yes.

Q Okay. He just got out of the pen, right?

A Right.

Q How many times have you talked to him since he's been out of the pen?

A Since he been out?

Q Yes.

A Two times.

Q You had seen him a couple of times before Tuesday, right?

A No. He had got out about a week.

Q When you were coming out of Colt Court and walking towards Westlawn, you run into Tim Combs?

A Right.

Q Is that the first time you seen him since he's been back from the penitentiary?

A Yes.

Q When you walked out from Colt Court, that road -- you were on that road. Am I right; is that the road you call Orlean?

A Right.

Q Right across from Valu-King?

A Right.

Q Were you walking with "Shmoo" then?

A Yes, because he was coming through the pathway. He was coming behind when I had went through there, because I didn't see him at first. And, he was walking up, and he had hollered my name, and I had turned around and looked and it was him. And we started walking out toward the path.

Q What did "Shmoo" have on that Tuesday?

A He had on a pair of blue jean baggies, and some Nike tennis shoes, but I don't know what color his shirt was. And, he had on a black hat.

Q Anything else on him -- have on?

A No.

Q Did you walk across Palmyra Road again?

A Yes.

Q And, you walked through the Valu-King parking lot?

A Right.

Q And, did you have conversation? Did you talk back and forth while you were walking?

A Yes. I asked him, "How did you do when you was up there?" And, he said he had went to this -- what's -- this mental institution, because he was in Columbus, I think J.C.Y. And, I guess, they had sent him from there to the mental institution.

Q And you were talking about his time he did when he was in?

A Yes.

Q Did you ever go inside and buy anything in Valu-King or at the Right Aid?

A No.

Q Okay. You walked around the back of Valu-King together?

A Yes.

Q Is that the first time you saw the white boy?

A Yes. The way he was coming up the path.

Q Did you know him, the white boy, from before?

A No.

Q You mean you never saw him before?

A I seen him, because Juni -- Juni Dukes stay right across the street from him, from the boy.

Q From the Fife boy?

A Yes.

Q Did you know the boy by name or anything about him?

A No.

Q So, you and "Shmoo" were behind Valu-King?

A Right.

Q And up comes the white boy on a bike?

A Right.

Q And, did you say anything to "Shmoo" about the white boy?

A No.

Q Did he say anything to you about the white boy?

A Yes. He said -- before, when we had went around there -- he said that he needed a bike because he was living by Austin Village Plaza. He said he needed a bike for -- you know -- coming back and forth from there to either the East Side or the West Side, by Highland Homes. So, then, he said that, "There goes somebody on a bike, right there." He said, "You want to help me get it?" I said, "No, because I don't steal no more."

So, then, I seen him go back there on the pathway. So I circled around. And, around about that time, that's when I seen him knock the boy off the bike. He dragged him with a head lock and knocked him off the bike. So, then --

Q Wait a minute. Slow down now. "Shmoo" asked you if you wanted to help him steal that bike, and you told him no?

A Right.

Q So, did you stay with "Shmoo" then?

A No.

Q Where did the white boy go?

A He was still coming up the pathway.

Q In the weeds?

A Yes.

Q Toward the Valu-King?

A Yes.

Q And, you were real close to the Valu-King?

A Yes.

Q So, did "Shmoo" walk into the weeds then?

A Yes.

Q And, where did you walk to?

A I walked to the other side. Like, there is this side street that you can go down.

Q So, you walked close to the laundromat end of the building is?

A Yes. I walked straight on down.

Q Why did you stop walking? What made you stop?

A Because I know how Tim Combs is.

Q And, what did you think was going on?

A Either -- if he didn't go. When he knocked him off the bike --

A person that knocks somebody off the bike would take the bike and leave. You know, they will take the bike and leave and either strip it or paint it or something. But, he stayed back there for about ten or fifteen minutes. And, then, I had circled around and looked, and he had the little boy on the ground.

Q So, you went back in the weeds?

A Yes.

Q And, "Shmoo" had the boy?

A On the ground.

Q Did you see him knock him off the bike?

A Yes. He hit him on the head -- about --

Q Show me what you mean.

A Like you get somebody in a head lock, like, right here, and you be choking them like this. And, they can't do nothing, because if they're standing up, you've got them up in the air. And, all that you do is just bang on their head. And, he was just someone about this tall, something like this. And, you see, he kind of short; and he just had him up in the air, and he was losing his breath.

Q What did the white boy have on when he was riding that bike?

A Some shorts and --

Q What color?

A I don't know, because I didn't see him, because he just had on his underwear when he had -- when Tim had him up in the air.

Q Well, how did his shorts get off?

A I guess he pulled them off of him.

Q You guess who pulled them off of him?

A Tim Combs.

Q Well, when did he have time to do that?

A When he grabbed him from off the bike, and when he was wrestling around with him, he just -- you know -- pulled them off of him.

Q And, then he put him in a choke hold?

A Yes.

Q So, when you saw the boy dangling, all he had on was his underwear?

A Yes.

Q And a shirt?

A Yes.

Q What color was the shirt?

A I couldn't see, because when I had made it up there that close, the boy had got away from him because "Shmoo" had him up in the air, and the boy hit him like right here -- he had hit him. And, then, he had let go, and the boy had started running. So, Tim Combs couldn't catch up with him. So, he dived at him, and when he hit him, he hit him from the back of the neck, like with his arm. So the boy had fell, and then he had got him back up. And, then, he had dragged him. And, then he had picked him up and slammed him on top of the bike. And, his head had hit -- like the --

Q (Inaudible)

A Yes.

Q "Shmoo" chased the boy, right?

A Yes.

Q And, he picked him up and slammed him?

A Yes.

Q He had to bring him back to where the bike was?

A No. Because the bike -- from where he had ran -- the bike was right like from here to here to about right up there to the end of the table.

Q So the boy didn't get too far?

A No. So he just picked him up and slammed him. And, then, the boy was knocked out for a minute. And, then, you know -- he just pulled off his drawers and -- you know -- started to -- having sex with him.

Q What did he do to the boy?

A Started to --

Q I want you to say it all out.

A Butt-fucked him.

Q What time of day was this?

A It had to be, like, in the evening.

Q Was it daylight?

A Yes. It was daylight out.

Q Do you know what time it was?

A About 6:30 or 7:00.

Q So, he slammed the boy on the ground?

A Right.

Q Put the boy on his stomach?

A Yes.

Q And, he started -- he pulled his underwear down -- did "Shmoo" just pull his zipper down, or what did he do?

A He pulled out his -- he pulled down his zipper and pulled out his privates, and the little boy was knocked out at the time. And, you know, he just pulled down his underwear and you know -- started to have -- you know --

Q Butt-fucked him?

A Yes. And, I guess, you know, he had came, you know back out of the --

Q Came to?

A Yes. And, he had looked up, and Tim Combs know that he had come to, and he picked him up and slammed him again. But, the second time he slammed him, he hit him on his head, right here. And, then, the boy was still moving because he wasn't knocked out all the way. So, Tim Combs ran up there and kicked him right on the side of his head. And, then, I had turned around and looked again and he had his -- like his hand -- had tore the little boys privates, and he had like his foot on top of his stomach pulling it.

Q Okay. The first time he stuck his dick in the little boy's butt, he pulled his underwear down?

A Yes.

Q Did he pull them all the way off of him?

A Yes.

Q And, what did he do with them?

A I don't know. He pulled them all the way off because the boy was running naked. He didn't have a stitch of clothes on.

Q How close were you when this was taking place?

A About from here to him.

Q About ten feet?

A Yes.

Q You were that close to Tim?

A Yes.

Q Did the boy cry?

A Yes, he was crying, but Tim Combs had his mouth covered so he couldn't holler or nothing.

Q Was he making moaning noises or what?

A Yes.

Q Did you pull Tim Combs off of him?

A No.

Q What other things did Tim Combs do to the boy while he had him down?

A He had him suck his privates and he -- after he had him suck his privates, he turned around and flipped him back on his stomach and started to -- you know -- butt-fuck him again.

Q Let me ask you this, Danny: At any given time, did you see Tim Combs suck this boy's penis?

A No.

Q Did you see him have his mouth anywhere close to this kid's privates.

A Yes. Yes.

Q What time? What did you see?

A I didn't see his head. I didn't see Tim Comb's head. All I seen was his legs and his back. I didn't see his head.

Q You saw whose back?

A Tim Combs.

Q But you seen him down in the grass?

A Yes. He was down on his knees. All I could see was his back. I couldn't see his head.

Q You couldn't see the white boy?

A No. All I seen was Tim Combs bending over him.

Q Now, you told us you were only ten feet away. Now, you are pretty close. You can see what is going on the whole time.

A Yes.

Q Why couldn't you see what was going on this time?

A Because he was over him. You see Tim Combs is bigger than him. He was over him like.

Q On the boy's back?

A He was on his back.

Q He was laying like this?

A Yes.

Q Was he awake?

A No. He was knocked out.

Q What was "Shmoo" doing to the boy's privates?

A He had his foot on top of his stomach holding him.

Q But what about when he had his mouth down there. Did you see his mouth down there any time?

A I only seen his back. I guess, you know -- he was probably sucking his thing.

Q Now, yes or no; did you see "Shmoo" suck the boy?

A No.

Q Did you see "Shmoo" bite the boy?

A No.

Q Did "Shmoo" put his teeth on that boy anywhere; on his chest, on his back?

A I didn't see it.

Q You didn't see none of that?

A No.

Q Did anyone around there put their teeth on that boy?

A No.

Q But, you stated to me that you seen Tim Combs down on top of this boy. Could it have been possible that he was doing something oral to him?

A Yes. Because I didn't see his head. All I seen was, like, his back and his knees. And, he was in the grass.

Q Now, Danny, when we first started this interview this morning; we told you to be honest, number one. We don't want you to come in here and be bullshiting anyone. Now, number one, he wanted the bike off the boy, right?

A Right.

Q Now, you say you had no part in that? You didn't go along?

A Right.

Q And, he goes and grabs this boy and knocks this boy off the bike?

A Right.

Q And, you saw that? You saw that?

A Right.

Q By this time, you go around the landromat?

A Right.

Q And, that's a pretty good ways from where they was at, right?

A Yes.

Q Well, how do you know the boy took off and ran from him?

A Because when I had came around there, I seen like a white, you know, like a white parking light. And, he was running. I seen Tim Combs running. And, I seen him like jump. And, when he hit him, he hit him right back here. And, his face had hit -- like hit the ground.

Q You say he picked him up?

A Yes, and slammed him on the bike.

Q To get the bike?

A Yes.

Q He would have to throw him to get that bike.

A Yes. He just picked him up and tossed him you might -- just like this. Just like this. He had him up. He didn't have him, like, you know, where he could just slam him. He had him up in the air. He

was dropping.

Q That's when he probably hit the bike. Did you see his head hit the bike?

A Yes. Because when his head hit the bike, the back tire started rolling. Like when his head hit the bike, the pedal turned, like.

Q This all occurred behind the Valu-King. Did "Shmoo" get any blood on him?

A He was wiping something off of his shirt.

Q Okay. Did you see anything on the young Fife kid at all; around his face or anything?

A Yes.

Q What did you see around his face?

A His mouth was bleeding like right here.

Q What else did you see?

A It looked like he had a scar right here, like he was cut right here, right up in here.

Q Nothing else on that boy. You stated earlier this morning that after he was done butt-fucking him, he wiped his privates off with something?

A Yes, with like a sponge.

Q Was that before he tried to force him to suck him, or what?

A No, it was after.

Q Was the boy awake when he tried to get him to suck him?

A No. He was still knocked out.

Q Well, how did he get his mouth open?

A He stuck his hand -- like -- his fingers in his mouth and pryed it open.

Q And then tried to stick his dick in?

A Yes.

Q Why did you stay around all of this time? Why didn't you leave? Why didn't you go tell the Police?

A Because, at the time, when I was standing there, he had already seen me. So, if I would have ran and tried to find my uncle or you or one of you all, tell one of you all -- his mother don't like me anyway. She would have found him down here, he would have went home and told his mother that I was the one that did it, and she would have followed him down here and said that she probably know that I would do something like that.

Q You said, at one point -- after this -- I don't know, was this after he had fucked the boy -- or, let's say rape -- after he tried to get the boy to suck him, you said "Shmoo" then left. You went out there by Valu-King? You stayed there and watched him. The boy was laying down -- (inaudible)

A He was on his back. He was still moving.

Q And, you are standing there watching the boy?

A Yes.

Q What are you doing, just standing there looking at him?

A Yes, because the way I was looking at it, it had dazed me because I thought that he wouldn't do nothing like that. I thought he was just going to go up there and take the bike.

Q Now, this is before he pulled on his penis?

A Yes.

Q This is before he ripped -- now, "Shmoo" went over by the Valu-King. Did you see where he went?

A No. He just went around the corner. And, when he came back --

Q Wait a minute. How long was he gone?

A About fifteen minutes.

Q He went by Valu-King and was gone about fifteen minutes?

A Five to ten minutes.

Q I think -- five ain't too cool is it? How much did you drink prior to this?

A Huh?

Q How much beer did you drink prior to this incident?

A I only had a 40.

Q You had a 40. Now, here comes "Shmoo". He comes back. You are still watching the boy. What's he going to do now?

A He had something, and he was squirting it on him like.

Q What do you mean he had something?

A It was something in, like, a plastic container.

Q What color was the container?

A It was white.

Q Any other color on it?

A I think it was just white.

Q What did he do with it?

A He squirted it on him?

Q Was it an aerosol can, was it like a paint can?

A It was squeezable, like. It was like a plastic canister that you could squeeze.

Q What color stuff came out of it?

A I don't know. I didn't see what color stuff. Like up here by his head and down lower a little bit.

Q Lower, where?

A Around by his privates and stuff like that.

Q Okay. Did he catch on fire? Did you throw a match on him?

A No.

Q What did you do when he did that?

A Huh?

Q What did you do when he did that?

A When he was squirting him with the stuff, I was still standing there. I didn't go nowhere.

Q Did you say, "Shmoo, don't do that"?

A Well, when I had looked down there, he had already seen me. And, I said, "Look what you done did."

Q Did he light it?

A Yes.

Q What did he light it with?

A He had a lighter. He had a piece of cloth, and he just threw it and it started smoking. And, then, when I had came down there, I was trying to sneak up on him. And, he was with the boy, and he said, "Get your ass back up the hill."

Q Why did he do this? Like you said earlier, back by the Valu-King you got a board, and you brought it down, and you were going to do something to Tim with it, right?

A But he seen me.

Q And, what did he say to you?

A He told me to get my ass back up the hill.

Q What did you do with the board?

A I threw it back over there by the machine thing. The machines that are back there behind the store.

Q Now, did the young boy -- the little boy, did he cry, moan or say anything to you at all?

A He was just looking at me.

Q He was looking at you?

A Yes. Like he wanted me to come over there. That's the reason I grabbed the board. That's the way he was looking at me, like he wanted me to come over there and get him.

Q It's hard for us to -- I don't know about these other officers, but it is hard for me to comprehend all of this, you know, what's going on. And, even if you are not participating -- tell us the God's Truth. You are under oath now. You are swearing unto God that you didn't do anything to this boy. You just stood there and watched this whole damned ordeal and you didn't do a damn thing. Are you scared of Tim?

A No. He could beat me running, though.

Q I mean, that doesn't mean anything. Were you afraid he could hurt you, physically?

A Yes, if he get ahold of anything, like a gun or something, he would probably try to shoot me.

Q That's the reason why you didn't try to stop him?

A Yes.

Q You said earlier this morning when we were taking a statement from you that you had seen some vomit or something on the Fife kid --

A Like on his arm, like right here. Like by his stomach. He had -- like -- like somebody had threw up. Like he had threw up. Like he was laying down and it just landed right on his stomach.

Q Did you see the Fife boy throw up?

A Yes.

Q You saw it? What was making him throw up?

A When he had -- when Tim Combs was pulling his privates.

Q That made the boy throw up?

A Yes.

Q When Tim Combs walked away from the boy to go up to the Valu-King to get that can, what was the Fife boy doing? You stayed there with the Fife boy, right. Did Tim say, "I want you to stay here with him?"

A No.

Q But, Tim knew you were there?

A He knew I was there.

Q You just stayed on your own?

A Yes.

Q What was the Fife boy doing while Tim was getting that can?

A He was moving like -- moving.

Q Was he on his back or his stomach?

A He was on his back.

Q Danny, what if Timmy says that you stuck somthing up that boy's ass?

A No, I didn't.

Q Well, somebody did it. Did someone stick something up his ass?

A Tim Combs.

Q What did he stick up his ass other than his penis?

A A stick. Like a broom, you know like a broom handle thing, but it was kind of bigger like.

Q Why didn't you tell us that before? Timmy's telling us things. Where did he get it at?

A From up there by the corner of the store. It was right up there by the Valu-King. They've got like -- they had all kinds of sticks up there. Like, by the garbage, when they be throwing those crates and stuff in there.

Q Isn't it true that you got that -- that he didn't really get a stick? You got a stick to stick up the boy's ass?

A No.

Q You didn't?

A No.

Q Are you sure that this board that you were supposed to have gotten wasn't this stick that was used to stick up the boy's rectum?

A No.

Q Now, we ain't saying that you stuck it up the boy. We are telling you what we hear. Do you understand. But, we think maybe you went and picked it up for Tim.

A No.

Q Did Timmy stick it up him?

A Probably so. I didn't see it.

Q You just stated, just a few seconds ago, that Timmy took this thing a little bigger than a broomstick and stuck it up the boy's rectum.

A Yes. He had a stick, and he, you know, he just did like this. And, I thought, you know, he just did like this.

Q With both hands?

A Yes.

Q Where was the stick laying when he found it? When Tim found that stick; did he have to walk to go get it, or was it laying --

A Up the hill.

Q What did the stick look like?

A It was like a broom -- like some of them be orange, and some of them be like yellow.

Q A broom handle?

A Yes.

Q How long was it?

A It was long. It was like a broom, but some of it was broke. It had ridged ends like. And, the other end that wasn't ridged, it had like a round -- it was like a round head, and he just did like this with it.

Q How many times?

A About three.

Q He asked you to hold the boy while he did that?

A No, because I wouldn't hold him.

Q Did he stick it in the boy's butt; kind of do this with it -- I mean was fucking him with that stick?

A No, he just did like this.

Q In the boy's butt, though?

A Yes.

Q Was the boy on his stomach when he did this?

A Yes, after he had flipped him over.

Q So, you and Tim and the Fife boy were in the weeds for quite a while weren't you?

A About two hours.

Q Was it raining?

A No.

Q You are only guessing right now of approximately how much time that you all spent back there in the woods with the boy. Am I right?

A Right.

Q What happened to the stick after "Shmoo" poked him with it three times?

A I don't know. I guess he threw it.

Q You didn't see him throw it?

A After he did it, I didn't see the stick. See, because, when he did it, he had pulled it out, and I didn't see the stick no more; like he must of just threw it.

Q Was this before or after he burned the boy?

A After.

Q Okay. In your own words, you tell us everything that he did

to that boy. We'll start out with he butt-fucked him; right?

A Right.

Q And, then, what else did he do to the boy?

A He had the boy to suck his thing, you know -- while he was knocked out. He just pryed his mouth open.

Q Okay. That's two things. What else?

A And, he got a stick, and he grind it in his butt. And, when he poured that stuff on him and he had had that cloth and he had lit it with the lighter --

Q That cloth, was that the boy's underwear?

A Yes, I think.

Q What color was it?

A Like, light colored. I couldn't get the color of it. It was kind of light.

Q Did Tim Combs take his hands and stangle the boy?

A Yes. Because he had him up in the air, because he had something wrapped around his neck, and when he had him, he had him like this. He had him like this, like he had something in his hands that he had wrapped around his neck, and he had him like this.

Q Okay. Did this happen before he fucked him in the butt?

A Yes.

Q Why didn't you leave at any given time? You had all the opportunity in the world to leave there? Why didn't you do it?

A Because, if I would have left, like I said, he would have known that I would go in the store to call the Police and tell them that I seen him back there in the field with that little boy.

Q At no time did he tell you that you better stay there? Did he threaten you at any time to make you stay there? Danny, listen, we

have experts -- (WHEREUPON END OF TAPE, SIDE ONE)

Q -- that boy's penis?

A No.

Q Would you remember if he bit on it?

A Yes.

Q You wouldn't forget that, would you?

A No.

Q At no time did you ever touch that boy's penis with your mouth or anything?

A No.

Q You are sure?

A Yes.

Q Where did you go then?

A I went home.

Q Which way did you go out of there?

A I mean, I had followed him out of the field.

Q Which way did you go out of the field?

A Like out there by Jackson and turned down and went straight on out --

Q You say you followed him out of the field?

A Yes.

Q You followed who out of the field?

A Tim Combs, because he had turned over this way --

Q When you said which way, you meant where?

A Left. He had turned.

Q This is a map. See that map there. This is Valu-King right here. Okay. This is going back in the weeds. Go over there and point where he went out. This is Jackson Street back here, Danny; okay. Now, this is where everything happened, where the boy got beat up. Okay. Now,

you followed "Shmoo" where? Where did you follow "Shmoo"?

A There is like a pathway that you take out of Valu-King. You have got to go like this. And, Jackson Street is up -- either Jackson Street is down. Down. See, that should be down.

Q He was going the other way, then?

A He went down, and he turned and he came right out in front of the house that we used to stay in.

Q That's on Jackson Street?

A Yes. The white house. He came down and turned down Jackson, and cut over by Oak.

Q You didn't go out towards Willow?

A No.

Q Do you see where Willow is? This is Palmyra Road down here, right?

A Right.

Q You and "Shmoo" walked across, came up the front of Valu-King here, and then you walked together around the back of Valu-King; right?

A Right.

Q Where is the laundromat at?

A Laundromat?

Q This is Valu-King, right here.

A Over here?

Q No. This is the front of the store, here. You are looking at Valu-King now. Valu-King is on the left side. And, the laundromat is on this side; right.

A Valu-King is right here. Right Aid is right here, and the laundromat is on the end.

Q Stand this way and do that, then. Tell us if this store is

Valu-King, and you are standing in the parking lot. This end is Valu-King; right.

A Right.

Q And, this end is the laundromat?

A Right.

Q So, you and "Shmoo" walked around this end?

A Yes.

Q Closer to -- (inaudible)?

A Right.

Q And, where did you first see the white boy at?

A He was up here, by the --

Q By the path?

A Yes, the pathway goes all the way up.

Q And, this is where the man had his coat at up here?

A Yes.

Q Okay. Now, the boy got raped and messed up right in here, in this field, right here. Right?

A Right.

Q When you was all done with him, where did Tim Combs go? Did he go out this way, towards Jackson, or out towards --

A No. The pathway that I'm talking about, it ain't over on this end. It comes straight on down.

Q Does it go down to Willow? Do you know where Willow is?

A No. It comes straight out by Jackson, because my house is like -- where we used to stay is right here, and where you are talking about is way down here, by the corner.

Q You can take us out there and show us exactly how you walked.

A Yes.

Q Did you see any football players walking when you came out?

A No, because they was coming from Colt Court.

Q I'm not talking about when you came out of Valu-King. When you came out of there, out of that field, you didn't see any football players walking around?

A No.

Q Was Tim Combs carrying that can with him when he was walking out of the weeds?

A No.

Q Where is that can at?

A I don't know. He threw all the stuff in the field.

Q Right after he got done with the boy?

A Yes. It was all left in the field; the stick, the can, everything.

Q Do you know Daren Ball?

A Daren Ball? No. I know Kirk Ball.

Q Do you know where Willow Drive is? Somebody told me that they saw you and "Shmoo" coming out of the field that day after the boy got beat up. And, someone told me that "Shmoo" was carrying the can that he sprayed on that boy. Is that true?

A Yes.

Q What?

A Yes.

Q We don't want to put nothing in your mouth, Danny. The only thing we want to know is did he happen to have that can or whatever he had in his hand that he sprayed on that boy?

A Yes. He had the plastic right in his hand, right here; because he was walking, and the way he was walking, you couldn't see it unless you was walking on his side. There's all them houses right there. They could see if he's walking, because the houses on this side. Because the field

that I am talking about, you come straight out. And, there is the house where we stayed at, right there, where we hang out.

Q Do you know where Sissy Willie lives?

A Yes.

Q Is it close to Sissy Willie's house?

A Yes. Her house is like -- one -- two houses -- one house down.

Q It's an old house, isn't it Danny. Isn't there Lowery's in there?

A No. This is across the street. The Lowery's live in there on Jackson Street.

Q Did you tell us earlier in a statement that the boy -- Timmy picked the bike up and threw it?

A Yes; he threw it. No. He had stuck it in some bushes. He was putting stuff on it, like branches and all kinds of stuff.

Q Trying to hide it?

A Yes.

Q Did you help him hide it?

A No.

Q Did you touch the bike?

A No.

Q Are you sure?

A The only thing I touched was the boy, right here. That's it.

Q That was the most contact you had with that boy, was touching him on the face? You didn't have no sexual contact with this boy, whatsoever?

A No.

Q What did he do with the cigarette lighter?

A He's still got it.

Q He's still got it. Did "Shmoo" smoke while he was doing this

to the boy? Did he light up?

A Not until we got out of the field.

Q What did he use to light up with?

A His lighter.

Q Now, wait a minute. You told us that you came back the next day to get that lighter?

A He had some matches. See, he had some matches and a lighter. He didn't use the matches, because -- you know, if you use the matches, they'll lay right there, and they could have picked them up. And, you know --

Q Are you lieing to us?

A No.

Q Dan, you told the three of us -- he came the next day to pick up his lighter, and you was with him?

A Right. What he did is he had knocked on my door because it looked like he had something in his shirt.

Q This was Wednesday?

A Friday. It looked like he had something in his shirt. And -- I be sleeping, and he had to knock on the door real hard. So, then, I had came downstairs and looked out the window, and he was going down the pathway.

Q Didn't you tell Ella and --(inaudible)-Bird, Wednesday night around 7:00 that the boy was dead?

A Dead, because I had heard it on the news over that girl's house.

Q I thought it was Wednesday night.

A Wednesday night.

Q The day after the boy was beat?

A No.

Q You didn't tell her that the boy was dead?

A Nope.

Q Did you tell her that Tuesday night?

A No.

Q Right after I heard it on the news and I was over there at Westlawn, I had came home and I heard that the boy had died.

Q How close did you babysit for her Tuesday. You said you didn't.

A I babysat for her Monday. I don't remember Tuesday.

Q The Tuesday, you remember this Tuesday, don't you?

A This Tuesday?

Q You remember that same Tuesday; you remember -- (inaudible). But, I don't remember --

Q Are you protecting anybody?

A No.

Q You're not going to say "Shmoo" was involved because you don't like "Shmoo" or something, are you?

A No.

Q Danny, how many of you young men were in that back field back there?

A Just me and him.

Q Are you sure?

A Yes.

Q Are you sure there wasn't four of you?

A No.

Q You're proud of it. You were back there an awful long time not to have somebody come across you. Did somebody come walking through there?

A Not that I know of.

Q The whole time that he was butt-fucking this boy, nobody came

through there?

A No.

Q Nobody went walking out with you at the same time, out of those weeds?

A No.

Q When you got to Jackson Street, nobody caught up with you and walked out with you?

A No.

Q I didn't say they was with you, just walked with you; they happened to come through about the same time as you?

A No.

Q Did you get any of that boy's blood on you anywhere at all?

A No.

Q You had to get it on your hands when you turned him over?

A No. I didn't get nothing on me. I didn't get nothing on me.

Q The boy have shoes and socks on?

A Yes, he still had on his shoes and his socks; yes.

Q But, aside from that, he was completely naked?

A No. He still had on his shoes and stuff.

Q Other than his shoes, though, he had no pants, no gym trunks, no underwear, no shirt?

A Didn't have nothing.

Q Didn't have none?

A No.

Q You said you seen Lowery on the bike. Was that the next day?

A Yes.

Q That was also Wednesday. You had a busy Wednesday, didn't you? You had a very busy Wednesday. You went back to the scene --

A But, that was earlier, though.

Q Did you look for the bike when you went back?

A No.

Q That lighter --

A Tim went back there and looked for the lighter. I seen him when he picked it up.

Q Describe that lighter for us?

A It probably had like a yellowish color in it. You know, like those brown lighters got different colors and stuff in it.

Q Like a swirl?

A Yes.

Q Did it have a name on it anywhere?

A No.

Q Was it an expensive one, or one of those bic ones or what?

A Bic.

Q What kind of cigarettes do you smoke?

A Newport.

Q How about -- (inaudible)?

A Yes.

Q How about "Shmoo"?

A He only smoke Newports.

Q Did you smoke when this was going on? Did you light up one?

A No.

Q Did "Shmoo" drink a beer?

A No.

Q Did he have a beer that night? When you were watching all of this going on back there, when "Shmoo" was supposed to be poking the kid's behind; did you pull your penis out at any time and jack off?

A No.

Q Are you sure?

A Yes.

Q When you and "Shmoo" came walking across the street, was "Shmoo" carrying anything before you got to the Valu-King?

A No.

Q Was he carrying a 40-ounce?

A No.

Q He had his own cigarettes with him, though; right?

A Yes.

Q When was the first time he lit up a cigarette, though, when you were with him?

A When he was coming out of Colt Court he was smoking one.

Q No, after -- after the kid got beat on.

A After he went on the pathway to go where he was going?

Q Yes.

A He had turned down Jackson Street, and he lit up one, because he had some matches, like I was telling you. He had some matches.

Q Was there anything that you and "Shmoo" were carrying that got left when the boy got beat up?

A No.

Q No clothing, none of "Shmoo's" clothes -- he wasn't carrying a pack of cigarettes that he smoked the last three and threw the pack down.

A Newports?

Q I am asking you. I am not saying. I don't know if it happened or not. You were there.

A I didn't see him throw down no pack.

Q Remember in the interview earlier I told you how serious this was, and remember because of the fact that you are 18, and you will be 19 pretty soon. Now, "Shmoo" has been down there and telling other stories.

We told you, we want the truth from you, right? And, it doesn't appear that you are giving us all the truth. "Shmoo" knows too many more details than you do. I mean, he's got the whole thing down pretty good. He said a lot more. You are going to have to tell us the truth.

A That is the truth. See, he's just telling y'all a lot of stories. See, I'm telling y'all the straight facts of what happened. He's just telling you stories; that's all.

Q He's lieing? Is that what you're saying?

A Yes.

Q Are you sure?

A All you got to do is give him a lie detector test, and I'll take one.

Q Are you sure you didn't kick him down? Didn't you kick that Fife boy?

A No.

Q Did you try to get the bike out of there?

A No. I didn't touch nothing; except right here. That was it.

Q You didn't bite him on the penis?

A No.

Q Not at all?

A No.

Q When he was pulling on his penis, did he snap that real hard?

A He had his stomach -- he had his --

Q On his -- (inaudible) --

A Yes.

Q And, he was pulling at it?

A Yes.

Q He tried to pull his penis off of him? Somebody tell you it

was off of him?

A No. I thought it was.

Q Why?

A Because, if you pulling on something like that kind of hard --

Q How close were you to "Shmoo" when he was pulling on that boy's penis?

A About from here to here.

Q You were that close?

A Yes. Up in the bushes is high up.

Q Was he bleeding down there?

A It looked like it.

Q Did you go over and look at the boy?

A No. I just touched him. I didn't want to look at him, because I knowed he was bleeding, because I saw that blood when it was coming out of his mouth. I didn't want to look at him.

Q Why did you go over and turn the boy over?

A Huh?

Q Why did you go over and turn the boy over?

A To see if he was still living. I thought that -- you know -- that he just got beat up real bad -- that he could get up and crawl or something. You know. That's why -- I didn't think he beat him up that bad.

Q So, you walked over and the boy was laying on his stomach; right? What did you do?

A Just turned him over and reached up under here.

Q So he's laying on his back. Did you move his hand anywhere?

A No.

Q Did you see a lot of blood coming out of the boy's butt?

A Yes.

Q How could you see that?

A Because it was all over the ground. Because when I had flipped him over and flipped him back, there was blood on the ground.

Q So, you put him on his back, and then you put him back over on his stomach?

A Yes.

Q So, when you got there, he was laying on his stomach?

A No. He was laying on his back. No. He was laying on his stomach; right. He was laying on his stomach, because I flipped him over.

Q And, you looked at him and checked him. And, then, you flipped him back over on his stomach. Could you tell if he was still living then?

A Yes. Because he was still breathing, like, but he was breathing hard, like.

Q Well, why did you turn him back over on his stomach, again?

A Huh?

Q Well, why did you flip him back over on his stomach, again?

A Flipped him back the same way, because if I was a lucky man like that, he probably would have died even more quicker -- because the way he was pulling on him -- because when I was moving him, it was like his eyes was moving like. They was closed, but they was moving when I was moving him.

Q What did that have to do with why you turned him back over on his belly?

A Because, if he was in that much pain, if you're trying to move him -- move him back over -- you get (?inaudible--sounds like "jailed"). Because, this guy's eyes was moving.

Q Did you move his body at all, other than rolling him over?

A No.

Q Other than for the bike, where the brain was found?

A No.

Q Was he raped right on the path or off the path?

A Off the path. Right. Right. It was close to it, but it was off of it.

Q The grass was -- you said the grass was there?

A It was pretty high. The grass was pretty high and bushes and trees.

Q Did you see "Shmoo's" -- (inaudible)?

A No.

Q When you found out the boy was dead, did "Shmoo" then get ahold of you and tell you to keep your mouth shut or anything?

A No. I ain't seen him.

Q He ain't called you at any time? How about when he came over the house?

A No. He didn't say nothing. I ain't even seen him.

Q Did you tell anybody that "Shmoo" did it?

A Yes.

Q Who did you tell?

A I told this dude that stay out there in Westlawn.

Q White dude?

A No black.

Q Who is it?

A His last name is Kitchen; Phillip Kitchen.

Q Where do you know this Phillip Kitchen from?

A Huh?

Q Where do you know this Phillip Kitchen from?

A Because when we stayed on Jackson Street, his cousin used to stay nextdoor.

Q Is he an older guy?

A About my age; 18.

Q What made you see this Kitchen dude?

A The next day, when I had came down here and told him that I seen Reesey on the bike.

Q The same day that you talked to Seargent Stuart, you came down to the Police Station, right. And, that's the same day that you saw Kitchen, and where did you see him?

A At Westlawn, because he was out there talking to him.

Q And, what were you talking about?

A He just asked me why we didn't see him. He said, "I ain't seen you around."

Q And what did you say?

A Huh?

Q What did you say?

A I said, "I be out."

Q Wasn't Phillip in the woods with you all?

A No.

Q What if I told you "Shmoo" said he seen -- there was a guy in the woods with you all, but he didn't know his name. You would know -- you might know him? "Shmoo" lied about that, too; right?

A Yes.

Q This Kitchen; what kind of a conversation did you guys have, at all, that following day?

A Because when we was sitting over there --

Q Sitting over where?

A Sitting over this girl's house -- I don't know --

Q Where was this at?

A Westlawn. We was sitting over there, and it came over the news that he had just died.

Q And, then, what happened?

A Then I had walked outside.

Q And then what?

A I was just walking around because I was scared. And, I asked Sadie and then Kitchen was asking me what -- you know?

Q What did Kitchen say?

A He say, "What's the matter?" I said, "I know who did that to that boy." He said, "Who?" I said, "Tim Combs." And then that's when he told me to come down here and tell.

Q Who told you to come down here and tell?

A Phillip Kitchen.

Q He told you to come down here and tell the Police?

A Yes.

Q So, why didn't you come down here and tell the Police?

A Because when I came down here, he had told me that Tim Combs had said that I was with him when he did it, or something like that. And, then that just turned me off.

Q Did Kitchen say that he already talked to Timmy Combs?

A No. When I had came down here and you was talking to me, you said --

Q No. No. No. Detective Hill asked you, "Did you talk to Kitchen?" And, you told him that you knew that Tim Combs did it. And, he said, "Why don't you go tell the Police?"

A Right.

Q So, you did it. You called down that night and you talked to Seargent Stuart. But, you didn't tell Seargent Stuart that this boy was the one that did this to the kid. You lied.

A I was just ready to tell him, but they started to question me and stuff, and when he said that Tim Combs was with me, that's what

turned me off.

Q He wasn't even there. Seargent Stuart was by himself.

A You are talking about Friday?

Q I am talking about Thursday night. Thursday night when I asked you, what did you tell me?

A That I seen Reese Lowery on the bike.

Q And what did we do?

A You all -- we went looking for him.

Q So, you didn't mention nothing to me about Combs -- you showed me where Timmy Combs lived; is that right, and his grandmother?

A And, I kept on telling you that you that (inaudible -- possibly "they's who did it").

Q You said he could have done it.

A No.

Q You didn't say he did it. He's crazy, too. You said -- (inaudible) -- could have done it, too. Was Andre with you that day for a while?

A No.

Q When was the last time you seen Andre?

A When he was coming from over his aunt's house?

Q When was that?

A Tuesday.

Q That's the same day.

A I said I seen him, but it was when I was in the house.

Q That's all after everything was over with?

A Yes. When I was in the house.

Q Danny, you came down to the Police Station and you blamed everybody but yourself; right? You tried to tell us Tim Combs, Reesey Lowery did it; right?

A Because he was riding the bike.

Q But, you knew he didn't do it. You were there; right? Weren't you there? So you know Reesey Lowery didn't have nothing to do with it, right? Or, did you? Was Reesey Lowery there?

A No.

Q Are you scared of Reese? Are you scared of Lowerys?

A No.

Q How about Greg Lowery?

A No.

Q Dan, you know the way I was talking to you this morning, I tried to explain to you -- I tried to explain to you, in a matter whereas, I don't want you to be afraid of anything. If there was anyone else involved in what took place behind that Valu-King, I want to know who it is. If there was somebody else back there other than you and Tim Combs, I want to know who that other one was? "Shmoo's" only 17. I keep telling you that. It's up to you. Where do you think "Shmoo's" at right now?

A Probably out in the homes somewhere.

Q You're probably wrong. Do you know where he's at? He's in the room you just left. All right. Now, you've got to tell us the straight truth, because they've got him in there now, and he is telling on his mom. He is telling about everybody and everything. And, we better hear it from you first. Tim Combs is here.

A Well, I didn't have nothing to do with -- you know -- raping him. I didn't have nothing to do with that. I just was there and I seen it.

Q You know, it is so hard for me to sit here and continue to think that you were back there -- no one was back there -- along with Tim Combs, and you did not do anything. Now, what is that? If you come down here and told me that, what would you think? Seriously; what would you think?

A I'd think you were telling a story.

Q You're damn right you would think I was telling a lie; right? So this is what I am trying to get you to understand. We're sitting here. We want you to sit right here and tell us the truth about everything. If you had anything to do with it, we want to know that, too. But, if there was someone else back there in the woods with you guys, we want to know that, also. Don't protect nobody, because I am going to tell you something: If there was somebody else back there, I can tell you, when it comes down, them guys will be looking out for No. 1. That's what you've got to do. So we don't want you to hide anything. If you've got anything to say, tell us. We want to know the entire truth about what took place behind Valu-King. Can't tell us now, because we're going to -- I don't want you to hide anything.

A I didn't hide nothing.

Q You are going to wait to get to trial and the Judge and the Prosecutor says, "He cooperated with me." And, we are going to say, "He cooperated with us, but he misled us." It doesn't mean it is going to help you, but you have got to be truthful.

A I know.

You've got to be truthful from this point on, all the way down. This boy is dead. This boy no longer here. That is murder, so you have got to be truthful. Do you understand? When they got -- not that you are truthful -- you've got to be truthful. They ain't got us over here to try and bullshit none of us. Because it is all going to come back at once. Believe me, it is going to get you; with God as my Judge. If you keep lieing -- ain't no doubt about it -- and, you are going to look back and say, "God Damn I sure wish I had told them guys the truth." We don't want half of the truth. We want all of it.

A I told you all of it. I told you.

Q Danny, I don't think you had a thing to do with killing that boy. All right. I don't think you had one part in that murder. Okay. You are not guilty of murder. But, I am not thinking that way at all. But, I think you did something to that boy. I think you put your dick in him.

A No.

Q Just once. Or, maybe -- let's put it this way: When Tim Combs was butt-fucking him, maybe you were the one that was having him to such your dick? Huh?

A No.

Q Was that how it happened?

A No.

Q It is possible isn't it?

A No.

Q You know, people do wierd things like that?

A Not me; no. No.

Q Who is the white girl you were at the house with? What's her name; Kim?

A No.

Q What's her name; the white girl?

A I don't know.

Q Is -- (inaudible) -- lay out in there? He went to some white girl's house after this. What was her name? Do you know where she lives? On Westlawn? Who does she live with?

A Herself and her two kids.

Q Who is her boyfriend?

A I don't know his name.

Q Is he a black guy?

A Yes.

Q Danny, who do you get your sex with?

A Huh?

Q Who do you get your sex with?

A Nobody.

Q What you mean?

A Nobody.

Q You are 18-years-old. You've got to have something somewhere?

A Nobody.

Q Well, what do you do to get your nut off?

A Nothing. Just sit down and don't worry about. I don't let that press me.

Q Bad boys are always pressed. You never worry about no pussy?

A No.

Q You never went in the back room and jacked off?

A No. No.

Q When was the last time you had a piece of ass?

A Before I got sent away.

Q That's a long time. You ain't had no pussy since then?

A I don't need none.

Q The only time you got some pussy was when you took it and got arrested for rape?

A No.

Q Did you ever have a girlfriend?

A Yes.

Q Who was it?

A She live in Alabama now.

Q What was her name?

A A friend of Boot Hill's.

Q Did she give you pussy?

A Yes.

A Yes.

Q Is that the only one?

A A lot of them. I don't know their names, though.

Q How come you don't get pussy from other women?

A Because I don't be talking to nobody.

Q Now wait a minute, you told you got a lot of pussy. You got a lot of them.

A I did, but now --

Q You -- (inaudible) -- right?

A Huh?

Q You don't need it?

A No. I don't even think about it.

Q Danny, you haven't turned AC/DC have you?

A No. I don't even think about it. No.

Q Do you know any boys that like to do that?

A Yes. Tim Combs.

Q Anybody ever ask you if they could blow you?

A No.

Q Tim Combs ain't never asked to do it?

A No. He would get punched in the mouth.

Q Tim Combs ain't never asked you to give him one in the butt?

A No. Not something like that.

Q Tim Combs asked you if you wanted to help him steal that bike? Did he say, "Let's fuck him in the butt, too."?

A No. He didn't say nothing like that.

Q He didn't say we're going to steal the bike?

A No.

Q The next thing you know, you seen "Shmoo" what?

A Gettin' him in his butt.

Q Everything that you told us so far -- this morning when we had you in that interview room in there was the truth? And everything that you told us so far when we are sitting here, sitting in front of this camera here, you are telling us the truth?

A Yes.

Q You haven't left anything out? You haven't left nobody else's name out of this all?

A No.

Q You didn't play no part in doing anything to this young man?

A No.

Q But, you watched it. You watched everything that took place? If we took you in the woods, could you find that can for us?

A (No verbal response recorded)

Q How come?

A He might have come back and got it.

Q If we took you there, could you show us the travel; where did you travel along with Tim Combs? How about the stick?

A You can see right there were the garbage was is where those sticks was at.

Q No. He used the stick on the boy, right? What did you call it a stick? What would you call it, a handle, or what?

A A stick.

Q A stick or a handle off of a broom or something like that?

A A handle off of a broom.

Q But it was larger than a handle off of a broom?

A Yes.

Q Do you think that's still back there?

A If the garbage man ain't came.

Q Why would the garbage man be in the woods?

A Because all that stuff -- they be putting garbage right there, and sometimes people be kicking it back there, and they go back there and pick it up.

Q Danny, wait a minute, Man.

A That's why you don't see too much trash back there.

Q Right where -- you know where you turned the boy over -- you touched the boy and turned the boy over; right? Isn't that the same spot that "Shmoo" used the stick on the boy's butt? So, the stick should be right there back in the weeds, right?

A Right.

Q Right?

A But it was -- they come back there to pick up the garbage.

Q No they don't. They wouldn't go way back in the woods to pick up --

A Right at the hill. Right at the top of the hill.

Q Do you know something about that stick?

A No.

Q Did you use the stick on that boy? Is that why you don't want to talk about it?

A No.

Q I didn't use no stick on nobody. I am telling you -- I ain't like that.

Q Timmy Combs stab him with the stick?

A He did. Just like that.

Q And, then, what did he do with the stick?

A He threw it.

Q How?

A Back. He threw it back, like this.

Q So the stick should still be there?

A Unless he came and got it?

Q He did come and get it, right?

A I guess.

Q And, you were with him.

A No. I wasn't with him.

Q All right. When he came back there, and you say he picked up his lighter or whatever he picked up back there, did he pick up the stick, also?

A No. He couldn't find it. I told you he was looking for it.

Q What about the can that had that stuff that he sprayed on the kid?

A He had it when he came out of the field. He had it in his hand.

(WHEREUPON, END OF TAPE.)

A All kinds of stuff.

Q He went in the garbage can to get that?

A Yes. It's right there. There's all kinds of stuff; lighter fluid --

Q What did "Shmoo" say to you? Did he say, "I'm going to go up to the Valu-King and get something?"

A No. He didn't say that. He just walked up there.

Q He didn't say nothing to you?

A He just walked up there. He just looked at me. That was it, and walked right around there.

Q He didn't say one word about it to you? He didn't say one word to you?

A No.

Q He didn't say, "God Damn it; you better stay right here, and you better not leave here?" He didn't say nothing like that?

A He just looked at me and smiled.

Q In other words, you had all the opportunity to --

A To leave.

Q -- to haul ass; right. But, you stayed right there.

A Because -- I was stunned. I was just looking. I wasn't just standing there, like, watching. I was --

Q Were you interested in what was going on?

A No. I was just like stunned like, he's doing that.

Q So, how close did you stand to the boy when "Shmoo" went to the Valu-King?

A I didn't move. I couldn't move.

Q How close were you to the boy?

A About from right here to there. He was still laying there.

Q Then, you see "Shmoo" walking back, right?

A (No verbal response recorded)

Q Was the boy bleeding? Was he dead?

A No. He was still moving.

Q Did you say "Shmoo" -- (inaudible) -- the boy?

A I was just there. I was just standing there.

Q Okay. Do you think you would be able to find the stick that you were supposed to have had in your hand?

A Yes. It was right there by the side of the building. Right there by the back. Right there at the back, it was sitting.

Q How big of a stick was this?

A It was like a crate. You know -- like a crate. Like those crates them boys would be on there -- them little boys about this big.

Q Yes.

A It was one of them.

Q "Shmoo" came back with the can; right? Did you ask him what he was going to do with that?

A No. I couldn't say nothing. I was just looking.

Q When he came back with the can, did he have that stick in his hand, too?

A It was laying right there on the ground. It was laying right there, on the ground.

Q Back there by the wall? How did this stick get back there?

A Not my stick. The one that he had.

Q Now, wait. The stick that "Shmoo" had; how did it get back there by the wall?

A That's where -- it was left right there. That's what he did. He throwed it right there. He ditched it.

Q Where did he go get the stick at? That's what I don't know.

A Right up there by the garbage can. He don't even try to go get the can, when he had went up -- before we had went up there in the field, he had went over there and grabbed a stick, like he had -- was going to hit him off the bike with it. He was going to use it, I guess, to just knock him off the bike; but he just grabbed him.

Q When you two came behind the place, behind the Valu-King; this is when he picked up the stick?

A Yes.

Q When he picked up the boy, did he hit him with it?

A No. Not at that time.

Q So, the first time he made contact with that boy, he had the stick in his hand?

A It was laying down. The stick was laying down while he was having sex with him and stuff. It was laying right there. And, then, he just got it, I guess.

Q And, he picked it up out of the building, and he carried it back in there with him?

A Huh?

Q When you two came around the building --

A When we came around the building, yes. He grabbed the stick, and he pointed it down there, like he was going to hit him and knock him off the bike with it. He layed it down. And, he just grabbed him off the bike.

Q That can he brought back; was it as big as this can (indicating)? The can he used to burn that boy -- like a spray can --

A It was like -- it wasn't no spray can. It was like a plastic

container.

Q Like toothpaste?

A No.

Q Like a glue container?

A Like lighter fluid, like. One of them kind of containers. Like them plastic lighter fluid.

Q Like maybe you would start the charcoal in your barbeque with?

A Yes.

Q Now, did it have a -- (inaudible) -- that you push?

A No. It just had one of those flip-up things.

Q Timmy -- (inaudible) -- Shut it off. (reference made to video tape recording)

(WHEREUPON, THE TAPE RECORDING ENDED)

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MR. STEINBECK: Today's date is September 16, 1985. The time is 11:30 a.m. We are at the Warren Police Department, Warren, Ohio, Trumbull County, State of Ohio. Present in the interrogation room is Sergeant Stewart of the Narcotics Division and Sergeant Steinbeck of the Juvenile Division. Also present is Danny Hill.

INTERVIEW:

By Sgt. Steinbeck.

Q Danny, for the record, state your name and your address and your age, would you, please.

A Danny Hill. I am 18. I stay at 1394 Fifth Street, Apartment 8.

Q Okay. Danny, you know why you are down here. You have been advised of your rights by Sgt. Steinbeck, and you know what your rights are. Is that true?

A Yes.

Q Did Detective Hill advise you of your rights this morning before we started talking, also?

A Yes.

Q Okay. Now Danny, we want to ask you some pertinent questions in regard to the Raymond Fife murder. Are you aware of that?

A Yes.

Q All right. Now, I want you to tell us in detail everything that you know or your part of the Raymond Fife incident; will you please. You go ahead. It would be 3:00.

A I was walking through the field going to the Westlawn. And --

Q About what time of day was it?

A About 5:00; 3:00, somewhere around there. And, I had seen Tim Combs

up there at the store. So, he came up there by me and said that he had just got out about a week ago. And, he started talking about when we was going to hook up and get high and stuff like that. So, then he had asked me do I get in any trouble. I said no, because I just got out about three months ago. So, then I had told him I was going to go over this girl's house out here in Westlawn. So, then, I had looked at him go back there through the field.

Q Was he by himself when he went in the field? He walked into the field by himself? Did you follow him?

A I circled around. But, then, I had turned around and looked, and I seen this little boy riding this bike. So, Tim Combs was looking around to see if anybody was looking. And, I had ducked behind these bushes, and I was looking at him. He grabbed the boy with a head -- a head lock and picked him up and slammed him on top of this bike. So, then I didn't see the little boy moving no more. And, so "Shmoo" thought he had -- I mean Tim Combs thought he had knocked him out. And he had turned away and looked to see if anybody was looking. And, the little boy got up and started running, and he just grabbed him and lifted him up in the air. He grabbed him by his shorts and yanked him down. So, then I was looking around to see if anybody see if I was back there. So, then I had seen him just pick the boy up with one hand and started, you know, choking him. And, he just started slamming him on the bike, slamming him. So, then he had pulled his shorts -- drawers down and started --

Q Say what he did.

A -- started doing it to his butt.

Q Did he fuck him in the ass? Is that what you are trying to say?

A Yeah.

Q Butt fucked him? Is that the term?

A Yeah.

Q You mean he stuck his penis into his rectum?

A Yeah.

Q Right? Okay.

A Yeah.

Q Go ahead.

A And, then the little boy wasn't moving. And, then I seen him when he got up and walked over there by the bushes and grabbed a piece of paper and whiped off his penis, and I didn't see the little boy moving. And, then I had turned around and looked and, like, the little boy was getting up, and Tim Combs ran over there and kicked him in his head. And, then he just grabbed him and started choking him. And, then he just started to beat -- he was hitting him hard.

Q Okay. Now, you remember what Sergeant Steinbeck -- Morris Hill, who is your uncle, and myself told you prior to us taking the statment, right? We want to know the truth about everything. Okay?

A Okay.

Q Now, what was the boy wearing, Danny? What kind of clothes did he have on?

A Some grey shorts, and his bike was maroon with some gum wall, like tires that was kind of light brown. And, it looked like he was coming up out of the field -- like he was coming up out of the field, and Tim Combs was going down in there, and he just grabbed him and yanked him off his bike.

Q What was your thoughts at this time?

A To run like I didn't see nothing.

Q You didn't do anything to the boy at all? Nothing?

A I was on the other side of the field.

Q You didn't grab his penis? You didn't fuck him in the ass? Did you hit him at all? What color shirt did the boy have on?

A He had grabbed his shirt. He didn't have no shirt on. After when I had -- about the time I had went down there and circled around he didn't have no clothes on.

Q The first time you seen the boy, was he laying down or sitting up?

A He was running.

Q And, "Shmoo" grabbed him and he ripped his pants off of him. And, you said "Shmoo" put his dick in his butt?

A Yeah.

Q Was the boy standing up or laying down when that happened?

A Laying down.

Q "Shmoo" was on top of him fucking him. He don't have no shirt on. And, then, "Shmoo" gets up and go wipes off?

A Yeah.

Q Wasn't the boy screaming?

A No, because he had his mouth -- he had his hand over the boy's mouth, like this. And, when he slammed him, he hit his head on the bike pedal thing. He had hit his head on the bike pedal. And, he wasn't moving. And, then, he just got up and started running, and "Shmoo" just yanked him up in the air with a head lock and started doing like this. He had him up in the air. He was doing like this; yanking him. And, then the boy still wouldn't -- he was moving. And, then "Shmoo" just started hitting him dead in his face and stuff.

Q Was he hitting him with his hands?

A And, he kicked him. He kicked him a lot of times.

Q How far away were you?

A About up there by the hill in the back of Valu King. Up there by the hill.

Q Is there any way "Shmoo" could have seen you watching? Did he know you was watching? He saw you watching?

A Yeah. Because he looked up there at me. And, then he started running.

Q So, he saw you?

A Because he had threw the bike in the woods.

Q Did he say anything to you?

A No, because when he started running, I didn't see him no more. He cut down by Jackson Street.

Q I want to get back to one part, now. Okay. He wipes his dick off with something. What did he whipe it off with?

A A piece of foam. Like a chair cover thing.

Q Vinyl?

A A piece of like a cushion.

Q A seat cover, you mean? Like a car seat type thing?

A It was brown. It was like spongy like.

Q Like the inside of a car seat?

A Yeah. Like, if you ripped it you could see it.

Q Foam type? What color was it?

A Like a brownish color.

Q What time of the day was this, Danny?

A Early. It was still daylight.

Q Like how early? Do you remember?

A All the kids was out of school. About that time.

Q When Timmy gets done wiping his dick off, he goes back over and grabs the boy again, and what did he do?

A Started -- he had grabbed him --

Q By the balls? What did he do when he grabbed him by the balls?

A Started pulling him.

Q Pulled him by his dick?

A Because he had his foot down on his stomach and started pulling him.

Q Was he trying -- like -- trying to pull his dick off his body? Did he do anything else? I want you to think hard. What did he do with the boy's underwear?

A Set them on fire.

Q How?

A With a brown lighter.

Q He had a brown lighter. One of those bic lighters? Where was the underwear when he lit them up?

A By the side of him.

Q He took the boy's underwear off and lit them up. Now, how did the underwear get around the boy's neck?

A That's when -- he lifted him up in the air like this with them. He had him up in the air like this.

Q Didn't he tie them around his neck with a knot?

A He had him just like this with them. At first, he had him just like this.

Q Okay. How many times did he fuck him in the ass?

A Until he nutted, I guess.

Q Did you one see him put it in one time? Did he set the boy on fire? How did he do that, Danny?

A He had a -- like -- there was this -- some kind of stuff he poured on him. He had got it in the back of the store.

Q Now is this true?

A He had got it from in the back of the store.

Q You mean he left the boy and walked up and got some stuff? What did you do when he left?

A That's when I ran. I thought he was coming around where I was at, because it looked like he was coming up out of the hill and coming where I was at. And, then I had just dived down in the bushes. And, then after that, I just seen some smoke. And, then I just ran.

Q Now, wait a minute. He already knew you were watching him, right? And, he plunked that boy in the butt and ripped his stuff off of him, and then he lit his underwear on fire, and then he left the boy and went up to the Valu King?

A Went right back around there.

Q And, he grabbed some stuff. What did it look like?

A It was something, and he just started emptying it.

Q What did he carry it in?

A It was in a plastic container like a -- it looked like some stuff that you pour on like grills and stuff.

Q And then he came back and set the boy on fire? Where at?

A The same place. He didn't move.

Q Where on the boy's body did he light him up?

A Right here.

Q How do you know?

A Because I seen it. I was sitting right -- it was right there, I was looking dead at him when everything he was doing.

Q Were you as close as me? You're three feet away?

A About five.

Q Were you holding him for him? Did he tell you to hold him for him?

A Yeah. I had him.

Q Did he say any words to you at all? What was the words "Shmoo" said to you?

A He just said he was going to leave. He just said -- when we was up there by the store, he said he was getting ready to leave, and he circled around and went down in the field.

Q When he was beating on him, did he say anything to you about, "Come help me hold him."

A He didn't say nothing. He was just looking at me, and he was smiling.

Q So, he grabbed something at that store, and he came back and lit the boy on fire? Did you say he picked up the bike and threw it?

A And threw it.

Q How far did he throw it?

A Like the boy was laying over there. He just threw it.

Q Did you touch the bike at all? You didn't touch the bike? Now, you think hard.

A I didn't touch nothing.

Q You tell us the truth now, because we want you to continue to to tell the truth about what's happened, okay.

MR. STEINBECK: Let the record show that Detective Morris Hill is now present in the room.

Q What if Timmy tells us that you handled the bike; you threw the bike? Had you been drinking a lot before that?

A No, because I had just came out the house. I didn't have nothing to drink.

Q Was the boy covered with puke? Was he? Don't shake your head. Answer yes or no.

A Yes.

Q How did the puke come out? When did that happen? When did the boy start puking?

A When he hit his head on that thing.

Q On the handlebars?

A On the pedal. Hit his head on the pedal.

Q Anybody get puke on them besides the little boy?

A Tim Combs.

Q On what?

A On his pants, right here.

Q What did he have on?

A Some baggies.

Q Blue jeans?

A Baggie blue jeans.

Q What color shirt?

A I couldn't see his shirt.

Q Did he get any blood on him? Wasn't the boy bleeding? Was the little boy bleeding bad?

A It looked like his head was busted.

Q How about some blood on Tim Combs? Didn't Tim get some blood on him?

A He was whiping off something off of his shirt.

Q Did any blood splatter on you?

A No.

Q No blood got onto your clothes nowhere? Did anything get on your clothes?

A No.

Q Are you sure? Any vomit get on you? You were close enough that it could have splashed up on you, right? I mean if the little boy is the door right there, and I am you; that's how close you was when this was happening, right? About three or four feet? You were that close when he was plunking the little boy in the butt, right? Did you see the boy vomit? Did you try to pull Tim off of him? Did you ever say, "Stop. Don't do that"?

A He was just looking at me -- just looking at me like if I came over there he was going to hit me. And, see, I was scared to go over there and try to fight him, because he looked like he was going crazy.

Q Danny, did the boy vomit after he was fucked in the ass or before?

A It was after --

Q Okay. He fucked him in the ass --

A -- becuase when he hit his head, he just started throwing up like he had messed up something up in here. And, then that's when Tim Combs was kicking him in his head.

Q -- and then he **grabbed him by the balls**?

A That's probably what made him throw up.

Q Did he pull his dick off? Did he pull the boy's dick off? Answer yes or no, Danny?

A Yeah.

Q He grabbed the boy's dick and pulled it all the way off?

A He was yanking it. It might have came off, because the way he was pulling on it, he had his foot on his stomach, and he was just pulling.

Q What kind of shoes did Tim have on?

A Some -- like -- some high tops. They was high tops.

Q Tennis shoes?

A Yes.

Q What color?

A White.

Q What make were they?

A Leather.

Q Were they Converse, Puma, Nikes?

A Nikes; I think.

Q Are you sure?

A Yeah.

Q Did he have a hat on that day? Tim Combs had a hat on?

A Yeah.

Q What color?

A Black, I think.

Q Okay. When he got done with the boy -- the boy is laying how; on his stomach, or on his back?

A On his stomach.

Q Okay. When the boy was found, he was laying on his back. Did somebody turn him over? Did you turn the boy over on his back? Did you touch the boy at all? Tell the truth. Tell the truth. Don't lie about anything. You are telling the truth as it is, already. Tell the truth. Just what you seen and what you know. Don't hold nothing back, Danny.

A I flipped him over.

Q You touched the boy?

A I flipped him over and looked at him.

Q Where was Tim when you did that?

A He was running.

Q He was gone. Did you check to see if the boy was hurt real bad? What did he look like to you when you turned him over?

A He was messed up.

Q How?

A His face, and his -- it didn't look like he had nothing down there.

Q When you say he didn't have nothing down there; what are you talking about?

A His privates. It looked like he didn't have nothing.

Q His penis was gone? Did you see any blood and stuff?

A It was all over the ground.

Q How about -- was his balls still there? You could see the balls, but you couldn't find his penis? Danny, I have got to ask you this. This is very important; all right? I have got a feeling you moved the bike; okay? Am I right? Did you hide the bike? Are you sure you didn't cover up the bike and hide it?

A He threw it.

Q He threw the bike.

A While the boy was laying on the ground, he just picked up the bike and threw it.

Q You didn't touch the bike? The boy had on grey shorts. Did he leave with the grey shorts? Did Tim Combs walk with the grey shorts?

A Yeah. He had them up under his shirt. He had them up under his shirt. And, I had seen him the next day. He was heading right back there, and that's when I was looking, and he had hid the bike up under some weeds, like, and threw the shorts up under there.

Q So, you saw Tim Combs come back to this field the very next day carrying the boy's shorts, and he hid the shorts and he hid the bike; yes?

A Yeah.

Q Have you talked to Tim Combs about this after this happened? None at all?

A I didn't even see him.

Q Danny, you said the next day you saw him bring the shorts back. How did it happen that you and he would be at the same place at the same time the very next day?

A Because he came through the Hampshire Houses. And, like, where my house is at, you can, you know, look right down there by the field when the door is open. And, I saw him walk past the door.

Q You saw him walking?

A Past my door.

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Q So, you walked with him?

A No. I waited until he went down the hill, and I circled -- I took this other path when he came down, and walked down towards there. He was going across the street. Around about the time he went down across the street towards that pathway where that little boy was laying, I was coming straight down, and I turned up in Valu King field, and that's when I see him sticking the bike up in some bushes, and he threw them shorts on top of the bike.

Q That ain't true, now. We have got to find exactly what he did with them shorts. That ain't true, Danny. That part is not true.

A He threw them shorts on top of that bike.

Q The shorts were not found by that bike. Tell us the truth about this. You have told the truth so far. What we want you to do is put the other part together and tell the truth about the shorts. Did you have the shorts? Tell the truth. Did you carry them off? Tell us what you know, Danny. Tell us what happened that day. Did you put something in the boy's butt, too? Danny, you have gone this far. Tell us the truth. I know it is hard to live with this thing. It has got to be for all of us, but we have got to know the truth, Danny. As we told you before, don't leave nothing out; not a thing. If you had sex with the boy, if you raped the boy, we want to know. If you touched the boy in any other area than the Sergeant asked you about, we want to know. We want to know everything. If you took the shorts out of the field, if you whiped your hand on the shorts -- you didn't get no vomit on you or nothing?

A No.

Q Nothing at all. If you did any other thing than turn that young man over, we want to know about it.

A I just turned him over.

Q What did you do when you turned him over?

A I was looking to see if he was breathing or not.

Q How did you go about looking to see if he was breathing or not? Come on.

A His neck, right here.

Q You put your hand on his neck to see if he was breathing, am I right?

A You're right.

Q Now, Danny, getting back to these shorts; when you first seen the boy, he was on the bike; right?

A Right.

Q He gets knocked off the bike. Did you knock him off?

A Tim Combs knocked him off.

Q Are you sure?

A Yeah; he knocked him off the bike.

Q Now the boy is laying on the ground?

A Yep.

Q Is he hurt?

A Yeah.

Q But, he gets up; right?

A And he runs, and then he grabbed him with a head lock and lifted him up in the air.

Q Who grabbed him with the head lock?

A Tim Combs.

Q How close were you then?

A Right by the hill -- right by the hill where you can look down over in the field.

Q Not real close to him then, huh? You walked over close to him when he was fucking him in the butt? Why did you do that?

A Huh?

Q Why did you walk close to him?

A I was going to hit him.

Q Hit who?

A Hit Tim Combs, behind his back. And, then he had turned around and looked at me, because I was sneaking up on him -- I can show you the board out in the woods. I had a board, and I was sneaking up on him.

Q Now, wait a minute. Is that the truth now? You never said nothing about no board before. Don't start making things up, because you like to do that. You seen a board? Did you pick the board up?

A Yeah.

Q Where did you pick the board up at?

A Right up there at the store. They've got some crates back there, and some of them boards are loose. And, I just grabbed one, and I was going to hit him.

Q You were going to hit Timmy? You weren't going to hit the Fife boy?

A No.

Q Go ahead. So, you walk up on him, and then what happened?

A He just turned around and looked at me.

Q He didn't say anything when he turned around and looked at you, when he seen you with the board in your hand; he didn't say anything? He didn't say, "Get the fuck out the way" or anything?

A No.

Q If he said something to you, try to remember exactly what he said to you.

A He said, "Take your ass back up the hill." Because he said, "If you tell on me, I am going to come down here and put it on you because you seen it."

Q This is what we told you in the beginning. All three of us

told you in the beginning. All three of us tried to tell you. What did I tell you in the beginning? He is going to come down here and say that you raped that boy. So, if you raped that boy, we want to know now. Do you understand? Because if he comes down here, we ain't going to know who to believe. Do you understand?

A I didn't touch him.

Q How did he get the shirt off the boy?

A He just ripped it off.

Q This is after he knocked him off the bike.

A He just ripped it off, just like that.

Q You said the boy got up and run?

A Yeah; he just got up and ran, and he just grabbed him with a head lock.

Q How far did he run before he grabbed him with a head lock; 5 feet, 10 feet, 20 feet?

A He was halfway by these two trees like; these bushes that cuts over to the other path.

Q There's two pathways there?

A Yeah.

Q The boy is almost free away from you all?

A Away from Tim.

Q How far was he away from the bike when he caught him?

A The bike was left way -- about -- the bike was threw like over there by the hill.

Q So, the bike was a considerable ways away. Was it more than two feet?

A Yeah.

Q Was it more than three feet?

A It had to be. Because if he would have --

Q Do you know how long a football field is?

A Yeah.

Q How long is a football field?

A 90 yards.

Q 90 yards. A football field is only 90 yards?

A I think.

Q Think hard. How long is a football field? You don't know? Okay. How far would you say the bike was away from the boy, then, when you caught him? Did you ever run with a football? Did you ever see it on television? You have seen guys on television. Was he 5, 10, 15, 25 yards away from the bike when he caught up to him?

A Yeah. He was far away from the bike, because he had burnt him, and running he couldn't catch him, until he just dived at him and hooked him right here. The boy fell back.

Q The boy was faster than him. Now he's got him by the head.

A Just picked him up and slammed him.

Q Slammed him down on what?

A On the ground. He just picked him up and slammed him head first, right up here.

Q Body slam; like they do in wrestling. How many times did he body slam this young boy?

A A lot.

Q What's a lot?

A Five or six times.

Q Okay. Does the boy have any pants on then?

A No, when he was running, he didn't have nothing on.

Q How did he get the pants off of him?

A He just grabbed him. When he grabbed him around by his neck, he just took them off.

Q Did he rip his shorts down.

A And, then he just threw him down, and started to --

Q Say it -- started to what? Say the word. That don't work on me.

A Fucking him in his butt.

Q Now, when he pulled his shorts off, they were blue shorts -- yellow -- what color? They were yellow?

A Yeah. They was something -- they was yellow.

Q The shorts were yellow? Are you sure?

A Yeah. Because they looked like some Reserve colors, like -- like they was gym shorts.

Q Now, Danny, that's not right. You told us earlier that they were grey.

A He had on some drawers that looked like they was grey. Like the back of them -- like they was like fruit of the loom or something.

Q I am not talking about his underwear. I am talking about the gym shorts that he had on. Not his underwear; the gym shorts he is supposed to have had on. Did he have gym shorts on?

A Not when I had seen him. He just had on his drawers.

Q His underwear? That's all you seen?

A Yep.

(WHEREUPON, there was a discussion off the record.)

(Sgt. Steinbeck no longer present)

Q Do you realize -- you know your rights. You don't have to talk to us if you don't want to. You have the right to remain silent. You know that, Danny?

A Yes.

Q Danny, I will tell you what I am going to do. I am going to read you your Constitutional Rights. I gave you your rights once. Do you understand that I gave you your rights once. Since I gave you your rights; I gave them to you verbally; okay? Now, what I want you to do; I want you to sign your rights. Tell us exactly what took place out there. I want to make sure we get this on paper, and get your signature on here that you know your rights and you understand your rights all the way, just the way I told them to you earlier, okay? Warren Police Department, Constitutional Rights, Place, the Warren Police Department. Date: 9-16-85. Time: 11:55. Further, I have been advised of my -- I have been advised I am not under arrest. I am free to leave at any time. I have given this voluntary statement to the police officers of the Warren Police Department. Before we ask you any questions, you must understand your rights. You have the right to remain silent. Anything you say can be used against you in Court. You have the right to talk to a lawyer for advise before we ask you any questions and to have him with you during questioning. If you cannot afford a lawyer, one will be appointed before any questions, if you wish. If you decide to answer any questions now, without a lawyer present, you still have the right to stop answering at any time, until you talk to an attorney. Do you understand that?

A Yeah.

Q Now, this part down here is the waiver of rights. I have read the statement of the Constitutional Rights. I understand what my rights are. I am willing to make a statement and answer questions. I do not want a lawyer present at this time. I understand and I know what I am doing. No promises or threats have been made to me, and no pressures or coersion of any kind have been used against me. I therefore waive my rights and give this statement freely. Okay. I want you to sign your signature right there. Okay?

INTERVIEWER: Let the record indicate that Danny Hill has signed his rights sheet. It was witnessed by Sergeant Stewart, Sergeant Steinbeck and Detective Hill.

Q That's the second time we have read your rights to you; right?

A Right.

Q We read your rights to you when you first came in the room and just now, right?

A Right.

Q Now, when you came down to the Warren Police Department, we asked you to come down, you were not arrested. You came down here, and you talked to Detective Hill and Sergeant Steinbeck.

A Right. Yes, Sir.

Q When you got to the Valu King that day, did you walk across the road with Tim Combs like these people told me you did?

A Yes.

Q Tell the truth. Do you remember walking across the road?

A Yes.

Q What was the first time you saw Tim Combs that day?

A Coming out of Colt Court. He was going out of Colt Court. He said he was going over his aunt's house and stay out there behind -- (inaudible).

Q So, you walked from Colt Court across Valu King or Palmyra Road straight up to Valu King?

A Yes.

Q Did you go in Valu King?

A No.

Q Was Jimmy Dukes out there? Is that true, or is that a lie?

A No.

Q What?

A He wasn't there.

Q That was a lie?

A Yes.

Q So you walked up to the front of Valu King. Did you go in Rite Aid?

A No.

Q Did you go in any store, at all?

A No.

Q So you just walked up to the front of the Valu King, and then you walked behind it. Did you walk behind it together?

A No. He went around the other side.

Q So he went around the side by the RGB Music Store; right?

A Yes.

Q And, you went by the side that would take you over by the man's house that has the boat on Jackson Street?

A Yes.

Q What made you stop to see what Tim Combs was going to do?

A Because I had already seen the little boy when he was coming from around there.

Q Where was the first time you saw the little white boy that got killed?

A He was riding through the field, because you could see them when they come over there by that street. You can see them when they be riding through there. And, I seen him when he was riding through there, and then I had turned around and looked, and it looked like he had just stopped riding.

Q Well, didn't Combs make a suggestion, let's get this boy about something? Didn't Tim say something to you about let's get that boy's

bike or let's fuck that boy up? Did he say something to you like that?

A Yeah.

Q Sure he did. What did you say? Be truthful now, Danny.

A I said no. I said, "I don't get in trouble no more."

Q Where were you and Tim standing when Tim said that to you?

A Around the back, because he said, "There is a bike right there." He said, "I need a bike, Hill."

Q Now wait a minute. You guys had to be together behind the store then; right?

A Yeah.

Q Then, did you walk behind the store together?

A Yeah.

Q Okay. So, that's a lie. You told me a lie; right?

A Yeah.

Q Don't lie anymore, Danny. If you walked around the back of that store together, tell the truth. Think before you answer, son. If you can't think of the question right away, give yourself some time. I know it is confusing. It was a hectic day. There is a lot on your mind; right?

A Right.

Q You think about this, now. You walked around the store together, right?

A Right.

Q You were standing right behind Valu King?

A Right.

Q Are you in the weeds yet, or are you still in the gravel?

A Still right there on the gravel.

Q And you see the little white boy come up on the bike?

A Right.

Q How close did he get to you?

A About halfway up the hill, and, then, that's when Tim Combs had grabbed him.

Q Now, wait a minute. You have got to walk back into the field a little further, don't you?

A You've got to walk down --

Q Okay.

A You've got to walk down the hill.

Q Where were you standing when Tim said, 'Let's grab that white boy'?

A About halfway to the pathway.

Q In the weeds?

A Yeah.

Q Okay. And, what did you say?

A I said, "No. I don't get in trouble no more." Because, I had just got out of Columbus.

Q Well, all you was going to do was steal that boy's bike, right?

A Yeah.

Q That ain't very much trouble.

A But, I didn't feel like stealing nobody's bike, because I ride my brother's bike all the time. He has a ten-speed.

Q What words did Combs say when he said, 'Let's get this white boy' or 'Let's get this bike'? I want to hear it in your own words. What did he say?

A He said that he needed a bike. And, we was walking around at the same time that he said he was going to look for a bike, because he got tired of walking from behind Austin Village Plaza all the way over here to the homes. Then, around about that time, he seen the little boy riding this bike up through the pathway. And, he said, "Hill, let's go over here and get this bike." I said, "No, because I don't go around here

stealing nobody's bike." And, he said, "Well, I'm going ahead and take it." Then, I had watched when he went down the hill. And, then, I didn't see the little boy riding his bike no more. He just got knocked off his bike. And, around about that time, I had walked down the hill and looked and he had him on the ground.

Q Continue to tell.

A And, then, I had walked down there and I had looked, and he told me to get my ass back up that hill.

Q True?

A Right. And, he had told me to get my ass right back up that hill. So, then, I said, "Why are you doing that to that little boy?" He said, "It ain't none of your business." So, then, I said all right.

Q Was the boy's eyes open?

A Yeah.

Q Did you ever hear any words at all out of that little boy; any words any screams, at all. Did he yell for help? Did he yell for help?

A Yeah. He had looked at me, and the way he was looking at me like he wanted me to come down there and, you know, knock Tim off of him.

Q Did the boy say 'help me'?

A No, he was just looking, because he had his mouth way he couldn't say nothing.

Q Which hand did he have over his mouth? His right hand or his left hand?

A His right. And, I had went up there and grabbed a board. Around about that time, he was knocked out cold. And, I had turned him over, and Tim Combs was running through the field.

Q Wait a minute. You left out a whole lot now. You say that he got his shorts off. Now, first of all, his bike was about 25 yards -- the boy got away about 25 or 30 yards away from his bike, and he caught up

to him, right? And he got him by the neck; right?

A Right.

Q Threw him down?

A Right.

Q Now, was his shirt off at this time?

A Yeah, his shirt was off of him. He didn't have nothing on except his drawers, and he was running. And, Tim Combs couldn't catch him unless he just jumped at him and dived, because the boy was like from here to there, running, and he couldn't catch him, so he dived at him.

Q Did he put his dick in his mouth?

A Yeah. A couple of times.

Q When the boy was dead or when the boy was alive?

A I think he was knocked out.

Q Did you put your dick in his mouth?

A No.

Q Are you sure?

A Yeah. I didn't have nothing to do with raping him or nothing like that. I was just there.

Q How many times did you touch the boy?

A I just turned him over to see if he was still breathing, and he wasn't breathing.

Q Where was the boy's black shirt, when you turned him over? Now, this is very important. Think hard.

A I didn't see it.

Q Danny, when the boy was found, his shirt was right underneath him. Now, you would have to see that shirt.

A I didn't see it, unless Tim Combs had it up under his clothes or something, because I didn't see his shirt.

Q You said Timmy was pulling at his dick. Was he pulling hard?

A Yeah.

Q How was he pulling?

A He had hit foot on him, and he had it like this, and he was --

Q Stand up and show us how he was doing it.

A He had his foot down like this, and he had to bend over because the boy was short. And, he had it like this, and he was pulling up, and, like, if he couldn't pull it no farther, he was doing like this -- like his shoulder was moving like he was ripping.

Q Did the boy have puke all over him at that time?

A Yeah.

Q How close were you standing, a couple of feet?

A Yeah, because I had the stick, and I was standing up there, and, then around about the time I had came down there with the stick he got up and ran.

Q Well, what did he do with the dick when he had it in his hand. Did he have the dick in his hand? Part of it, all of it?

A It looked like he had it in his hand.

Q What did he do then?

A He just started running.

Q What did he do with the dick?

A He just started running, and I couldn't chase him, because I am kind of slow, and he's faster than me. I couldn't have chased him down.

Q Okay. So, the first thing he did is he got the boy and he slammed him down?

A Yep.

Q And, he pulled his underwear off of him and he fucked him in the butt?

A Yep.

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Q How many times did he fuck him in the butt?

A It was a lot of times.

Q What I mean is he fucked him in the butt, and then he would pull it out and do it again?

A Yeah. Off and on.

Q Okay. What was the next thing he did to him that had sex to do with it.

Q He just had his thing in his mouth.

Q How did he do that?

A He had his hand in his teeth like this, and he had -- he was doing like that.

Q Are you sure?

A He had his hand in his mouth.

Q Timmy had his hand in his --

A In his mouth.

Q And, then he put his dick in the boy's mouth?

A Yep. Because the boy wasn't breathing.

Q Is this after he wiped his --

A Yeah.

Q -- or before?

A It was after.

Q How long was he back there with this boy?

A About three hours. About three.

Q He was in that field for three fucking hours with that boy?

A Yes.

Q And, nobody came through there?

A Nobody. Wasn't nobody looking out there in the back. Wasn't nobody looking out there.

Q You didn't do anything to the boy at all?

A No.

Q And all this period of time that you two boy spent back there with the boy, you didn't do anything?

A No.

Q Except just turn the boy over, and feel alongside of his neck to see if he was living? Did you touch his dick at all?

A No.

Q Maybe touch yours?

A No.

Q Did you make him touch yours?

A No.

Q Did you have your zipper down?

A No.

Q Not once?

A No.

Q Now, if we go to your apartment, at your mother's house, and get those clothes, there will be nothing on them?

A No.

Q Nothing?

A No.

Q Did you wash them?

A I washed them pants last night.

Q Why?

A So they still be dry. Because I was going to wear them, because I had worn these yesterday.

Q The pants you had on here Friday when I talked to you; were they the same pants you had on that day?

A Yep.

Q What shirt did you have on?

A That red shirt. When I came down here?

Q What shirt did you have on the day that Tim did that to the boy?

A A white jersey. I had on that white jersey with the 77.

Q After Timmy stuck his dick in the boy's mouth, okay -- do you remember that? You told us.

A Yes.

Q What next did Timmy do?

A Started to get him back in his butt, when he did.

Q Did he get him in the butt again, then?

A Yes.

Q So, he fucked him in the butt, and then he put his dick in his mouth, and then he fucked him in the but again?

A Yes.

Q Did he ever once say, "Come on, Danny, do this with me"?

A No.

Q He never said none of that?

A No.

Q And, he fucked him in the butt again, right?

A Right.

Q Then, what did he do to him.

A Started pulling on his thing.

Q That's the next thing he did, was pull on the boy's dick?

A Yes.

Q Did it look to you like what? What was he trying to do?

A Just looked at me, because he was scared. He thought I was gone through the pathway. He just looked at me like I was the Police or something. He just looked at me like he was scared; like it stunned him.

Q How did he have time to burn him, if he lost all this time -- are you sure you didn't have the cigarette lighter?

A No.

Q Does he smoke?

A Yes.

Q Do you smoke?

A Yes.

Q Do you have a cigarette lighter?

A No.

Q How do you light your cigarettes?

A I have matches.

Q You use matches?

A Yes.

Q Where do you set him on fire; at his feet?

A No. It started right up in here, because he had burnt them, and then he just threw them on him.

Q Burnt what?

A A piece of cloth. He lit it and threw it on him, and it just started to smoking, like the woods was on fire.

Q Three hours you were there?

A Yes.

Q It seemed like three hours maybe. But, maybe it wasn't three hours. After he got done with all this shit. After all this shit was over with, you say he ran down toward Jackson Street?

A Yes.

Q And, you ran out towards where?

A I ran out the same way.

Q Where did you guys go from there?

A He ran out toward --

Q Make sure you tell us the truth now. Where did you go after you left the boy?

A After, when I had left, I had ran out the same way he had ran out.

Q Where does that come out on?

A Right there in front of the house that we used to stay in; right out in front of the house.

Q On Jackson Street.

A Yeah; came right out --

Q Timmy ran out that way, too?

A Yeah.

Q Was there two other dudes came out of the field about the same time?

A I think so.

Q Who was it?

A I don't know.

Q Did they look like they might have been walking with you?

A No.

Q They were walking the other way?

A Yes.

Q So, you got out onto Jackson Street. Then where did you go?

A I went over this girl's house and started to sit down, that's the reason I got -- that's the reason my mother was cracking on me, because I was high.

Q What girl was it? What girl?

A She stay out there at Westlawn.

Q White girl?

A Yeah.

Q What's her name?

A I don't know.

Q Where did Timmy go?

A Up under the bridge over his aunt's house. He was running.

Q What bridge?

A Over there, by Reserve.

Q He was going to Austin Village on Commerce?

A Yep.

Q Over Barbara's house?

A Yep.

Q Did he run by you, or did you run with him, or did you guys just, "I'll see you later. Keep your fucking mouth shut." What was said?

A He told me -- He said, "I will be down there before you go down there." He said, "I'll be down there before you go down there."

Q What did he mean he would be down there before you go down there?

A Like, if I come down here -- like if I come down here to tell, he was going to beat me down here so he could tell you all that I did something to him.

Q What day was that you came down to see me? Was that Wednesday night?

A Yeah.

Q That was Thursday night.

A Thursday. Thursday.

Q Why didn't you tell Sergeant Stewart about that then?

A Because I was trying to -- I was telling a story.

Q You trying to tell us shit?

A Because he was looking -- people was telling me he was looking for me. They said he was looking for me out there in the Hampshire Houses.

Q Didn't you go with him the next day?

A He had walked out here from -- they said -- I mean, he was coming from over his mother's house, because his mother stay on Fourth Street. And, he came up to the Hampshire Houses, and went out the back way by the field.

Q Did he stop at your apartment and get you?

A No.

Q He didn't stop and say hello and get you?

A No.

Q Come on, now, I told you; if he stopped to get you, tell us he stopped there to get you. But, if he -- you know -- first you said you were looking out the window and you seen him come by. So, then, he went down the one side of the hill, and you went down another way. Now, did he stop at the house and get you to come and go with him? If he did, just let me know this. Okay?

A He had knocked on the door. He had knocked on the door.

Q And, then, what?

A I had looked out the peep hole, and then I acted like nobody was there, because my mother and them was gone. So, then, when I seen him go down in the field, because I was looking out the upstairs window, and I was looking at him going down the hill. That's when I opened up the door and went down the hill. I gave him enough time to get down there -- you know, where that little boy was laying.

Q Okay. Nobody is going to believe -- listen to me. Ain't no persons going to believe that you didn't hold that boy and try to get them shorts off of him, and then he started running.

A I ain't had nothing to do with that part right there.

Q I am talking about his gym shorts or his jeans or whatever he had on. I am not talking about his underwear. That boy broke loose, right?

And, you didn't hold him or do nothing?

A No.

Q How big is Tim?

A He bigger than me.

Q Is he bigger than you?

A Yep.

Q Now, if we run you on the polygraph, will it show that you are telling the truth about the part that you didn't have nothing to do with it, except for the fact that you turned him over and felt him to see if he was still living?

A Right.

Q Have you ever taken a polygraph before?

A Yes.

Q For what?

A I don't remember.

Q How old were you?

A I was 15.

Q You followed him down the hill the next day, right?

A Yeah.

Q He didn't know you were with him?

A No.

Q Where did he go?

A He went out there in the field.

Q What field?

A Like he was looking for something.

Q Out in the field behind the Valu King?

A Yep; like he dropped something back there.

Q What did he do?

A He was just looking around.

Q How long did he look around?

A About 5 or 10 minutes.

Q Where were you? Where were you when he was looking around?

A At the back of the store.

Q Where was the cigarette lighter at?

A It was laying in the grass and he had picked it up. I guess that's what he was looking for, because he --

Q He found the cigarette lighter he was looking for?

A Yeah.

Q Is that what he was looking for?

A Yep.

Q How do you know?

A Because he had dropped it, because I didn't see him put it back in his pocket. And, I guess, it was still laying there, and he came back and he was looking for it, and he found it.

Q And, then what did he do with it?

A Put it back in his pocket and then he left like it wasn't nothing.

Q And, then where did he go?

A Back over there by the -- behind Austing Village where his aunt stay at. That's where he living at. He not staying with his mother.

Q He's staying with Barbara? He's not staying with his mother?

A No.

Q You know, Danny, it seems like everything we suggest to you, you agree with us; right? Isn't that the way it seems to you?

A What?

Q Now, if we suggest something, it seems that you agree with us. In other words, about the cigarette lighter; I suggested he was looking for it, and you agreed with it. Now, if I was to just suggest and say that

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the boy sucked your pee-pee, would you agree to that?

A No.

Q You won't?

A Because I didn't have nothing to do with that.

Q Did you such the boy's pee-pee?

A No.

Q You didn't?

A No.

Q Did Timmy suck the boy's pee-pee?

A I don't know. I didn't see him.

Q You said Timmy was carrying something under his shirt when he went back.

A He had something up under his shirt when he was walking from Colt Court. He had something up under his shirt.

Q The day after they did that to the boy?

A Yeah.

Q When he came knocking on your door, he had something under his shirt?

A Yeah.

Q If he had something, he was going to tell you what he had.

A Huh?

Q What did he have?

A Huh?

Q Did he tell you what he had?

A No. He just knocked on the door.

Q And, what did he say?

A He ain't said nothing. He just knocked on the door, because nobody answered, because I was upstairs asleep. Like, you came over to the

house and you had to knock real loud. That's how he had to knock. And, I still didn't go downstairs. I just looked out the window, like I looked out the window at you.

Q How could you tell he had something under his shirt?

A Because when he came and knocked on the door, I was already downstairs. Because, I had just got out of the shower, I was already downstairs. I looked out the big picture window to see who was knocking, and I seen him walking -- you know, he had just turned around and looked toward the window, and he had a big bulge in his shirt. So, then, I just went back upstairs and looked at him when he went through the field. He went down in the field. The hill drops when you go down.

Q Did you see him take anything out of his shirt?

A No.

Q The whole time he was looking for his lighter, he didn't take nothing out of his shirt?

A No.

Q So, you don't know what was under his shirt?

A No.

Q Well, why did you say it was his grey shorts?

A Huh?

Q You said one time in here today that you thought he had his grey shorts underneath that shirt?

A He had on some grey shorts, Tim did. Because, I could see it when he was pulling off his pants, he had on some grey shorts.

Q Tim did?

A Tim did; yeah.

Q Timmy get any blood on his underwear?

A I don't know.

Q You were close enough to tell, weren't you?

A It didn't look like nothing was on there.

Q Did he have any blood on his hands when he pulled that boy's dick off?

A Yeah; he had some on his hands. Yeah.

Q Did he have that boy's dick in his hand?

A I think; yeah.

Q Where did the boy's dick end up at?

A I don't know.

Q Did he run out of the woods with it?

A Yeah; that's what I said. When he seen me come down, he ran.

Q You don't know if he had the dick in his hand or not, though?

A No.

Q You say he went over to Barbara's. How long has he been staying at Barbara's house?

A Since he been out.

Q How come he don't stay with his momma?

A I guess because he had raped that other boy behind Perkins Park, I think.

Q You were there that day, too; huh?

A No.

Q I thought you told me the other day you was at the park with -- you know -- watching the baseball game.

A Yeah. I didn't know he was up there.

Q And, he was fucking some boy then?

A Yeah; that's what they had told me.

Q Does he like to do that to boys?

A Yeah.

Q Does he brag about it?

A He used to when he was in the -- (inaudible -- sounds like D.H.) -- he used to be in there, because, when I was in Dorm No. 2, it was at night, they had a nail, they had some nails they had pulled off the board, and it was two black dudes that was in this same cell with this white dude, and everybody was quiet. They told everybody to be quiet -- the people that was working there, like Biz and them that was working there, they told everybody to be quiet. And, so, then we was sitting down low, and him and Anthony Cursey picked this nail, I guess up to his neck, and said if you didn't do it that they was going to stab him with that nail. And, so he did it, and then all the staff and stuff came back in. That boy was crying and stuff. And, they had took him out, and then he told on Tim. He told on Tim and that dude, and I guess they ain't never done nothing about it. They just wrote up a report, an incident report.

Q You didn't touch the boy at all?

A Nope.

Q Not at all?

A No.

Q Just except to turn him over?

A Yeah.

Q And, feel alongside of his neck and see if he was still living?

A Yep.

Q Sergeant Steinbeck said they boy had -- he vomited on himself. I can't understand why he vomited on himself. I am lost with that one. Are you sure he vomited on himself?

A It looked like something was on him like throw up. It looked like something was on him.

Q It did?

Q You didn't get sick, did you?

A No.

Q All that blood and all that -- you didn't throw up on him?

A No.

Q You didn't get sick about seeing all that stuff? About that board; you said you had a board, right? You went back to the store and you got a board?

A Yeah.

Q You walked up behind Tim, and you thought about hitting him. What did you do with the board when Tim told you to get he fuck out of the way?

A Huh?

Q What did you do with the board? Did you throw it back out there?

A Because I was at the top of the hill, and he had looked up and he said, "Get the fuck back up there".

Q Wait a minute. Wait a minute. You are way up at the top of the hill? I thought you were sneaking up on him?

A Yeah. That's what I was doing, I was sneaking up on him, and he told me, "Get the fuck back up there", and I just threw it back.

Q Threw it back where?

A Up on the road, like.

Q By the building or on the road?

A Right back there by the building; yeah. I just threw it back up there.

Q And, the boy's bike was about 25 yards away from where you chased him; right?

A Yep.

Q Danny, the very next thing I am going to do is I am going to go to Tim Combs, and I am going to bring him in the same room. You ain't going

to be here now; right. And, I know that he is going to tell me that you did more than you are telling us three. Wait a minute. I ain't done yet. He is going to tell us that you did more than what you are telling us you did. Okay? You got to tell us what you did.

A I ain't done nothing. I took the lie detector test.

Q Listen. You got to remember one thing: when this case goes to Court -- okay. Understand? When this case goes to Court, Timmy Combs is going to get up there, if he gets up there at all, he is going to give a statement to one thing. He is going to try and implicate you in a manner that you might have done this.

A I know.

Q So, this is the thing we want to make sure that you understand this; that you are telling us each and every detail and the truth about the whole thing.

A I know. I know. I ain't had nothing to do with raping him or nothing.

Q Danny, did you have your dick out?

A No.

Q Did you jack off?

A No. I ain't pull out nothing. I ain't like that. No.

Q You can't tell me that you were that close and you were watching Timmy fuck him in the ass, and you didn't think about doing it.

A No; because I ain't like that. If I even see somebody -- just like when I was in the G.A. school, they try to do something like that to me, and I was fighting in the cell.

Q You was close enough -- did you kick the boy once?

A No.

Q Did you touch him anywhere?

A Just on his neck when I was seeing if he was breathing or not.

Q Didn't Timmy tell you to get away from him when you turned him over? Timmy say, "Get off of him"?

A Yeah. He said, "Leave him alone." Just like that. "Leave him alone. Let him lay there."

Q And, you and Tim walked out of the woods together?

A No. He had -- when I came off the hill I had went down and looked, and he was running. And, he said, "Leave him alone". Just like that. That's the way he talk. He said, "Leave him alone". And, then, I just started chasing him, and he was flying. I couldn't even catch him. So, I just slowed up and started walking up out of there. And, he was still running. Some people should have seen him when he came out of the field, the way he was running.

Q When you knew that this boy wasn't moving or anything, and you felt in your mind that this boy might have been dead, why didn't you go to your mother, or come to your uncle or go to someone that -- so they would know that that kid was behind that building back there, in that field?

A Because, if I would have did that, he would have came down here -- If I would have been looking for you -- about the same time he would have thought I'd been looking for you, he would have came down here and said that I had something to do with it.

Q Was you there when the police came up there?

A No.

Q You was afraid if you told us where the boy was we might think you did it?

A Yeah.

Q Why would you think that we would think you were guilty?

A Because I have a record. I have that record for that rape

charge. That would have started -- you know -- you all would have started to ask me all kinds of questions.

Q So, that's why you came down and talked to me Thursday, to try and get your alibi and blame it on Lowery. Lowery didn't have nothing to do with this?

A He had the bike. He was riding the bike. I got witnesses to that. He was riding the bike, because he tried to sell it to my cousin.

Q The bike with the reflectors on it?

A No, the bike that was laying back there in the field. He tried to sell it to my cousin.

Q How did Maurice Lowery get that bike?

A It was laying back there in the field. When you all had went back there to get that body, they went looking for the bike. So, the bike was still back there. He went back there and found the bike and tried to sell it to my cousin out in the Homes. And, he can come in here and tell you the same thing like I said.

Q The same bike?

A Same bike.

Q Well, how did the bike get back out in the field?

A He put it back out there when the police came to the school to pick him up, they asked him where the bike was at, and he had it hid over his cousin's house. And, no sooner at the school, I guess he threw it right back there, in the field. He threw it right back there, in the field.

Q Did Reesey Lowery have anything to do with the boy's death?

A No. He wasn't back there. It was just Tim Combs.

Q Straight up?

A Yep. Tim Combs.

Q There was nobody else back there?

A No.

Q You are not protecting anybody, right?

A No. It was just him. But, he did have the boy's bike.

Q Who had the boy's bike?

A Reesey Lowery.

Q Did you see Maurice Lowery on the boy's bike?

A Out there at Westlawn he was riding it. I seen him. I seen him on a bike similar to that.

Q When?

(WHEREUPON, this tape ended, and reference was made to rewinding -- (I presume another tape to follow).)

END

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TO: Ms. Vicki Werneke
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FROM: Deborah Davis, Ph.D.
Professor of Psychology
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RE: Affidavit Ohio v. Danny Lee Hill: #85-CR-317

DATE: 9 2 2014

I, Deborah Davis declare as follows:

1. You have asked me to provide an analysis of the case of Danny Lee Hill to assess the potential that he falsely confessed.

2. This affidavit contains my qualifications as an expert on false confessions, the records I have reviewed regarding this case, and a general description of my opinions.

3. The attached report provides the specific basis of the opinions herein and details regarding what science has shown about the causes of false confession, sources of suspect vulnerability to influence/coercion, and difficulties of evaluating the validity of confessions.

4. **Education and Experience** (see Attached CV)

5. I am currently Professor of Psychology at the University of Nevada, Reno, where I have worked since 1978. I am also a member of the faculty of the National Judicial College.

6. I received a B. A. in Psychology from the University of Texas (Austin) in 1970, and a Ph. D. in Psychology from Ohio State University in 1973. After spending two years as a Post-Doctoral Fellow at Ohio State, I taught at Southern Illinois University for two years and Georgia State University for one year before moving to the University of Nevada, Reno.

7. I have published approximately 20 articles and chapters on the topic of police interrogation and confessions, and presented approximately 16 times on this topic at conferences of scientific organizations and 14 times at Continuing Legal Education events for legal organizations and the National Judicial College. In addition, I have published a number of other articles and chapters that include discussion of interrogations and confession, and many others that address the broader topic of social influence. Finally, I have published many other articles in other areas of psychology.

8. I was awarded a grant from the Department of Justice/Federal Bureau of Investigation to perform research on interrogation techniques in 2012.

9. I have completed the basic and advanced interrogation training seminars offered by John Reid, Assoc. and Wicklander-Zulawski (the primary interrogation training organizations in America), on criminal and corporate interrogation.

10. I have testified as an expert witness on interrogation and confessions in Alaska, Colorado, California, Illinois, Louisiana, Michigan, Missouri, Mississippi, New Mexico, New York, Oregon, South Carolina, Pennsylvania, Utah, and Washington State.

11. Records Reviewed

12. (SH1): Motion to Suppress Hearing Vol. 1 273 pp
13. (SH2): Motion to Suppress Hearing Vol. 2 259 pp
14. Adaptive functioning narrative (16 pp)
15. Trial Transcript Vol. 1 (321 pp)
16. Trial Transcript Vol. 2 (312 pp)
17. Trial Transcript Vol. 3 (346 pp)
18. Trial Transcript Vol. 4 (313 pp)
19. Tim Combs Statements to Police
20. Timeline for Danny Hill Case (7 pp)
21. Probation Report (22 pp)
22. Mitigation Report (408 pp)

23. Hill Video Interview Transcript (54 pp)
24. Hill Audio Interview Transcript (44 pp)
25. Coroner's Verdict (1 p)
26. Autopsy Report (11 pp)
27. Voluntary Statement of Timothy Combs Written (4 pp)
28. Interrogation Timothy Combs (78 pp)

29. **OVERVIEW OF OPINIONS**

30. Danny Lee Hill was a retarded teenage African American at the time of the murder in question. He became a suspect in the violent abuse and murder of a young 12 yr old boy because he went to police himself, saying he had relevant information about the crime. A reward of $5,000 had been posted for such information. Danny asserts that he went to police to try to tell them a false story that would get him the reward. Police quite correctly suspected him of lying (as he admits he did). But this led them to suspect he was involved in the crime himself. These suspicions led police to interrogate Danny on two subsequent occasions, during the second of which he eventually admitted involvement in the crime.

31. Danny Hill did not believe he could refuse to talk to police, though he was given Miranda warnings during each interrogation. Danny demonstrably did not understand many of the words entailed in the warnings, nor did he understand the implications of waiver. He could barely read, and could not read (or understand verbally) most of the content. Moreover, his interrogators essentially instructed him to talk to them and presented the warnings as a formality rather than a choice to be made. Thus, his waiver could not be considered voluntary, knowing or intelligent.

32. Danny Hill was an individual who was highly susceptible to influence, given his low IQ and difficult life history. He was interrogated by officers he had known most of his life, including his Uncle Morris Hill. He was explicitly told that nothing was going to happen to him, that he was not under arrest, and that he would be going home. At the same time, he was accused of involvement in the crime and interrogated in a very suggestive manner. That is, officers fed Danny Hill almost every fact that was incorporated into his final confession. The officers noted this pattern themselves:

> "You know, Danny, it seems like everything we suggest to you, you agree with us; right? Isn't that the way it seems to you? .. Now, if we suggest something, it seems that you agree with us. In other words, about the cigarette lighter; I suggested he was looking for it, and you agreed with it. Now, if I was to just suggest and say that the boy sucked your pee-pee, would you agree to that?" (Audio Interview Transcript, p. 37).

33. It is my opinion that this statement by the interrogator sums up very accurately where the content of Danny Lee Hill's confession came from. He was told he was involved and instructed to tell the officers exactly what happened. His denials were not believed, and they repeatedly told him he was lying and needed to admit his involvement. It was only after his own Uncle Morris Hill met with him alone and instructed him to start admitting that he was involved that Danny agreed, and the taped interrogations followed.

34. It is clear from the interrogation transcripts (which begin well after the questioning that day began) that Danny gets his answers from the interrogators' suggestions. They asked questions suggesting an answer (such as "Did he put anything in the victim's mouth."). Thus, Danny gave answers essentially agreeing with what he was asked. When he gave an answer inconsistent with what interrogators knew (or thought they knew), they corrected him and told him what they believe happened instead. He would then change his answers. When they asked him leading questions they knew to be false, Danny agreed with those too. This pattern is what led the interrogator to say that it seemed that everything they suggested Danny would agree with.

35. In addition to the interrogators suggestions, information about the case and details were widely available in the community. Countless members of the community were around the crime scene when police arrived. The victim had been found by his father. Thus, many details of how the victim was found and in what condition could have been conveyed through the community by the victim's family or directly observed by others at the crime scene.

36. I do not have access to all of the evidence in the case, and cannot offer an ultimate opinion of guilt or innocence. However, it is my opinion, based on the evidence surrounding the interrogations themselves and Danny's personal characteristics, that Danny Hill's confession was highly unreliable. It is very possible that he was simply a young teenager of low intelligence living in relative poverty who saw an opportunity to get what must have seemed a fortune to him ($5,000). He decided to concoct some lies that would seem like valuable evidence to police. But he didn't really know what he was talking about, in that he knew only publicly available facts about the crime.

37. His lies were not plausible, in part, because he didn't know the real facts. It is very difficult for liars to construct a plausible story that will fit facts others know but they don't. It is also difficult for them to keep straight in memory what they have told (keep track of their own stories and who they have told them to, etc.). Danny Hill started constructing a story he thought would be plausible, but he had to keep making up more stuff as police questioned him about details or challenged his first accounts—and then keep all that straight in memory. This is something that is essentially impossible for a retarded young man such as Danny.

38. Therefore, whether guilty or innocent, it is no surprise that he gave multiple inconsistent accounts in his initial two interrogations and stories to his interrogators: with the result that he became a serious suspect. Danny Hill had gotten himself in a situation where his initial efforts to claim a reward led him into a series of interrogations in which he first tried to maintain his original position as a witness with valuable information, but was so clearly caught in lies that his interrogators transitioned into trying to elicit admissions of guilt. By his third interrogation Danny was already stuck with his previous statements, could not see his way out of the interrogation itself or any way to successfully deny involvement (given the interrogators' insistence that he was involved and must tell them how) and was finally led to change his story in the direction his interrogators had become convinced was true.

39. Given Danny Hill's personal characteristics and vulnerability to influence, his personal history with his interrogators, the demands placed on him to confess, and the way in which the content of his confession was fed to him, little weight should be given to his confession as evidence of guilt. Moreover, whether he is actually innocent or guilty, the details of his confession were fed to him by his interrogators and should not be regarded as reliable.

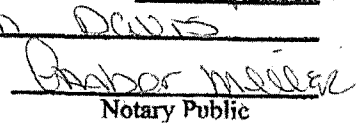
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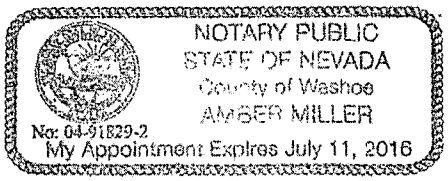
Deborah Davis, Ph.D.

State of Nevada
County of Washoe

Signed and sworn before me on 3 Sept 2014
by Deborah Davis



Notary Public



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INTERROGATION-RELATED REGULATORY DECLINE: Ego Depletion, Failures of Self-Regulation, and the Decision to Confess

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As reflected in rulings ranging from trial courts to the U.S. Supreme Court, our judiciary commonly views as "voluntary," and admits into evidence, interrogation-induced confessions obtained under conditions entailing stressors sufficient to severely compromise or eliminate the rational decision making capacities and self-regulation abilities necessary to justify such a view. Such decisions reflect, and sometimes explicitly state, assumptions soundly contradicted by science regarding the capacity of normal suspects lacking mental defect to withstand such stressors as severe fatigue, sleep deprivation, emotional distress—and aversive interrogation length, tactics and circumstances—and nevertheless resist the powerful pressures of the interrogation to self-incriminate. Notwithstanding excessive length and other severe interrogation-related stressors and tactics demonstrably associated with elicitation of false confessions, judges overwhelmingly admit confessions into evidence and juries overwhelmingly convict. In this review, we introduce the concept of "interrogation-related regulatory decline" (IRRD)—or decline in the self-regulation abilities necessary to resist the forces of influence inherent to interrogation. We review scientific evidence of the unexpected ease with which self-regulation abilities can be significantly compromised, with the hope that this evidence can (a) encourage more evidence-based objectivity, realism, clarity and specificity in the criteria for assessing voluntariness underlying admissibility decisions, (b) promote reforms aimed at prevention of interrogation practices entailing substantial risk of severe IRRD, and (c) encourage more scholarly research on acute sources of interrogative suggestibility.

Keywords: interrogation, false confession, acute suggestibility, self-regulation, voluntariness

Juan Rivera, a mentally handicapped 20-year-old, was arrested for the murder of 11-year-old Holly Staker in Waukegan, Illinois, 1992. Rivera underwent approximately 33 hours of unrecorded interrogation by at least 10 different officers over four days, and ultimately signed two confession statements written by police admitting that he had raped, stabbed, and murdered Staker. Prior to signing the two police-written confessions, during this extraordinarily long and intense set of interrogations, Rivera began to hyperventilate and bang his head against the cell wall so violently that he was medicated, and his arms and legs were shackled. He had suffered an acute (interrogation-induced) psychotic break-

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down, later stating that he had lost consciousness during the interrogation ordeal and didn't remember signing the police-written statements.

Despite the great amount of physical evidence left at the crime scene (including hair, semen, and fingerprints), none of more than 350 pieces of physical evidence linked Rivera to the crime. Moreover, Rivera was wearing an electronic leg monitor showing him at home the night of the crime, not at the crime scene. Nevertheless, he was convicted of the murder and rape of Staker three times! His 1992 conviction was reversed, as was his second conviction in 1998. After his second conviction was also reversed—and although Rivera was excluded in 2005 by DNA tested from sperm taken from the victim at autopsy—he was convicted for the third time in 2009. At each of his three trials, defense counsel tried—but ultimately failed—to suppress the police-written statements as the involuntary product of psychologically coercive interrogations (Leo & Ofshe, 1998; Marshall, 2010; Raley, 2011). Three trial judges did not believe the that totality of the circumstances surrounding Rivera's interrogation sufficiently overrode his will to render the confession involuntary—nor did three juries view them as sufficiently coercive as to render his confession false, despite the wealth of exculpatory evidence supporting his innocence.

Rivera's third conviction was also reversed in December of 2011 (*People v. Rivera*, 2011). The appellate court relied heavily on the exonerating DNA evidence, the unreliability of witnesses, and contamination of the confession (evidence that seemingly incriminating crime knowledge contained in Rivera's signed confessions had been communicated to him by his interrogators and other sources). The appellate court rejected the prosecution's argument that the specialized knowledge in the confession confirmed Rivera's guilt. However, the stated bases of the reversal addressed only implications of the content of the confession, and did not include the coerciveness of the interrogation or the involuntariness of the confession.

Cases like Rivera's are more commonplace than one would hope. Although most confessions obtained through police interrogation are arguably true, Rivera's false confession is only one among several hundred confessions that have been proven false to near or absolute certainty (Leo & Ofshe, 1998), and have been documented by scholars, independent researchers, and journalists over the last two decades (Drizin & Leo, 2004; Gudjonsson, 2003; Leo, 2008). Moreover, 20–25% of cases of postconviction exoneration, of which there are now close to 300 in the United States (*http://www.innocenceproject.*org), have implicated police-induced false confessions as a primary cause. Though elicited through interrogations entailing many coercive tactics that were also deployed upon Rivera, and though sometimes elicited from suspects already impaired by mental handicap or severe preexisting stressors, these confessions were admitted at trial by judges who viewed them as voluntary, and were later viewed as definitive evidence of guilt by juries who believed them valid. Such stories reflect a disturbing pattern in the American justice system. While the law prohibits the use of physical violence, or explicit threats and promises contingent on confession, police are largely free to interrogate using deceptive, exhausting, and aversive tactics, and to continue as long as the suspect fails to invoke his *Miranda* rights and demand that it stop—with virtually no risk that any confession obtained will be ruled involuntary and excluded from trial.

Admissibility rulings for contested confessions often reflect poor understanding of the power of the weapons of influence inherent in American interrogation. They further reflect assumptions soundly contradicted by science regarding the capacity of normal suspects lacking mental defect to withstand such stressors as severe fatigue, sleep deprivation, emotional distress—and aversive interrogation length, tactics, and circumstances—and nevertheless resist the powerful pressures to self-incriminate. Herein, we review evidence of factors that induce "acute situational suggestibility" in police interrogation, namely, acute situational forces preceding and during interrogation that compromise the ability to resist police pressures toward self-incrimination. Specifically, we focus on interrogation-related factors that impair self-regulation: that is, causes of "interrogation-related regulatory decline" (IRRD) underlying impairments of rational decision making and exertion of one's will. We argue that these abilities are more easily compromised than commonly assumed. Finally, we argue for reforms in judicial standards used to guide judgments of voluntariness, for reforms in police interrogation practices likely to severely compromise rational decision making and the exertion of one's free will, and for the conduct of additional research addressing such acute sources of vulnerability.

Interrogation, Confession and the Fundamental Attribution Error

Police interrogation is a powerful social situation in which detectives with apparent authority to affect the suspect's long-term legal outcomes subject him or her to an often lengthy and relentless process, employing a full armament of the most powerful weapons of social influence, to convince the suspect to provide a complete and incriminating account of his involvement in the crime at hand. The interrogation may begin when the suspect is already fatigued or distressed, may last many hours, or even days, and will typically entail a variety of tactics or procedures experienced as stressful or aversive. The latter may include forensic assessments such as polygraph tests, DNA, fingernails and other swabs, blood testing, and others; and interrogation tactics such as stringent and unrelenting accusations, refusal to attend to or believe suspect accounts of the events in question, extreme duration, multiple interrogators, invasion of personal space, physical deprivation or discomfort, and others.

Given the power of the forces of influence during interrogation, it is no surprise that interrogations are effective at eliciting confessions—both true and false. Because no registry or database exists from which to take a statistically meaningful random sample, we do not know the incidence of interrogation-induced confessions. But reviews of English and American field studies suggest a rate ranging from 42%–76% (Gudjonsson, 2003; Thomas, 1996). The incidence of false confessions likewise cannot be established absent reliable truth criteria, but is likely to be higher than commonly assumed. Police investigators estimate from their own experience that roughly 5% of the confessions they obtain are false (Kassin et al., 2007), suggesting that they elicit thousands of false confessions every year. But those who falsely confess in response to such tactics represent a small portion of those who offer true confessions against self-interest. This very power of interrogation gives rise to the three-pronged "confession problem" of voluntariness, validity, and prejudicial impact (Davis & Leo, 2011).

Once given, a confession may be retracted and disputed at trial as invalid, involuntary, or both. If the trial judge agrees that the interrogation overrode the defendant's will and coerced the confession, it will not be admitted. If the judge disagrees, and admits the confession, the defendant may claim it was false; given as the result of an extremely stressful, deceptive, and coercive interrogation. He or she may also claim enhanced vulnerability due to factors such as mental illness or defect, or others (Follette, Davis, & Leo, 2007). But a confession carries enormous prejudicial impact at all levels of the justice system. Except in the most egregious circumstances of suspect vulnerability and physical coercion (often even then), it will likely be presumed true and voluntary by police, (even defense) attorneys, judges, juries and appellate courts (see Leo & Davis, 2010 for review). When claims of invalidity or involuntariness arise, judgments tend to focus on issues of extreme physical coercion, or what could be wrong with the confessor. If no mental defect is identified, in the absence of clear physical coercion, the tendency is to believe the confession to be voluntary and true (Leo, 2008; Wrightsman, 2010).

In part, this tendency to default to considering issues of physical coercion and mental defect is due to the complexity of the issue. To adequately assess voluntariness or validity, the judge or jurors must understand the nature and impact of the influences to which the suspect is subjected during the interrogation, as well as what factors would enhance the vulnerability of the suspect to these influences—and *how much* they are likely to do so. And finally, they must apply this knowledge to determine the likelihood that the suspect's will was sufficiently overborne to cross the legal threshold of involuntariness (the vague and ill-defined "totality-of-the-circumstances" standard lacking specific guidelines), or the threshold of influence necessary to induce a false confession—thresholds that are not clearly defined in the law and not readily estimable. When the issue is validity, evidence of guilt must also be weighed. In many cases, the confession is the only evidence against the suspect, rendering the ability to accurately judge the coerciveness of the interrogation the only pathway to accurate charging, plea, admissibility decisions, and verdicts. But these judgments are extremely difficult, and in practice, tend to reflect incomplete and inaccurate knowledge of the nature and impact of both interrogation forces and individual vulnerability (see Davis & Leo, 2010).

The power of the situational forces acting upon police suspects is routinely underestimated by those at all levels of the legal system and by clinical interrogation scholars. We have reviewed the powerful, but often subtle and unrecognized, interrogation forces elsewhere (Davis, 2008; Davis & Leo, 2010; Davis & O'Donohue, 2004; Leo, 2008). Here, we focus on the issue of individual vulnerability to interrogation-related influences. Further, we do not review sources of *chronic* individual vulnerability such as personality, mental abilities or illness, or life-event histories that have been extensively reviewed by ourselves (Follette et al., 2007) and others (Gudjonsson, 2010; Kassin et al., 2010). We focus instead on what we refer to as acute situational suggestibility, namely, acute situational forces preceding and during interrogation that compromise the target's ability to resist police pressures toward self-incrimination, up to and including full confession.

Substantial evidence has demonstrated that the power of acute situational forces to undermine suspects' willpower and cognitive capacities is much greater

than commonly reflected in judicial rulings and jury verdicts (Davis & O'Donohue, 2004), and that these forces are sufficient to undermine the will and abilities of "normal" suspects possessing no defects of personality, mental health or abilities, or character. Here, we present a model of acute situational suggestibility. We first review the personal resources needed to resist interrogative influence. Then, drawing largely from literature on ego-depletion and self-regulation, (Vohs & Baumeister, 2011), we review evidence that these resources are more easily depleted and impaired by interrogation-related influences than commonly assumed—a process we refer to as "Interrogation-related regulatory decline" (henceforth IRRD). Finally, we offer policy recommendations designed to minimize IRRD and the resulting acute situational suggestibility, as well as to aid observers who must render judgments of coercion, voluntariness, and validity.

A Model of Interrogation-Related Acute Situational Suggestibility

Generally, theories of resistance to persuasion suggest that resistance requires at least two intact resources, the *ability* and the *motivation* to resist influence (Petty, Cacioppo, Strathman, & Priester, 2005). If one or both are compromised, susceptibility to influence will increase.

Ability to Resist

The ability to resist influence consists of two components: (a) the ability to effectively assess relevant information to arrive at the best judgment or choice of behavior to achieve one's goals under the circumstances, and (b) the ability to exert one's will and act on what one considers to be the best course of action. While chronic cognitive resources and willpower are clearly central to these abilities, situational forces crucially affect the capacity to marshal and use them effectively.

The ability to arrive at the best choice of behavior entails the intact functioning of a number of cognitive resources. First and foremost, one must be able to maintain focus on the goal at hand—in interrogation, to achieve the best legal outcomes, in part by avoiding incrimination—and avoid diversion toward goals such as pleasing the interrogator, escaping the interrogation immediately through compliance, and so forth. One must continually recognize, remember, and give priority to long-term best interests over immediate, and often overwhelming, impulses, and control what is said and done in the service of these long-term interests. Second, one must control attention, such that goal-relevant incoming information is attended to and irrelevant distracting information is unattended or quickly dismissed. Third, one must be able to access relevant information from long-term memory and evaluate and integrate incoming information in that context. Fourth, one must have the working memory resources to hold all relevant information in mind and use it appropriately as options are evaluated. Fifth, one must be able to control one's emotions sufficiently to make use of these abilities. Finally, one must possess the willpower to engage and persist in resisting influence, notwithstanding fatigue, the persistence of the interrogators' influence attempts, or the ineffectiveness of one's own initial attempts to resist.

Motivation to Resist

Motivation to resist influence can also arise from a number of sources. Incompatibility with other important goals or beliefs may promote resistance to the targeted belief or course of action. Resistance can also arise from perceptions that confession will lead to aversive legal, social, or other personal consequences—or by awareness of innocence and the conviction that one can successfully defend it. Goal-based motivation to resist will also depend heavily upon the ability to maintain focus on such goals and protect their priority, rather than to be diverted toward those promoted by the interrogator (such as pleasing the interrogator, or minimizing consequences of guilt rather than avoiding incrimination entirely) or prompted by the situation (such as escaping the interrogation through compliance rather than enduring it to protect long-term legal interests). One may also be resistant to the source of the influence attempt, due to dislike, distrust, low-perceived credibility, reactance, or other reasons: such as when the interrogator is perceived as hostile, coercive or deceptive. Moreover, motivation to resist can derive from the perceived availability and feasibility of other alternatives, for example, from knowledge of one's legal rights to stop the interrogation, demand an attorney, and avoid self-incrimination; or from the very fact of one's innocence, or perceptions that one can successfully establish innocence or avoid incrimination. Finally, it can derive from a sense of self-efficacy, or perceptions that one possesses and can successfully marshal the necessary abilities to resist.

Such sources of resistance can be undermined by personal or situationally induced impairments in self-confidence, general motivational deficits, awareness of relevant negative consequences of resistance, priority given to short rather than long-term goals, or inappropriate liking, and belief in the helpful motives of the interrogators. Further, interrogation tactics themselves are designed to impair motivation to resist, largely by convincing the suspect that resistance is futile and that it will only hurt the suspect's long-term legal interests, and by impairing general motivation through distress or fatigue. The skills and motivations necessary to avoid interrogation-induced self-incrimination are clearly many and vital, as are the many interrogation-related forces against which they must be deployed. Yet, the many interrogation-related assaults on these abilities and motivations are likewise surprisingly powerful. But what are these assaults? How powerful are they? And, by what mechanisms do they work?

What Must Be Resisted? The Nature of Influence in Interrogation

At all stages of police interrogation, several primary sets of strategies are operative, though specific manifestations differ. The first of these may be broadly termed "choice architecture" (Thaler & Sunstein, 2008), in which the interrogator attempts to promote confession by defining and limiting suspects' perceptions of the set of available choices. Toward this end, he or she attempts to establish the purpose and agenda of the interrogation, and to define and restrict the choices available to the suspect, primarily to exclude the possibility of establishing innocence. The interrogator attempts to undermine resistance to him- or herself by establishing "beneficence" and "authority" (Davis, 2010; Davis, Leo, & Follette, 2010), and casting him- or herself as a trustworthy ally whose goals are to help

the suspect and as someone with the authority to affect whether and what charges will be filed, based on the results of the interrogation.

The second choice architecture strategy is to redefine the nature of the interrogation. Rather than acknowledging the real purpose, which is to facilitate the suspect's ultimate conviction—or even the apparent purpose, which is to investigate guilt—the interrogator redefines the interrogation as a situation in which guilt is already clearly established. Instead, the goal is represented as allowing the suspect to "explain" him- or herself and therefore "help" him- or herself, with the implication that this explanation will affect (in a positive way) whether and what charges will be filed, with what consequences, and so forth. Thereby, what would naturally be the suspect's primary goal of exoneration is removed from the suspect's apparent choices, such that his or her attention and efforts will shift to the goal of minimizing consequences of guilt.

Choice architecture is also important during administration of *Miranda* warnings. Resistance is most effective if the suspect refuses interrogation without an attorney. Recognizing this, interrogators have adopted strategies designed to promote the illusion that the person actually doesn't have, the "right to invoke his rights." Interrogator may say something like: "Listen, we need to get this thing straightened out, but before we can do that we need to get this *formality* out of the way." This and similar statements clearly convey that the detective *will* be talking to the suspect, and that he or she is clearly not expected to refuse.

The interrogator next turns to the second general set of strategies, which is to alter the perceived costs of denial versus confession. During this phase, referred to as "theme development," the interrogator will suggest that the crime was probably committed under circumstances and for reasons that appear to minimize its seriousness and apparent legal consequences, such as for self-defense, to help others rather than out of greed, toward a "victim" who probably provoked or deserved it, and so on. These minimizing suggestions or scenarios can be complemented by arguments concerning how the judge or jury will react to a person who won't take responsibility for what she or he has done, or who lies about any involvement (see Davis, 2008, 2010; Davis & Leo, in press-a for examples).

The final set of strategies is overarching, in that it is enacted from the beginning to the end of the interrogation. Some strategies are designed to control the interaction completely. In part, this occurs through the earlier efforts to define the purpose and agenda of the interrogation. In addition, the interrogator attempts to control the focus of the suspect's attention, such that the suspect has difficulty diverting attention from the interrogator's push toward confession. This diversion renders the suspect less likely to remember his rights and why he or she should exert them, or failing this, less likely to focus instead on the possibility of innocence, any arguments or evidence favoring innocence or highlighting the negative long-term legal or social consequences of confession, or even simply away from the interrogator or toward ties with others who might discourage confession. The focus of attention tends to narrow under stress (Christianson, 1992; Easterbrook, 1959). Thus, the stressful circumstances of the interrogation are likely to enhance the effectiveness of the strong pull of the interrogators' efforts to control attention, and undermine the influence of other considerations that might otherwise effectively deter confession. Multiple strategies are enacted in service of this general purpose, including speaking quickly (so that the suspect

can't think of anything else), interrupting the suspect if he or she tries to offer denials, invading his or her personal space to prevent withdrawal, and others.

The second overarching set of strategies is those of emotion manipulation. The prominent Inbau and colleagues interrogation manual (Inbau, Reid, Jayne & Buckley, 2011), for example, argues for the effectiveness of emotions such as anxiety, pride, and guilt in promoting confession. Anxiety about one's fate, for example, can render one susceptible to solutions presented as a mechanism to minimize legal consequences. Raising guilt regarding the morality of the crime might render confession attractive as a means of atonement. Raising pride in the cleverness of the crime can raise the motivation to take credit for it. All promote confession, and most effective of all is to maintain a state of strong anxiety or fear that will have the additional effects of impairing cognition and promoting the need to escape. Vulnerability will increase among those experiencing powerful negative emotions, intolerance of distress, and difficulty controlling the emotions or associated distress (Follette et al., 2007).

To recap, a suspect may enter the interrogation deeply impaired by the physical and emotional stresses of the crime and its aftermath, only to face a potentially lengthy and aversive interrogation in which the suspect may be subject to aversive physical tests, and in which he or she is likely to be deceived throughout (Davis, 2010). If the suspect tries to defend her- or himself, he or she might be interrupted, called a liar, argued with and presented with apparently incriminating evidence to contradict arguments for innocence, and any efforts to defend innocence will be generally discounted. If the suspect fails to exert his or her rights to avoid or terminate the interrogation, this may go on for many hours, or days. Even if the suspect is offered food or rest, he or she may be too anxious to take advantage of those opportunities. There may be physical discomforts due to temperature, unsatisfied needs, or uncomfortable seating, and fatigue and stress are likely to increase as time goes on. The accused might feel greater and greater need to terminate the interrogation and get away. Without enormous strength of will and self-control, the suspect may do or say whatever is necessary to make it stop.

In this context, to avoid confessing against self-interest, the suspect would be best served by avoiding interrogation. Police interrogation may take place in two broad phases. During the first, the preinterrogation interview, the suspect may be interviewed in a nonaccusatory fashion designed to inquire about background issues, and establish rapport between suspect and interrogator. A significant purpose of this stage is to evaluate the person for deception, but interrogators are trained to interpret, inappropriately, reflections of suspect anxiety as indicating deception and guilt (Inbau et al., 2011; Vrij, 2008). Accordingly, the suspect's ability to control emotions is crucial, in that apparent anxiety can lead the interrogator to presume guilt, and proceed to interrogation.

If this happens, suspects can exert their *Miranda* rights and refuse questioning without legal counsel. But to do so, they must remember everything they know about their rights, and understand what those rights are, why they are important, and the damaging things that can happen if questioning continues without an attorney present. They must resist interrogators' efforts to imply that their rights aren't real, and understand that detectives' insinuations of their guilt if they refuse to talk are less important than the long-term damage that can occur if they do. If

they do agree to the interrogation, they must control powerful emotions deriving from the events in question and the interrogation itself, control distress, and suppress impulses to do anything to get away. They must control attention and focus on the goal of exoneration, despite powerful forces pulling attention toward the lesser goal of minimizing consequences. They must be able to remember relevant knowledge and use it to critically evaluate the information and arguments presented by interrogators, and recognize when they are being deceived.

Moreover, suspects must resist intense pressures to confess from one or more authorities, who presumably have much greater relevant knowledge of evidence against suspects, and other issues, and significant apparent control over their fates. Suspects must resist tactics designed to distract attention away from what they know about their rights, recognize the foibles of evidence presented against them and the prospects for eventual acquittal, and focus on what is important. They must remember what really happened, and not become confused by what they are now being told. And most of all, suspects must have the willpower to continue resistance despite the unremitting interrogation, and the possible frustration of failure to convince their interrogators of their innocence. Suspects must not let motivation to resist fail by falling prey to the apparent beneficence of the interrogator or to feelings of hopelessness and ineffectiveness. A tall order indeed! But how effectively can individuals mount such defenses, in the face of the many influences they may face in interrogation, with so much potential to compromise needed resources of resistance?

The Depletion and Impairment of Resistance: What Is Self-Regulation? Why Does it Matter? And How Easily Is it Impaired?

Self-regulation refers to processes by which individuals control their thoughts, emotions, and behaviors in service of the pursuit of one or more goals. One of the most rapidly burgeoning and vibrant areas of research in psychology, the study of self-regulation has implicated chronic or acute self-regulation capacities and strategies as playing crucial roles in most areas of human life or endeavor: from clinical psychopathology, to thinking, memory and creativity; school and work performance; successful interpersonal relationships; problem behaviors such as risk taking, criminality, or drug abuse; efforts toward self-improvement such as dieting, and others (see Vohs & Baumeister, 2011 for reviews).

Baumeister and his colleagues proposed a "limited-resource" view of self-regulation resources (Baumeister, Bratslavsky, Muraven, & Tice, 1998), suggesting that prior exertion of self-control depletes these resources (termed ego depletion), leading to greater likelihood of self-regulation failure on subsequent self-regulation efforts. Studies in the limited resource paradigm use dual-task procedures in which participants are first subjected to an ego-depleting task presumed to consume self-regulatory resources, and subsequently perform a second unrelated task, one presumed to also demand such resources. The general finding of such studies is that prior use of self-regulatory resources impairs performance on subsequent resource demanding tasks, but does so less or not at all for less demanding tasks (see Hagger, Wood, Stiff, & Chatzisarantis, 2010 for a review of moderators of these effects).

Studies in this tradition have used a variety of tasks to serve as both manipulations of ego-depletion and measures of its effects, including tasks requiring control of cognitive resources such as attention, working memory, and others; effort and persistence in the face of difficulty or failure; emotion regulation, physical effort, control of impulses, tolerance of distress, active choice or exertion of will, and others. Qualifying tasks must entail overriding acute impulses, or inhibition of automatic, habitual or dominant responses, and include tasks of difficulty or tedium sufficient to require effort to override impulses to quit. Depletion through any such task can impact subsequent self-regulatory control in any others. Poor regulatory resources may also result from fatigue, illness, or chronic regulatory weakness.

Of particular relevance to interrogation are the self-regulatory functions of control of short-term impulses in favor of long-term best interests, control of cognition to facilitate optimal decision-making and control of behavior, and control of emotion to facilitate each of these. In the following sections, we review evidence of (a) the importance of intact self-regulatory resources for each area of control, (b) the surprising ease with which self-regulatory function can be impaired, and (c) the impact of ego-depletion on suggestibility and the ultimate decision to confess. We then consider common, yet unrecognized or underappreciated, sources of interrogation-related ego-depletion and self-regulatory failure.

Impulse Control: Maintaining Priority of Long-Term Goal Pursuit Over Short-Term Impulse

A prerequisite for successful self-regulation is having a clearly defined behavioral goal. At the beginning of interrogation, a suspect may have the goal of establishing his or her innocence. As the interrogation persists, the suspect may become increasingly fatigued or distressed. If the suspect gives priority to his or her immediate needs to escape the aversive situation over long-term best legal interests, he or she may confess simply to terminate the interrogation. This can happen through two mechanisms involving (a) simple lack of interest in long-term goals and/or (b) an inability to override the impact of immediate needs and demands, sometimes despite strong concern with long-term goals (e.g., due to distress intolerance).

As it proceeds, interrogation is likely to substantially shift the balance between the strength of impulses to escape the interrogation versus cognitive and emotion control functions that might otherwise override them. As this balance shifts, attention will likewise shift to cues relevant to escape over those relevant to the initial goal of exoneration. As the increasingly impaired suspect becomes more stimulus-driven and less responsive to internal goals and beliefs, the interrogator's push toward confession will become more persuasive. The interrogator will thwart efforts to establish innocence but strongly encourage other goals, such as being seen as cooperative, explaining how one might have been caught up in the moment, avoiding a bad legal outcome if one cooperates, or, where alleged coperpetrators are also being interrogated, "telling your side of the story" and assigning blame to them before they assign it to you. Interrogation is designed to increase anxiety, guilt, and other negative emotions to increase the impulse to escape; and to misrepresent what are the most desirable and attainable goals. If

either occurs, self-regulation toward preventing incrimination is inevitably weakened.

Metcalfe and Mischel (1999) proposed a dual-process system for regulation of impulsive responses to situational stimuli. They summarized the two systems as follows:

> A cool, cognitive "know" system and a hot, emotional "go" system. . . .The cool system is cognitive, emotionally neutral, contemplative, flexible, integrated, coherent, spatiotemporal, slow, episodic, and strategic. It is the seat of self-regulation and self-control. The hot system is the basis of emotionality, fears as well as passions—impulsive and reflexive—initially controlled by innate releasing stimuli (and, thus, literally under "stimulus control"); it is fundamental for emotional (classical) conditioning and undermines efforts at self-control. The balance between the hot and cool systems is determined by stress, developmental level, and the individual's self-regulatory dynamics (p. 3).

Self-regulation studies often apply the conflict between these "hot" and "cold"" systems to the issue of rational restraint of emotional impulses. However, restraint may also derive solely from the hot system, as when anxiety prevents response to either cool cognitive evaluations and plans, or to situational stimuli provoking contrary emotional responses (such as when desire says "go" and anxiety says "stop;" Carver, 2005). A wealth of evidence has accumulated to support the role of self-regulatory strength in suppression of impulse-driven behavior in favor of functional, carefully considered behavior, and to illustrate the roles of both major and minor forms of ego-depletion on impulse-driven behavior (see reviews in Vohs & Baumeister, 2011). Much such literature concerns resistance to dysfunctional behaviors, such as overeating, substance abuse, risk-taking, inappropriate sexual actions, and so on. However, other literature has concerned the issue of choices maximizing long- versus short-term gain.

Metcalfe and Mischel (1999) reviewed a host of studies concerning delay of gratification (i.e., resisting the impulse to accept an immediate smaller award in favor of a delayed, but larger one), showing that interference with the "cool, cognitive, 'know' system" resulted in greater reaction to the "hot 'go' system;" that is, choosing the immediate smaller reward (for more recent review, see Tobin & Graziano, 2010). This situation is particularly pertinent to the interrogation-related choice of whether to comply and confess to achieve the short-term goal of escape from the stresses of the interrogation, but with the price of facing the long-term consequences of incrimination, prosecution, and probable incarceration. A second, particularly relevant issue of impulse control—that of controlling the impulse to quit a prolonged, demanding or frustrating task (such as interrogation)—has likewise been shown to depend upon intact self-regulatory resources (Hagger et al., 2010; Vohs & Baumeister, 2011).

Current views suggest that impulse control depends upon at least three self-regulatory functions (e.g., Hofmann, Friese, & Roefs, 2009). The first, "inhibitory control," refers to the capacity to choose how to react to the impulse, and potentially willfully override it. The second and third affect the strength of the impulse, thereby modulating the difficulty of inhibitory control. One relies on the cognitive functions of executive control of attention; that is, the ability to divert attention from triggers of the impulse, and redirect it to stimuli and thoughts that

would inhibit the impulse. This can include Metcalf and Mischel's rational cool, cognitive "stop" analysis of consequences and reasons the impulse should be inhibited. The other entails down-regulation of the hedonic affect (emotion) triggering the impulse—in effect, to weaken the impulse itself. Thus, we turn in the next two sections to the general self-regulatory functions of control of cognition and regulation of emotion. In the process, we illustrate the ease with which self-regulatory resources, and thus performance in each of these areas, can be compromised.

Control of Cognition

The cognitive system is responsible for deliberative judgments, strategic planning for goal pursuit, and inhibition, or overriding of prepotent impulses or habits. Central to these functions are memory and control of attention. Rational analysis requires one to selectively attend to, comprehend, and remember relevant incoming information; access other relevant information from memory; hold all relevant information in working memory; and use it to assess the desirability and feasibility of goals and strategies to achieve them; and then select plans for their execution. Then, the person must have the strength of will to execute those plans, notwithstanding strong stimulus draws toward other goals and behaviors.

A number of studies have specifically examined the effects of depletion of cognitive resources on tasks demanding self-regulatory resources, many using the dual-task depletion paradigm described earlier. Others have used manipulations of cognitive load, placing heavy demands on working memory in order to decrease capacity for the target task—often by requiring the person to engage simultaneously in a distracting secondary task while completing the primary task. Impairment of cognitive resources through either experimental strategy has been shown to result in poorer self-regulation—with respect to impulse control and rational analysis (see Hofmann, Friese, Schmeichel, & Baddeley, 2011 for review).

Impulse control and the pursuit of conscious or long-term goals are weakened by impairment of important cognitive functions. Effective goal pursuit entails the ability to maintain current goals and relevant supportive information and plans in mind over time, and to engage in the executive attentional control to screen out distraction and maintain their priority over other situationally prompted goals (i.e., goal shielding). These functions entail intact working memory and attentional control—for inhibition of interfering thoughts and emotions. Attention must also be controlled to update relevant information and the status of goal pursuit, and flexibly adjust—potentially to switch goals when one goal becomes infeasible or inadvisable, or to switch strategies in pursuit of the same goal. Finally, one must exert the will to override conflicting impulses in favor of the preferred goal. Effective decision-making is likewise undermined by cognitive deficits. Again, incoming information must be screened for relevance, understood, and evaluated in light of relevant information accessed from long-term memory. Distracting thoughts' content and emotions must be suppressed in order to process and integrate relevant information to form a decision—which may require updating as more information is added. And, again, the person must exert the will to act on the decision (now a goal), and pursue it despite countervailing influences.

Hoffman and colleagues (2011) presented evidence that both chronic and acute working memory capacities (WMC) are crucial to all of these cognitive

functions. Further, both chronic and acute WMC impairment has been empirically linked to the end results of impairments in impulse control, long-term goal pursuit, decision-making, and emotion regulation. In other words, cognitive control is necessary for all additional areas of self-regulation, just as it also depends upon them. Strong impulses and emotions deplete cognitive resources through attempts to either control or pursue them.

Unfortunately, depletion of cognitive resources and other self-regulation failures have been proven to occur in response to tasks that are much less resource-consuming than those facing suspects in police interrogation. Thus, it is important to note specific examples of apparently minor manipulations of depletion, and their surprising power to affect crucial underlying cognitive processes and the resulting self-regulatory failures (for a vast array of additional examples, see Vohs & Baumeister, 2011).

Schmeichel (2007) illustrated the ease with which prior exertion of cognitive executive control can impair subsequent executive control functions, obtaining impairment on subsequent tasks due to prior attentional control (e.g., watching a video while ignoring distracting information at the bottom of the screen), response inhibition (e.g., writing a story while instructed not to use an "a" or an "n"), memory updating, including the operation span (e.g., performing mathematical calculations while performing a recall task), sentence span (e.g., combining a recall task with verbal or spatial distractors), reverse digit span (e.g., attempting to recall a series of numbers backward rather than forward), and response exaggeration (e.g., exaggerating facial expression of emotion during an emotion-provoking film).

In another set of studies, Schmeichel and colleagues (Schmeichel, Vohs, & Baumeister, 2003) used the dual-task method to examine the effects of executive depletion on verbal comprehension and reasoning. Participants who first performed the depleting attention-control task whereby they watched a video while suppressing attention to distractor stimuli, compared to those who had no distractor stimuli, subsequently persisted less in attempting to answer GRE analytical questions and answered fewer correctly, and also performed more poorly on a reading comprehension section of the GRE. In a second study, participants who watched a distressing film while instructed to suppress their emotional reactions subsequently performed more poorly on demanding cognitive tasks than those not given suppression instructions.

The ego-depleting impact of the simple act of making a choice among alternatives was investigated by Vohs and colleagues (Vohs et al., 2008), who showed that making choices among college courses or consumer goods (compared to just thinking about the options) led to less tolerance of physical distress (persistence in the cold-pressor task of holding one's arm submerged in ice water), reduced persistence in the face of failure, and poorer performance and persistence in completing math calculations. The depleting effects of choice are greater, however, when under circumstances characteristic of police interrogation, where the decision is more difficult, or the person feels pressured, coerced, or seduced into action, compared with circumstances in which the person more easily or freely chooses among naturally interesting or desirable alternatives (Baumeister, Sparks, Stillman, & Vohs, 2008; Moller, Deci, & Ryan, 2006). Those asked to

make more controlled, versus autonomous, choices persisted less in attempts to solve unsolvable puzzles, as well as solvable, but tedious puzzles.

A number of studies examined the end-product of such processes, showing that the choices of ego-depleted participants were guided more by simple heuristics and irrelevant context effects rather than by deliberate, effortful trade-off comparisons (see Baumeister et al., 2008 for review). In addition, choices appear to become more passive, in that the already powerful tendency to choose the "default" option—one engaged automatically unless one actively chooses otherwise—is greater when individuals are depleted. Choices are also more likely to be guided by the affective feelings generated by the various alternatives rather than their objective rational advisability. And, when all is said and done, memory for what was chosen is poorer among depleted choosers (Baumeister et al., 1998).

While these and many other studies have implicated ego-depletion in subsequent failures of cognitive performance, substantial research has also implicated impairment of cognitive executive functions, and specifically working memory (WMC), in failures of impulse control, such as restraint of eating or substance use, risk taking, aggression, inappropriate sexual behavior, and others; and in failures of emotion-regulation, including both enactment of specific emotional control strategies such as reappraisal or diversion of attention, and the end product of dampening undesired emotions (see Gross, 2007; Hofmann et al., 2011; Vohs & Baumeister, 2011). In sum, ego-depletion renders a person more stimulus-driven and responsive to immediate impulses, less rational and reflective in decision-making, and more vulnerable to suggestion and persuasion, as we discuss below.

Affect Regulation and the Management of Distress

A central problem of self-regulation for a suspect under interrogation is the need to control his emotions, or at least his reaction to them. The suspect may need to suppress affective states such as distress, anxiety, and fear that might otherwise disable cognition, interfere with rational decision-making, increase susceptibility to interrogation tactics playing on emotion, and lead to greater impulsivity or confession to terminate the interrogation. Emotions selectively drive attention toward emotion-related, goal-relevant stimuli and information (see Levine & Edelstein, 2009). This can exert powerfully distracting effects, diverting attention from the goal of exoneration, and rendering the suspect more responsive to suggested mechanisms to minimize legal consequences, or to mechanisms of escape from the aversive interrogation. In contrast, successful emotion regulation facilitates pursuit of preferred goals, and yet increases needed flexibility in thinking and behavior in pursuit of those goals.

Self-regulation of emotion is dependent upon several processes potentially impaired by ego-depletion. Among them is regulation of attention to divert thinking from emotion-provoking information or stimuli. One may also self-regulate emotion through cognitive reappraisals of the source of emotion, rendering it less threatening (see Koole, 2009 for review). Each mechanism can be dysfunctional in the interrogation room, where effective decision-making requires the suspect to attend to relevant information and to realistically appraise and evaluate the situation. The suspect may also self-regulate emotions by avoiding physical expressions of emotion such as facial expressions, physiological re-

sponses, or gestures; or may engage in relaxing exercises such as yoga-like controlled breathing or progressive muscle relaxation techniques, and so on (see Gross, 2007; Koole, 2009 for reviews).

Unfortunately, all such mechanisms require self-regulation to override automatic responses with more controlled, effortful responses—the very processes compromised by ego-depletion. Moreover, such efforts to control emotion are themselves depleting—and lead to self-regulation failures such as aggression, overeating, inappropriately simplified or poor decision making, unfocused attention, impaired memory and other decrements in cognitive performance (DeWall, Baumeister, Stillman, & Gailliot, 2007; Dillon, Ritchey, Johnson, & LaBar, 2007; Johns, Inzlicht, & Schmader, 2008; McRae et al., 2011; Richards & Gross, 2000; Tice, Baumeister, & Zhang, 2004). Efforts to cope with stress, specifically, lead to self-regulatory failures directly relevant to the ability to resist pressures toward confession, such as impaired attentional control or persistence in the face of frustration. Intense emotions are more difficult to regulate, and efforts to control them more depleting. Moreover, emotional control itself becomes more difficult as the person suffers greater depletion, thereby exacerbating such effects (Schmeichel & Demaree, 2010).

Efforts to control the overt expression of emotion can boost arousal while failing to reduce negative emotions, and paradoxically reducing positive emotions (Butler et al., 2003; Gross, 1998; Gross & Levenson, 1997), creating a cycle of greater and greater difficulty in self-regulation of emotion. Expressive suppression can also impair social functioning (Srivastava, Tamir, McGonigal, John, & Gross, 2009), disrupt communication, and magnify negative emotions. Emotion suppression has additional negative effects, including impairing memory for ongoing interactions or events (Dillon et al., 2007; Egloff, Schmukle, Burns, & Schwerdtfeger, 2006; Richards & Gross, 2000), and can be particularly detrimental when a suspect or interrogator must later recount the events of an interrogation.

The Role of Fear

Among the many emotions likely to arise in the interrogation room, perhaps the most common is fear. Among the most powerful sources of such fears is the specter of prison or death. The former entails a number of specific fears such as isolation, separation from friends and family, boredom, physical threats of violence, deprivations of liberty and material resources, and many others. Some such fears have been specifically shown to impair self-regulation. Effects of thoughts of death, for example, were investigated in nine studies by Gailliot and colleagues (Gailliot, Schmeichel, & Baumeister, 2006). Participants lower in either chronic or acute measures of self-control, or those experimentally depleted through prior resource-consuming tasks, were less able to keep thoughts of death at bay. In turn, when participants were led to confront and cope with thoughts of death, this led to self-regulation failures of attentional control, logical reasoning, and persistence. Lesser fears of social isolation, exclusion, separation from loved ones, or rejection—highly relevant for those facing possible incarceration—have also been shown to impair self-regulation, including impairments of impulse control, such as aggression, unhealthy behaviors, or foolish risk taking; distorted time perception and emphasis on the present over the future; and an assortment of impair-

ments in cognitive functions (Baumeister, Brewer, Tice, & Twenge, 2007; Baumeister & DeWall, 2005; Blackhart, Baumeister, & Twenge, 2006).

The Costly Pursuit and Maintenance of Self-Esteem

Among the pervasively present self-regulation goals are those directed toward maintenance of self-esteem and specific desired self-images (see Crocker, Moeller, & Burson, 2010; Morf & Horvath, 2010). Both unconscious and conscious processes operate, whereby the person becomes especially attentive and responsive to opportunities for threats to the pursuit of preferred self-images (Morf & Horvath, 2010). Such selective attention can render the suspect more responsive to theme development, for example, where the interrogator flatters the suspect and offers seemingly more acceptable scenarios for how and why the crime was committed (e.g., self-defense). Interrogation manuals instruct that such scenarios will facilitate confession by offering mechanisms through which the suspect can confess and nevertheless save face (e.g., Inbau et al., 2011).

Whereas goals of ego maintenance can facilitate receptiveness to the interrogator's tactics directly, it may also do so through ego-depletion. The pursuit and defense of self-esteem has been shown to be effortful (Crocker et al., 2010; Morf & Horvath, 2010), and to lead to self-regulatory failures manifest in a variety of behavioral and cognitive arenas. This represents one of a number of interrogation-related sources of distress—and ultimately suggestibility—that tend to go unrecognized or underestimated. As with many classes of threats, those to the ego engage the "hot" emotional system (Crocker et al., 2010), that is, provoking negative emotions such as shame, fear, embarrassment, feelings of failure, and others; increasing stress and arousal; and provoking voluntary coping strategies designed to deflect the threat and restore the ego. Efforts to manage emotions and address the threat trigger thoughts that divert attention, consume cognitive capacity, and undermine pursuit of other long-term goals. Perceived threats to one's self-image can function like threats to physical well-being or survival, thereby activating the fight-or-flight system and provoking the release of stress hormones such as cortisol (Crocker et al., 2010), which themselves undermine cognitive performance (see later sections on stress).

The Role of Stereotype Threat

Many of these processes have been reflected in the literature on "stereotype threat." When negative stereotypes applying to one's social group are salient, thereby also threatening one's own ego, performance in stereotype-relevant areas is impaired. Such decrements result in part from the increased cognitive load caused by worry about potentially confirming the undesirable stereotypes. This work has recently been extended to show a broader range of self-regulation failures under stereotype threat, such as increased aggression, unhealthy eating, more risky decision making, reduced physical stamina, failures of attentional control and working memory, and increased loss-aversion in decision making (the tendency to overweight the potential for loss). Stereotype threat impairs performance, in part due to depletion of executive resources resulting from (a) physiological stress responses directly impairing prefrontal processing, (b) active monitoring of threat-related performance, and (c) the person's attempts to regulate

the negative emotions raised by the threat (Beilock, Rydell, & McConnell, 2007; Carr & Steele, 2010; Inzlicht & Kang, 2010; Inzlicht, McKay, & Aronson, 2006; Johns et al., 2008; Schmader, 2010; Schmader & Johns, 2003; Schmader, Johns, & Forbes, 2008).

It is noteworthy that substantial potential for the operation of stereotype threat exists in the interrogation room. Minorities such as Hispanics and African Americans, for example, may be aware of stereotypes associating their groups with criminal behavior. Similar processes may affect other defendants—for example, step-fathers accused of sexual assault of step-children, and others accused of crimes viewed as likely committed by a person of their category (husbands accused of spouse murder). Awareness that others may assume they are personally criminal as the result of such stereotypes can promote the sense of hopelessness regarding establishing innocence that interrogators encourage and rely on, and through the processes mentioned above, directly impair thinking and self-regulation. Further, the anxiety associated with awareness of and attempts to manage stereotype threat may give rise to the appearance of deception and guilt, as cues of anxiety tend to be interpreted by interrogators and others as indicators of deception (Vrij, 2008; Najdowski, 2011). Finally, as with other classes of ego threat, stereotype threat may render the person more susceptible to interrogation tactics of flattery or face-saving themes.

The Related Issue Of Impression Management

An overriding task of the suspect in police interrogation is to attempt to manage the impressions he or she conveys to his interrogators—all the while keeping in mind the ultimate audiences of prosecutors, judges, and juries. Vohs and colleagues (Vohs, Baumeister, & Ciarocco, 2005) provided evidence that such impression-management goals and activities are depleting and lead to self-regulatory failures on subsequent tasks, particularly when one must override natural behavioral tendencies in order to convey desired impressions. Depletion effects have included failures of persistence on difficult math tasks or acts of physical endurance, and failures of emotional control. Likewise, Vrij and colleagues (Vrij, 2008) have provided evidence that lying is cognitively demanding compared with truth telling, along with the related activities of keeping track of the lies one has told and the lie-relevant information that might betray them as such, and the need to monitor carefully other information one might disclose in light of the lies. Vohs and colleagues (Vohs et al., 2005) also documented the reverse: that resource-demanding activities impair successful impression management. Ego-depletion through emotion regulation or attention control has led to more uncontrolled talking, inappropriate self-disclosure and negative self presentations.

Of particular interest for the context of interrogation, Crocker and colleagues (Crocker et al., 2010) pointed out that self-regulation in the "'hot' system" can lead to failures to discriminate when one should persist versus quit. That is, hot emotions triggered in response to ego threat may provoke such strong needs to restore one's self-esteem or to manage others' impressions of oneself that one may persist in such efforts even when they are dysfunctional or failing, such as continuing to talk to police hoping to convince them of one's innocence rather

than more wisely invoking *Miranda* rights. The degree to which the ego is at stake can vary between situations and people (Crocker et al., 2010; Morf & Horvath, 2010). This offers an avenue of attack for the interrogator to use such ego-related threats to increase the suspect's level of distress (and need to escape), and his or her susceptibility to tactics such as flattery or theme development. It also indicates an unrecognized source of individual vulnerability, both to interrogation-related regulatory decline (IRRD) and to specific interrogation tactics; see, e.g., Morf and Horvath's (2010) discussion of reactions of narcissists to self-threats.

The Bottom Line: Ego Depletion, Decision Making, and Persuasion

Together, the stresses of the interrogation and emotional responses to them can be extreme and debilitating. Substantial evidence has implicated stress in poor decision making, and therefore much research has addressed mechanisms to override such negative effects and protect decision-making faculties in extremely stressful and demanding environments (Hammond, 2000; Kennedy & Moore, 2010; McNeil & Morgan, 2010; Orasanu & Lieberman, 2011). Impairments result in more impulse-driven emotional decisions, in part reflecting less reflective processes such as active analysis of incoming information—a crucial liability when faced with unrelenting attempts to persuade.

Interrogation tactics may persuade suspects (whether guilty or not) that confession will serve their long-term best interests. Effects of ego-depletion on the effectiveness of persuasive attempts can be understood in the context of the "elaboration-likelihood" (Petty, Barden, & Wheeler, 2009; Petty et al., 2005) and related dual-process models of persuasion. According to such models, persuasion may take place via a more effortful form of "central-route" processing, whereby the person carefully attends to and thinks actively about incoming messages, and critically analyzes them in light of existing knowledge. Persuasion via this route depends upon the quality of the arguments presented, and the recipient's ability and motivation to critically appraise them. If the person does not possess the ability or motivation to process a message on the central route, he or she will be shunted to the "peripheral route," where processing is much less reflective and effortful, and the content of the message is not as carefully scrutinized for quality. Instead, persuasion depends on peripheral or heuristic cues serving as proxies for quality—such as source credibility or trustworthiness, the number (vs. quality) of arguments presented, and so on. Message quality impacts persuasion more when processing resources and message importance are high; whereas, if one or both are low, persuasion is affected less by message quality and more by peripheral cues such, as source characteristics (e.g., expertise, likability, trustworthiness, or authority) or the simple number of arguments (see Petty et al., 2005 for review).

Illustrating the effects of ego depletion on reaction to argument quality, for example, Wheeler and colleagues (Wheeler, Briñol, & Hermann, 2007) found that nondepleted participants were more persuaded by the high- than the low-quality arguments, whereas depleted participants were equally persuaded by both. Further, depleted participants generated significantly less counterarguments against the couterattitudinal message—that is, they responded less thoughtfully and critically to the message. Even as resource depletion reduces responsiveness to argument quality and enhances persuasion based on source credibility, it ironi-

cally renders targets of persuasion less likely to respond to cues of manipulative intent on the part of the communicator that would otherwise lead them to discount the message (Wentzel, Tomczak, & Herrmann, 2010). Such a process can increase susceptibility to tactics designed to increase trust of an actually malevolent interrogator and shunt the suspect to peripheral-route processing, where he or she would likely fail to critically evaluate the content of the interrogator's persuasive efforts and simply rely on his or her apparent trustworthiness as an heuristic cue to truth and accuracy.

Findings from the dual-process tradition of persuasion research fit well with a second line of research conducted by Daniel Gilbert and his colleagues (Gilbert, Tafarodi, & Malone, 1993), indicating that people tend, as a default, to first believe information they encounter as part and parcel of the process of understanding it. In a second, less automatic process, they may or may not carefully think about that information and deliberately decide to believe it or not. But the second stage may not occur, and if not, the person may yet believe what "should not" be believed (e.g., Gilbert et al., 1993). Typical resource depleting circumstances can enhance cognitive load and reduce the likelihood of, or prevent, this second stage.

In a particularly relevant set of three studies, Gilbert et al. (1993) found that, under enhanced cognitive load or increased time pressure, participants exposed to false information about either a criminal defendant or a college were more likely to use the false information in making consequential decisions about the target. In effect, they were less likely to "unbelieve" the false information. Likewise, distraction decreases the effects of argument quality on persuasion and increases effects of peripheral heuristic cues (see Petty et al., 2005 for review).

Common but Underappreciated Sources of Self-Regulation Failure in Interrogation

A central point of our review of the importance and impact of self-regulation has been the ease with which the underpinnings of successful decision making and resistance to influence can be undermined. This stands in stark contrast to the (in our view) amazing insensitivity among those in the legal system to the effects of far more exhausting and depleting circumstances faced by criminal defendants. Interrogations that clearly pass reasonable limits of suspects' abilities to actively exert their wills, to "knowingly and intelligently" waive their rights, or to decide to confess (allegedly voluntarily and rationally), are routinely ruled voluntary and admitted into evidence (Wrightsman, 2010). Among the circumstances posing what should be the most obvious of interrogation-related factors undermining these capabilities are extreme preexisting stress, fatigue or sleep-deprivation, or extremely lengthy and/or stressful interrogations. Self-regulatory resources can be depleted through use, and through efforts to cope with distress, as described in preceding sections, but may also be compromised through simple physical deprivations associated with long and aversive interrogations, including glucose depletion, fatigue, and sleep deprivation. In the following sections, we consider the effects of these physical deprivations. We also cover in more detail the effects of severe stress, and evidence from studies of military personnel in extreme circumstances of the combined effects of these factors.

Glucose Depletion

Gailliot and Baumeister (2007) reviewed substantial evidence that self-regulatory resources rely on glucose, which itself is depleted by the many self-control activities studied in the self-regulation literature. They presented evidence of reciprocal influence between the two, such that acts of self-control reduce blood glucose levels and depleted glucose levels impair the many acts of self-control reviewed earlier. Further, replacement of glucose between acts of self-control reduces or eliminates depletion effects. Other evidence indicates that eating, per se, may be important for emotion regulation, and that, via its impact on emotion regulation, eating may aid in other acts of self-control. Eating has neuroendocrine effects such as the release of opioids that can relieve stress (Koole, 2009).

Severe glucose depletion is not uncommon in police interrogation. Suspects may be deprived of replenishing resources for hours, and, if offered food or sugary drinks, may decline due to dampening effects of psychological or physiological distress on appetite. Even if glucose is consumed sporadically, it may be insufficiently frequent relative to the demands imposed by the situation for replenishment, thereby exacerbating the already depleting effects of fatigue and other forces of the interrogation.

Fatigue/Sleep Deprivation

Fatigue and sleep deprivation may be extreme when an interrogation begins, and increase as the interrogation lasts as long as one or more days. Decrements in performance due to sleep deprivation of as little as 24–36 hrs have been reported for cognitive tasks entailing attention, working memory, long-term memory, visuomotor performance, decision making, verbal fluency, logical reasoning, creative thinking, response inhibition, error detection and correction, updating decisions in light of new information, planning, prioritization, and emotion regulation, though effects can vary among the specific tasks assessed (see Alhola & Polo-Kantola, 2007; Harrison & Horne, 2000; Walker & van der Helm, 2009; Wesensten & Balkin, 2010 for reviews). Illustrating extreme impairments of judgment under sleep deprivation, Banderet and colleagues (Banderet, Stokes, Francesconi, Kowal, & Naitoh, 1981) examined the effects of sleep deprivation on artillery training teams in sustained simulated combat. Decisions to fire on simulated enemy versus noncombatant targets revealed that after 24 hrs of sleep deprivation, teams inadequately kept track of the difference—firing without hesitation regardless of the nature of the target. In contrast, without sleep deprivation, the teams refused inappropriate requests.

Particularly relevant effects of sleep-deprivation on suspects concern resistance to influence, rational decision making, emotion regulation, impulse control, and memory for the interrogation and events in question. Several studies found enhanced suggestibility under sleep deprivation. Many others have focused on sleep-deprivation effects on the quality of decision making, indicating that sleep deprivation generates greater deficits in decision making when tasks involve novel judgments, requirements for greater integration, creativity, and flexibility in thinking, the presence of competing distractions, or the need for effective communication—all characteristic factors affecting the suspect's decision making in interrogation. Decisions also tend to become less sensitive to potential loss and

more risky and reward driven (Venkatraman, Huettel, Chuah, Payne, & Chee, 2011; Venkatraman, Chuah, Huettel, & Chee, 2007), and confidence in one's decisions and actual accuracy become more dissociated with increased sleep deprivation (see Alhola & Polo-Kantola, 2007 for reviews). Substantial research also indicates that fundamental processes of perception, encoding, consolidation, and maintenance of memory over time, and memory's susceptibility to alteration through various processes are strongly affected.

At extreme levels, sleep deprivation can sufficiently impair encoding, such that the unreal is perceived as real and vice versa (Larsen, 2001). If the event is encoded successfully, memory-consolidation processes are subject to disruption through sleep deprivation (see Diekelmann & Born, 2010 for review). A further level of consolidation occurs predominantly during REM sleep (Walker & Stickgold, 2010; Walker & van der Helm, 2009), supporting integration of new with old memories within associative networks, and facilitating schematic understanding and planning. The very process of integration of new memories with existing information, as well as with additional new, incoming information, can produce memory distortion, as illustrated by a significant body of research on distortion of memory toward supportive beliefs (Davis & Loftus, 2009). Suggestion occurring during informal or formal discussions of the events in question can alter memory upon retrieval, and, as noted earlier, has more impact upon the sleep deprived (Walker & van der Helm, 2009). Such findings suggest that sleep deprivation may render a suspect more vulnerable to distorted descriptions of the events in question (including the possibilities of false confession and false memories of committing the crime; Kassin, 2007), and yet less able to remember the interrogation that prompted the false memories.

Emotion regulation. The sleep-deprived brain is significantly less able to self-regulate emotions and produce controlled appropriate responses (Van der Helm & Walker, 2010; Walker & van der Helm, 2009). A large variety of dysfunctional behaviors become more disinhibited when an individual is sleep deprived, ranging from overeating and other forms of indulgence, to various forms of risk taking and aggression (Walker & van der Helm, 2009; Wesensten & Balkin, 2010).

Sleep deprivation and recovery. Although most studies of sleep deprivation have examined total sleep deprivation of varying degrees, studies of inadequate sleep across one or more nights have also shown similar deficits in self-regulatory functions resulting from one or more deficit hours per night. Moreover, whereas recovery from an acute, total sleep loss can occur in 1–2 nights of 8-hr sleep, recovery from chronic sleep restriction occurs less rapidly, and deficits may persist for days after normal sleep hours are resumed. Acute efforts to restore function in the sleep deprived are not effective substitutes for sleep. Activities such as bouts of physical activity, for example, are not effective in improving performance for more than several minutes, though agents such as caffeine in sufficient dose can help (Wesensten & Balkin, 2010). Thus, it is unrealistic to presume that a suspect will resume normal functioning if given a few hours of sleep, or even a full night's sleep, or if given opportunities to walk around or drink a caffeinated soda between repeated interrogation sessions, particularly if sleep loss has occurred for several days prior. Further, it is better to

rely on objective indices of deprivation rather than subjective reports of fatigue, as the two are inconsistently related (Wesensten & Balkin, 2010).

The Perfect Storm: A Cocktail of Glucose-Depleting Stress, Fatigue, and Sleep Deprivation

While glucose depletion, stress, fatigue, and sleep deprivation separately impair executive functions of cognition and control, together they pose the specter of much more profound impairment. Such a cocktail of forces is difficult to investigate in the typical research lab, but has been the subject of routine study in the military. Sometimes referred to as the "fog of war," military researchers have examined deficits of performance under stress commonly experienced in extreme combat-related circumstances. Lieberman and colleagues (Lieberman et al., 2005) described "combat stress-induced cognitive decline" as pervasive decrements in simple and complex cognition under combat conditions. McNeil and Morgan (2010) coined the term "operational demand-related cognitive decline" (ODRCD) to refer to "decrements in cognitive performance or decision-making resulting from the manifold pressures or acute stressors characteristic of dangerous or extreme environments."

Military training activities offer the opportunity to study such a constellation of stressors. For example, SERE (survive, evade, resist, escape) training subjects cadets to intense physical activity and discomfort, sleep deprivation over several days, and intense acute stress via mock POW capture and interrogation.

Charles Morgan and colleagues have conducted a series of studies to identify the degree and manifestations of the cadets' stress responses to SERE and other stressful military training exercises, as well as potential moderators of these responses. These and related studies have revealed an important role of stress in impairment of indices of executive control and cognitive performance, and various specific aspects of military performance, including performance in interrogation and memory for the interrogator (see McNeil & Morgan, 2010; Lupien, Maheu, Tu, Fiocco, & Schramek, 2007 for reviews). Dissociative symptoms such as a sense of unreality, feeling as if watching things from outside one's body, feeling disconnected from one's body, distorted sense of time or motion, "spacing out," and so on were common during training— and experienced among more than 90% of the general population of cadets.

Stress prompts the release of stress hormones in the brain related to impairment in executive functions, including, cortisol and norepinephrine . This is countered by the release of other agents that moderate the negative effects of C and NE, such as neuropeptide-Y (NPY) and sulfated and unsulfated forms of dehydroepiandrosterone (DHEA and DHEA-S). The relative balance of these substances is linked to the amount of impairment of executive functions under stress. Trainees develop higher levels of these substances during training—and cortisol is greatest after exposure to the interrogation segment of training. However, those with higher relative levels of the protective NPY and/or DHEA/DHEA-S suffered lesser impairments in cognitive functions, such as alertness during stress, memory, experiences of dissociative symptoms, and others; less psychological distress; and better performance in the interrogation segment of training (see McNeil & Morgan, 2010).

Suspects in police interrogation are subject to multiple stressors, whose effects we earlier dubbed IRRD to include all aspects of impaired self-regulation. We suggest that neuroendocrine assessments such as those employed by Morgan and his colleagues and other indices of physiological stress-responsivity might be valuable additions to evaluations routinely performed by psychologists/psychiatrists as evidence of enhanced vulnerability to coerced confession.

It's Not Just the Suspects: Ego Depletion and Police Cognition

Police can also suffer depletion due to preexisting stressors and fatigue, and the length and stresses of the interrogation to which they are uniquely subjected. Among the many implications of ego depletion in interrogators are the following: More simplistic analysis of evidence and suspect behavior, enhanced tunnel vision and confirmatory biases; and reduced abilities to objectively assess the suspect and evidence, to correct initial judgments of the suspect or evidence, to recall evidence and construct arguments favoring confession, to manage emotions and impressions of himself, to lie effectively, and to manage other necessary tasks (see Davis & Leo, in press b).

Conclusions and Policy Recommendations

Our review and analysis of the import of literature on self-regulation and the process of interrogation-related regulatory decline (IRRD) suggest three policy implications regarding: (a) standards for admissibility of police-induced confessions, (b) limits on interrogation practices, and (c) future directions for interrogation research.

Standards for Admissibility Rulings

Police interrogation can be a perfect storm of forces undermining the capacity to exert one's will, restrain dysfunctional impulses, and engage in optimal decision making—for suspect and interrogator alike. With impaired self-regulatory resources, both become susceptible to stimulus control, more reactive to situationally induced emotions and impulses, less reflective, more likely to think reflexively and heuristically, and more likely to be influenced by the pressures and arguments of others.

Though many of these forces act on the interrogator, given the difference in power and roles, they are primarily brought to bear on the suspect. Indeed, research has demonstrated that lower relative social status or power—as is characteristic of a suspect being interrogated by the relatively powerful detective—is associated with poorer control of basic cognitive processes such as attention, and poorer decision-making (e.g., Fast, Gruenfeld, Sivanathan, & Galinsky, 2009; Guinote, 2007, 2010; Smith, Dijksterhuis & Wigboldus, 2008; Willis, Rodriguez-Ballon, & Lupianez, 2011). And it is the suspect's vulnerability that is eventually litigated. In this context, understanding bases of enhanced vulnerability to influence is complex, requiring appreciation of the diverse forces of influence inherent to interrogation, the personal resources necessary for resistance, as well as both chronic and acute underpinnings of these sources of resistance. Further, understanding bases of enhanced vulnerability to influence entails understanding of the magnitude of the persuasive power of the interroga-

tion forces, as well as the degree to which various chronic and acute factors compromise a person's capacity to resist.

Added to these problems is the difficulty of anticipating or judging the power of hot emotional or visceral impulses when not currently in such a state oneself. Even if one did understand how interrogation-related forces *can* affect a suspect, this gap makes it more difficult to appreciate the magnitude of such forces *actually* facing any given suspect. Given the necessity and difficulty of this multilevel analysis, in the context of widespread misunderstanding of the magnitude of acute effects on self-regulation and ability to resist, it is not surprising that the courts have yet to recognize the majority of relevant vulnerabilities as sufficient grounds for suppression (Wrightsman, 2010; see Davis & Leo, in press-c for more extensive review of sources of difficulty in judging the voluntariness or validity of interrogation-induced confessions).

These problems are made greater by the ambiguity and lack of specificity in standards for assessing voluntariness when confessions are challenged in suppression motions. The current "totality-of-circumstances" test allows for consideration of many factors, but almost none are absolute (Leo, 2008), allowing judges substantial leeway to weigh factors they consider important, and to subjectively interpret their severity and import. There is no guidance regarding what degree of acute impairment, or aversiveness of interrogation tactics might be sufficient to render the confession involuntary, or how such factors might interact with chronic personal vulnerabilities. This allows significant variability in judgments across cases, and permits findings of voluntariness (soundly contradicted by science) for confessions obtained from severely compromised suspects. Moreover, absent adequate understanding of the importance of situational forces, judges tend to suppress confessions almost exclusively based on chronic suspect vulnerabilities (Watson, Weiss, & Pouncey, 2010). We suggest that justice would be better served by the adoption of more specific guidelines regarding thresholds for these judgments, grounded in available science.

It is our hope that expanding interrogation science will inspire the courts to provide more evidence-based standards in the future. For the foreseeable future, this is most likely to occur via the presentations of defense attorneys arguing for suppression or for innocence, and through the expert testimony they offer in support of these arguments. Currently, the courts are most receptive to expert testimony on chronic mental disabilities that increase suggestibility, and tend to exclude or disregard testimony on acute suggestibility or the forces of the interrogation. Interrogation experts must argue more extensively and persistently for the relevance of broader psychological science to interrogation, as we have exemplified here, rather than defer to the tendencies of the courts to regard research not explicitly conducted with interrogation as irrelevant.

Interrogation Reform

Our review further suggests that interrogation practices should be reformed to avoid those likely to induce severe IRRD in interrogators and suspects, as they compromise the quality of information obtained from suspects as well as the quality of the detective's performance. Notwithstanding excessive interrogation length or other questionable tactics and circumstances, judges rarely suppress

confessions if a valid waiver is obtained and prohibitions against physical coercion or explicit use of threats and promises are observed. Thus, police can successfully conduct interrogations that severely compromise the self-regulatory resources of suspects largely without restraint.

Although impairments of self-regulation resulting from interrogation cannot be fully prevented without a complete overhaul of interrogation techniques, practices such as excessive length and deprivation of basic comforts and nourishment are unnecessary and can produce a level of self-regulation failure in which the risk of false confession is significantly raised. We hope that our review can provide empirical support for widely suggested (e.g., Kassin et al., 2010) interrogation reforms, such as limits on length and specific per se rules against any physical or psychological deprivations during interrogation that would be easy to implement.

Perhaps the easiest reform is limitation on length. More than a decade ago, Welsh White (1997) suggested a maximum of six hours for any interrogation; and prominent interrogation manuals suggest even fewer (e.g., 4 hrs; Inbau et al., 2011). A legislature or the Supreme Court could adopt limits of 3–4 hrs, and then create a rebuttable presumption that if the time limit is exceeded, any resulting confession, absent a compelling explanation by the prosecution, will be regarded involuntary. Length restrictions could be followed by evidence-based guidelines regarding acceptable limits on the acute physical and mental condition of the suspect. To support such an effort, however, additional evidence of the direct impact of IRRD on interrogation performance would be helpful to the courts.

A Call to Arms

Accordingly, we hope to encourage interrogation scholars to address the acute impairments in volition provoked by interrogation-related stressors. Although scientific literature currently exists to document the impact of such influences, we as scientists and experts will more successfully influence public policy through the accumulation of additional evidence specifically addressing their influence in interrogation. Two recent studies have shown a decrement in comprehension of *Miranda* rights under stress due to either participation in a mock crime or false accusations of cheating (Rogers, Gillard, Wooley & Fiduccia, 2011; Scherr & Madon, in press). We are currently extending this work to examine effects of stereotype threat on *Miranda* comprehension, and are further conducting laboratory studies to examine the impact of several sources of ego depletion on reactions to interrogation tactics. However, much remains to be done, particularly with respect to the addition of field studies of actual police interrogations, documenting forces with potential to impair self-regulation, and examining their abilities to predict confessions.

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The Publications and Communications Board of the American Psychological Association announces the appointment of 5 new editors for 6-year terms beginning in 2012. As of January 1, 2012, manuscripts should be directed as follows:

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MENTAL HEALTH STATUS AND VULNERABILITY TO POLICE INTERROGATION TACTICS

By William C. Follette, Deborah Davis, and Richard A. Leo



ILLUSTRATION: TIM LEE

When Francis Connelly walked up to a police officer and said he murdered a woman, the officer advised Connelly of his rights to remain silent and have a lawyer representing him. Connelly said he understood, but still wanted to talk about the murder. The officer ascertained Connelly was neither drunk nor on drugs, but had been in several mental institutions. The officer again told Connelly he did not have to speak, but Connelly insisted he wanted to get it off his conscience. After being formally read his *Miranda* rights, Connelly confessed and led officers to the murder site.

During an interview with the public defender while in custody, Connelly became disoriented and said he confessed in response to hearing voices. At the state hospital, a psychiatrist determined Connelly was a chronic schizophrenic, suffering a psychotic episode. Connelly described his confession as reluctant and the psychiatrist concluded the confession was made in response to a "command" hallucination in which Connelly said he heard the "voice of God" instructing him to admit to the crime or commit suicide. The psychiatrist later testified that Connelly's volitional abilities, though not his cognitive abilities, were compromised and concluded his psychosis was his motivation to confess. The state supreme court ruled the confession be suppressed because it was "involuntary," though the police had done nothing wrong or coercive. The U.S. Supreme Court reversed, focusing on the lack of police misconduct. The American Psychological Association filed an amicus brief arguing, in part, that the confession was not necessarily involuntary just because it might have been the result of a command hallucination. (*Colorado v. Connelly*, 479 U.S. 157 (1986); *see* http://www.apa.org/psyclaw/colorado.html). Did Connelly have the ability to understand his rights or the implications of confession?

Now consider the case of Henry Lee Lucas, arrested on a firearms charge in Texas and suspected of murdering a girlfriend and an elderly acquaintance. Lee had been convicted of murdering his mother 23 years earlier, but was paroled. After the latest arrest, Lucas was held incommunicado for four days. At some point he confessed to the two murders; then he confessed to 60 additional murders. A special task force was established and police from around the country converged to ask Lucas to shed light on unsolved homicides. Henry Lee Lucas was not psychotic. He had an IQ of 89, which is in the normal range. He eventually confessed to the murder of Jimmy Hoffa and plotting to kill President Carter. Ultimately, he confessed to murdering 600 to 3,000 individuals. One of these resulted in a death sentence later commuted to life in prison. (Gisli H. Gudjonsson, *The Making of a Serial False Confessor: The Confessions of Henry Lee Lucas*, 10 (No. 2) J. FORENSIC PSYCHIATRY, 416-26 (1999).) Although

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Lucas was well acquainted with the legal process, he confessed to an incredible number of murders as a result of interrogation tactics that were as simple as an officer saying, "I'm not too bright and could use your help solving this murder."

While the *Connelly* case raises the issue of whether someone has the ability to resist an interrogation, the *Lucas* case raises the issue of the degree to which one is motivated to resist or cooperate with interrogations. In this article, we first describe a model of individual susceptibility to interrogative influence. Then we suggest which features of individuals diagnosed with particular mental disorders might render them prone to succumbing to either false or coerced confessions.

A model of susceptibility to interrogative influence

To understand how an individual characteristic will affect behavior in the interrogation room, we have to consider the chronic and acute states and abilities necessary for suspects to recognize and act on the wisest choices available. What helps individuals understand their rights, recognize when to talk and when not to talk, and know what questions to answer and how to answer them? What helps individuals recognize when they are being told the truth and when they are being misled and manipulated? What makes them able to resist intense pressure to confess and focus on what is legally in their best interests? What makes them *want* to resist? How are these abilities and motivations affected by mental status?

The skills needed to accomplish these goals boil down to two broad categories: (1) those affecting the person's *ability* to resist influence and (2) those affecting the person's *motivation* to resist influence. Each is determined by several other characteristics of the suspect, as well as aspects of the interrogation itself. For example, *ability* to resist interrogative influence is derived from three broad sources: relevant knowledge, intact cognitive resources, and self-regulatory capacity—or the ability to control emotions, thinking, and behavior. In turn, *motivation* to resist interrogative influence can be enhanced or undermined by a variety of chronic or acute individual characteristics.

Resisting interrogative influence

Resistance to interrogative influence is most effective when suspects invoke their *Miranda* rights and refuse to be interrogated without a lawyer. However, a great deal of relevant knowledge is needed to realize the importance of invoking *Miranda*. Suspects must understand what those rights are, as well as why they are important, and the damaging things that can happen if they agree to be questioned without a lawyer. Suspects must understand that insinuations made by police that the suspects must be guilty if they refuse to talk are less important than the long-term damage that can occur if they do talk. If they do agree to talk, then the relevant knowledge needed to understand and evaluate claims and arguments made by interrogators is almost endless.

Interrogation tactics are designed to mislead. Detectives present themselves as sympathetic individuals who imply that suspects are good people in bad situations. They imply that they want to help the suspects achieve the best outcome. Interrogators often deceive suspects about the nature and extent of evidence against them, the nature of the suspects' rights, the short- and long-term consequences of confession versus denial, and much more. All the while, interrogators will dominate the conversation, interrupt attempts by suspects to deny involvement, distract them from thinking of facts and information inconsistent with the interrogators' claims, accuse suspects of lying, and explicitly and implicitly threaten suspects with dire consequences for denying wrongdoing and promise leniency for a confession.

Suspects—even those who are innocent—must ask themselves: What evidence exists? Might it be inaccurate—as with polygraphs, eyewitnesses, and many forms of forensic evidence? Are police allowed to lie? Is the evidence really overwhelming? Is conviction guaranteed? Is it true that admitting guilt to the detective will more likely result in a better deal—or even release—than continuing to deny involvement? Is it wise to wait for the help of a lawyer or is it true that the detective can provide more help now? Although these are difficult questions for any suspect who lacks knowledge of the legal system to answer, the difficulties are enhanced for those with impaired relevant knowledge, with poor cognitive abilities, and with poor chronic or acute self-regulation abilities, including control of cognitive processes.

Generally, a person must be able to exert considerable self-control—or self-regulation—in order to resist the pressures of interrogation. This includes the control of attention and cognitive processes necessary to evaluate incoming information, and to think of relevant information available from one's own knowledge and experience. It also entails the ability to control behavior. One must be able to withstand the relentless pressures to confess posed by one or more interrogators, possibly over a period of many hours, or even days. Moreover, they must control the need to confess simply as a way to end the interrogation, or satisfy the need for sleep, or to get the interrogators "out of my face." The suspect must recognize and

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give priority to long-term best interests over immediate, and often overwhelming, impulses. This entails being able to recognize what will or will not serve those interests and act accordingly.

Even for those individuals able to control their thoughts and behavior, the *motivation* to resist interrogative pressures may be undermined by their own learning history. Resistance is fueled by (1) a history of accurately predicting successful outcomes under adverse circumstances and possessing an effective repertoire under duress, (2) an awareness of the interrogators' true motives and the devastating consequences of confession, (3) the priority given these consequences over immediate impulses, and, (4) innocence. All of these can be undermined by personal impairments in self-confidence, general motivational deficits, impaired awareness of relevant consequences, priority given to short- rather than long-term goals, an inappropriate liking, trust, and belief in the helpful motives of the interrogators, and by the sense of futility brought about by interrogation tactics.

Although both the ability and motivation to resist interrogative influences can be impaired by preinterrogation stressors, as well as by interrogation practices themselves, mental health issues may directly affect many of the relevant abilities and motivations. In the sections below, we summarize some of the ways in which specific mental health disabilities might affect susceptibility to interrogative influence at the sequential stages of the process.

The primary risk: targeting for interrogation

The risk of coercion begins when police first select suspects. It is at this stage that persons with mental disabilities first suffer enhanced risk. In fact, one researcher found that the probability of arrest was 67 times greater for persons demonstrating symptoms of mental illness than those without such symptoms. (Linda A. Teplin, *Keeping the Peace: Police Discretion and Mentally Ill Persons*, 244 NAT'L INST. JUST. J. 8-15 (2000).) Because common stereotypes associate mental retardation and mental illness (particularly the latter) with criminality and violence, any mentally ill individual with the reasonable opportunity to commit the crime—let alone an identifiable motive—may be unfairly targeted as a suspect. Moreover, many of the seriously mentally ill live in circumstances where they have no access to more knowledgeable adults who could advise them and explain the importance of refusing interrogation without an attorney or to ensure that an attorney is present during all interactions with authorities. The most seriously dysfunctional live disproportionately on the street where reasonable advice or personal or financial help is not available. Moreover, the mentally ill may engage in behaviors that appear consistent with deception during the preinterrogation interview, showing signs of anxiety, lack of eye contact, and other apparent indicators of evasiveness that can be mistakenly interpreted as reflecting guilt, encouraging detectives to proceed to interrogation.

Understanding and exerting *Miranda* rights

Although police often do not arrest and Mirandize suspects until *after* they've confessed, suspects have the right to refuse to be interrogated. The choice to avoid interrogation when not under arrest and to invoke *Miranda* when arrested is facilitated by understanding the potential dangers of the situation—an understanding that is compromised in those with impaired functioning in one or more psychological domains.

In *Moran v. Burbine*, 475 U.S. 412 (1986), the U.S. Supreme Court outlined the criteria to be used in determining the voluntariness of a *Miranda* waiver:

> First, the relinquishment of the right must have been voluntary in the sense that it was the product of a free and deliberate choice rather than intimidation, coercion, or deception. Second, the waiver must have been made with a full awareness of both the nature of the right being abandoned and the consequences of the decision to abandon it. Once it is determined that a suspect's decision not to rely on his rights was uncoerced, that he at all times knew he could stand mute and request a lawyer, and that he was aware of the State's intention to use his statements to secure a conviction, the analysis is complete and the waiver is valid as a matter of law.

(*Moran*, 475 U.S. 412, at 421.)

Individuals with psychological difficulties can suffer enhanced risk with regard to both susceptibility to coercion and failures of understanding. These problems have been most extensively investigated with respect to their impact on comprehension and invoking of *Miranda* rights as they apply to mental retardation. The definition of mental retardation is "a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills" (American Association of Mental Retardation). The *Diagnostic and Statistical Manual* (DSM-IV-TR, 1999, American Psychiatric Association) uses a similar definition. Mental retardation is present at birth or occurs during a development period and must have an onset before age 18. A diagnosis of mental retardation describes long-standing, generally maladaptive behaviors that have an onset in early life or adolescence. Individual IQ and adaptive functioning may be affected in other ways (e.g., traumatic head injury, medical condition, severe substance abuse) after a particular development

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period has been successfully passed, but it is not called mental retardation and is described as the consequence of a medical, social, or behavioral event. The courts and many social agencies that determine benefits tend to rely on an IQ score of 70 or less. This cutoff does not adequately reflect the impairment in functional abilities of individuals with low IQ when moved into a more demanding situation such as a police interrogation.

The limited cognitive abilities, vocabularies, and general knowledge of those with mental retardation result in poorer understanding of the linguistic meaning of the rights as commonly administered, as well as of the risks of self-incrimination and other consequences of waiving these rights. For example, in two studies, 90 percent and 68 percent of adults with mental retardation received scores of zero on one or more tests of relevant vocabulary, understanding of the *Miranda* warnings, and understanding of the function of rights in interrogation (which was most poorly understood of all). Another study involving mentally retarded adult offenders found similar results, indicating that even experience with the criminal justice system did not enhance comprehension. (Saul M. Fulero and Caroline Everington, *Mental Retardation, Competency to Waive* Miranda *Rights, and False Confessions* in INTERROGATIONS, CONFESSIONS, AND ENTRAPMENT at 163-79 (Daniel Lassiter ed., 2004).)

Miranda wording ranges from 50 to 500 words.

The impact of mental retardation on understanding *Miranda* rights is likely to vary by jurisdiction, as the exact wording of *Miranda* warnings and waivers has not been specified in the courts. As a result, warnings range from fewer than 50 to more than 500 words, and the required reading comprehension levels range from that of a third grader to a postcollege education. (Richard Rogers, Kimberly S. Harrison, Lisa L. Hazelwood & Kenneth W. Sewell, *An Analysis of* Miranda *Warning and Waivers: Comprehension and Coverage*, L. & HUM. BEHAV. (forthcoming 2007).)

Mental retardation is also likely to have enhanced negative impact on comprehension of *Miranda* warnings given in the context of real-life encounters with police. The poor comprehension scores above were obtained in the absence of any police behavior that might affect how the actual statements are interpreted. Imagine the detective who begins, for example, by saying something like "Well, John, we need to talk to you and get what happened tonight straightened out. We need you to explain some things we need cleared up. But before we can do this we need to read you some rights. . . ." The mentally retarded individual is often overly compliant and more likely to respond to detectives expressing a *need* rather than to *Miranda* rights read in a very formal manner. Mentally retarded individuals can be particularly attuned to the desires of those around them, and particularly motivated to please them, and therefore more susceptible to influence and coercion. They are generally more likely to rely on others for indications of what is appropriate or correct, more motivated to please others, more susceptible to influence, and more highly suggestible to leading questions, false information, and selective reinforcement of compliant responses. The desire to please and dependence on others can be sufficiently strong such that many mentally retarded persons will tell interviewers whatever they appear to want to hear, regardless of the actual facts. They also have a bias toward acquiescence that leads them to say "yes" regardless of the blatant untruth or the absurdity of the question, for example, "Are you an alien?" "Yes." These tendencies can be enhanced by problems with "social intelligence" and the ability to understand the true motives and intentions of those to whom they are responding, rendering them more susceptible to deception. These problems, combined with those of comprehension, are sufficiently profound as to lead some scholars to argue that, of the personal factors relevant to the "totality of circumstances test"—such as IQ, age, education, experience with the justice system or with entering a waiver of rights or a confession—the disability of mental retardation can be so great as to trump all other factors. (*See* GISLI H. GUDJONSSON, THE PSYCHOLOGY OF INTERROGATIONS AND CONFESSIONS: A HANDBOOK (Wiley, 2003); Michael J. O'Connell, William Garmoe & Naomi E. Goldstein, Miranda *Comprehension in Adults with Mental Retardation and the Effects of Feedback Style on Suggestibility*, 29 (No. 3) L. & HUM. BEHAV., 359-69 (2005).)

Although research on the relationship of mental status to comprehension has focused primarily on the young and the retarded, other mental disorders place the person at enhanced risk for failures of comprehension and/or coercion. Research has just begun to study mentally disordered defendants. Ethical concerns make it inappropriate to create the high-stress environment of an interrogation, but in interview-like situations with mentally ill defendants, the ability to understand *Miranda* rights was highly compromised, as were the quality of their reasons for

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waiving or invoking those rights. The DSM-IV-TR's Global Assessment of Functioning Scale (utilized to consider psychological, social, and occupational functioning) was another predictor of mentally ill defendants' reasons for waiving or invoking their rights, with lower functioning levels correlating with fewer numbers of reasons behind their *Miranda* decisions. (Richard Rogers, Kimberly S. Harrison, Lisa L. Hazelwood & Kenneth W. Sewell, *Knowing and Intelligent: A Study of* Miranda *Warnings in Mentally Disordered Defendants*, L. & HUM. BEHAV. (forthcoming 2007).)

In the *Connelly* case, discussed earlier, the suspect confessed his crime before and after being Mirandized. On the day of primary investigation, he did not appear psychotic to the police. There are other cases in which the person being interrogated is clearly not functioning normally but can be cooperative if approached in a comforting way. As an example, author Follette once had a patient with a history of paranoid schizophrenia who was delusional and in need of hospitalization. His delusions were fairly circumscribed around being hunted by "the mafia." The significance of his cognitive impairment became evident when asked to sign a consent form to be admitted to the hospital. He believed the form contained invisible text that was his death warrant. After nearly an hour of conversation, the patient finally relented and signed the consent form saying he did so because "you [Follette] seem like a nice young man, so I'll sign my 'death warrant.'" The point is that persons with severe mental illness can be extremely compliant even if they believe the consequences for doing so can be life threatening, calling into question the meaning of voluntary waiver in such circumstances.

The above case represents an obvious deficit associated with a mental disorder that can affect the outcome of an interrogation. In schizophrenia in general, there are a significant number of cognitive deficits that are not part of the hallucinations or delusions seen in the florid cases of schizophrenia. These cognitive deficits are common and affect broad domains of cognitive functioning. Recently the National Institute of Mental Health began an initiative to develop measures of cognitive functioning in schizophrenia (Stephen R. Marder & Wayne Fenton, *Measurement and Treatment Research to Improve Cognition in Schizophrenia: NIMH MATRICS initiative to support development of agents for improving cognition in schizophrenia*, 72 (No. 1) SCHIZOPHRENIA RESEARCH 5-9 (2004).) The purpose of the initiative was to develop a core battery of cognitive tests so that drug therapies could be assessed for how they might improve these deficits. Although a wide variety of deficits have been described in the literature, the test battery established by the MATRICS initiative assesses seven domains: speed of processing, attention/vigilance, working memory, verbal learning, visual learning, reasoning and problem solving, and social cognition. Even in the absence of active psychosis, individuals with schizophrenia still may not necessarily exhibit adequate cognitive skills to understand the implications of questions and answers, to understand the motives of the interrogator, or to weigh alternatives and evaluate how they serve their best interests.

> Interrogation tactics are intended to mislead.

It cannot be assumed that mental impairment seen in the mentally ill is the same as similarly appearing deficits in the mentally retarded. Much study remains to be done in order to understand how these processes affect each population when subjected to interrogation.

Susceptibility to interrogation tactics

Once arrested and subject to interrogation, issues of comprehension and susceptibility to coercion are magnified many times over. Although police may do or say things while reading suspects their rights in order to impair comprehension of *Miranda*, interrogation tactics are far more misleading. They are intended to mislead, impair thought processes, and relentlessly push a suspect, against his or her best interests, in the direction of confession. Though *Miranda* is limited to a few statements, interrogations can last for hours, with detectives presenting multiple classes of "evidence" and arguments. Topics are extraordinarily wide-ranging. They may include forms of evidence ranging from DNA to the mechanisms of polygraph or other "lie detection" devices. Reasons to confess range from the religious or familial to the ultimate reactions of judge and jury and how those reactions depend on whether and how suspects "explain" their role in the crime during the interrogation. Interrogators will provide various scenarios for how the crime was committed, designed to convince suspects it was not so serious. They will make counterarguments against claims of innocence, and provide alleged reports of coperpetrators, statements of the detective's feelings and motives toward the suspects, and many other tactics. Faced with this overwhelming amount of information to process and relentless demands from powerful authorities, the ability to understand and accurately judge the information and read the motives and credibility of the

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police become ever more crucial. Thus, anything that compromises their mental faculties makes suspects more susceptible to being led into unintended confessions. Certainly mental retardation and/or mental illness place interviewees at increased risk.

Although these cognitive limitations and tendencies toward compliance are crucial in determining an individual's reaction to interrogation, additional vulnerabilities become relevant as well. There are many, but we focus on three that are likely to be affected by mental health status: (1) the tendency to respond to immediate impulses and demands rather than long-term goals; (2) self-regulation abilities, or the ability to control thinking, emotions and behavior, and (3) suggestibility (the tendency to actually change one's mind about what happened as opposed to simply comply with demands to recount it in a particular way).

Immediate versus long-term goals

Police interrogation is a very powerful social situation, with demands pushing suspects toward confession. Coincident with these external demands are internal states, some pushing suspects toward obtaining immediate relief from the aversive qualities of the situation, others toward the goal of protecting long-term interests and freedom. If, as is true of many suspects, the interviewees fail to understand that they can stop the interrogation at any time, they may believe that the only way to terminate questioning is to comply with the interrogator's demands to "explain" what happened, making or agreeing to incriminating statements or a full confession in the process. If suspects give priority to immediate needs over long-term best legal interests, they may confess simply to terminate the interrogation. This can happen through two mechanisms, one involving simple lack of interest in long-term goals, the other involving an inability to override the impact of immediate needs and demands despite extreme concern with long-term goals.

Several mental disorders entail dysfunctional levels of responsiveness to immediate stimuli and motivations at the expense of long-term well-being. Substance abusing patients are the clearest clinical example of impulsivity. Impulsivity is valuing a short-term, smaller reward over a delayed, larger reward. Considerable research exists studying this phenomenon, termed delayed discounting, in substance abusing participants. (*See* Gregory J. Madden, Warren K. Bickel & Eric A. Jacobs, *Discounting of Delayed Rewards in Opioid-Dependent Outpatients: Exponential or Hyperbolic Discounting Functions?* 7 (No. 3) EXPERIMENTAL & CLINICAL PSYCHOPHARMACOLOGY 284-93 (1999).)

Although it is not clear whether the preference for immediate, smaller rewards versus delayed, larger rewards is the cause of or an effect from substance abuse, it is clearly present, and it is clearly relevant for substance abusing individuals who face interrogation. In experimental settings, the tendency in heroin addicts to discount delayed rewards is almost identical to that exhibited by 12-year-olds. The point is that the interrogation situation presents to a drug abusing interviewee many opportunities to take the short-term way out of the interrogation—that is, to confess, over the delayed reward of possibly being released. This tendency to be under the control of immediate consequences may be greatly exacerbated by a substance abuser going into withdrawal during the course of being detained and interrogated.

Self-regulation

Self-regulation refers to the ability to control one's thoughts, emotions, and behavior. As noted earlier, control of mental processes is crucial for the ability to understand and evaluate information and arguments, as well as to evaluate the motives and truthfulness of others. Although individuals may have the required knowledge and abilities, they may be unable to use them in the situation at hand, as, for example, when test-taking anxiety interferes with focusing attention on the test, remembering known information, or being able to think clearly during the test.

Control of emotions is also crucial. Uncontrolled, powerful emotions can both interfere with rational thought and provide a strong impetus to emit dysfunctional behaviors. In fact, interrogation manuals such as the popular *Criminal Interrogation and Confessions* by Fred E. Inbau, John E. Reid and Joseph P. Buckley, (3d ed., Williams & Wilkins (1986)), instruct interrogators that emotions such as fear, guilt, and anxiety render the target much more susceptible to interrogation tactics and confession. Indeed, studies of social influence have long demonstrated that one need only arouse a negative emotion, such as fear or anxiety, and then present the desired behavior as the way to reduce it in order to facilitate persuasion. The more intense the negative emotion, the more powerfully attractive the apparent solution will seem. Thus, those prone to experience powerful negative emotions, to be intolerant of the distress, and unable to control it will be more susceptible to confession as an escape mechanism—a vulnerability characteristic of several mental disorders.

Self-regulation is also important, entailing the ability to override impulses toward dysfunctional or undesirable behavior. The person must avoid temptations to act in favor of immediate needs by eschewing such dysfunctional behaviors as procrastination, overeating, overspending, or making incriminating statements against long-term self-interest in order to achieve immediate relief from the interrogation.

A prerequisite for successful self-regulation is having a behavioral goal clearly defined. If a person engages in a particular strategy to reach a goal, the behavioral strategy

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can change if the goal is not attained. The strategy is reinforced if the goal is attained. At the beginning of an interrogation, an interviewee may have the goal of establishing his or her innocence. As the interrogation progresses, many alternative goals are presented and made attractive by the interrogator. Interrogators thwart self-regulation strategies directed at establishing innocence, but strongly encourage other goals such as being seen as cooperative, explaining how one might have been caught up in the moment, avoiding a bad legal outcome through cooperation, or, in the case of the prisoner's dilemma, assigning blame before it is assigned to you. Assuming one consents to being interrogated, already a self-regulation failure, the interrogation is designed to confuse one with respect to what is the most salient goal. If that occurs, behavioral strategies at self-regulation are inevitably weakened. As is the case for emotion regulation, impaired self-regulation of behavior is characteristic of some mental disorders.

Cluster B of the personality disorders listed in DSM-IV-TR are characterized by some degree of dramatic, emotional, or erratic behavior. Cluster B includes antisocial personality disorder, borderline personality disorder, histrionic personality disorder, and narcissistic personality disorder. The clinical reliability of the specific labels for these and other personality disorders is generally poor. Thus, these labels have often been subsumed as being one of a cluster of similar symptom presentations. In part, the common definition of a mental disorder requires meeting some specified criteria and experiencing significant psychological distress that impairs desired role functioning. In the case of personality disorders, these patterns of behavior begin in adolescence or early adulthood and are persistent and maladaptive. Patients rarely present for treatment of a personality disorder but rather for the treatment of the short-term consequences of these behavior patterns. Common presentations are depression, anxiety, or job or relationship failures. There is reason to believe that stressful situations, such as a police interrogation, will increase the likelihood that regulation of thought, emotion, and behavior will fail in persons characterized by some Cluster B disorders.

One would expect that persons with anxiety disorders would find the additional stress of an interrogation extremely aversive and seek a quick end to the proceedings, even if it meant a poor distal consequence. Generalized anxiety disorder, social phobia, panic disorder or specific phobias related to confinement or health-related concerns could hasten a false confession. One feature of anxious individuals is a tendency to overestimate how aversive an event is and to make risk averse decisions. Interrogators implicitly and often explicitly threaten that if individuals do not explain how they were caught up in a bad situation, the district attorney, the judge, and a jury will surely infer that there is no "good" story and, unless the suspects explain what happened (i.e., confess), the worst story will have to be believed and acted upon—risks anxious persons, in particular, will be more motivated to avoid. The interrogator offers an apparent way out through suggestions of how and why the crime was committed that give suspects the impression it would not be a legally serious offense to confess to (commonly referred to as "minimization"). (Saul M. Kassin & Karlyn McNall, *Police Interrogations and Confessions: Communicating Promises and Threats by Pragmatic Implication*, 15 L. & HUM. BEHAV. 233-51 (1991).) We have seen many interrogations where the interrogator induces a signed confession that is inferred or construed by the suspect as a simple formality before being allowed to go home. Of course, the suspect is then arrested, much to his or her chagrin.

Clinical depression also presents increased risks of self-regulation failures. Clinical depression is associated with a host of deficits in cognitive processing. (*See* Susan Mineka, Eshkol Rafaeli & Iftah Yovel. *Cognitive Biases in Emotional Disorders: Information Processing and Social-Cognitive Perspectives*, HANDBOOK OF AFFECTIVE SCIENCES, 976–1009 (R.J. Davidson, K.R. Scherer & H. H. Goldsmith eds., Oxford University Press (2003).) In particular, dysphoric mood and depression tend to be associated with distortions of self-worth as well as inaccurate estimates of performance in a variety of social situations. Several experimental studies could lead one to predict that depressed persons would be less inclined to assert their rights, be less resistant to challenge by an interrogator, and less able to accurately judge how well they were meeting their goals in an interrogation.

Suggestibility

Among the most disturbing effects of interrogation is its ability to alter a suspect's beliefs about the reality of what occurred. Rather than simply inducing suspects to comply with demands to admit involvement, whether or not they believe what they are saying, interrogators may be so persuasive as to change the suspects' internal beliefs—in some cases causing them to believe they committed a crime of which they are innocent and to report false beliefs or "memories" of having committed it.

This is most likely to occur when suspects (a) are uncertain what happened or what is true—for example, due to lack of knowledge, intoxication, or poor comprehension; (b) lack confidence in their own memories or ability to understand—for example, due to long-standing subjectively known cognitive impairments; or (c) suffer impaired "reality monitoring" or the ability to discriminate between what is real and what is not, such as the difference between imagination and reality, or something one was told and something that happened. Impairments in

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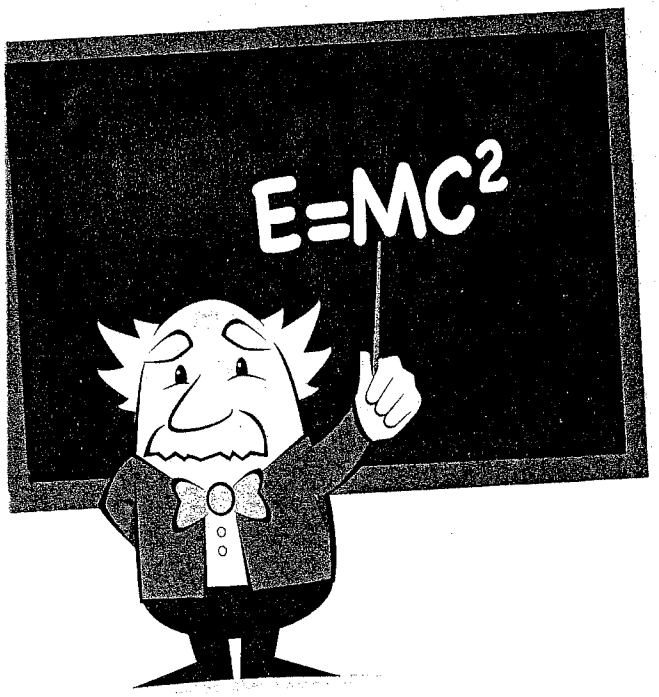
reality monitoring may result from the side effects of medication, drug or alcohol use, or tendencies toward hallucinations or delusions. A number of disorders render individuals more susceptible to suggestion through one or more of these mechanisms.

Gisli Gudjonsson and his colleagues have extensively tested the enhanced susceptibility of mentally retarded persons to interrogative suggestion; that is, their tendency to change accounts in response to suggestive questioning, showing that the mentally retarded are substantially more likely to change their accounts when told they are wrong or when subject to disapproving responses. (*See* Gudjonsson, HANDBOOK, *supra.*) Due to poor comprehension and reduced general knowledge, such persons are less likely to know what is actually true; and due to a history of failures and awareness of personal deficits in understanding, they possess less confidence in their own memories and beliefs.

Persons with schizotypal personality disorders, schizophrenia, delusional disorder or the manic phase of bipolar disorder, can be prone to suggestibility through all three mechanisms of failure of knowledge, confidence, and reality monitoring. Moreover, they are prone to simply produce imagined memories or confabulation. If the interrogator asks particularly leading questions or continually reinforces the interviewee for adding details or helping the interrogator make sense out of the situation, a tendency to confabulate can lead both parties to believe in the reality of a false confession.

Conclusions

The model for understanding the sources of individual vulnerability to coercive interrogation we have outlined offers a framework for understanding how both chronic and acute individual characteristics can enhance susceptibility to coercion. Here we have focused on chronic mental disabilities. However, many mentally healthy individuals are susceptible to enhanced risk of coercion under certain circumstances. Acute states such as sleep deprivation, intense distress, drug use, and other factors can enhance susceptibility directly through their effects on such factors as cognitive processing or self-regulation, or indirectly, such as when impaired self-regulation can decrease tolerance for distress and enhance the need to terminate the interrogation. Understanding the basis of enhanced susceptibility to coercion is complex, requiring appreciation of the diverse coercive processes inherent in interrogation, as well as the way in which they act on the basic underpinnings of resistance to coercion and the processes through which susceptibility to these effects are affected by both chronic and acute vulnerabilities. Given the necessity for this multilevel analysis and understanding, it is not surprising that the courts have yet to recognize the majority of relevant vulnerabilities as sufficient grounds for suppression. ■



PRACTICE POINTERS

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ORIGINAL ARTICLE

Police-Induced Confessions: Risk Factors and Recommendations

Saul M. Kassin · Steven A. Drizin · Thomas Grisso · Gisli H. Gudjonsson · Richard A. Leo · Allison D. Redlich

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Abstract Recent DNA exonerations have shed light on the problem that people sometimes confess to crimes they did not commit. Drawing on police practices, laws concerning the admissibility of confession evidence, core principles of psychology, and forensic studies involving multiple methodologies, this White Paper summarizes what is known about police-induced confessions. In this review, we identify suspect characteristics (e.g., adolescence; intellectual disability; mental illness; and certain personality traits), interrogation tactics (e.g., excessive interrogation time; presentations of false evidence; and minimization), and the phenomenology of innocence (e.g., the tendency to waive *Miranda* rights) that influence confessions as well as their effects on judges and juries. This article concludes with a strong recommendation for the mandatory electronic recording of interrogations and considers other possibilities for the reform of interrogation practices and the protection of vulnerable suspect populations.

Keywords Police interviews · Interrogations · Confessions

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In recent years, a disturbing number of high-profile cases, such as the Central Park jogger case, have surfaced involving innocent people who had confessed and were convicted at trial, only later to be exonerated (Drizin & Leo, 2004; Gudjonsson, 1992, 2003; Kassin, 1997; Kassin & Gudjonsson, 2004; Lassiter, 2004; Leo & Ofshe, 1998). Although the precise incidence rate is not known, research suggests that false confessions and admissions are present in 15–20% of all DNA exonerations (Garrett, 2008; Scheck, Neufeld, & Dwyer, 2000; http://www.innocenceproject.org/). Moreover, because this sample does not include those false confessions that are disproved before trial, many that result in guilty pleas, those in which DNA evidence is not available, those given to minor crimes that receive no post-conviction scrutiny, and those in juvenile proceedings that contain confidentiality provisions, the cases that are discovered most surely represent the tip of an iceberg.

In this new era of DNA exonerations, researchers and policy makers have come to realize the enormous role that psychological science can play in the study and prevention of wrongful convictions. In cases involving wrongfully convicted defendants, the most common reason (found in three-quarters of the cases) has been eyewitness misidentification. Eyewitness researchers have thus succeeded at identifying the problems and proposing concrete reforms. Indeed, following upon an AP-LS White Paper on the subject (Wells et al., 1998), the U.S. Department of Justice assembled a working group of research

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psychologists, prosecutors, police officers, and lawyers, ultimately publishing guidelines for law enforcement on how to minimize eyewitness identification error (Technical Working Group for Eyewitness Evidence, 1999; see Doyle, 2005; Wells et al., 2000). While other problems have been revealed—for example, involving flaws in various forensic sciences (see Faigman, Kaye, Saks, & Sanders, 2002), the number of cases involving confessions—long considered the "gold standard" in evidence—has proved surprising (http://www.innocenceproject.org/).

Wrongful convictions based on false confessions raise serious questions concerning a chain of events by which innocent citizens are judged deceptive in interviews and misidentified for interrogation; waive their rights to silence and to counsel; and are induced into making false narrative confessions that form a sufficient basis for subsequent conviction. This White Paper summarizes much of what we know about this phenomenon. It draws on core psychological principles of influence as well as relevant forensic psychology studies involving an array of methodologies. It identifies various risk factors for false confessions, especially in police interviewing, interrogation, and the elicitation of confessions. It also offers recommendations for reform.

Citing the impact on policy and practice of the eyewitness White Paper, Wiggins and Wheaton (2004) called for a similar consensus-based statement on confessions. Fulfilling this call, the objectives of this White Paper are threefold. The first is to review the state of the science on interviewing and interrogation by bringing together a multidisciplinary group of scholars from three perspectives: (1) clinical psychology (focused on individual differences in personality and psychopathology); (2) experimental psychology (focused on the influence of social, cognitive, and developmental processes); and (3) criminology (focused on the empirical study of criminal justice as well as criminal law, procedure, and legal practice). Our second objective is to identify the dispositional characteristics (e.g., traits associated with *Miranda* waivers, compliance, and suggestibility; adolescence; mental retardation; and psychopathology) and situational-interrogation factors (e.g., prolonged detention and isolation; confrontation; presentations of false evidence; and minimization) that influence the voluntariness and reliability of confessions. Our third objective is to make policy recommendations designed to reduce both the likelihood of police-induced false confessions and the number of wrongful convictions based on these confessions.

BACKGROUND

The pages of American legal history are rich in stories about false confessions. These stories date back to the Salem witch trials of 1692, during which about 50 women confessed to witchcraft, some, in the words of one observer, after being "tyed... Neck and Heels till the Blood was ready to come out of their Noses" (Karlsen, 1989, p. 101). Psychologists' interest as well can be traced to its early days as a science. One hundred years ago, in *On the Witness Stand*, Hugo Munsterberg (1908) devoted an entire chapter to the topic of "Untrue Confessions." In this chapter, he discussed the Salem witch trials, reported on a contemporary Chicago confession that he believed to be false, and sought to explain the causes of this phenomenon (e.g., he used such words as "hope," "fear," "promises," "threats," "suggestion," "calculations," "passive yielding," "shock," "fatigue," "emotional excitement," "melancholia," "auto-hypnosis," "dissociation," and "self-destructive despair").

DNA Exonerations and Discoveries in the U.S.

In 1989, Gary Dotson was the first wrongfully convicted individual to be proven innocent through the then-new science of DNA testing. Almost two decades later, more than 200 individuals have been exonerated by post-conviction DNA testing and released from prison, some from death row. In 15–20% of these cases, police-induced false confessions were involved (Garrett, 2008; www.innocence project.org). A disturbing number of these have occurred in high-profile cases, such as New York City's Central Park Jogger case, where five false confessions were taken within a single investigation. In that case, five teenagers confessed during lengthy interrogations to the 1989 brutal assault and rape of a young woman in Central Park. Each boy retracted his statement immediately upon arrest, saying he had confessed because he expected to go home afterward. All the boys were convicted and sent to prison, only to be exonerated in 2002 when the real rapist gave a confession, accurately detailed, that was confirmed by DNA evidence (*People of the State of New York v. Kharey Wise et al.*, 2002).

Post-conviction DNA tests and exonerations have offered a window into the causes of wrongful conviction. Researchers and legal scholars have long documented the problem and its sources of error (Borchard, 1932; Frank & Frank, 1957; see Leo, 2005 for a review). Yet criminal justice officials, commentators, and the public have tended until recently to be highly skeptical of its occurrence, especially in death penalty cases (Bedau & Radelet, 1987). The steady stream of post-conviction DNA exonerations in the last two decades has begun to transform this perception. Indeed, these cases have established the leading causes of error in the criminal justice system to be eyewitness misidentification, faulty forensic science, false informant testimony, and false confessions (Garrett, 2008).

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The Problem of False Confessions

A false confession is an admission to a criminal act—usually accompanied by a narrative of how and why the crime occurred—that the confessor did not commit. False confessions are difficult to discover because neither the state nor any organization keeps records of them, and they are not usually publicized. Even if they are discovered, false confessions are hard to establish because of the difficulty of proving the confessor's innocence. The literature on wrongful convictions, however, shows that there are several ways to determine whether a confession is false. Confessions may be deemed false when: (1) it is later discovered that no crime was committed (e.g., the presumed murder victim is found alive, the autopsy on a "shaken baby" reveals a natural cause of death); (2) additional evidence shows it was physically impossible for the confessor to have committed the crime (e.g., he or she was demonstrably elsewhere at the time or too young to have produced the semen found on the victim); (3) the real perpetrator, having no connection to the defendant, is apprehended and linked to the crime (e.g., by intimate knowledge of nonpublic crime details, ballistics, or physical evidence); or (4) scientific evidence affirmatively establishes the confessor's innocence (e.g., he or she is excluded by DNA test results on semen, blood, hair, or saliva).

Drizin and Leo (2004) analyzed 125 cases of proven false confession in the U.S. between 1971 and 2002, the largest sample ever studied. Ninety-three percent of the false confessors were men. Overall, 81% of the confessions occurred in murder cases, followed by rape (8%) and arson (3%). The most common bases for exoneration were the real perpetrator was identified (74%) or that new scientific evidence was discovered (46%). With respect to personal vulnerabilities, the sample was younger than the total population of murderers and rapists: A total of 63% of false confessors were under the age of 25, and 32% were under 18; yet of all persons arrested for murder and rape, only 8 and 16%, respectively, are juveniles (Snyder, 2006). In addition, 22% were mentally retarded, and 10% had a diagnosed mental illness. Surprisingly, multiple false confessions to the same crime were obtained in 30% of the cases, wherein one false confession was used to prompt others. In total, 81% of false confessors in this sample whose cases went to trial were wrongfully convicted.

Although other researchers have also documented false confessions in recent years, there is no known incidence rate, and to our knowledge empirically based estimates have never been published. There are several reasons why an incidence rate cannot be determined. First, researchers cannot identify the universe of false confessions because no governmental or private organization keeps track of this information. As noted earlier, the sample of discovered cases is thus incomplete. Second, even if one could identify a nonrandom set of hotly contested and possibly false confessions, it is often difficult if not impossible as a practical matter to obtain the primary case materials (e.g., police reports; pretrial and trial transcripts; and electronic recordings of the interrogations) needed to determine "ground truth" with sufficient certainty to prove that the confessor is innocent. Also, it is important to note that although most case studies are based in the U.S. and England, proven false confessions have been documented in countries all over the world—including Canada (CBC News, August 10, 2005), Norway (Gudjonsson, 2003), Finland (Santtila, Alkiora, Ekholm, & Niemi, 1999), Germany (Otto, 2006), Iceland (Sigurdsson & Gudjonsson, 2004), Ireland (Inglis, 2004), The Netherlands (Wagenaar, 2002), Australia (Egan, 2006), New Zealand (Sherrer, 2005), China (Kahn, 2005), and Japan (Onishi, 2007).

For estimating the extent of the problem, self-report methods have also been used. Sigurdsson and Gudjonsson (2001) conducted two self-report studies of prison inmates in Iceland and found that 12% claimed to have made a false confession to police at some time in their lives, a pattern that the authors saw as part of the criminal lifestyle. In a more recent study of Icelandic inmates, the rate of self-reported false confessions had increased (Gudjonsson, Sigurdsson, Einarsson, Bragason, & Newton, 2008). Similar studies have been conducted in student samples within Iceland and Denmark. Among those interrogated by police, the self-reported false confession rates ranged from 3.7 to 7% among college and older university students (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006; Gudjonsson, Sigurdsson, & Einarsson, 2004; Steingrimsdottir, Hreinsdottir, Gudjonsson, Sigurdsson, & Nielsen, 2007; Gudjonsson, Sigurdsson, Bragason, Einarsson, & Valdimarsdottir, 2004). In a North American survey of 631 police investigators, respondents estimated from their own experience that 4.78% of innocent suspects confess during interrogation (Kassin et al., 2007). Retrospective self-reports and observer estimates are subject to various cognitive and motivational biases and should be treated with caution as measures of a false confession rate. In general, however, they reinforce the wrongful conviction data indicating that a small but significant minority of innocent people confess under interrogation.

POLICE INTERROGATIONS IN CONTEXT

The practices of interrogation and the elicitation of confessions are subject to historical, cultural, political, legal, and other contextual influences. Indeed, although this article is focused on confessions to police within in a

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criminal justice framework, it is important to note that similar processes occur, involving varying degrees of pressure, within the disparate frameworks of military intelligence gathering and corporate loss-prevention investigations. Focused on criminal justice, we examine American interrogation practices of the past and present; the role played by *Miranda* rights; the admissibility and use of confession evidence in the courts; and current practices not only in the U.S. but in other countries as well.

"Third-Degree" Practices of the Past

From the late nineteenth century through the 1930s, American police occasionally employed "third-degree" methods of interrogation—inflicting physical or mental pain and suffering to extract confessions and other types of information from crime suspects. These techniques ranged from the direct and explicit use of physical assaults to tactics that were both physically and psychologically coercive to lesser forms of duress. Among the most commonly used "third-degree" techniques were physical violence (e.g., beating, kicking, or mauling suspects); torture (e.g., simulating suffocation by holding a suspect's head in water, putting lighted cigars or pokers against a suspect's body); hitting suspects with a rubber hose (which seldom left marks); prolonged incommunicado confinement; deprivations of sleep, food, and other needs; extreme sensory discomfort (e.g., forcing a suspect to stand for hours on end, shining a bright, blinding light on the suspect); and explicit threats of physical harm (for a review, see Leo, 2004). These methods were varied and commonplace (Hopkins, 1931), resulting in large numbers of coerced false confessions (Wickersham Commission Report, 1931).

The use of third-degree methods declined precipitously from the 1930s through the 1960s. They have long since become the exception rather than the rule in American police work, having been replaced by interrogation techniques that are more professional and psychologically oriented. The twin pillars of modern interrogation are behavioral lie-detection methods and psychological interrogation techniques, both of which have been developed and memorialized in interrogation training manuals. By the middle of the 1960s, police interrogation practices had become entirely psychological in nature (Wald, Ayres, Hess, Schantz, & Whitebread, 1967). The President's Commission on Criminal Justice and the Administration of Justice declared in 1967: "Today the third degree is virtually non-existent" (Zimring & Hawkins, 1986, p. 132). Still, as the United States Supreme Court recognized in *Miranda v. Arizona* (1966), psychological interrogation is inherently compelling, if not coercive, to the extent that it relies on sustained pressure, manipulation, trickery, and deceit.

Current Law Enforcement Objectives and Practices in the U.S.

American police typically receive brief instruction on interrogation in the academy and then more sustained and specialized training when promoted from patrol to detective. Interrogation is an evidence-gathering activity that is supposed to occur after detectives have conducted an initial investigation and determined, to a reasonable degree of certainty, that the suspect to be questioned committed the crime.

Sometimes this determination is reasonably based on witnesses, informants, or tangible evidence. Often, however, it is based on a clinical hunch formed during a pre-interrogation interview in which special "behavior-provoking" questions are asked (e.g., "What do you think should happen to the person who committed this crime?") and changes are observed in aspects of the suspect's behavior that allegedly betray lying (e.g., gaze aversion, frozen posture, and fidgety movements). Yet in laboratories all over the world, research has consistently shown that most commonsense behavioral cues are not diagnostic of truth and deception (DePaulo et al., 2003). Hence, it is not surprising as an empirical matter that laypeople on average are only 54% accurate at distinguishing truth and deception; that training does not produce reliable improvement; and that police investigators, judges, customs inspectors, and other professionals perform only slightly better, if at all—albeit with high levels of confidence (for reviews, see Bond & DePaulo, 2006; Meissner & Kassin, 2002; Vrij, 2008).

The purpose of interrogation is therefore not to discern the truth, determine if the suspect committed the crime, or evaluate his or her denials. Rather, police are trained to interrogate only those suspects whose culpability they "establish" on the basis of their initial investigation (Gordon & Fleisher, 2006; Inbau, Reid, Buckley, & Jayne, 2001). For a person under suspicion, this initial impression is critical because it determines whether police proceed to interrogation with a strong presumption of guilt which, in turn, predisposes an inclination to ask confirmatory questions, use persuasive tactics, and seek confessions (Hill, Memon, & McGeorge, 2008; Kassin, Goldstein, & Savitsky, 2003). In short, the single-minded purpose of interrogation is to elicit incriminating statements, admissions, and perhaps a full confession in an effort to secure the conviction of offenders (Leo, 2008).

Designed to overcome the anticipated resistance of individual suspects who are presumed guilty, police interrogation is said to be stress-inducing by design—structured to promote a sense of isolation and increase the anxiety and despair associated with denial relative to confession. To achieve these goals, police employ a number of tactics. As

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described in Inbau et al.'s (2001) *Criminal Interrogation and Confessions*, the most influential approach is the so-called Reid technique (named after John E. Reid who, along with Fred Inbau, developed this approach in the 1940s and published the first edition of their manual in 1962). First, investigators are advised to isolate the suspect in a small private room, which increases his or her anxiety and incentive to escape. A nine-step process then ensues in which an interrogator employs both negative and positive incentives. On one hand, the interrogator confronts the suspect with accusations of guilt, assertions that may be bolstered by evidence, real or manufactured, and refuses to accept alibis and denials. On the other hand, the interrogator offers sympathy and moral justification, introducing "themes" that minimize the crime and lead suspects to see confession as an expedient means of escape. The use of this technique has been documented in naturalistic observational studies (Feld, 2006b; Leo, 1996b; Simon, 1991; Wald et al., 1967) and in recent surveys of North American investigators (Kassin et al., 2007; Meyer & Reppucci, 2007).

Miranda Warnings, Rights, and Waivers

One of the U.S. legal system's greatest efforts to protect suspects from conditions that might produce involuntary and unreliable confessions is found in the U.S. Supreme Court decision in *Miranda v. Arizona* (1966). The Court was chiefly concerned with cases in which the powers of the state, represented by law enforcement, threatened to overbear the will of citizen suspects, thus threatening their Constitutional right to avoid self-incrimination.

In *Miranda*, the Court offered a remedy, requiring that police officers had to inform suspects of their rights to remain silent and to the availability of legal counsel prior to confessions. This requirement aimed to strike a balance against the inherently threatening power of the police in relation to the disadvantaged position of the suspect, thus reducing coercion of confessions. In cases involving challenges to the validity of the waiver of rights, courts were to apply a test regarding the admissibility of the confession at trial. Statements made by defendants would be inadmissible if a waiver of the rights to silence and counsel was not made "voluntarily, knowingly, and intelligently." One year after the *Miranda* decision, *In re Gault* (1967) extended these rights and procedures to youth when they faced delinquency allegations in juvenile court.

Forty years later, there is no research evidence that *Miranda* and *Gault* achieved their ultimate objective. Police officers routinely offer the familiar warnings to suspects prior to taking their statements. But research has not unequivocally determined whether confessions became more or less likely, are any more or less reliable, or are occurring in ways that are more or less "voluntary, knowing, and intelligent" than in the years prior to *Miranda*. Several years ago, Paul Cassell, an outspoken critic of *Miranda*, had maintained (based on pre–post studies as well as international comparisons) that the confession and conviction rates have dropped significantly as a direct result of the warning and waiver requirements, thus triggering the release of dangerous criminals (Cassell, 1996a, 1996b; Cassell & Hayman, 1996). Yet others countered that his analysis was based on selective data gathering methods and unwarranted inferences (Donahue, 1998; Feeney, 2000; Thomas & Leo, 2002); that these declines, if real, were insubstantial (Schulhofer, 1996); that four out of five suspects waive their rights and submit to questioning (Leo, 1996a, 1996b); and that the costs to law enforcement were outweighed by social benefits—for example, that *Miranda* has had a civilizing effect on police practices and has increased public awareness of constitutional rights (Leo, 1996c; Thomas, 1996).

In recent years, the U.S. Supreme Court has upheld the basic warning-and-waiver requirement (*Dickerson v. United States*, 2000)—for example, refusing to accept confessions given after a warning that was tactically delayed to produce an earlier inadmissible statement (*Missouri v. Seibert*, 2004). Practically speaking, however, research has suggested that the Court's presumption concerning the protections afforded by *Miranda* warnings is questionable. At minimum, a valid waiver of rights requires that police officers provide suspects an understandable description of their rights and that suspects must understand these warnings to waive them validly. What empirical evidence do we have that *Miranda's* procedural safeguards produce these conditions?

First, the *rights* of which suspects must be informed were clearly defined in Miranda, but the *warnings* were not. The *Miranda* decision included an appendix wherein the Court offered an example of the warnings that were suggested, but police departments were free to devise their own warnings. A recent study examined 560 *Miranda* warning forms used by police throughout the U.S. (Rogers, Harrison, Shuman, Sewell, & Hazelwood, 2007). A host of variations in content and format were identified, and metric analysis of their wording revealed reading-level requirements ranging from third-grade level to the verbal complexity of postgraduate textbooks (see Kahn, Zapf, & Cooper, 2006, for similar results; also see Rogers, Hazelwood, Sewell, Harrison, & Shuman, 2008). Moreover, *Miranda* warning forms varied considerably in what they conveyed. For example, only 32% of the forms told suspects that legal counsel could be obtained without charge. Thus, many warning forms raise serious doubts about the knowing and intelligent waiver of rights by almost any suspect who is "informed" by them.

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Second, studies have repeatedly shown that a substantial proportion of adults with mental disabilities, and "average" adolescents below age 16 have impaired understanding of *Miranda* warnings when they are exposed to them. Even adults and youth who understand them sometimes do not grasp their basic implications. Many of these studies have examined actual adult or juvenile defendants, using reliable procedures that allow the quality of an individual's understanding to be scored according to specified criteria. For example, do people after warnings factually understand that "I don't have to talk" and that "I can get an attorney to be here now and during any questioning by police?" To answer this question, respondents have been examined in the relatively benign circumstance of a testing session with a researcher rather than in the context of an accusatory, highly stressful interrogation using standardized *Miranda* warnings that have about an average sixth- to seventh-grade reading level. Thus, the results obtained in these studies represent people's grasp of the *Miranda* warnings under relatively favorable circumstances. Under these conditions, average adults exhibit a reasonably good understanding of their rights (Grisso, 1980, 1981). But studies of adults with serious psychological disorders (Cooper & Zapf, 2008; Rogers, Harrison, Hazelwood, & Sewell, 2007) or with mental retardation (Clare & Gudjonsson, 1991; Everington & Fulero, 1999; Fulero & Everington, 1995; O'Connell, Garmoe, & Goldstein, 2005) have found substantial impairments in understanding of *Miranda* warnings compared to nonimpaired adult defendants.

Many studies have examined adolescents' understanding of *Miranda* warnings, and the results have been very consistent (Abramovitch, Higgins-Biss, & Biss, 1993; Abramovitch, Peterson-Badali, & Rohan, 1995: Colwell et al., 2005; Goldstein, Condie, Kalbeitzer, Osman, & Geier, 2003; Grisso, 1980, 1981; Redlich, Silverman, & Steiner, 2003; Viljoen, Klaver, & Roesch, 2005; Viljoen & Roesch, 2005; Wall & Furlong, 1985). In one comprehensive study, 55% of 430 youth of ages 10–16 misunderstood one or more of the *Miranda* warnings (for example, "That means I can't talk until they tell me to"). Across these studies, the understanding of adolescents ages 15–17 with near-average levels of verbal intelligence tends not to have been inferior to that of adults. But youth of that age with IQ scores below 85, and average youth below age 14, performed much poorer, often misunderstanding two or more of the warnings.

Some studies have shown that many defendants, especially adolescents, who seem to have an adequate factual understanding of *Miranda* warnings, do not grasp their relevance to the situation they are in (e.g., Grisso, 1980, 1981; Viljoen, Zapf, & Roesch, 2007). For example, one may factually understand that "I can have an attorney before and during questioning" yet not know what an attorney is or what role an attorney would play. Others may understand the attorney's role but disbelieve that it would apply in their own situation—as when youth cannot imagine that an adult would take their side against other adults, or when a person with paranoid tendencies believes that any attorney, even his own, would oppose him.

The ability to grasp the relevance of the warnings beyond having a mere factual understanding of what they say is sometimes referred to as having a "rational understanding" or "appreciation" of the warnings. Many states, however, require only a factual understanding of *Miranda* rights for a "knowing and intelligent" waiver (e.g., *People v. Daoud*, 2000). In those states that apply a strict factual understanding standard, youth who technically understand the warnings (e.g., "I can have an attorney to talk to" or "I can stay silent") but harbor faulty beliefs that may distort the significance of these warnings ("An attorney will tell the court whatever I say" or "You have to tell the truth in court, so eventually I'll have to talk if they want me to") are considered capable of having made a valid waiver, even if they have no recognition of the meanings of the words or a distorted view of their implications.

Even among those with adequate understanding, suspects will vary in their capacities to "think" and "decide" about waiving their rights. Whether decision-making capacities are deemed relevant for a "voluntary, knowing, and intelligent" waiver will depend on courts' interpretations of "intelligent" or "voluntary." Several studies have thus examined the decision-making process of persons faced with hypothetical *Miranda* waiver decisions.

Studies of adolescents indicate that youth under age 15 on average perform differently from older adolescents and adults. They are more likely to believe that they should waive their rights and tell what they have done, partly because they are still young enough to believe that they should never disobey authority. Studies have also shown that they are more likely to decide about waiver on the basis of the potential for immediate negative consequences—for example, whether they will be permitted to go home if they waive their rights—rather than considering the longer-range consequences associated with penalties for a delinquency adjudication (Grisso, 1981; Grisso et al., 2003). Young adolescents presented with hypothetical waiver decisions are less likely than older adolescents to engage in reasoning that involves adjustment of their decisions based on the amount of evidence against them or the seriousness of the allegations (Abramovitch, Peterson-Badali, & Rohan, 1995). These results regarding the likelihood of immature decision-making processes are consistent with research on the development of psychosocial abilities of young adolescents in everyday circumstances (Steinberg & Cauffman, 1996) and other

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legal contexts (Grisso & Schwartz, 2000; Owen-Kostelnik, Reppucci, & Meyer, 2006).

Other *Miranda* decision-making studies have examined the suggestibility of persons with disabilities (Clare & Gudjonsson, 1995: Everington & Fulero, 1999; O'Connell, Garmoe, & Goldstein, 2005) and adolescents (Goldstein et al., 2003; Redlich et al., 2003; Singh & Gudjonsson, 1992). Suggestibility refers to a predisposition to accept information communicated by others and to incorporate that information into one's beliefs and memories. In general, these studies indicate that persons with mental retardation and adolescents in general are more susceptible to suggestion in the context of making hypothetical waiver decisions, and that greater suggestibility is related to poorer comprehension of the warnings. These results take on special significance in light of observational studies of police behavior when obtaining *Miranda* waiver decisions from adolescents (Feld, 2006a, 2006b) and adults (Leo, 1996b). As described elsewhere in this article, police officers often approach suspects with "friendly" suggestions regarding both the significance of the *Miranda* waiver procedure and their decision. In either case, results indicate that adults with disabilities and adolescents in general are prone to adjust their behaviors and decisions accordingly.

In a formal sense, whether one waives his or her rights voluntarily, knowingly, and intelligently does not have a direct bearing on the likelihood of false confessions (Kassin, 2005; White, 2001). The decision to waive one's rights in a police interrogation does not necessarily lead to a confession, much less a false confession. Nevertheless, research cited earlier regarding the lack of attentiveness of persons with disabilities and adolescents to long-range consequences suggests an increased risk that they would also comply with requests for a confession—whether true of false—to obtain the presumed short-term reward (e.g., release to go home). In addition, some studies have found that poor comprehension of *Miranda* warnings is itself predictive of a propensity to give false confessions (Clare & Gudjonsson, 1995; Goldstein et al., 2003). Sometimes this stems from low intelligence or a desire to comply; at other times it appears to be related to a naïve belief that one's actual innocence will eventually prevail—a belief that is not confined to adolescents or persons with disabilities (Kassin & Norwick, 2004).

Finally, many states require the presence of a parent or other interested adult when youth make decisions about their *Miranda* rights (Oberlander, Goldstein, & Goldstein, 2003). These rules are intended to offer youth assistance in thinking through the decision while recognizing that caretakers cannot themselves waive their children's rights in delinquency or criminal investigations. Studies have shown, however, that the presence of parents at *Miranda* waiver events typically does not result in any advice at all or, when it does, provides added pressure for the youth to waive rights and make a statement (Grisso & Ring, 1979). The presence of parents may be advisable, but it does not offer a remedy for the difficulties youth face in comprehending or responding to requests for a waiver of their rights.

In summary, research suggests that adults with mental disabilities, as well as adolescents, are particularly at risk when it comes to understanding the meaning of *Miranda* warnings. In addition, they often lack the capacity to weigh the consequences of rights waiver, and are more susceptible to waiving their rights as a matter of mere compliance with authority.

Overview of Confession Evidence in the Courts

American courts have long treated confession evidence with both respect and skepticism. Judicial respect for confessions emanates from the power of confession evidence and the critical role that confessions play in solving crimes. The U.S. Supreme Court has recognized that confession evidence is perhaps the most powerful evidence of guilt admissible in court (*Miranda v. Arizona*, 1966)—so powerful, in fact, that "the introduction of a confession makes the other aspects of a trial in court superfluous, and the real trial, for all practical purposes, occurs when the confession is obtained" (*Colorado v. Connelly*, 1986, p. 182 citing McCormick, 1972, p. 316).

Judicial skepticism of confession evidence stems from the historical fact that some law enforcement officers, aware that confession evidence can assure conviction, have abused their power in the interrogation room. As the U.S. Supreme Court stated in *Escobedo v. Illinois* (1964): "We have learned the lesson of history, ancient and modern, that a system of criminal law enforcement which comes to depend on the 'confession' will, in the long run, be less reliable and more subject to abuses than a system which depends on extrinsic evidence independently secured through skillful investigation" (pp. 488–489).

Judicial concern with juror over-reliance on confession evidence gave rise to a series of evolving rules designed to curb possible abuses in the interrogation room, exclude unreliable confessions from trial, and prevent wrongful convictions. These doctrines, which developed both in the common law of evidence and under the Constitution as interpreted by the U.S. Supreme Court, fell into two distinct sets of legal rules: corroboration rules and the voluntariness rules (Ayling, 1984; Leo, Drizin, Neufeld, Hal, & Vatner, 2006).

Corroboration Rules

The corroboration rule, which requires that confessions be corroborated by independent evidence, was the

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American take on the English rule known as the *corpus delicti* rule. *Corpus delicti* literally means "body of the crime"—that is, the material substance upon which a crime has been committed" (Garner, 2004, p. 310). The rule was founded at common law in England in the wake of *Perry's Case*, a seventeenth-century case in which a mother and two brothers were convicted and executed based upon a confession to a murder that was later discovered to be false when the supposed murder victim turned up alive (Leo et al., 2006). America's version of *Perry's Case* is the infamous 1819 case of Stephen and Jesse Boorn, two brothers who were convicted and sentenced to death in Manchester, Vermont for the murder of their brother-in-law Russell Colvin. Fortunately for the two men, both of whom had confessed to the killing under intense pressure from authorities, their lawyers located Colvin alive before their hangings took place (Warden, 2005).

In American homicide cases, in response to *Boorn*, the rule came to mean that no individual can be convicted of a murder without proof that a death occurred, namely the existence of a "dead body." As the rule evolved in the courts over time, it was applied to all crimes and required that before a confession could be admitted to a jury, prosecutors had to prove: (1) that a death, injury, or loss had occurred and (2) that criminal agency was responsible for that death, injury, or loss (Leo et al., 2006). The rule was designed to serve three purposes: to prevent false confessions, to provide incentives to police to continue to investigate after obtaining a confession, and to safeguard against the tendency of juries to view confessions as dispositive of guilt regardless of the circumstances under which they were obtained (Ayling, 1984).

The *corpus delicti* rule does not require corroboration that the defendant committed the crime, nor does it demand any proof of the requisite mental state or any other elements of the crime. Moreover, the rule only requires corroboration of the fact that a crime occurred; it does not require that the facts contained in the confession be corroborated. Given the relative ease of establishing the *corpus delicti* in most criminal cases (e.g., producing a dead body in a homicide case and showing that death was not self-inflicted or the result of an accident), and the weight that most jurors attach to confession evidence, prosecutors can still obtain many convictions from unreliable confessions. The rule thus makes it easier in some cases for prosecutors to convict both the guilty and the innocent (Leo et al., 2006).

At the same time, in a certain class of cases, the *corpus delicti* rule may bar the admission of reliable confessions. Because the rule requires that prosecutors prove that there be death or injury resulting from a criminal act, prosecutors may have a hard time getting confessions admitted when the evidence is unclear as to whether any injury had occurred (e.g., child molestation without physical evidence) or whether it resulted from an accident or natural causes as opposed to a criminal act (e.g., child death by smothering or Sudden Infant Death Syndrome; see Taylor, 2005).

For these reasons and others, the rule has been severely criticized. In *Smith v. United States* (1954), the U.S. Supreme Court criticized the *corpus delicti* rule for "serv[ing] an extremely limited function" (p. 153). The Court noted that the rule was originally designed to protect individuals who had confessed to crimes that never occurred but that it does little to protect against the far more frequent problem wherein a suspect confesses to a crime committed by someone else. In short, the rule did "nothing to ensure that a particular defendant was the perpetrator of a crime" (*State v. Mauchley*, 2003, p. 483).

In place of the *corpus delicti* rule, the Supreme Court, in two decisions released on the same day—*Smith* and *Opper v. United States* (1954)—announced a new rule, dubbed the trustworthiness rule, which requires corroboration of the confession itself rather than the fact that a crime occurred. Under the trustworthiness rule, which was adopted by several states, the government may not introduce a confession unless it provides "substantial independent evidence which would tend to establish the trustworthiness of the confession" (*State v. Mauchley*, 2003, p. 48; citing Opper).

In theory, the trustworthiness standard is a marked improvement on the *corpus delicti* rule in its ability to prevent false confessions from entering the stream of evidence at trial. In practice, however, the rule has not worked to screen out false confessions. Because investigators sometimes suggest and incorporate crime details into a suspect's confession, whether deliberately or inadvertently, many false confessions appear highly credible to the secondhand observer. Without an electronic recording of the entire interrogation process, courts are thus left to decide a swearing contest between the suspect and the detective over the source of the details contained within the confession. Moreover, the quantum of corroboration in most jurisdictions that apply the trustworthiness doctrine is very low, allowing many unreliable confessions to go before the jury (Leo et al., 2006).

Rules Prohibiting Involuntary Confession

Until the late eighteenth century, out-of-court confessions were admissible as evidence even if they were the involuntary product of police coercion. In 1783, however, in *The King v. Warrickshall*, an English Court recognized the inherent lack of reliability of involuntary confessions and established the first exclusionary rule:

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> Confessions are received in evidence, or rejected as inadmissible, under a consideration whether they are or are not intitled [sic] to credit. A free and voluntary confession is deserving of the highest credit, because it is presumed to flow from the strongest sense of guilt ...but a confession forced from the mind by the flattery of hope, or by the torture of fear, comes in so questionable a shape...that no credit ought to be given it; and therefore it should be rejected (*King v. Warrickshall*, 1783, pp. 234–235).

The basis for excluding involuntary confessions in *Warrickshall* was a concern that confessions procured by torture or other forms of coercion must be prohibited because of the risk that such tactics could cause an innocent person to confess. In other words, involuntary confessions were to be prohibited because they were unreliable. Following *Warrickshall*, in the late 1800s, the U.S. Supreme Court adopted this reliability rationale for excluding involuntary confessions in a series of decisions (*Hopt v. Utah*, 1884; *Pierce v. United States*, 1896; *Sparf v. United States*, 1895; *Wilson v. United States*, 1896).

The Supreme Court adopted a second rationale for excluding involuntary confessions in 1897, in *Bram v. United States*. In *Bram*, the Court for the first time linked the voluntariness doctrine to the Fifth Amendment's provision that "no person shall be compelled in any criminal case to be a witness against himself." This privilege against self-incrimination was not rooted in a concern about the reliability of confessions. Rather, its origins were grounded in the rule of *nemo teneturseipsum prodere* ("no one is bound to inform on himself"), a rule dating back to the English ecclesiastical courts which sought to protect individual free will from state intrusion (Leo et al., 2006). The rule of *nemo tenetur*, which was adopted in the colonies and incorporated into the Fifth Amendment, applied only to self-incriminating statements in court, and had never been applied to extrajudicial confessions. By mixing two unrelated voluntariness doctrines, *Bram* rewrote history and provoked considerable confusion by courts and academics alike (Wigmore, 1970). Still, it gave birth to a new basis for excluding involuntary confession evidence—the protection of individual free will.

A third basis for excluding involuntary confessions began to emerge in 1936, in the case of *Brown v. Mississippi*, to deter unfair and oppressive police practices. In *Brown*, three black tenant farmers who had been accused of murdering a white farmer were whipped, pummeled, and tortured until they provided detailed confessions. The Court unanimously reversed the convictions of all three defendants, holding that confessions procured by physical abuse and torture were involuntary. The Court established the Fourteenth Amendment's due process clause as the constitutional test for assessing the admissibility of confessions in state cases. In addition to common law standards, trial judges would now have to apply a federal due process standard when evaluating the admissibility of confession evidence, looking to the "totality of the circumstances" to determine if the confession was 'made freely, voluntarily and without compulsion or inducement of any sort'"(*Haynes v. Washington*, 1963, quoting *Wilson v. United States*, 1896). As such, the Court proposed to consider personal characteristics of the individual suspect (e.g., age, intelligence, mental stability, and prior contact with law enforcement) as well as the conditions of detention and interrogation tactics that were used (e.g., threats, promises, and lies).

This deterrence rationale, implied in *Brown*, was made even more explicit in *Haley v. Ohio*, a case involving a 15-year-old black boy who was questioned throughout the night by teams of detectives, isolated for 3 days, and repeatedly denied access to his lawyer (*Haley v. Ohio*, 1948). While the majority held that the confession was obtained "by means which the law should not sanction" (pp. 600–601), Justice Frankfurter, in his concurrence, went a step further, stating that the confession must be held inadmissible "[t]o remove the inducement to resort to such methods this Court has repeatedly denied use of the fruits of illicit methods" (p. 607).

As these cases suggest, the Supreme Court relied on different and sometimes conflicting rationales for excluding involuntary confessions throughout the twentieth century (Kamisar, 1963; White, 1998). It was not always clear which of the three justifications the Court would rely on when evaluating the voluntariness of a confession. Nevertheless, the Court did appear to designate certain interrogation methods—including physical force, threats of harm or punishment, lengthy or incommunicado questioning, solitary confinement, denial of food or sleep, and promises of leniency—as presumptively coercive and therefore unconstitutional (White, 2001). The Court also considered the individual suspect's personal characteristics, such as age, intelligence, education, mental stability, and prior contact with law enforcement, in determining whether a confession was voluntary. The template of the due process voluntariness test thus involved a balancing of whether police interrogation pressures, interacting with a suspect's personal dispositions, were sufficient to render a confession involuntary (Schulhofer, 1981).

The "totality of the circumstances" test, while affording judges flexibility in practice, has offered little protection to suspects. Without bright lines for courts to follow, and without a complete and accurate record of what transpired during the interrogation process, the end result has been largely unfettered and unreviewable discretion by judges. In practice, when judges apply the test, "they exclude only the most egregiously obtained confessions and then only

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haphazardly" (Feld, 1999, p. 118). The absence of a litmus test has also encouraged law enforcement officers to push the envelope with respect to the use of arguably coercive psychological interrogation techniques (Penney, 1998). Unlike its sweeping condemnation of *physical* abuse in *Brown v. Mississippi*, the Court's overall attitude toward *psychological* interrogation techniques has been far less condemnatory. In particular, the Court's attitudes toward the use of maximization and minimization (Kassin & McNall, 1991) and the false evidence ploy and other forms of deception (Kassin & Kiechel, 1996)—techniques that have frequently been linked to false confessions (Kassin & Gudjonsson, 2004)—has been largely permissive. A discussion of some of these cases follows.

Cases Addressing Interrogation Tactics: Maximization and Minimization

Today's interrogators seek to manipulate a suspect into thinking that it is in his or her best interest to confess. To achieve this change in perceptions of subjective utilities, they use a variety of techniques, referred to broadly as "maximization" and "minimization" (Kassin & McNall, 1991). Maximization involves a cluster of tactics designed to convey the interrogator's rock-solid belief that the suspect is guilty and that all denials will fail. Such tactics include making an accusation, overriding objections, and citing evidence, real or manufactured, to shift the suspect's mental state from confident to hopeless. Toward this end, it is particularly common for interrogators to communicate as a means of inducement, implicitly or explicitly, a threat of harsher consequences in response to the suspect's denials (Leo & Ofshe, 2001).

In contrast, minimization tactics are designed to provide the suspect with moral justification and face-saving excuses for having committed the crime in question. Using this approach, the interrogator offers sympathy and understanding; normalizes and minimizes the crime, often suggesting that he or she would have behaved similarly; and offers the suspect a choice of alternative explanations—for example, suggesting to the suspect that the murder was spontaneous, provoked, peer-pressured, or accidental rather than the work of a cold-blooded premeditated killer. As we will see later, research has shown that this tactic communicates by implication that leniency in punishment is forthcoming upon confession.

As the 1897 case of *Bram v. United States* demonstrates, minimization has been part of the arsenal of police interrogation tactics for over a century. In *Bram*, the authorities induced the defendant to confess based on the kind of unspoken promise that anchors the modern psychological interrogation: "Bram, I am satisfied that you killed the captain. But some of us here think you could not have done the crime alone. If you had an accomplice, you should say so, and not have the blame of this horrible crime on your own shoulders" (*Bram v. United States*, 1897, p. 539). This statement contained no direct threats or promises; rather, it combined elements of maximization (the interrogator's stated certainty in the suspect's guilt) and minimization (the suggestion that he will be punished less severely if he confesses and names an accomplice). Using language that condemns the latter, the Supreme Court reversed Bram's conviction, holding that a confession "must not be extracted by any sort of threats or violence, nor obtained by any direct or implied promises, however slight" (pp. 542–543).

Although a strict interpretation of *Bram* seemed to suggest a ban on minimization, courts throughout the twentieth century followed a practice of evading, contradicting, disregarding, and ultimately discarding *Bram* (Hirsch, 2005a). Briefly in the 1960s, it appeared that the Supreme Court was ready to revitalize *Bram* and to apply it broadly to the psychological interrogation techniques taught by such legendary police reformers as Chicago's Fred Inbau and John Reid. Indeed, the landmark case of *Miranda v. Arizona* (1966), described earlier, cited *Bram* and condemned the Reid technique and other tactics that "are designed to put the subject in a psychological state where his story is but an elaboration of what the police purport to know already—that he is guilty" (p. 450). This newfound concern with the impact of psychological interrogation tactics, however, was short lived. In the immediate aftermath of *Miranda*, the Supreme Court adopted a more deferential attitude toward law enforcement in its confession jurisprudence. In particular, *Arizona v. Fulminante* (1991) in dicta may have sounded the death knell for *Bram*. Responding to a party's invocation of *Bram*, the Court casually remarked that "under current precedent [Bram] does not state the standard for determining the voluntariness of a confession" (p. 286). However, White (1997) noted that "as Fulminante's holding indicates, some promises may be sufficient in and of themselves to render a confession involuntary; other promises may or may not be permissible depending upon the circumstances" (p. 150).

Cases Addressing Interrogation Tactics: Trickery and Deception

The false evidence ploy is a controversial tactic occasionally used by police. Not all interrogation trainers approve of this practice (Gohara, 2006), the use of which has been implicated in the vast majority of documented police-induced false confessions (Kassin, 2005). In several pre-*Miranda* voluntariness cases, the U.S. Supreme Court recognized that deception can induce involuntary confessions, although the Court never held that such tactics would automatically invalidate a confession. In *Leyra v. Denno* (1954), for

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example, Leyra asked to see a physician because he was suffering from sinus problems and police brought in a psychiatrist who posed as a general physician. The Supreme Court held that the "subtle and suggestive" questioning by the psychiatrist amounted to a continued interrogation of the suspect without his knowledge. This deception and other circumstances of the interrogation rendered Leyra's confession involuntary. Similarly, in *Spano v. New York* (1959), the suspect considered one of the interrogating officers to be a friend. The Court held that the officer's false statements, in which he suggested that the suspect's actions might cost the officer his job, were a key factor in rendering the resulting confession involuntary. In *Miranda v. Arizona* (1966), the Supreme Court discussed the use of trickery and deception and noted that the deceptive tactics recommended in standard interrogation manuals fostered a coercive environment. Again, the Court did not specifically prohibit such tactics, choosing instead to offer suspects some relief from the coercive effect by empowering them with rights which could be used to bring interrogation to a halt. The criticism of deception may have fanned hopes that the Court would deal a more direct blow to this controversial tactic in future cases. But such hopes were quickly quashed.

Three years later, in *Frazier v. Cupp* (1969), the Supreme Court addressed interrogation trickery and issued a decision that to this day has been interpreted by police and the courts as a green light to deception. In *Frazier*, police used a standard false evidence ploy—telling Frazier that another man whom he and the victim had been seen with on the night of the crime had confessed to their involvement. The investigating detective also used minimization, suggesting to Frazier that he had started a fight with the victim because the victim made homosexual advances toward him. Despite the use of these deceptive tactics, the Court held that Frazier's confession was voluntary. This ruling established that police deception by itself is not sufficient to render a confession involuntary. Rather, according to *Frazier*, deception is but one factor among many that a court should consider. Some state courts have distinguished between mere false assertions, which are permissible, and the fabrication of reports, tapes, and other evidence—which is not. In the Florida case of *State v. Cayward* (1989), the defendant's confession was suppressed because police had typed up a phony crime laboratory report that placed Cayward's DNA on the victim. However, the court's concern was not that the manufactured evidence might prompt an innocent person to confess but that it might find its way into court as evidence. Similarly, New Jersey confessions were suppressed when produced by a fake, staged audiotape of an alleged eyewitness account (*State v. Patton*, 1993) and a fake crime lab report identifying the suspect's DNA at the crime scene (*State v. Chirokovskcic*, 2004). This is where the law remains today despite numerous cautionary notes from academics and researchers on the use of deception (Gohara, 2006; Gudjonsson, 2003; Kassin, 2005; Kassin & Gudjonsson, 2004; Skolnick & Leo, 1992; but see Grano, 1994; Slobogin, 2007).

Practices in England

Interrogations and confession evidence are regulated in England and Wales by the Police and Criminal Evidence Act of 1984 (PACE; Home Office, 1985), which became effective in January 1986. The Act is supplemented by five Codes of Practice, referred to as Codes A (on stop and search), B (entry and searches of premises), C (detention and questioning of suspects), D (on identification parades), and E (tape recording of interviews). The Codes provide guidance to police officers concerning procedures and the appropriate treatment of suspects. Code C is particularly relevant to issues surrounding "fitness to be interviewed," as it provides guidance "on practice for the detention, treatment and questioning of persons by police officers" (Home Office, 2003, p. 47).

The most important interview procedures set out in PACE and its Codes of Practice are that: Suspects who are detained at a police station must be informed of their legal rights; in any 24-h period the detainee must be allowed a continuous period of rest of at least 8 hours; detainees who are vulnerable in terms of their age or mental functioning should have access to a responsible adult (known as an 'appropriate adult'), whose function is to give advice, further communication, and ensure that the interview is conducted properly and fairly; and all interviews shall be electronically recorded.

Compared to the approach typically taken in the U.S. (e.g., using the Reid technique), investigative interview practices in England are less confrontational. Williamson (2007) discussed in detail how psychological science has influenced the training of police officers and their interviewing practice, making it fairer and more transparent. Prior to 1992, investigators in Britain received no formal training and the chief purpose of interviewing suspects was to obtain confessions. Following some high-profile miscarriages of justice, such as the "Guildford Four" and "Birmingham Six," the Association of Chief Police Officers for England and Wales (ACPO) published the first national training program for police officers interviewing both suspects and witnesses. This new approach was developed through a collaboration of police officers, psychologists, and lawyers. The mnemonic PEACE was used to describe the five distinct parts of the new interview approach ("Preparation and Planning," "Engage and Explain," "Account," "Closure," and "Evaluate"). The theory underlying this approach, particularly in cases of witnesses, victims, and cooperative suspects, can be traced

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to Fisher and Geiselman's (1992) work on the "Cognitive Interview" (Milne & Bull, 1999; for research evidence, see Clarke & Milne, 2001; Williamson, 2006). Recent analyses of police–suspect interviews in England have revealed that the confrontation-based tactics of maximization and minimization are in fact seldom used (Soukara, Bull, Vrij, Turner, & Cherryman, in press; Bull & Soukara, 2009).

POLICE-INDUCED FALSE CONFESSIONS

As described earlier, the process of interrogation is designed to overcome the anticipated resistance of individual suspects who are presumed guilty and to obtain legally admissible confessions. The single-minded objective, therefore, is to increase the anxiety and despair associated with denial and reduce the anxiety associated with confession. To achieve these goals, police employ a number of tactics that involve isolating the suspect and then employing both negative and positive incentives. On the negative side, interrogators confront the suspect with accusations of guilt, assertions that are made with certainty and often bolstered by evidence, real or manufactured, and a refusal to accept alibis and denials. On the positive side, interrogators offer sympathy and moral justification, introducing "themes" that normalize and minimize the crime and lead suspects to see confession as an expedient means of escape. In this section, we describe some core principles of psychology relevant to understanding the suspect's decision making in this situation; then we describe the problem of false confessions and the situational and dispositional factors that put innocent people at risk.

Types of False Confessions

Although it is not possible to calculate a precise incidence rate, it is clear that false confessions occur in different ways and for different reasons. Drawing on the pages of legal history, and borrowing from social-psychological theories of influence, Kassin and Wrightsman (1985) proposed a taxonomy that distinguished among three types of false confession: voluntary, coerced-compliant, and coerced-internalized (see also Kassin, 1997; Wrightsman & Kassin, 1993). This classification scheme has provided a useful framework for the study of false confessions and has since been used, critiqued, extended, and refined by others (Gudjonsson, 2003; Inbau et al., 2001; McCann, 1998; Ofshe & Leo, 1997a, 1997b).

Voluntary False Confessions

Sometimes innocent people have claimed responsibility for crimes they did not commit without prompting or pressure from police. This has occurred in several high-profile cases. After Charles Lindbergh's infant son was kidnapped in 1932, 200 people volunteered confessions. When "Black Dahlia" actress Elizabeth Short was murdered and her body mutilated in 1947, more than 50 men and women confessed. In the 1980s, Henry Lee Lucas in Texas falsely confessed to hundreds of unsolved murders, making him the most prolific serial confessor in history. In 2006, John Mark Karr volunteered a confession, replete with details, to the unsolved murder of young JonBenet Ramsey. There are a host of reasons why people have volunteered false confessions—such as a pathological desire for notoriety, especially in high-profile cases reported in the news media; a conscious or unconscious need for self-punishment to expiate feelings of guilt over prior transgressions; an inability to distinguish fact from fantasy due to a breakdown in reality monitoring, a common feature of major mental illness; and a desire to protect the actual perpetrator—the most prevalent reason for false admissions (Gudjonsson et al., 2004; Sigurdsson & Gudjonsson, 1996, 1997, 2001). Radelet, Bedau, and Putnam (1992) described one case in which an innocent man confessed to a murder to impress his girlfriend. Gudjonsson (2003) described another case in which a man confessed to murder because he was angry at police for a prior arrest and wanted to mislead them in an act of revenge.

Compliant False Confessions

In contrast to voluntary false confessions, compliant false confessions are those in which suspects are induced through interrogation to confess to a crime they did not commit. In these cases, the suspect acquiesces to the demand for a confession to escape a stressful situation, avoid punishment, or gain a promised or implied reward. Demonstrating the form of influence observed in classic studies of social influence (e.g., Asch, 1956; Milgram, 1974), this type of confession is an act of mere public compliance by a suspect who knows that he or she is innocent but bows to social pressure, often coming to believe that the short-term benefits of confession relative to denial outweigh the long-term costs. Based on a review of a number of cases, Gudjonsson (2003) identified some very specific incentives for this type of compliance—such as being allowed to sleep, eat, make a phone call, go home, or, in the case of drug addicts, feed a drug habit. The desire to bring the interview to an end and avoid additional confinement may be particularly pressing for people who are young, desperate, socially dependent, or phobic of being locked up in a police station. The pages of legal history are filled with stories of compliant false confessions. In the 1989 Central Park jogger case described earlier, five

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teenagers confessed after lengthy interrogations. All immediately retracted their confessions but were convicted at trial and sent to prison—only to be exonerated 13 years later (*People of the State of New York v. Kharey Wise et al.*, 2002).

Internalized False Confessions

In the third type of false confession, innocent but malleable suspects, told that there is incontrovertible evidence of their involvement, come not only to capitulate in their behavior but also to believe that they may have committed the crime in question, sometimes confabulating false memories in the process. Gudjonsson and MacKeith (1982) argued that this kind of false confession occurs when people develop such a profound distrust of their own memory that they become vulnerable to influence from external sources. Noting that the innocent confessor's belief is seldom fully internalized, Ofshe and Leo (1997a) have suggested that the term "persuaded false confession" is a more accurate description of the phenomenon. The case of 14-year-old Michael Crowe, whose sister Stephanie was stabbed to death in her bedroom, illustrates this type of persuasion. After a series of interrogation sessions, during which time police presented Crowe with compelling false physical evidence of his guilt, he concluded that he was a killer, saying: "I'm not sure how I did it. All I know is I did it." Eventually, he was convinced that he had a split personality—that "bad Michael" acted out of a jealous rage while "good Michael" blocked the incident from memory. The charges against Crowe were later dropped when a drifter in the neighborhood that night was found with Stephanie's blood on his clothing (Drizin & Colgan, 2004).

Relevant Core Principles of Psychology

Earlier we reviewed the tactics of a modern American interrogation and the ways in which the U.S. Supreme Court has treated these tactics with respect to the voluntariness and admissibility of the confessions they elicit. As noted, the goal of interrogation is to alter a suspect's decision making by increasing the anxiety associated with denial and reducing the anxiety associated with confession (for an excellent description of a suspect's decision-making process in this situation, see Ofshe & Leo, 1997b).

Long before the first empirical studies of confessions were conducted, the core processes of relevance to this situation were familiar to generations of behavioral scientists. Dating back to Thorndike's (1911) law of effect, psychologists have known that people are highly responsive to reinforcement and subject to the laws of conditioning, and that behavior is influenced more by perceptions of short-term than long-term consequences. Of distal relevance to a psychological analysis of interrogation are the thousands of operant animal studies of reinforcement schedules, punishment, appetitive, avoidance, and escape learning, as well as behavioral modification applications in clinics, schools, and workplaces. Looking through this behaviorist lens, it seems that interrogators have sometimes shaped suspects to confess to particular narrative accounts of crimes like they were rats in a Skinner box (see Herrnstein, 1970; Skinner, 1938).

More proximally relevant to an analysis of choice behavior in the interrogation room are studies of human decision making in a behavioral economics paradigm. A voluminous body of research has shown that people make choices that they think will maximize their well-being given the constraints they face, making the best of the situation they are in—what Herrnstein has called the "matching law" (Herrnstein, Rachlin, & Laibson, 1997). With respect to a suspect's response to interrogation, studies on the discounting of rewards and costs show that people tend to be impulsive in their orientation, preferring outcomes that are immediate rather than delayed, with delayed outcomes depreciating over time in their subjective value (Rachlin, 2000). In particular, animals and humans clearly prefer delayed punishment to immediate aversive stimulation (Deluty, 1978; Navarick, 1982). These impulsive tendencies are especially evident in juvenile populations and among cigarette smokers, alcoholics, and other substance users (e.g., Baker, Johnson, & Bickel, 2003; Bickel & Marsch, 2001; Bickel, Odum, & Madden, 1999; Kollins, 2003; Reynolds, Richards, Horn, & Karraker, 2004).

Rooted in the observation that people are inherently social beings, a second set of core principles is that individuals are highly vulnerable to influence from change agents who seek their compliance. Of direct relevance to an analysis of interrogation are the extensive literatures on attitudes and persuasion (Petty & Cacioppo, 1986), informational and normative influences (e.g., Asch, 1956; Sherif, 1936), the use of sequential request strategies, as in the foot-in-the-door effect (Cialdini, 2001), and the gradual escalation of commands, issued by figures of authority, to effectively obtain self- and other-defeating acts of obedience (Milgram, 1974). Conceptually, Latane's (1981) social impact theory provides a predictive mathematical model that can account for the influence of police interrogators—who bring *power*, *proximity*, and *number* to bear on their exchange with suspects (for a range of social psychological perspectives on interrogation, see Bem, 1966; Davis & O'Donahue, 2004; Zimbardo, 1967).

A third set of core principles consists of the "seven sins of memory" that Schacter (2001) identified from cognitive and neuroscience research—a list that includes memory transience, misattribution effects, suggestibility, and bias.

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When Kassin and Wrightsman (1985) first identified coerced-internalized or coerced-persuaded false confessions, they were puzzled. At the time, existing models of memory could not account for the phenomenon whereby innocent suspects would come to internalize responsibility for crimes they did not commit and confabulate memories about these nonevents. These cases occur when a suspect is dispositionally or situationally rendered vulnerable to manipulation and the interrogator then misrepresents the evidence, a common ploy. In light of a now extensive research literature on misinformation effects and the creation of illusory beliefs and memories (e.g., Loftus, 1997, 2005), experts can now better grasp the process by which people come to accept guilt for a crime they did not commit as well as the conditions under which this may occur (see Kassin, 2008).

Situational Risk Factors

Among the situational risk factors associated with false confessions, three will be singled out: interrogation time, the presentation of false evidence, and minimization. These factors are highlighted because of the consistency in which they appear in cases involving proven false confessions.

Physical Custody and Isolation

To ensure privacy and control, and to increase the stress associated with denial in an incommunicado setting, interrogators are trained to remove suspects from their familiar surroundings and question them in the police station—often in a special interrogation room. Consistent with guidelines articulated by Inbau et al. (2001), most interrogations are brief. Observational studies in the U.S. and Britain have consistently shown that the vast majority of interrogations last approximately from 30 minutes up to 2 hours (Baldwin, 1993; Irving, 1980; Leo, 1996b; Wald et al., 1967). In a recent self-report survey, 631 North American police investigators estimated from their experience that the mean length of a typical interrogation is 1.60 hours. Consistent with cautionary advice from Inbau et al. (2001) against exceeding 4 hours in a single session, these same respondents estimated on average that their longest interrogations lasted 4.21 hours (Kassin et al., 2007). Suggesting that time is a concern among practitioners, one former Reid technique investigator has defined interrogations that exceed 6 hours as "coercive" (Blair, 2005). In their study of 125 proven false confessions, Drizin and Leo (2004) thus found, in cases in which interrogation time was recorded, that 34% lasted 6–12 hours, that 39% lasted 12–24 hours, and that the mean was 16.3 hours.

It is not particularly surprising that false confessions tend to occur after long periods of time—which indicates a dogged persistence in the face of denial. The human needs for belonging, affiliation, and social support, especially in times of stress, are a fundamental human motive (Baumeister & Leary, 1996). People under stress seek desperately to affiliate with others for the psychological, physiological, and health benefits that social support provides (Rofe, 1984; Schachter, 1959; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Hence, prolonged isolation from significant others in this situation constitutes a form of deprivation that can heighten a suspect's distress and incentive to remove himself or herself from the situation. Depending on the number of hours and conditions of interrogation, sleep deprivation may also become a source of concern. Controlled laboratory experiments have shown that sleep deprivation, which may accompany prolonged periods of isolation, can heighten susceptibility to influence and impair decision-making abilities in complex tasks. The range of effects is varied, with studies showing that sleep deprivation markedly impairs the ability to sustain attention, flexibility of thinking, and suggestibility in response to leading questions (Blagrove, 1996; for a review, see Harrison & Horne, 2000). This research literature is not all based in the laboratory. For example, performance decrements have been observed in medical interns (e.g., Veasey, Rosen, Barzansky, Rosen, & Owens, 2002; Weinger & Ancoli-Israel, 2002)—as when sleep deprivation increased the number of errors that resident surgeons made in a virtual reality surgery simulation (Taffinder, McManus, Gul, Russell, & Darzi, 1998). Also demonstrably affected are motorists (Lyznicki, Doege, Davis, & Williams, 1998) and F-117 fighter pilots (Caldwell, Caldwell, Brown, & Smith, 2004). Combining the results in a meta-analysis, Pilcher and Huffcut (1996) thus concluded that: "overall sleep deprivation strongly impairs human functioning." The use of sleep deprivation in interrogation is hardly a novel idea. In *Psychology and Torture*, Suedfeld (1990) noted that sleep deprivation is historically one of the most potent methods used to soften up prisoners of war and extract confessions from them. Indeed, Amnesty International reports that most torture victims interviewed report having been deprived of sleep for 24 hours or more.

Presentations of False Evidence

Once suspects are isolated, interrogators, armed with a strong presumption of guilt, seek to communicate that resistance is futile. This begins the confrontation process, during which interrogators exploit the psychology of inevitability to drive suspects into a state of despair. Basic research shows that once people see an outcome as inevitable, cognitive and motivational forces conspire to

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promote their acceptance, compliance with, and even approval of the outcome (Aronson, 1999). In the case of interrogation, this process also involves interrupting the suspect's denials, overcoming objections, and refuting alibis. At times, American police will overcome a suspect's denials by presenting supposedly incontrovertible evidence of his or her guilt (e.g., a fingerprint, blood or hair sample, eyewitness identification, or failed polygraph)—even if that evidence does not exist. In the U.S., it is permissible for police to outright lie to suspects about the evidence (*Frazier v. Cupp*, 1969)—a tactic that is recommended in training (Inbau et al., 2001), and occasionally used (Kassin et al., 2007; Leo, 1996b).

Yet basic psychological research warns of the risk of this manipulation. Over the years, across a range of subdisciplines, basic research has revealed that misinformation renders people vulnerable to manipulation. To cite but a few highly recognized classics in the field, experiments have shown that presentations of false information—via confederates, witnesses, counterfeit test results, bogus norms, false physiological feedback, and the like—can substantially alter subjects' visual judgments (Asch, 1956; Sherif, 1936), beliefs (Anderson, Lepper, & Ross, 1980), perceptions of other people (Tajfel, Billig, Bundy, & Flament, 1971), behaviors toward other people (Rosenthal & Jacobson, 1968), emotional states (Schachter & Singer, 1962), physical attraction (Valins, 1966), self-assessments (Crocker, Voelkl, Testa, & Major, 1991), memories for observed and experienced events (Loftus, 2005), and even certain medical outcomes, as seen in studies of the placebo effect (Brown, 1998; Price, Finniss, & Benedetti, 2008). Scientific evidence for human malleability in the face of misinformation is broad and pervasive.

The forensic literature on confessions reinforces and extends this classic point, indicating that presentations of false evidence can lead people to confess to crimes they did not commit. This literature is derived from two sources of information. First, studies of actual cases reveal that the false evidence ploy, which is not permitted in Great Britain and most other European nations, is found in numerous wrongful convictions in the U.S., including DNA exonerations, in which there were confessions in evidence (Drizin & Leo, 2004; Leo & Ofshe, 1998). That this tactic appears in proven false confession cases makes sense. In self-report studies, actual suspects state that the reason they confessed is that they perceived themselves to be trapped by the weight of evidence (Gudjonsson & Sigurdsson, 1999; Moston, Stephenson, & Williamson, 1992).

Concerns about the polygraph are illustrative in this regard. Although it is best known for its use as a lie-detector test, and has value as an investigative tool, posttest "failure" feedback is often used to pressure suspects and can prompt false confessions. This problem is so common that Lykken (1998) coined the term "fourth degree" to describe the tactic (p. 235), and the National Research Council Committee to Review the Scientific Evidence on the Polygraph (2003) warned of the risk of polygraph-induced false confessions. In a laboratory demonstration that illustrates the point, Meyer and Youngjohn (1991) elicited false confessions to the theft of an experimenter's pencil from 17% of subjects told that they had failed a polygraph test on that question.

The second source of evidence is found in laboratory experiments that have tested the causal hypothesis that false evidence leads innocent people to confess to prohibited acts they did not commit. In one study, Kassin and Kiechel (1996) accused college students typing on a keyboard of causing the computer to crash by pressing a key they were instructed to avoid. Despite their innocence and initial denials, subjects were asked to sign a confession. In some sessions but not others, a confederate said she witnessed the subject hit the forbidden key. This false evidence nearly doubled the number of students who signed a written confession, from 48 to 94%.

Follow-up studies have replicated this effect to the extent that the charge was plausible (Horselenberg et al., 2006; Klaver, Lee, & Rose, 2008), even when the confession was said to bear a financial or other consequence (Horselenberg, Merckelbach, & Josephs, 2003; Redlich & Goodman, 2003), and even among informants who are pressured to report on a confession allegedly made by another person (Swanner, Beike, & Cole, in press). The effect has been particularly evident among stress-induced males (Forrest, Wadkins, & Miller, 2002) and children and juveniles who tend to be both more compliant and suggestible than adults (Candel, Merckelbach, Loyen, & Reyskens, 2005; Redlich & Goodman, 2003). Using a completely different paradigm, Nash and Wade (2009) used digital editing software to fabricate video evidence of participants in a computerized gambling experiment "stealing" money from the "bank" during a losing round. Presented with this false evidence, all participants confessed—and most internalized the belief in their own guilt.

One needs to be cautious in generalizing from laboratory experiments. Yet numerous false confession cases have featured the use and apparent influence of the false evidence ploy. In one illustrative case, in 1989, 17-year-old Marty Tankleff was accused of murdering his parents despite the complete absence of evidence against him. Tankleff vehemently denied the charges for several hours—until his interrogator told him that his hair was found within his mother's grasp, that a "humidity test" indicated he had showered (hence, the presence of only one spot of blood on his shoulder), and that his hospitalized father had emerged from his coma to say that Marty was his assailant—all of which were untrue (the father never

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regained consciousness and died shortly thereafter). Following these lies, Tankleff became disoriented and confessed. Solely on the basis of that confession, Tankleff was convicted, only to have his conviction vacated and the charges dismissed 19 years later (Firstman & Salpeter, 2008; Lambert, 2008).

Minimization: Promises Implied But Not Spoken

In addition to thrusting the suspect into a state of despair by the processes of confrontation, interrogators are trained to minimize the crime through "theme development," a process of providing moral justification or face-saving excuses, making confession seem like an expedient means of escape. Interrogators are thus trained to suggest to suspects that their actions were spontaneous, accidental, provoked, peer-pressured, drug-induced, or otherwise justifiable by external factors. In the Central Park jogger case, every boy gave a false confession that placed his cohorts at center stage and minimized his own involvement (e.g., 16-year-old Kharey Wise said he felt pressured by peers)—and each said afterward that he thought he would go home after confessing based on statements made by police.

Minimization tactics that imply leniency may well lead innocent people who feel trapped to confess. Two core areas of psychology compel this conclusion. The first concerns the principle of reinforcement. As noted earlier, generations of basic behavioral scientists, dating back to Thorndike (1911), and formalized by Skinner (1938), have found that people are highly responsive to reinforcement and the perceived consequences of their behavior. More recent studies of human decision making have added that people are particularly influenced by outcomes that are immediate rather than delayed, the latter depreciating over time in their subjective value (Rachlin, 2000). The second core principle concerns the cognitive psychology of pragmatic implication. Over the years, researchers have found that when people read text or hear speech, they tend to process information "between the lines" and recall not what was stated per se, but what was *pragmatically implied.* Hence, people who read that "The burglar goes to the house" often mistakenly recall later that the burglar actually broke into the house; those who hear that "The flimsy shelf weakened under the weight of the books" often mistakenly recall that the shelf actually broke (Chan & McDermott, 2006; Harris & Monaco, 1978; Hilton, 1995). These findings indicate that pragmatic inferences can change the meaning of a communication, leading listeners to infer something that is "neither explicitly stated nor necessarily implied" (Brewer, 1977).

Taken together, basic research showing that people are highly influenced by perceived reinforcements and that people process the pragmatic implications of a communication suggests the possibility that suspects infer leniency in treatment from minimizing remarks that depict the crime as spontaneous, accidental, pressured by others, or otherwise excusable—even in the absence of an explicit promise. To test this hypothesis, Kassin and McNall (1991) had subjects read a transcript of an interrogation of a murder suspect (the text was taken from an actual New York City interrogation). The transcripts were edited to produce three versions in which the detective made a contingent explicit promise of leniency, used the technique of minimization by blaming the victim, or did not use either technique. Subjects read one version and then estimated the sentence that they thought would be imposed on the suspect. The result: As if explicit promises had been made, minimization lowered sentencing expectations compared to conditions in which no technique was used.

More recently, researchers have found that minimization can also lead innocent people to confess. Using the computer crash paradigm described earlier, Klaver, Lee, and Rose (2008) found that minimization remarks significantly increased the false confession rate when the accusation concerning the forbidden key press was plausible. Russano, Meissner, Kassin, and Narchet (2005) devised a newer laboratory paradigm to not only assess the behavioral effects of minimization but to assess the diagnosticity of the resulting confession (a technique has "diagnosticity" to the extent that it increases the ratio of true to false confessions). In their study, subjects were paired with a confederate for a problem-solving study and instructed to work alone on some problems and jointly on others. In the *guilty* condition, the confederate sought help on a problem that was supposed to be solved alone, inducing a violation of the experimental prohibition. In the *innocent* condition, the confederate did not make this request to induce the crime. The experimenter soon "discovered" a similarity in their solutions, separated the subject and confederate, and accused the subject of cheating. The experimenter tried to get the subject to sign an admission by overtly promising leniency (a deal in which research credit would be given in exchange for a return session without penalty), making minimizing remarks ("I'm sure you didn't realize what a big deal it was"), using both tactics, or using no tactics. Overall, the confession rate was higher among guilty subjects than innocent, when leniency was promised than when it was not, and when minimization was used than when it was not. Importantly, diagnosticity—defined as the rate of true confessions to false confessions—was highest at 7.67 when no tactics were used (46% of guilty suspects confessed vs. only 6% of innocents) and minimization—just like an explicit offer of leniency—reduced diagnosticity to 4.50 by increasing not only the rate of true confessions (from 46 to 81%) but even more so the rate of false confessions (which tripled from 6 to 18%). In short,

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minimization provides police with a loophole in the rules of evidence by serving as the implicit but functional equivalent to a promise of leniency (which itself renders a confession inadmissible). The net result is to put innocents at risk to make false confessions.

It is important to note that minimization and the risk it engenders is not a mere laboratory phenomenon. Analyzing more than 125 electronically recorded interrogations and transcripts, Ofshe and Leo (1997a, 1997b) found that police often use techniques that serve to communicate promises and threats through pragmatic implication. These investigators focused specifically on what they called *high-end inducements*—appeals that communicate to a suspect that he or she will receive less punishment, a lower prison sentence, or some form of prosecutorial or judicial leniency upon confession and/or a higher charge or longer prison sentence in the absence of confession. In some homicide cases, for example, interrogators suggested that if the suspect admits to the killing it would be framed as unintentional, as an accident, or as an act of justifiable self-defense—not as premeditated cold-blooded murder, the portrayal that would follow from continued denial. This is a variant of the "maximization"/"minimization" technique described by Kassin and McNall (1991), which communicates through pragmatic implication that the suspect will receive more lenient treatment if he or she confesses but harsher punishment if he or she does not.

Dispositional Risk Factors

In any discussion of dispositional risk factors for false confession, the two most commonly cited concerns are a suspect's age (i.e., juvenile status) and mental impairment (i.e., mental illness, mental retardation). These common citations are because of the staggering overrepresentation of these groups in the population of proven false confessions. For example, of the first 200 DNA exonerations in the U.S., 35% of the false confessors were 18 years or younger and/or had a developmental disability. In their sample of wrongful convictions, Gross, Jacoby, Matheson, Montgomery, and Patel (2005) found that 44% of the exonerated juveniles and 69% of exonerated persons with mental disabilities were wrongly convicted because of false confessions.

Adolescence and Immaturity

There is strong evidence that juveniles are at risk for involuntary and false confessions in the interrogation room (for reviews see Drizin & Colgan, 2004; Owens-Kostelnik, Reppucci, & Meyer, 2006; Redlich, 2007; Redlich & Drizin, 2007; Redlich, Silverman, Chen, & Steiner, 2004). Juveniles are over represented in the pool of identified false confession cases: 35% of the proven false confessors in the Drizin and Leo (2004) sample were younger than age 18, and within this sample of juveniles, 55% were aged 15 or younger. Comparatively, of all persons arrested for murder and rape, only 8 and 16%, respectively, are juveniles (Snyder, 2006). Numerous high-profile cases, such as the Central Park Jogger case (Kassin, 2002), have demonstrated the risks of combining young age, and the attributes that are associated with it (e.g., suggestibility, heightened obedience to authority, and immature decision-making abilities), and the psychologically oriented interrogation tactics described earlier. Hence, Inbau et al. (2001) concede that minors are at special risk for false confession and advise caution when interrogating a juvenile. Referring to the presentation of fictitious evidence, for example, they note: "This technique should be avoided when interrogating a youthful suspect with low social maturity" (p. 429).

The field of developmental psychology was born over a century ago in the influential writings of James Baldwin, Charles Darwin, G. Stanley Hall, and William Stern (see Parke, Ornstein, Rieser, & Zahn-Waxler, 1994). Since that time, basic research has shown that children and adolescents are cognitively and psychosocially less mature than adults—and that this immaturity manifests in impulsive decision making, decreased ability to consider long-term consequences, engagement in risky behaviors, and increased susceptibility to negative influences. Specifically, this body of research indicates that early adolescence marks the onset of puberty, heightening emotional arousability, sensation seeking, and reward orientation; that mid-adolescence is a period of increased vulnerability to risk-taking and problems in affect and behavior; and that late adolescence is a period in which the frontal lobes continue to mature, facilitating regulatory competence and executive functioning (for reviews, see Steinberg, 2005; Steinberg & Morris, 2001). Recent neurological research on brain development dovetails with findings from behavioral studies. Specifically, these studies have shown continued maturation during adolescence in the limbic system (emotion regulation) and in the prefrontal cortex (planning and self-control), with gray matter thinning and white matter increasing (Steinberg, 2007).

The developmental capabilities and limitations of adolescents are highly relevant to behavior in the interrogation room. In *Roper v. Simmons* (2005), Justice Kennedy cited three general differences between juveniles and adults in support of the Court's reasoning for abolishing the death penalty for juveniles. First, he addressed the lessened maturity and responsibility of juveniles compared to adults with specific mention to the 18-year bright-line requirements for marriage without parental consent, jury duty, and voting. Second, Justice Kennedy noted that "juveniles are

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more vulnerable or susceptible to negative influences and outside pressures, including peer pressure" (p. 15). Consistent with this portrait, Drizin and Leo (2004) found in their sample of false confessions that several involved two or more juveniles (out of 38 multiple false confession cases, half involved juveniles). In recommending that police "play one [suspect] against the other," Inbau et al. (2001) note that this tactic may be especially effective on young, first-time offenders (pp. 292–293). Third, Justice Kennedy recognized that juveniles' personality or "character" is not as well developed as adults. In light of the volatility of adolescence, it is interesting that Inbau et al. (2001) also suggest "themes" for confession that exploit a juvenile's restless energy, boredom, low resistance to temptation, and lack of supervision.

Drawing on basic principles of developmental psychology, there is now a wealth of forensically oriented research indicating that juveniles—suspects, defendants, and witnesses—have age-related limitations of relevance to the legal system in comparison to adults. For example, individuals younger than 16 years generally have impairments in adjudicative competence (e.g., the ability to help in one's own defense) and comprehension of legal terms (Grisso et al., 2003; Saywitz, Nathanson, & Snyder, 1993). In a subset of studies particularly germane to interrogations, several researchers employing a range of methodologies have shown that the risk of false confession is heightened during childhood and adolescence relative to adulthood. Of particular note, as described earlier, juveniles are more likely than adults to exhibit deficits in their understanding and appreciation of the *Miranda* rights that were explicitly put into place to protect people subject to "inherently coercive" interrogations (see Grisso, 1981; Redlich et al., 2003).

In the first set of studies, laboratory-based experiments have examined juveniles' responses in mock crimes and interrogations. Using the Kassin and Kiechel (1996) computer crash paradigm, Redlich and Goodman (2003) found that juveniles aged 12- and 13-years-old, and 15- and 16-years-old, were more likely to confess than young adults (aged 18–26 years), especially when confronted with false evidence of their culpability. In fact, a majority of the younger participants, in contrast to adults, complied with the request to sign a false confession without uttering a word. In another laboratory experiment, researchers examined the effect of positive and negative reinforcement on children aged 5 through 8 years (Billings et al., 2007). Reinforcement strongly affected children's likelihood of making false statements: Of those in the reinforcement condition, 52% made false admissions of guilty knowledge and 30% made false admissions of having witnessed the crime (within a span of 3.5 minutes!). In contrast, of children in the control condition, only 36 and 10% made false guilty knowledge and admissions, respectively. These findings mirror the vast majority of studies on the interview-relevant abilities of child-victim/witnesses (e.g., Garven, Wood, & Malpass, 2000).

In a second set of studies, youths have made decisions in response to hypothetical scenarios. Goldstein et al. (2003) investigated male juvenile offenders' self-reported likelihood of providing false confessions across different interrogation situations and found that younger age significantly predicted false confessions (25% surmised that they would definitely confess despite innocence to at least one of the situations). Similarly, Grisso et al. (2003) examined juveniles' and young adults' responses to a hypothetical mock-interrogation situation—specifically, whether they would confess to police, remain silent, or deny the offense. Compared to individuals aged 16 and older, those between 11 and 15 were significantly more likely to report that they would confess.

In a third set of studies, juveniles have been asked to self-report on actual interrogation experiences. In a sample of 114 justice-involved juveniles, Viljoen, Klaver, and Roesch (2005) found that suspects who were 15-years old and younger, compared to those who were 16- and 17-years old, were significantly more likely to waive their right to counsel and to confess. Overall, only 11 (less than 10%) said they had asked for an attorney during police questioning (see also Redlich et al., 2004) and 9 (6%) said they had at some point falsely confessed. A survey of over 10,000 Icelandic students aged 16–24 years similarly revealed that of those with interrogation experiences, 7% claimed to have falsely confessed, with the rates being higher among those with more than one interrogation experience (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006). In a massive and more recent effort, more than 23,000 juveniles from grades 8, 9, and 10 (average age of 15.5 years) were surveyed from seven countries—Iceland, Norway, Finland, Latvia, Lithuania, Russia, and Bulgaria. Overall, 11.5% (2,726) reported having been interrogated by police. Within this group, 14% reported having given a false confession (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, in press).

Cognitive and Intellectual Disabilities

Much of what is true of juveniles is similarly true for persons with intellectual disabilities—another group that is over-represented in false confession cases (see Gudjonsson, 2003; Gudjonsson & MacKeith, 1994). Hence, in *Atkins v. Virginia* (2002), the U.S. Supreme Court explicitly cited the possibility of false confession as a rationale underlying their decision to exclude this group categorically from capital punishment. The case of Earl Washington is illustrative of the problem. Reported to have an IQ ranging

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from 57 to 69 and interrogated over the course of 2 days, Washington "confessed" to five crimes, one being the rape and murder of a woman (charges resulting from the other four confessions were dismissed because of inconsistencies). Although he could not provide even basic details (e.g., that the victim was raped or her race) and although much of his statement was inconsistent with the evidence, Washington—who was easily led by suggestive questions and deferred to authority figures—was convicted, sentenced to death, and incarcerated for 18 years before being exonerated (Hourihan, 1995).

Mental retardation represents a constellation of symptoms, disorders, and adaptive functioning. The condition is defined by an IQ score of 70 or below and a range of impairments, such as adapting to societal norms, communication, social and interpersonal skills, and self-direction (American Psychiatric Association, 1994). In training police recruits, Perske (2004) identifies from research a number of tendencies exhibited by people who are mentally retarded. Collectively suggesting a heightened susceptibility to influence, the list includes the tendencies to rely on authority figures for solutions to everyday problems; please persons in authority; seek out friends; feign competence; exhibit a short attention span; experience memory gaps; lack impulse control; and accept blame for negative outcomes.

Some researchers have provided evidence for the diminished capacity of persons with cognitive disabilities in studies pertaining to interrogation (Fulero & Everington, 2004). Across four studies of *Miranda* comprehension, findings are quite consistent in showing that persons with mental retardation have significant deficits in their understanding and appreciation of *Miranda* warnings (Cloud, Shepard, Barkoff, & Shur, 2002; Everington & Fulero, 1999; Fulero & Everington, 1995; O'Connell, Garmoe, & Goldstein, 2005). For example, O'Connell et al. (2005) found that 50% of people with mild mental retardation in their sample could not correctly paraphrase *any* of the five *Miranda* components (see also Everington & Fulero, 1999). In comparison, less than 1% of adults in the general population score similarly low (Grisso, 1996). Moreover, research on the capacity of persons with mental retardation to learn and retain the knowledge and skills necessary to be competent suspects and defendants demonstrates that a significant number cannot meet this threshold, even with education (Anderson & Hewitt, 2002).

Everington and Fulero (1999) also examined the suggestibility of persons with mental retardation. Using the Gudjonsson Suggestibility Scale (GSS; a measure of interrogative suggestibility), they found that people with mental retardation were more likely to yield to leading questions and change their answers in response to mild negative feedback (see also O'Connell et al., 2005). Gudjonsson (1991) examined GSS scores among three groups: alleged false confessors, alleged true confessors, and suspects who resisted confession during questioning. He found the alleged false confessors to have the lowest IQ scores as well as the highest suggestibility scores compared to the other two groups (Gudjonsson & Clare, 1995). Finally, Clare and Gudjonsson (1995) examined perceptions of a videotaped suspect who provides a true and false confession during an interrogation and found that 38% of perceivers with intellectual disabilities, compared to only 5% of those without intellectual disabilities, believed the suspect would be allowed to go home while awaiting trial. Additionally, only 52% believed that the suspect should obtain legal advice if innocent, compared to 90% of others.

Personality and Psychopathology

In terms of susceptibility to false confession, it is important to consider other individual factors of relevance to a person's decision to confess. Gudjonsson (2003) discusses a number of personal risk factors, including enduring personality traits (e.g., suggestibility, compliance) as well as psychopathology and personality disorders—categories within the DSM-IV Axis I and II diagnostic framework that are relevant to false confessions.

A number of large-scale studies of false confessions, carried out in Iceland, show the importance of antisocial personality traits and history of offending both among prison inmates (Sigurdsson & Gudjonsson, 2001) and community samples (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006, 2007; Gudjonsson, Sigurdsson, Bragason, et al., 2004; Gudjonsson et al., 2004). There have also been cases in which the personality disorder was considered crucial to understanding the false confession (Gudjonsson, 2006; Gudjonsson & Grisso, 2008). One interpretation of this finding is that persons with antisocial personality disorder, or antisocial traits, are more likely to be involved in offending, more often interviewed by police, and prone to lie for short-term instrumental gain, and are less concerned about the consequences of their behavior. This increases their tendency to make false denials as well as false confessions depending on their need at the time.

Psychopathology seems to be linked to false confessions in that persons with mental illness are over-represented in these cases. Psychological disorder is often accompanied by faulty reality monitoring, distorted perception, impaired judgment, anxiety, mood disturbance, poor self-control, and feelings of guilt. Gudjonsson (2003) provided a number of examples of cases where false confessions were directly related to specific disorders. Following the release of the Birmingham Six in 1991, research conducted for the British Royal Commission on Criminal Justice found that about 7% of suspects detained at police stations had a

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history of mental illness and that many more were in an abnormal mental state due to anxiety and mood disturbance (Gudjonsson, Clare, Rutter, & Pearse, 1993). Similar findings were found in a recent study among suspects at Icelandic police stations (Sigurdsson, Gudjonsson, Einarsson, & Gudjonsson, 2006). In the U.S., research has consistently shown that rates of serious mental illness in the criminal justice system are at least two to five times higher than rates in the general population (e.g., James & Glaze, 2006; Lamb & Weinberger, 1998). To further compound the problem, the majority (75–80%) of offenders with mental illness have co-occurring substance abuse or dependence disorders (Abram, Teplin, & McClelland, 2003), which is an additional risk factor for false confessions (see Sigurdsson & Gudjonsson, 2001).

There is currently little research available to show how different disorders (e.g., anxiety, depression, and schizophrenia) potentially impair the suspect's capacity to waive legal rights and navigate his or her way through a police interview (Redlich, 2004). However, there is recent evidence from two separate studies to suggest that depressed mood is linked to a susceptibility to provide false confession to police (Gudjonsson et al., 2006; Sigurdsson et al., 2006). Gudjonsson et al. (2007) also recently found that multiple exposures to unpleasant or traumatic life events were significantly associated with self-reported false confessions during interrogation. Rogers et al. (2007a) found that most mentally disordered offenders exhibited insufficient understanding of *Miranda*, particularly when the warnings required increased levels of reading comprehension. Finally, Redlich (2007) found that offenders with mental illness self-reported a 22% lifetime false confession rate—notably higher than the 12% found in samples of prison inmates without mental illness (Sigurdsson & Gudjonsson, 1996).

An important type of psychopathology in relation to false confessions is attention deficit hyperactivity disorder (ADHD), which consists of three primary symptoms: inattention, hyperactivity, and impulsivity (American Psychiatric Association, 1994). This condition is commonly found among offenders (Young, 2007). Moreover, research shows that people with ADHD cope during questioning by answering a disproportionate number of questions with "don't know" replies—which may lead police to be suspicious of their answers (Gudjonsson, Young, & Bramham, 2007). They may also exhibit high levels of compliance. Gudjonsson et al. (2008) found that the rate of self-reported false confessions was significantly higher among prisoners who were currently symptomatic for attention deficit hyperactivity disorder (ADHD) than among the other prisoners (41 and 18%, respectively). These findings highlight the potential vulnerability during questioning of people who are currently symptomatic for ADHD.

Protections for Vulnerable Suspects in England

When the police interview mentally disordered persons and juveniles in England and Wales, there are special legal provisions available to ensure that their statements to police are reliable and properly obtained—for example, in the presence of "appropriate adults." The current legal provisions are detailed in the Codes of Practice (Home Office, 2003). Even when the police adhere to all the legal provisions, a judge may consider it unsafe and unfair to allow the statement to go before the jury. Here the crucial issue may be whether or not the defendant was "mentally fit" when interviewed. The term "fitness for interview" was first introduced formally in the current Codes of Practice, which became effective in 2003.

Fitness for interview is closely linked to the concept of "legal competencies," which refers to an individual's physical, mental, and social vulnerabilities that may adversely affect his or her capacity to cope with the investigative and judicial process (Grisso, 1986). Historically, legal competence constructs relating to confession evidence have focused primarily on the functional deficits of juveniles (Drizin & Colgan, 2004), and adult defendants with mental retardation (Fulero & Everington, 2004) and mental illnesses (Melton, Petrila, Poythress, & Slobogin, 1997). Increasingly, the construct of legal competence in criminal cases is also being applied to defendants with "personality disorder" (Gudjonsson & Grisso, 2008). The introduction of "fitness to be interviewed" within the current Codes of Practice in England and Wales is a significant step toward protecting vulnerable suspect populations (Gudjonsson, 2005). Indeed, a similar framework has been introduced in New Zealand and Australia (Gall & Freckelton, 1999).

Innocence as a Risk Factor

On September 20, 2006, Jeffrey Mark Deskovic was released from a maximum-security prison in New York, where he spent 15 years for a murder he said he committed but did not. Why did he confess? "Believing in the criminal justice system and being fearful for myself, I told them what they wanted to hear," Deskovic said. Certain that DNA testing on the semen would establish his innocence, he added: "I thought it was all going to be okay in the end" (Santos, 2006, p. A1).

On the basis of anecdotal and research evidence, Kassin (2005) suggested the ironic hypothesis that *innocence* itself may put *innocents* at risk. Specifically, it appears that people who stand falsely accused tend to believe that truth and justice will prevail and that their innocence will become transparent to investigators, juries, and others. As a result, they cooperate fully with police, often failing to

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realize that they are suspects not witnesses, by waiving their rights to silence and a lawyer and speaking freely to defend themselves. Thus, although mock criminals vary their disclosures according to whether the interrogator seems informed about the evidence, innocents are uniformly forthcoming—regardless of how informed the interrogator seems (Hartwig, Granhag, Strömwall, & Kronkvist, 2006; Hartwig, Granhag, Strömwall, & Vrij, 2005).

Based on observations of live and videotaped interrogations, Leo (1996b) found that four out of five suspects waive their rights and submit to questioning—and that people who have no prior record of crime are the most likely to do so. In light of known recidivism rates, this result suggested that innocent people in particular are at risk to waive their rights. Kassin and Norwick (2004) tested this hypothesis in a controlled laboratory setting in which some subjects but not others committed a mock theft of $100. Upon questioning, subjects who were innocent were more likely to sign a waiver than those who were guilty, 81 to 36%. Afterward, most innocent subjects said that they waived their rights precisely because they were innocent: "I did nothing wrong," "I had nothing to hide." The feeling of reassurance that accompanies innocence may be rooted in a generalized and perhaps motivated belief in a just world in which human beings get what they deserve and deserve what they get (Lerner, 1980). It may also stem from the "illusion of transparency," a tendency for people to overestimate the extent to which their true thoughts, emotions, and other inner states can be seen by others (Gilovich, Savitsky, & Medvec, 1998; Miller & McFarland, 1987). Whatever the mechanism, it is clear that *Miranda* warnings may not adequately protect the citizens who need it most—those accused of crimes they did not commit (Kassin, 2005).

These findings suggest that people have a naïve faith in the power of innocence to set them free. This phenomenology was evident in the classic case of Peter Reilly, an 18-year-old who falsely confessed to the murder of his mother. When asked years later why he did not invoke his *Miranda* rights, Reilly said, "My state of mind was that I hadn't done anything wrong and I felt that only a criminal really needed an attorney, and this was all going to come out in the wash" (Connery, 1996, p. 93). Innocence may lead innocents to forego other important safeguards as well. Consider the case of Kirk Bloodsworth, the first death row inmate to be exonerated by DNA. In 1985, based solely on eyewitness identifications, Bloodsworth was convicted for the rape and murder of a 9-year-old girl. He was exonerated by DNA 8 years later and ultimately vindicated when the true perpetrator was identified. The day of his arrest, Bloodsworth was warned that there would be cameras present and asked if he wanted to cover his head with a blanket. He refused, saying he did nothing wrong and was not going to hide—even though potential witnesses might see him on TV (Junkin, 2004).

THE CONSEQUENCES OF CONFESSION

It is inevitable that some number of innocent people will be targeted for suspicion and subjected to excessively persuasive interrogation tactics, and many of them will naively and in opposition to their own self-interest waive their rights and confess. One might argue that this unfortunate chain of events is tolerable, not tragic, to the extent that the resulting false confessions are detected by authorities at some point and corrected. Essential to this presumed safety net is the belief that police, prosecutors, judges, and juries are capable of distinguishing true and false confessions.

The process begins with the police. Numerous false confession cases reveal that once a suspect confesses, police often close their investigation, deem the case solved, and overlook exculpatory evidence or other possible leads–even if the confession is internally inconsistent, contradicted by external evidence, or the product of coercive interrogation (Drizin & Leo, 2004; Leo & Ofshe, 1998). This trust in confessions may extend to prosecutors as well, many of whom express skepticism about police-induced false confessions, stubbornly refusing to admit to such an occurrence even after DNA evidence has unequivocally established the defendant's innocence (Findley & Scott, 2006; Hirsch, 2005b; Kassin & Gudjonsson, 2004). Upon confession, prosecutors tend to charge suspects with the highest number and types of offenses, set bail higher, and are far less likely to initiate or accept a plea bargain to a reduced charge (Drizin & Leo, 2004; Leo & Ofshe, 1998; but see Redlich, in press).

Part of the problem is that confessions can taint other evidence. In one case, for example, Pennsylvania defendant Barry Laughman confessed to rape and murder, which was later contradicted by blood typing evidence. Clearly influenced by the confession, the state forensic chemist went on to concoct four "theories," none grounded in science, to explain away the mismatch. Sixteen years later, Laughman was set free (http://www.innocenceproject.org). Recent empirical studies have demonstrated the problem as well. In one study, Dror and Charlton (2006) presented five latent fingerprint experts with pairs of prints from a crime scene and suspect in an actual case in which they had previously made a match or exclusion judgment. The prints were accompanied either by no extraneous information, an instruction that the suspect had confessed (suggesting a match), or an instruction that the suspect was in custody at the time (suggesting an exclusion). The misinformation

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produced a change in 17% of the original, previously correct judgments. In a second study, Hasel and Kassin (2009) staged a theft and took photographic identification decisions from a large number of eyewitnesses who were present. One week later, individual witnesses were told that the person they had identified denied guilt, or that he confessed, or that a specific other lineup member confessed. Influenced by this information, many witnesses went on to change their identification decisions, selecting the confessor with confidence, when given the opportunity to do so.

Not surprisingly, confessions are particularly potent in the courtroom. When a suspect in the U.S. retracts his or her confession, pleads not guilty, and goes to trial, a sequence of two decisions is set into motion. First, a judge determines whether the confession was voluntary and hence admissible as evidence. Then a jury, hearing the admissible confession, determines whether the defendant is guilty beyond a reasonable doubt. But can people distinguish between true and false confessions? And what effect does this evidence have within the context of a trial?

Research on the impact of confessions throughout the criminal justice system is unequivocal. Mock jury studies have shown that confessions have more impact than other potent forms of evidence (Kassin & Neumann, 1997) and that people do not fully discount confessions—even when they are judged to be coerced (Kassin & Wrightsman, 1980) and even when the confessions are presented secondhand by an informant who is motivated to lie (Neuschatz, Lawson, Swanner, Meissner, & Neuschatz, 2008). For example, Kassin and Sukel (1997) presented mock jurors with one of three versions of a murder trial transcript. In a low-pressure version, the defendant was said to have confessed to police immediately upon questioning. In a high-pressure version, participants read that the suspect was in pain and interrogated aggressively by a detective who waved his gun in a menacing manner. A control version contained no confession in evidence. Presented with the high-pressure confession, participants appeared to respond in the legally prescribed manner. They judged the statement to be involuntary and said it did not influence their decisions. Yet when it came to the all-important verdict measure, this confession significantly increased the conviction rate. This increase occurred even in a condition in which subjects were specifically admonished to disregard confessions they found to be coerced. Similar results have recently been reported in mock jury studies involving defendants who are minors (Redlich, Ghetti, & Quas, 2008; Redlich, Quas, & Ghetti, 2008).

This point concerning the power of confession evidence is bolstered by recent survey evidence indicating that although laypeople understand that certain interrogation tactics are psychologically coercive, they do not believe that these tactics elicit false confessions (Leo & Liu, 2009). Archival analyses of actual cases also reinforce this point. When proven false confessors pleaded not guilty and proceeded to trial, the jury conviction rates ranged from 73% (Leo & Ofshe, 1998) to 81% (Drizin & Leo, 2004). These figures led Drizin and Leo to describe confessions as "inherently prejudicial and highly damaging to a defendant, even if it is the product of coercive interrogation, even if it is supported by no other evidence, and even if it is ultimately proven false beyond any reasonable doubt" (p. 959).

There are at least three reasons why people cannot easily identify as false the confessions of innocent suspects. First, generalized common sense leads people to trust confessions the way they trust other behaviors that counter self-interest. Over the years, and across a wide range of contexts, social psychologists have found that social perceivers fall prey to the fundamental attribution error—that is, they tend to make dispositional attributions for a person's actions, taking behavior at face value, while neglecting the role of situational factors (Jones, 1990; Ross, 1977). Gilbert and Malone (1995) offered several explanations for this bias, the most compelling of which is that people draw quick and relatively automatic dispositional inferences from behavior and then fail to adjust or correct for the presence of situational constraints. Common sense further compels the belief that people present themselves in ways that are self-serving and that confessions must therefore be particularly diagnostic of guilt. Indeed, most people reasonably believe that they would never confess to a crime they did not commit and have only rudimentary understanding of the predispositional and situational factors that would lead someone to do so (Henkel, Coffman, & Dailey, 2008).

A second reason is that people are typically not adept at deception detection. We saw earlier that neither lay people nor professionals distinguish truths from lies at high levels of accuracy. This problem extends to judgments of true and false confessions. To demonstrate, Kassin, Meissner, and Norwick (2005) videotaped male prison inmates providing true confessions to the crimes for which they were incarcerated and concocting false confessions to crimes selected by the experimenter that they did not commit. When college students and police investigators later judged these statements from videotapes or audiotapes, the results showed that neither group was particularly adept, exhibiting accuracy rates that ranged from 42 to 64%—typically not much better than chance performance. These findings suggest people cannot readily distinguish true and false confessions and that law enforcement experience does not improve performance. This latter result is not surprising, as many of the behavioral cues that typically form part of the basis for training (e.g., gaze aversion, postural cues, and

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grooming gestures) are not statistically correlated with truth-telling or deception (DePaulo et al., 2003).

On the assumption that "I'd know a false confession if I saw one," there is a third reason for concern: Police-induced false confessions often contain *content* cues presumed to be associated with truthfulness. In many documented false confessions, the statements ultimately presented in court contained not only an admission of guilt but vivid details about the crime, the scene, and the victim that became known to the innocent suspect through leading questions, photographs, visits to the crime scene, and other secondhand sources invisible to the naïve observer. To further complicate matters, many false confessors state not just what they allegedly did, and how they did it, but *why*—as they self-report on revenge, jealousy, provocation, financial desperation, peer pressure, and other prototypical motives for crime. Some of these statements even contain apologies and expressions of remorse. To the naïve spectator, such statements appear to be voluntary, textured with detail, and the product of personal experience. Uninformed, however, this spectator mistakes illusion for reality, not realizing that the taped confession is scripted by the police theory of the case, rehearsed during hours of unrecorded questioning, directed by the questioner, and ultimately enacted on paper, tape, or camera by the suspect (see Kassin, 2006).

RECOMMENDATIONS FOR REFORM

Confession is a potent form of evidence that triggers a chain of events from arrest, prosecution, and conviction, through post-conviction resistance to change in the face of exculpatory information. Recent DNA exonerations have shed light on the problem that innocent people, confident in the power of their innocence to prevail, sometimes confess to crimes they did not commit. Research has identified two sets of risks factors. The first pertains to the circumstances of interrogation, situational factors such as a lengthy custody and isolation, possibly accompanied by a deprivation of sleep and other need states; presentations of false evidence, a form of trickery that is designed to link the suspect to the crime and lead him or her to feel trapped by the evidence; and minimization tactics that lead the suspect and others to infer leniency even in the absence of an explicit promise. The second set of risk factors pertains to dispositional characteristics that render certain suspects highly vulnerable to influence and false confessions—namely, adolescence and immaturity; cognitive and intellectual impairments; and personality characteristics and mental illness.

In light of the wrongful convictions involving false confessions that have recently surfaced, as well as advances in psychological research on interviewing, interrogations, and confessions, there are renewed calls for caution regarding confessions and the reform of interrogation practices not seen since the Wickersham Commission Report (1931) and U.S. Supreme Court opinion in *Miranda* (1966). Professionals from varying perspectives may differ in their perceptions of both the problems and the proposed solutions. Hence, it is our hope that the recommendations to follow will inspire a true collaborative effort among law enforcement professionals, district attorneys, defense lawyers, judges, social scientists, and policy makers to scrutinize the systemic factors that put innocent people at risk and devise effective safeguards.

Electronic Recording of Interrogations

Without equivocation, our most essential recommendation is to lift the veil of secrecy from the interrogation process in favor of the principle of transparency. Specifically, *all custodial interviews and interrogations of felony suspects should be videotaped in their entirety and with a camera angle that focuses equally on the suspect and interrogator.* Stated as a matter of requirement, such a policy evokes strong resistance in some pockets of the law enforcement community. Yet it has also drawn advocates from a wide and diverse range of professional, ideological, and political perspectives (e.g., American Bar Association, 2004; Boetig, Vinson, & Weidel, 2006; Cassell, 1996a; Drizin & Colgan, 2001; Geller, 1994; Gudjonsson, 2003; Leo, 1996c; Slobogin, 2003; Sullivan, 2004; The Justice Project, 2007).

In England, under the Police and Criminal Evidence Act of 1984, the mandatory requirement for tape-recording police interviews was introduced to safeguard the legal rights of suspects and the integrity of the process. At first resisted by police, this requirement has positively transformed the ways in which police interviews are conducted and evaluated. Over the years, the need for taping has pressed for action within the U.S. as well. In *Convicting the Innocent*, a classic study of wrongful convictions, Edwin Borchard (1932) expressed concern that police abuses during interrogations led to involuntary and unreliable confessions. His solution, utilizing the technology of the time, was to make "[phonographic records" [of interrogations] which shall alone be introducible in court" (pp. 370–371).

Throughout the twentieth century, other advocates for recording were less concerned with preventing false confessions and more concerned with increasing the accuracy of the justice system by eliminating the swearing contests between police officers and suspects over what occurred during the interrogation (Kamisar, 1977; Weisberg, 1961). Still others saw that recording interrogations held

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tremendous benefits for law enforcement by discouraging note-taking and other practices that could inhibit suspects, helping police officers obtain voluntary confessions, nabbing accomplices, and protecting officers from false allegations of abuse (Geller, 1993; O'Hara, 1956). Despite these calls for recording, by the turn of the twentieth century only two states, by virtue of state Supreme Court decisions—Alaska (*Stephan v. State*, 1985) and Minnesota (*State v. Scales*, 1994)—required law enforcement officers to electronically record suspect interrogations. The pace of reform in this area, however, is picking up and once again a concern about false confessions seems to be the impetus. In the post-DNA age, and particularly in the past 5 years, as the number of wrongful convictions based on false confessions has continued to climb, concerns about the reliability of confession evidence have led to a renewed push for recording requirements (Drizin & Reich, 2004). As a result of statutes and court rulings, seven additional jurisdictions—Illinois, Maine, New Mexico, New Jersey, Wisconsin, North Carolina, and the District of Columbia—have joined Minnesota and Alaska, in requiring recordings of custodial interrogations in some circumstances (Robertson, 2007; Sullivan, 2004). In several other states, supreme courts have stopped short of requiring recording but either have issued strongly worded opinions endorsing recording—e.g., New Hampshire (*State v. Barnett*, 2002) and Iowa (*State v. Hajtic*, 2007)—or, in the case of Massachusetts, held that where law enforcement officers have no excuse for the failure to record interrogation, defendants are entitled to a strongly worded instruction admonishing jurors to treat unrecorded confessions with caution (*Commonwealth v. DiGiambattista*, 2004).

In addition to recent developments in state courts and legislatures, there is a growing movement among law enforcement agencies around the country to record interrogations voluntarily. Over the past 70 years, the idea has been anathema to many in law enforcement—including the FBI, which prohibits electronic recording, and John Reid & Associates, which used to vigorously oppose the practice of recording interrogations (Inbau et al., 2001; but see Buckley & Jayne's [2005] recent publication, *Electronic Recording of Interrogations*; for an historical review, see Drizin & Reich, 2004). Yet there are now signs that police opposition is thawing (e.g., Boetig et al., 2006). Several years ago, a National Institute of Justice study found that one-third of large police and sheriff's departments throughout the U.S. were already videotaping at least some interrogations or confessions and that their experiences with the practice were positive (Geller, 1993). A more recent survey of more than 465 law enforcement agencies in states that do not require electronic recording of interrogations has revealed that the practice is widespread. Without any legislative or judicial compulsion, police departments in many states routinely record interviews and interrogations in major felony investigations. Without exception, they have declared strong support for the practice (Sullivan, 2004; Sullivan, Vail, & Anderson, 2008).

There are numerous advantages to a videotaping policy. To begin, the presence of a camera may deter interrogators from using the most egregious, psychologically coercive tactics—and deter frivolous defense claims of coercion where none existed. Second, a videotaped record provides trial judges (ruling on voluntariness) and juries (determining guilt) an *objective* and *accurate* record of the process by which a statement was taken—a common source of dispute that results from ordinary forgetting and self-serving distortions in memory. In a study that demonstrates the problem, Lamb, Orbach, Sternberg, Hershkowitz, and Horowitz (2000) compared interviewers' verbatim contemporaneous accounts of 20 forensic interviews with alleged child sex abuse victims with tape recordings of these same sessions. Results showed that more than half of the interviewers' utterances and one quarter of the details that the children provided did not appear in their verbatim notes. Even more troubling was that interviewers made frequent and serious source attribution errors—for example, often citing the children, not their own prompting questions, as the source of details. This latter danger was inadvertently realized by D.C. Detective James Trainum (2007) who—in an article entitled "I took a false confession – so don't tell me it doesn't happen!"—recounted a case in which a suspect who had confessed to him was later exonerated: "Years later, during a review of the videotapes, we discovered our mistake. We had fallen into a classic trap. We believed so much in our suspect's guilt that we ignored all evidence to the contrary. To demonstrate the strength of our case, we showed the suspect our evidence, and unintentionally fed her details that she was able to parrot back to us at a later time. It was a classic false confession case and without the video we would never have known" (see also Trainum, 2008). Similarly, Police Commander Neil Nelson, of St. Paul, Minnesota, said that he too once elicited a false confession, which he came to doubt by reviewing the interrogation tape: "You realize maybe you gave too much detail as you tried to encourage him and he just regurgitated it back" (Wills, 2005; quoted online by Neil Nelson & Associates; http://www.neilnelson.com/pressroom.html).

To further complicate matters of recollection, police interrogations are not prototypical social interactions but, rather, extraordinarily stressful events for those who stand accused. In a study that illustrates the risk to accurate retrieval, Morgan et al. (2004) randomly assigned trainees in a military survival school to undergo a realistic high-stress or low-stress mock interrogation. Twenty-four hours later, he found that those in the high-stress condition had

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difficulty even identifying their interrogators in a lineup. In real criminal cases, questions constantly arise about whether rights were administered and waived, whether the suspect was cooperative or evasive, whether detectives physically intimidated the suspect, whether promises or threats were made or implied, and whether the details in a confession emanated from the police or suspect, are among the many issues that become resolvable (in Great Britain, as well, taping virtually eliminated the concern that police officers were attributing to suspects admissions that would later be disputed; see Roberts, 2007).

In recent years, Sullivan (2004, 2007) has tirelessly interviewed law enforcement officials from hundreds of police and sheriff's departments that have recorded custodial interrogations and found that they enthusiastically favored the practice. Among the collateral benefits they often cited were that recording permitted detectives to focus on the suspect rather than take copious notes, increased accountability, provided an instant replay of the suspect's statement that sometimes revealed incriminating comments that were initially overlooked, reduced the amount of time detectives spent in court defending their interrogation practices, and increased public trust in law enforcement. Countering the most common apprehensions, the respondents in these interview studies reported that videotaping interrogations did not prove costly or inhibit suspects from talking to police or incriminating themselves. Typical of this uniformly positive reaction, Detective Trainum (2007) notes: "When videotaping was first forced upon us by the D.C. City Council, we fought it tooth and nail. Now, in the words of a top commander, we would not do it any other way."

It is beyond the scope of this article to draft a model rule that would address such specific details as what conditions should activate a recording requirement, how the recordings should be preserved, whether exceptions to the rule should be made (e.g., if the equipment malfunctions, if the suspect refuses to make a recorded statement), and what consequences would follow from the failure to record (e.g., whether the suspect's statement would be excluded or admitted to the jury with a cautionary instruction). As a matter of policy, however, research does suggest that it is important not only that entire sessions be recorded, triggered by custodial detention, but that the camera adopt a neutral "equal focus" perspective that shows both the accused and his or her interrogators. In 20-plus years of research on illusory causation effects in attribution, Lassiter and his colleagues have taped mock interrogations from three different camera angles so that the suspect, the interrogator, or both were visible. Lay participants who saw only the suspect judged the situation as less coercive than those focused on the interrogator. By directing visual attention toward the accused, the camera can thus lead jurors to underestimate the amount of pressure actually exerted by the "hidden" detective (Lassiter & Irvine, 1986; Lassiter, Slaw, Briggs, & Scanlan, 1992). Additional studies have confirmed that people are more attuned to the situational factors that elicit confessions whenever the interrogator is on camera than when the focus is solely on the suspect (Lassiter & Geers, 2004; Lassiter, Geers, Munhall, Handley, & Beers, 2001). Under these more balanced circumstances, juries make more informed attributions of voluntariness and guilt when they see not only the final confession but the conditions under which it was elicited (Lassiter, Geers, Handley, Weiland, & Munhall, 2002). Indeed, even the perceptions of experienced trial judges are influenced by variations in camera perspective (Lassiter, Diamond, Schmidt, & Elek, 2007).

Reform of Interrogation Practices

In light of recent events, the time is ripe for police, district attorneys, defense lawyers, judges, researchers, and policymakers to evaluate current methods of interrogation. All parties would agree that the surgical objective of interrogation is to secure confessions from perpetrators but not from innocent suspects. Hence, the process of interrogation should be structured in theory and in practice to produce outcomes that are accurate, as measured by the observed ratio of true to false confessions. Yet except for physical brutality or deprivation, threats of harm or punishment, promises of leniency or immunity, and flagrant violations of a suspect's constitutional rights, there are no clear criteria by which to regulate the process. Instead, American courts historically have taken a "totality of the circumstances" approach to voluntariness and admissibility. Because *Miranda* does not adequately safeguard the innocent, we believe that the time is right to revisit the factors that comprise those circumstances.

As illustrated by the Reid technique and other similar approaches, the modern American police interrogation is, by definition, a guilt-presumptive and confrontational process—aspects of which put innocent people at risk. There are two ways to approach questions of reform. One is to completely reconceptualize this model at a macro level and propose that the process be converted from "confrontational" to "investigative." Several years ago, after a number of high-profile false confessions, the British moved in this direction, transitioning police from a classic interrogation to a process of "investigative interviewing." The Police and Criminal Evidence (PACE) Act of 1984 sought to reduce the use of psychologically manipulative tactics. In a post-PACE study, Irving and McKenzie (1989) found that the use of psychologically manipulative tactics had significantly declined—without a corresponding drop in the frequency of confessions. The post-PACE confession rate

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is also somewhat higher in the UK than in the U.S. (Gudjonsson, 2003). In 1993, the Royal Commission on Criminal Justice further reformed the practice of interrogation by proposing the PEACE model described earlier ("Preparation and Planning," "Engage and Explain," "Account," "Closure," and "Evaluate"), the purpose of which is fact finding rather than confession. Observational research suggests that such investigative interviews enable police to inculpate offenders—and youthful suspects as well (Hershkowitz, Horowitz, Lamb, Orbach, & Sternberg, 2004; Lamb, Orbach, Hershkowitz, Horowitz, & Abbott, 2007)—by obtaining from them useful, evidence-generating information about the crime (for reviews, see Bull & Soukara, 2009; Williamson, 2006).

Similar techniques have been taught and employed in the U.S. as well, where Nelson (2007) reports from experience that it is highly effective. Recent laboratory research has also proved promising in this regard. In one series of experiments, interviewers more effectively exposed deceptive mock criminals when they strategically withheld incriminating evidence than when they confronted the suspects with that evidence (Hartwig et al., 2005, 2006). In an experiment using the Russano et al. (2005) cheating paradigm described earlier, Rigoni and Meissner (2008) independently varied and compared accusatorial and inquisitorial methods and found that the latter produced more diagnostic outcomes—lowering the rate of false confessions without producing a corresponding decrease in the rate of true confessions. Although more systematic research is needed, it is clear that investigative interviewing offers a potentially effective macro alternative to the classic American interrogation. Indeed, New Zealand and Norway have recently adopted the PEACE approach to investigative interviewing as a matter of national policy.

A second approach to the question of reform is to address specific risk factors inherent within a confrontational framework for interrogation. On the basis of converging evidence from actual false confession cases, basic principles of psychology, and forensic research, the existing literature suggests that certain interrogation practices alone and in combination with each other pose a risk to the innocent—whether they are dispositionally vulnerable or not. Focused in this way, but stopping short of making specific recommendations, we propose that the following considerations serve as a starting point for collaborative discussion.

Custody and Interrogation Time

As noted earlier, the human needs for belonging, affiliation, and social support, especially in times of stress, are a fundamental human motive. Prolonged isolation from significant others thus constitutes a form of deprivation that can heighten a suspect's distress and increase his or her incentive to escape the situation. Excessive time in custody may also be accompanied by fatigue and feelings of helplessness and despair as well as the deprivation of sleep, food, and other biological needs. The vast majority of interrogations last from 30 minutes up to 2 hours (Baldwin, 1993; Irving, 1980; Kassin et al., 2007; Leo, 1996b; Wald et al., 1967). Inbau et al. (2001) cautioned against surpassing 4 hours, and Blair (2005) argued that interrogations exceeding 6 hours are "legally coercive." Yet research shows that in proven false confession cases the interrogations had lasted for an average of 16.3 hours (Drizin & Leo, 2004). Following PACE in Great Britain, policy discussions should begin with a proposal for the imposition of time limits, or at least flexible guidelines, when it comes to detention and interrogation, as well as periodic breaks from questioning for rest and meals. At a minimum, police departments should consider placing internal time limits on the process that can be exceeded—initially and at regular intervals thereafter, if needed—only with authorization from a supervisor of detectives.

Presentations of False Evidence

A second problem concerns the tactic of presenting false evidence, which is often depicted as incontrovertible, and which takes the form of outright lying to suspects—for example, about an eyewitness identification that was not actually made; an alibi who did not actually implicate the suspect; fingerprints, hair, or blood that was not actually found; or polygraph tests that they did not actually fail. In *Frazier v. Cupp* (1969), the U.S. Supreme Court reviewed a case in which police falsely told the defendant that his cousin (whom he said he was with), had confessed, which immediately prompted the defendant to confess. The Court sanctioned this type of deception—seeing it as relevant to its inquiry on voluntariness but not a reason to disqualify the resulting confession. Although some state courts have distinguished between mere false assertions, which are permissible, and the fabrication of reports, tapes, and other evidence, which are not, the Supreme Court has not revisited the issue.

From a convergence of three sources, there is strong support for the proposition that outright lies can put innocents at risk to confess by leading them to feel trapped by the inevitability of evidence against them. These three sources are: (1) the aggregation of actual false confession cases, many of which involved use of the false evidence ploy; (2) one hundred-plus years of basic psychology research, which proves without equivocation that misinformation can substantially alter people's visual perceptions, beliefs, motivations, emotions, attitudes, memories, self-assessments, and even certain physiological outcomes, as seen in

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studies of the placebo effect; and (3) numerous experiments, from different laboratories, demonstrating that presentations of false evidence increase the rate at which innocent research participants agree to confess to prohibited acts they did not commit. As noted earlier, scientific evidence for the malleability of people's perceptions, decisions, and behavior when confronted with misinformation is broad and pervasive. With regard to a specific variant of the problem, it is also worth noting that the National Research Council Committee to Review the Scientific Evidence on the Polygraph (2003) recently expressed concern over the risk of false confessions produced by telling suspects they had failed the polygraph (see also Lykken, 1998).

Over the years, legal scholars have debated the merits of trickery and deception in the interrogation room (e.g., Magid, 2001; Slobogin, 2007; Thomas, 2007) and some law enforcement professionals have argued that lying is sometimes a necessary evil, effective, and without risk to the innocent (Inbau et al., 2001). To this argument, two important points must be noted. First, direct observations and self-report surveys of American police suggest that the presentation of false evidence is a tactic that is occasionally used (e.g., Feld, 2006a, 2006b; Kassin et al., 2007; Leo, 1996b). Some interrogators no doubt rely on this ploy more than others do. Yet in a position paper on false confessions, the Wisconsin Criminal Justice Study Commission (2007) concluded that "Experienced interrogators appear to agree that false evidence ploys are relatively rare" (p. 6). Second, it is instructive that in Great Britain, where police have long been prohibited from deceiving suspects about the evidence, relying instead on the investigative interviewing tactics described earlier, there has been no evidence of a decline in confession rates (Clarke & Milne, 2001; Gudjonsson, 2003; Williamson, 2006).

In light of the demonstrated risks to the innocent, we believe that the false evidence ploy, which is designed to thrust suspects into a state of inevitability and despair, should be addressed. The strongest response would be an outright ban on the tactic, rendering all resulting confessions per se inadmissible—as they are if elicited by promises, threats, and physical violence (such a ban currently exists in England, Iceland, and Germany; suspects are differently protected in Spain and Italy, where defense counsel must be present for questioning). A second approach, representing a relatively weak response, would involve calling for no direct action, merely a change of attitude in light of scientific research that will lead the courts to weigh the false evidence ploy more heavily when judging voluntariness and reliability according to a "totality of the circumstances."

Representing a compromise between an outright ban and inaction, we urge police, prosecutors, and the courts, in light of past wrongful convictions and empirical research, to heighten their sensitivity to the risks that false evidence poses to the innocent suspect. One way to achieve this compromise would be to curtail some variants of the false evidence ploy but not others—or in the case of some suspects but not others. As noted earlier, some state courts have distinguished between mere false assertions and the fabrication of reports, tapes, photographs, and other evidence, the latter being impermissible. This particular distinction seems arbitrary. False evidence puts innocents at risk to the extent that a suspect is vulnerable (e.g., by virtue of his or her youth, naiveté, intellectual deficiency, or acute emotional state) and to the extent that the alleged evidence it is presented as incontrovertible, sufficient as a basis for prosecution, and impossible to overcome. By this criterion, which the courts would have to apply on a case-by-case basis, a confession produced by telling an adult suspect that his cousin had confessed, the ploy used in *Frazier v. Cupp* (1969), might well be admissible. Yet a confession produced by telling a traumatized 14-year-old boy that his hair was found in his murdered sister's grasp, that her blood was found in his bedroom, and that he failed an infallible lie detector test—the multiple lies presented to false confessor Michael Crowe—would be excluded (White, 2001).

Minimization Tactics

A third area of concern involves the use of minimization techniques (often called "themes," "scenarios," or "inducements") that can communicate promises of leniency indirectly through pragmatic implication. While American federal constitutional law has long prohibited the use of explicit promises of leniency (*Bram v. United States*, 1897; *Leyra v. Denno*, 1954; *Lynumn v. Illinois*, 1963), uses of minimization are less clear. There is some legal support for the proposition that implicit promises of leniency are also prohibited in federal constitutional law (White, 1997), although a majority of states hold that a promise of leniency is only one factor to be considered in determining whether a confession is involuntary (White, 2003).

Multiple sources support the proposition that implicit promises can put innocents at risk to confess by leading them to perceive that the only way to lessen or escape punishment is by complying with the interrogator's demand for confession, especially when minimization is used on suspects who are also led to believe that their continued denial is futile and that prosecution is inevitable. These sources are: (1) the aggregation of actual false confession cases, the vast majority of which involved the use of minimization or explicit promises of leniency (Drizin & Leo, 2004; Leo & Ofshe, 1998; Ofshe & Leo, 1997a, 1997b; White, 2001); (2) basic psychological

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research indicating, first, that people are highly responsive to reinforcement and make choices designed to maximize their outcomes (Hastie & Dawes, 2001), and second that people can infer certain consequences in the absence of explicit promises and threats by pragmatic implication (Chan & McDermott, 2006; Harris & Monaco, 1978; Hilton, 1995); and (3) experiments specifically demonstrating that minimization increases the rate at which research participants infer leniency in punishment and confess, even if they are innocent (Kassin & McNall, 1991; Klaver, Lee, & Rose, 2008; Russano et al., 2005).

In light of the demonstrated risks to the innocent, we believe that techniques of minimization, as embodied in the "themes" that interrogators are trained to develop, which communicate promises of leniency via pragmatic implication, should be scrutinized. Some law enforcement professionals have argued that minimization is a necessary interrogation technique (Inbau et al., 2001). As with the false evidence ploy, there are several possible approaches to the regulation of minimization techniques—ranging from the recommendation that no action be taken to an outright ban on minimization. Between these extreme positions one might argue that some uses of minimization but not others should be limited or modified.

Minimization techniques come in essentially three forms: those that minimize the *moral* consequences of confessing, those that minimize the *psychological* consequences of confessing, and those that minimize the *legal* consequences of confessing (Inbau et al., 2001; Ofshe & Leo, 1997a, 1997b). One possible compromise between the two extreme positions noted above would be to permit moral and psychological forms of minimization, but ban legal minimization that communicates promises of leniency via pragmatic implication. With this distinction in mind, interrogators would be permitted, for example, to tell a suspect that he or she will feel better after confession (psychological minimization) or that he or she is still a good person (moral minimization), but not that the legal consequences of his actions will be minimized if he confesses (e.g., as may be implied by self-defense and other themes). More research is thus needed to distinguish among the different tactics that interrogators are trained to use (e.g., the provocation, peer pressure, and accident scenarios), and the pragmatic inferences that these tactics lead suspects to draw concerning the consequences of confession.

Protection of Vulnerable Suspect Populations

There is a strong consensus among psychologists, legal scholars, and practitioners that juveniles and individuals with cognitive impairments or psychological disorders are particularly susceptible to false confession under pressure. Yet little action has been taken to modulate the methods by which these vulnerable groups are questioned when placed into custody as crime suspects. More than 45 years ago, the 1962 President's Panel on Mental Retardation questioned whether confessions from defendants with mental retardation should ever be admissible at trial (see Appelbaum & Appelbaum, 1994). In 1991, Fred Inbau wrote that "special protections must be afforded to juveniles and to all other persons of below-average intelligence, to minimize the risk of untruthful admissions due to their vulnerability to suggestive questioning" (1991, pp. 9–10). More recently, Inbau et al. (2001) advised against use of the false evidence ploy with youthful suspects or those with diminished mental capacity: "These suspects may not have the fortitude or confidence to challenge such evidence and, depending on the nature of the crime, may become confused as to their own possible involvement" (p. 429; also see Buckley, 2006).

It is uniformly clear to all parties that vulnerable suspect populations—namely, juveniles and people who are cognitively impaired or psychologically disordered—need to be protected in the interrogation room. In operational terms, we believe that there are two possible ways to protect these vulnerable populations. The first concerns the mandatory presence of an attorney. A least with regard to juveniles, a parent, guardian, or other interested adult is required in some states to protect young suspects who face interrogation. Yet research suggests that the presence of an interested adult does not increase the rate at which juveniles assert their constitutional rights because these adults, often passive, frequently urge their youths to cooperate with police—a tendency observed both in the U.S. (Grisso & Ring, 1979; Oberlander & Goldstein, 2001) and in the UK, where the law provides for access to an "appropriate adult" (Pearse & Gudjonsson, 1996). For this reason, juveniles—at least those under the age of 16 (at present, the research evidence is less clear when it comes to older adolescents)—should be accompanied and advised by a professional advocate, preferably an attorney, trained to serve in this role (see Gudjonsson, 2003).

As a second possible means of protection, law enforcement personnel who conduct interviews and interrogations should receive special training—not only on the limits of human lie detection, false confessions, and the perils of confirmation biases—but on the added risks to individuals who are young, immature, mentally retarded, psychologically disordered, or in other ways vulnerable to manipulation. In a survey of 332 Baltimore police officers, Meyer and Reppucci (2007) found that while respondents understood in general terms that adolescents lack maturity of judgment and are more malleable than adults, they did not by implication believe that juvenile suspects were at greater risk in the interrogation room. Hence, they reported using roughly the same Reid-like techniques with juveniles

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as they do with adults (e.g., confrontation, repetition, refusal to accept denials, false evidence, minimization, and use of alternative questions). Interestingly, one-third of these respondents stated that police could benefit from special training with regard to the interrogation of juvenile suspects. In light of research described earlier, as well as Inbau et al.'s (2001) cautionary notes on the interrogation of minors and their heightened risk for false confession, we agree.

Summary and Conclusion

In 1932, Edwin Borchard published *Convicting the innocent: Sixty-five actual errors of criminal justice*, in which several false confession cases were included. Addressing the question of how these errors were uncovered, he noted how "sheer good luck" played a prominent role and lamented on "how many unfortunate victims of error have no such luck, it is impossible to say, but there are probably many." Today's generation of post-conviction exonerations well illustrate the role that sheer good luck plays (e.g., as when DNA, long ago collected, was preserved; as when the true perpetrator finds a conscience and comes forward). With increased scientific attention to the problem of false confessions, and the reforms recommended in this article, we believe it possible to reduce the serendipitous nature of these discoveries and to increase both the diagnosticity of suspects' statements and the ability of police, prosecutors, judges, and juries to make accurate decisions on the basis of these statements.

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Selling Confession: The Interrogator, the Con Man, and their Weapons of Influence

By: Deborah Davis, Ph.D.*

Psychologically speaking, a successful interrogation is analogous to selling a resident of the Yukon air conditioning in January; for a suspect to acknowledge a criminal act involving negative consequences requires that the suspect believe a confession is in his best interest. Jayne, B. C., & Buckley, J. P. (1999). The investigator anthology (p. 207)

With just a few minor changes of terminology, the boys...got basic training in criminal interrogation. Indeed, the principles involved in selling a product door to door are similar to those described in this text for eliciting confessions from criminal suspects. The investigator's "product" is the truth, and a successful interrogator sells it in quite the same way as these boys were taught to sell newspaper subscriptions. Inbau, Reid, Buckley & Jayne (2001). Criminal interrogations and confessions. (p. 211)

...a salesman, a huckster as thieving and silver-tongued as any man who ever moved used cars or aluminum siding, more so, in fact, when you consider that he's selling long prison terms to customers who have no genuine need for the product. Simon, D. (1991) Homicide: A year on the killing streets. p. 213 (describing the police interrogator)

These colorful depictions of the interrogator, his goals, and his methods suggest that he shares much in common with the accomplished conman or salesman. Indeed, as popular interrogation manuals suggest, the interrogator, in order to induce a suspect to confess against his self-interests, must convince the suspect of the exact opposite of the truth, and of what common sense would suggest. Through, in effect, an extended "anti-Miranda warning," the interrogator works to convince the suspect that everything he says - preferably including a detailed confession to the crime at hand-can and will work to his benefit, whereas denial or failure to talk to his interrogator can and will be held against him. But how, exactly, does he do this? And how does the interrogator's technique resemble that of a car salesman or conman?

Setting the Stage

Influence professionals of all stripes--whether interrogators, salesmen, conmen, Madison Avenue advertisers, or even our own pesky children-- universally recognize that persuasion is easier if the target's



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natural resistance can be undermined. Attempts to persuade, when offered in the proper context, by the proper agent of influence, on the properly "softened-up" target will be far more persuasive. Known by social influence experts as "pre-persuasion," this stage-setting can entail multiple points of attack, including choosing the physical setting, establishing the "credentials" or trustworthiness of the agent of influence, manipulating the emotional or physical status of the target, "framing" the issues or "setting the agenda" of a meeting or interaction, and many other relatively subtle tactics. All such tactics essentially "soften-up" the target in one or more respects.

Interrogators recognize that to maximize the likelihood of confession, they can motivate the suspect via two pathways: increasing stress, discomfort or anxiety to motivate escape at any cost; and/or leading the suspect to the apparently rational conclusion that confession is in his best interest. Thus, a criminal suspect can be rendered more vulnerable to the interrogator's influence via one or both pathways.

If he lacks physical strength and stamina, he may be unable to tolerate a lengthy interrogation or an uncomfortable physical setting, and, failing to recognize his own ability to stop the interrogation by invoking Miranda rights, he may view confession as the only or most effective way to terminate an intolerable situation. If his mental abilities are compromised through physical or emotional distress, severe fatigue, intoxication or other impairments, he will be less able to critically evaluate what he's told, to remember reasons why he should not believe it, or to identify alternative ways to handle the situation--and therefore will be more susceptible to persuasion. If the interrogator appears to be friendly, sympathetic, and motivated to help the suspect, the suspect's motivation to resist him will be undermined. And finally, if the interrogator can successfully frame the issues and evidence the suspect will consider such that they exclude the possibility of establishing innocence (the clearly most desirable alternative), it is that much easier to sell confession as the best available alternative. These are the goals guiding the interrogator's attempt to set the stage to his advantage.

Maximizing Physical and Emotional Distress

"The entire thrust of police interrogation there, as in all the cases today, was to put the defendant in such an emotional state as to impair his capacity for rational judgment." (*Miranda v. Arizona*, p. 465)

A common cause of confession, whether true or false, is inability to tolerate short term distress in order to maximize long term outcomes. Suspects become willing to comply with interrogator demands in order to escape what they find to be an intolerable situation; and as the stresses of the interrogation mount, they become increasingly unable to think and reason rationally about what is actually in their best interest, or how much long term damage will result from confession. Recognizing these effects of distress, but faced in the post-Miranda era with the specter of exclusion if a confession is elicited via obvious physical or emotional abuse, modern interrogators must turn to less obvious subtle ways to increase discomfort or distress.

Though deprivation of basic physical needs such as nourishment, sleep or safety from physical abuse may be grounds for exclusion, subtle inducement of discomfort can go completely unnoticed. Popular interrogation manuals include such recommendations for accomplishing this goal as deliberately uncomfortable chairs, uncomfortable temperatures, and bare unattractive settings. Although unlikely to be recognized by courts as a cause for exclusion, such physical discomfort can significantly add to suspects' overall level of distress. As the interrogation proceeds, distress is typically further enhanced by such factors as continuing social isolation, the fact of being accused, fear of eventual consequences, and the aversive nature of the interrogation tactics themselves.

Interrogators may also benefit through their choice of when to interrogate the suspect. Many suspects are interrogated at the very time at which they are most compromised. Some are interrogated shortly after they have found their loved ones dead, and therefore are emotionally shocked and severely distressed. Others are interrogated when severely fatigued, sleep-deprived, or intoxicated. Each of these impairments undermines the ability to endure further distress or to think and reason adequately. And, although interrogators can choose to delay until the suspect is less compromised, they commonly proceed to interrogation knowing that the suspect will be more vulnerable to influence when physically or emotionally weak. Although a fatigue-inducing 20 hour interrogation may be regarded by courts as indicative of coercion, an interrogation that begins with a suspect already fatigued by 20 hours of hard work is unlikely to be considered coercive. Thus, the interrogator is better able to take advantage of existing impairments than to induce them himself.

Establishing the Power and Beneficence of the Interrogator

From the lowliest panhandler to the loftiest marketing professional, agents of influence are aware of the importance of the personal characteristics of the persuader. They will be most effective when appearing to possess characteristics consistent with the message they promote. When attempting to influence others to give him money, a panhandler will be most effective when appearing genuinely poor and unable to work - such as, for example, apparently being blind or missing a limb. The opposite will typically be true of an investment counselor, who would benefit from the appearance of competence and effectiveness when arguing that he can obtain impressive returns on the target's investments. Both would benefit from likeability and the appearance of trustworthiness. The panhandler should appear to genuinely need the money (not as an imposter posing as the disabled in order to con trusting marks); whereas the aspiring investment counselor should appear to be honest and trustworthy (not as someone who may intend to embezzle or cheat the investor). And both are likely to be more effective if they are likeable and pleasant, gaining the good will of their targets.

Taking such lessons to heart, the criminal interrogator presents himself in a manner that both undermines resistance to persuasion and directly facilitates it. First, contrary to widely held expectations that interrogators will be hostile and threatening, they are instead trained to make use of the "liking" principle of influence (likeable sources of influence are generally more effective). Since a suspect's natural inclination may be to distrust the intentions and motives of his interrogator, the interrogator must work to overcome the resistance such feelings would tend to create. Making himself likeable is part and parcel of this process. To accomplish this, the interrogator will typically engage in a pre-interrogation stage in which the suspect is questioned in a non-accusatory fashion about his own background, acquaintance with the parties or situation involved, and so on. One of the most effective ways to promote liking of oneself is to express liking, admiration and approval of others. With this in mind, the pre-interrogation interview is done in a very friendly and often chatty fashion, in which the interrogator may flatter the suspect and project a sense of similarity and common ground with the suspect in order to develop trust and rapport. To minimize resistance throughout the interrogation, this friendly, sympathetic demeanor is typically maintained even when the interview proceeds into the accusatory interrogation.

In some cases, the "sympathetic-detective" (good cop) may be presented in contrast to the bad cop (the Mutt-Jeff technique), which can direct resistance toward the bad cop, further lessening resistance to the "good" cop.

The interrogator further casts himself as sympathetic toward the suspect and as trying to help him get the most desirable long term outcomes-a strategy we have dubbed "The Sympathetic Detective with the Time-

Limited Offer." The time-limited offer refers to the detective's stated desire to help, along with his admonition that he cannot help the suspect unless the suspect "tells the truth" (i.e., confesses).

The detective also typically states or implies that once the interrogation is completed the case will be handled by others with less sympathetic views or motivations, and therefore failure to confess and explain during the interrogation will do far reaching damage to the suspect's case. The following is typical of the "Sympathetic Detective" strategy:

"Have you ever heard the saying opportunity knocks once? That means, you know, we all get one chance. Everybody gets one chance. Okay? And after that one chance comes it doesn't come back. And that---right now is your chance.

Look Areal, you seem like a nice stand up kind of guy, no murderer. This is probably a situation that you didn't realize you were getting into..didn't plan. You know, I think this thing bothers you a lot. And I think you probably got a pretty good heart, and I think you relive this thing and I think you think about it a lot...I don't think you're a cold blooded killer, or I know you're not a cold-blooded killer. I think you feel bad about this, you know. I see there's a lot of pain inside you. I can see that. I mean you feel bad..But you know, shit happens. I'd like to help you, man. I have my own conscience, okay? And I got to look at myself in the mirror. I got to know before I leave here I did everything that I could to see you get on the right track so you don't have to go down for something you didn't do. But if I'm wasting my time with you, tell me now. I don't have to sit here and talk to you. I'm-I'm concerned about you. But if you don't tell me the truth, there's no reason for me to be here. I got a wife and family at home and I can just go home to them.

All I know is this thing won't go away. If you want people to believe this was a plan...but this is your chance. This is your opportunity to put your side on the table... I've been doing this for a long time, and I've seen a lot of guys, young guys like you, make big mistakes. Okay? And I'm very concerned that you're going to make the biggest mistake of your life. ...I believe you will tell the truth. But I am worried when you're ready to tell the truth it just might be too late. Either way stuff's gonna happen, you know, the legal process, the wheels are turning right now and we want to give you the opportunity to come forward and tell us your side of the story before it's too late and we just take it for, you know, I mean, we're trying to give you the benefit here. We're trying to give you the opportunity to come forward and tell us what happened, your side of the story versus the other side. Right now we're just talking. I'm not upset with you. I know what you're saying to me. But when I stop talking to you, they're going to do what they have to do. Okay? And then decisions are going to be made. Okay? And we're not going to be talking to you anymore. There's nothing that you're going to have to say that the DA's going to be interested in hearing. They'll just go with the information they got."

Notice the many tactics contained in this monologue. The detective tries to make Areal believe he likes him, thinks he is not a criminal, and would like to help him in order to make Areal like and trust him. But he warns Areal that this is a time-limited offer, making use of the "scarcity" or "deadline" technique so pervasively used by retailers, and salesmen of all kinds (Buy this time share today at the discounted price of $250,000-tomorrow it will be back to the regular price at $300,000; Buy the TV, available only during the two-day sale at this price; Buy the condo and get the free cruise available only while you are at this presentation, etc.). He emphasizes that this is Areal's opportunity to tell his side, his "one chance"--an opportunity that he implies will be permanently lost once the case is handed off to the DA.

He invokes the reciprocity principle of influence. That is, people are more likely to comply with a request if the agent of influence has first done something for the target, which induces feelings of obligation to reciprocate that benevolence-for example, the vacuum salesperson who vacuums the carpet of the target before attempting to complete the sale; or the aluminum siding salesman who offers a free gift for the homeowner who agrees to listen to the salespitch. The interrogator invokes this reciprocity principle by saying that he is essentially doing the suspect a favor by forfeiting time with his family in order to try to help the suspect-that he does not need an explanation of what happens for his own purposes, since he already has all the necessary evidence to prove guilt. He is only there to give the suspect a much needed opportunity to explain himself. The resulting feelings of obligation can pressure the suspect to confess in order to fulfill the need to reciprocate the detective's kindness.

But among the most important messages conveyed by such a detective monologue is the invocation of the "authority" principle of persuasion (we are more likely to comply with requests and to believe information offered by a person with apparent authority or expertise). The Sympathetic Detective and Set-up Strategies (next paragraph) are crucial to establishing authority---that is, the idea that the detective is someone who knows what is helpful to the suspect, and someone who CAN personally help the suspect. The "Sympathetic Detective" strategy is crucial for the detective to establish a foundation against which the arguments he will later bring to bear will appear to make sense. In practice, this consists of two vital ideas- (1) that there are choices to be made about how to handle the situation that will be determined by what happens between the suspect and interrogator during the interrogation; and (2) that there may be a way to minimize the consequences of the alleged act, even if the suspect admits involvement. That is, the "Sympathetic Detective" strategy helps to establish the interrogator as a legitimate authority with control over the suspect's long term outcomes, one likely to be more beneficent than those the suspect would have to deal with after the interrogation, and therefore one whose help the suspect should take advantage of.

These conclusions are reinforced by a second strategy, one we've dubbed "The Set-up Question." The popular Reid 9-Step method of interrogation includes the admonition to ask the suspect a question such as the following:

"Tell me Jack, what do you think should happen to the person who did this thing? Should he just go straight to jail, or are there some circumstances in which he should maybe get counseling or help, not go to jail, get some help instead?"

Although interrogators view this as a test of guilt (alleging that a guilty person should recommend clemency, whereas an innocent should recommend jail), such a question clearly conveys the message that the possibility of clemency exists, that there are choices about how to deal with a guilty perpetrator. This reinforces the message of the "Sympathetic Detective" strategy that the interrogator has choices about how to handle the suspect, including choices of both whether to file charges at all, and if so what specific charges. Our own research has shown that observers exposed to an interrogation including either the "Sympathetic Detective" strategy or the "Set-up Question" are significantly more likely than those exposed to interrogations without these strategies to believe the detective has choices between specific charges and letting the suspect go without charges or sending him to counseling. Further, the "Sympathetic Detective" strategy renders them more likely to believe the detective likes the suspect, wants to help him, and will try to help him get the best outcomes. Together, such beliefs effectively set the stage for the detective's remaining tactics to persuade the suspect to confess.

Framing the Issues and Agenda

Those of us who lived through the 2004 presidential campaign can easily recognize the powerful effects of Republican George Bush's strategy to frame the primary issue of the campaign as one of national security. The infamous "circling wolves" ad of the 2004 campaign exemplified the Republican focus on raising fears of terrorist attack to increase support for Republican candidates. Republicans are generally perceived as more effective on issues of national defense, and to the extent the public can be led to focus on national defense as the primary issue, Republicans garner more votes.

Even in the present context of 2008, when public opinion has shifted against the Iraq war, Democratic candidate Hillary Clinton once again raised the specter of terror with her now infamous, but discouragingly effective, "3 am" ad inquiring who one would most trust to answer the phone when something scary and bad has happened in the world-with apparently devastating effects for Barack Obama. But Republicans remain those the public perceives as strongest on national defense, and Republican candidate John McCain may have been the ultimate beneficiary of her strategy. A March, 2008 poll indicated that voters' answers to the "3 am" question favored John McCain (45%) over either Clinton (27%) or Obama (18%) (Newsweek, March 17, 2008, p. 41: Always Their Own Worst Enemies, by Evan Thomas).

Proper framing of the issues is particularly effective when enacted under conditions in which one also controls the agenda. The importance of agenda setting has been illustrated in the context of jury research, for example, in that the foreman can dramatically affect verdicts through the organization or agenda of the deliberations. Depending upon the initial distribution of juror opinion, for example, an immediate vote may result in more or less likelihood of a defense verdict than a call to first discuss the evidence. A foreperson who agrees with a substantial majority favoring guilt will do better to call for an immediate show of hands, whereas one who disagrees with that majority would do better to call for a detailed review of the evidence before any vote.

Police interrogations are designed to both set the agenda and frame the issues in a manner to facilitate confession.

Taking Innocence off the Table: The "Borg" Maneuver

"Resistance is futile!" The Borg

Quite rightly, interrogators realize that a suspect's natural tendency will be to deny guilt, and that if a suspect believes there is a chance of establishing innocence he will push that agenda and argue vociferously with his accusers. To avoid this situation, interrogation tactics are designed to, from the outset, deny the suspect any hope of exoneration. Step 1 of the popular Reid 9-Step Method, "Positive Confrontation" - or what we call the "Borg Maneuver" - begins this process of dashing all hope of exoneration. The suspect is to be told firmly and confidently that the results of "our" investigation have clearly shown that you are the one who.... (committed the crime in question). The Inbau et al. (2001) manual recommends that the detective bring props supporting his apparent "evidence" of guilt-such as a full folder (apparently full of evidence), or bags of "evidence" such as hairs, bullets, slides of blood, or a lineup with the suspect's picture circled and so on. He may also confront the suspect with real or fabricated evidence of guilt, such as alleged failed polygraph results, statements of alleged co-perpetrators, eyewitness identifications, claims of trace evidence such as fingerprints, DNA or hair fibers. The goal of this confrontation is to sweep away resistance that would naturally arise and be fueled by hopes of exoneration, and turn the suspect's attention to the issue of how to minimize the consequences.

Recognizing that if guilt is established, another apparent reason, or "pretence," for the interrogation will be needed, the interrogator is advised to make one or more "transition statements" (from interview and confrontation to interrogation) that explain the remaining goals.

"..if there is no doubt as to the suspect's involvement in the crime, the investigator should not require any further statements from the suspect to prove his case. Therefore, not only does the transition statement have to offer a legally permissible reason for the suspect to confess, but it also must establish a pretense for the interrogation other than to elicit a confession." Inbau et al. (2001), p. 224

Therefore, having cited the evidence of the suspect's guilt and confidently asserted that the investigation clearly implicates the suspect, the detective sets the new agenda.

Reframing the Issues: Focus on Consequences

Essentially, the interrogator recasts the purpose of the interrogation from "investigating guilt" to "deciding what to do about it". He "argues against self-interest" (we are more persuaded by those who apparently have nothing to gain by persuading us), saying that he doesn't need a confession from the suspect since guilt is already proven. He then lays out the new agenda, claiming "we're not here to find out whether you did it. We're here to find out why you did it, and what kind of person you are" (thereby clearly implying that such things matter). The Inbau et al (2001) manual recommends such statements as the following:

"The reason I wanted to sit down and talk with you about this is to find out what the circumstances were surrounding this thing. The reason why someone did something is often much more important than what he did." 225

"Now Sam, there is absolutely no doubt that you did this. What I need to establish with you right now is what kind of person you are." 225

"Joe, The only reason I'm talking to you now is that we don't know how many other homes in that area you have entered. There's no question that you went into the home on Wilson Avenue last weekend. My concern is that we have over 20 unsolved burglaries within a two-mile radius of that home...Now if you're involved in all those other 20 burglaries, quite frankly, I wouldn't expect you to say anything. But, Joe, if you're not involved in all of those others, if it was a lot less than 20, we need to know that because it means that there is someone else out there responsible for those. The last thing I want to have happen is for you to be blamed for something you didn't do. That's why I'm talking to you now." 226

(Recommended statements to suspect regarding reasons for the interrogation: Inbau et al (2001), p. 225-226)

Notice, again, the many weapons of social influence included in such statements. The interrogator sets the agenda for what will be discussed, and frames the underlying issues to be addressed by the discussion. Making use of the "psychology of inevitability" (we are less likely to try when success seems impossible), he minimizes resistance by taking innocence off the table ("Now Sam, there is absolutely no doubt that you did this."). Referring to the results of "our" investigation rather than "my" investigation, he lends credibility to his claims of proof of guilt via the influence principle "social proof" (we are more likely to believe something endorsed by more people); and he sets an agenda to discuss issues he casts as relevant to what will be done about the suspect's actions ("We're going to talk about why you did this, and in doing so we're going to

learn about what kind of person you are).

Reinforcing the messages of the "Sympathetic Detective" and "Set-up Question" tactics, he implies there are choices about how to handle the suspect ("The reason why someone did something is often much more important than what he did." "What I need to establish with you right now is what kind of person you are."). Why, after all, would one want to know these things in this legal context if they didn't matter for legal outcomes? All the while, he again "argues against self-interest," and suggests he is there only to help the suspect (The last thing I want to have happen is for you to be blamed for something you didn't do. That's why I'm talking to you now.), further invoking the reciprocity principle to obligate the suspect to talk in return.

Making the Sale

"...a guilty suspect will not easily be persuaded to offer incriminating statements that could potentially lead to losing his job or a prison sentence. The investigator, therefore, must provide a perceived benefit to the suspect for telling the truth." Inbau et al. (2001), p. 221

"... for a suspect to acknowledge a criminal act involving negative consequences requires that the suspect believe a confession is in his best interest." Jayne, B. C., & Buckley, J. P. (1999). The investigator anthology (p. 207)

The preliminary stages of the interrogation are typically successful in convincing the suspect that, as with the traffic cop we can occasionally convince to let us go, the interrogation can be seen as a negotiation in which the suspect provides information or explanations that can result in leniency-even potentially release without charges, as the Set-Up question implies (Are there circumstances in which the person who did this should get a second chance, maybe not go to jail, etc.).

The suspect now "knows" that the detective has significant control over his fate. This renders him particularly motivated to please the detective and get his "help." It renders him very attentive to any cue that will tell him what he needs to say or do. He "knows" that what kind of person he is and what exactly happened and why he did it can matter. But how? What's the best story to tell? He looks to the "authority" in the room for advice.

The detective, of course, advocates for confession or "telling the truth" (assuming the person is guilty.) To sell this idea, he admittedly must convince the suspect that confession is in his best interests. Knowing that the suspect will be trying to assess the relative costs and benefits of confession versus denial, the interrogator must argue for the alleged "benefits" of confession (and costs of denial) and minimize the apparent "costs" of confession (and benefits of denial). But, since explicit promises of legal benefits or threats of legal costs can be grounds for exclusion of the confession, these arguments must be done through implication, and can be supplemented by reference to non-legal costs and benefits-such as "doing the right thing," "being a stand-up guy and making family proud," or other appeals to moral or social issues.

Minimizing the Costs of Confession

This process begins with the second step of the Reid 9-Step method, which entails suggested scenarios for how and why the event happened that appear less serious, often seemingly not even criminal (such as accidents, self-defense, or apparently justifiable aggression). This process, known as "theme-development," is carried out by the interrogator, sometimes in rather long monologues such as the following "self/family-defense" theme proposed in a gang murder case, where the detective attempts to convince the suspect to

implicate his own brother as the shooter:

"When somebody comes running at you and they pretend to have a gun, how long do you wait before you do something?..I keep hearing from different people, it's never, happened to me, but they say somebody knows what they're doing can stab you with a knife faster than you can pull the trigger, okay? And all of a sudden, if you're worried about this guy, and all of a sudden, somebody comes from the side or from the back, that would get my attention...."

"I worry about taking care of myself, taking care of my family, taking care of my friends. You do what you got to do right then. No difference, okay? Stuff happens sometimes without thinking. Things just happen by themselves sometimes. I know that, okay? You do the best you can to defend yourself. I understand that, okay? That's not a question here, okay? You didn't know it was going to happen. You think it was an accident...So this person was protecting you, correct? Well, I have a few friends but I've only got one family. And I would do anything for my family. If I had to work three jobs, if I had to work 12 hours a day, if I had to give one of my kidneys, I would."

" ....What you're telling me sounds kind of like-The Cartwrights? There was three brothers. Horse was the big guy, Adam was the next guy, and Little Joe was the small one. Three brothers all different sizes. All looked different. Believe you me, if there was a fight, they would take care of each other like that. They didn't even have to say a word. If someone hit their brother, they hit one brother, the other two brothers would jump in like that. Family comes first. Okay?"

"So you felt threatened. Someone was protecting you. This was not planned out. This was an accident. This is something that happened on its own, and those pendejos are dead, this is what they were doing. They were out screwing around, trying to make something happen, and they made something happen, alright? They made it happen. Who is the guy that was protecting you? You were afraid. He did something to protect you. We know that, okay? You're telling me a brother's not going to take care of a brother? That's no brother if he doesn't. That's bullshit, okay? My brother would do anything for me, okay, anything. And I would do anything for him, okay? Is all we're talking about is your brother protecting your life? Is that what we're talking about?"

"I understand that...You got to stand together. When someone says hey, take care of him. Take care of that for me. Take care of business. Okay. When stuff is happening like that, how long do you wait before you take care of business? You can't wait too long or you're the guy that's going to be in the gutter dead, okay? The guys who didn't belong there started their shit, and they got what-what happens all the time, okay?"

"The person who pulled the trigger that day, that's not what their plan was that morning when they woke up. I know that. To me, that makes a big difference, okay?..So when that person woke up that morning, they didn't decide hey, you know what? I'm going to go kill a couple people today...That's not what they said. Something happened that day and sometimes things just happen by themselves. I understand that, okay? I think this was self-defense. You know your brother. Your brother is not a cold -blooded person. He's not-you know-a cold blooded killer. He probably feels worse than you do. Even if you did shoot somebody, sometimes that happens for a reason. I mean sometimes there's such a thing as self-defense, you know.....Maybe those guys started it, and I believe they did because those guys are knuckleheads. Yeah, maybe they didn't deserve to die. But sometimes, you know, sometimes these guys bring it on themselves."

"I'll give you another little example what I had happen one time when I was investigating a homicide. Um, I had people telling me that this guy pulled a gun and he shot and killed another guy. That's a pretty simple thing, right? I mean, just, "Boom, boom." Pulls a strap, shoots a guy dead. So what do you think about that? What do you think about that guy, the guy who shot the other guy? Stone, cold killer, right? You - that's somebody you probably wouldn't want on the street. You wouldn't want to meet up with that fool, just going to pull a gun and kill somebody right in front of you for no reason. But then pretty soon we found out that the gun that the victim had had fallen in the - storm drain. The victim had a gun as well. And the victim was pulling this gun when the other guy shot and killed him. That's a little bit different scenario, isn't it? That guy got a voluntary manslaughter. People understood because they have the whole story about what happened out there. And the DA understood when he evaluated the case. And he filed the appropriate charges. That's what we're trying to tell you. We're trying to understand what happened out there so that we can tell the DA what really happened."

Notice the many messages contained in this monologue. First and foremost, the killing is cast as apparently non-criminal, seemingly taking away the potentially devastating costs that would otherwise accompany admission to involvement. That is, the interrogator states that he believes that the suspect's brother did the shooting (apparently negating personal guilt) as a necessary and potentially life-saving defense against a potentially lethal attack initiated by others (self-defense is widely considered non-criminal). The interrogator reinforces the justifiability of the shooting by talking about how any brother would do this for his brother, and if not he's "no brother." He says he would do it for his own brother. In other words, "anyone in your brother's shoes would have done the same thing, including me, and if he didn't he's a bad human being." He invokes images from Bonanza or other TVs shows in which the suspect may have seen many shootings in defense of self or family that resulted in no criminal charges, reinforcing the idea that such acts are not criminal. Further justifying the act, the interrogator says the victims were looking for trouble, started the altercation, and got what they deserved; that the suspect and his brother didn't intend any of this, and that they were the actual victims, who would now be dead if they hadn't defended themselves. He minimizes the seriousness of the shooting, ("Is that all this is?" "I can understand that." He would have done the same thing, etc.). And in the final paragraph, the detective explicitly mentions the connection between the self-defense scenario and potential legal charges, emphasizing the point that one can't get the benefit of such a defense if one doesn't "tell your side of the story."

Having proposed such scenarios minimizing the seriousness of the act in question, the detective will typically go on to state something like "If that's what happened, I can understand that. It's no big deal. But if, on the other hand, ... (stating a more serious action---e.g., "You shot these guys as a warning to their gang to stay off your territory."), then that's different. I don't want to talk to you anymore. But if (the minimized scenario) is how it happened that's no big deal, we can work with that (implying we can help you if this version is true).

Then, making use of the "contrast" principle (a particular alternative will seem more desirable when contrasted to another that is less desirable than when evaluated with no context), the detective is advised to ask "the alternative question" (Step 7 of the Reid method), which presents two versions of the event (one apparently more serious than the other) and asks the suspect which version is true. The Inbau et al. (2001) manual noted the similarity between this alternative question technique and Step 4 of a 5-Step approach given to one of their sons for selling newspapers: "Close the sale by forcing a decision. Offer the customer two choices of either signing up for a trial one-month offer or, for greater savings, a six-month offer. Never

ask, "Do you want to buy the paper?" The interrogator, like the newspaper boy, not only frames the issue (Why and how did you commit this crime?-excluding "Did you commit this crime."), but enumerates the possible positions on the issue (Was it this terrible, legally serious, version? Or, was it this other version, which is "no big deal" that I can completely understand?). For example, the alternative question in the murder case was posed as follows, immediately following the long monologue recounted earlier:

Detective: "Did he shoot these people to kill them? Did he shoot them to scare them? Did he shoot them to protect you? What do you think he would say?"
Defendant: The three one.
Detective: Which one?
Defendant: It was protection.

As in our murder case, themes that minimize the apparent seriousness of the crime are often very successful in eliciting initial admissions of involvement. Suspects often expect no criminal charges will result, and are often astonished when arrested and charged with a crime. Indeed, reported reasons for confession among true and false confessors alike prominently include the expectation that they will be let go. As many as 40% of confessors have reported in surveys that they confessed in order to be released. Such an apparently irrational belief is the direct reflection of the success of theme development and other tactics in conveying benefits and minimizing costs of confession. Indeed, minimizing themes such as the self/family defense theme in our murder case are understood by those who hear them as promises of leniency, even though courts typically fail to view them as such.

Sometimes the interrogation will stop with such apparently minimal admissions of guilt. Often, however, using the "commitment" principle of influence (Once we have committed ourselves to a course of action by taking any step consistent with it, we are more likely to take other steps toward the same goal.), the interrogators build on the initial admission to successively elicit more damaging versions of the act. These principles are commonly used by conmen and salesmen of all kinds.

For example, using the "foot-in-the-door" technique (Each incremental behavior increases the likelihood of compliance with a more major request), a car salesman might get the target to "just" take a ride" in the car, then come into the building, then sit at the negotiating table, and finally purchase the car. In the same way, the interrogator will induce the suspect to first make the apparently minimal admission and then attempt to move him toward more and more serious admissions or versions of the event.

Using the "bait and switch" technique, the store may lure customers to come in with an ad for a deeply discounted attractive item, only to inform them when they arrive that that alternative is "sold out"-but this more expensive item is available and more attractive for X, Y and Z reasons. Or, the car salesman might practice "low-balling" whereby he lures the customer to the table with the suggestion of an attractive price, only to find that his "supervisor" won't approve the deep discount promised, but can approve a more modest one. Such techniques are commonly practiced and very effective. Once having visited the store or having sat down at the negotiating table, the customer is more likely to make a purchase.

Theme development can be viewed as the "bait" or "low-ball" where the suspect is offered a great deal (extremely low cost) if he confesses by admitting to the minimized scenario. But, the "switch" soon follows, when the interrogator explains why the minimized version just doesn't work, and it must have been a more serious scenario. He may leave the room and come back after pretending to checking new evidence or reports to tell the suspect that the evidence unfortunately just doesn't support the initial version.

For example, in a child molestation case, the suspect first admitted to a minimized scenario in which he says he might have unknowingly touched his granddaughter's genitals while asleep dreaming of his wife. He didn't remember. The detective then directed the conversation to how he "stopped immediately" when he realized what he was doing, and got the suspect to confirm this version. But then, he pointed out that if the suspect didn't remember whether this happened or not, he wouldn't remember stopping when he realized what happened. Then the detective then asked whether the suspect's hand was inside or outside her pajamas.

"What, you don't know? Well, she says you put your hand inside her pants and inserted your fingers into her vagina. Okay, well if you can't, how far do you want to go, if you can't remember. I have to believe what they're telling me, is that what you want? Do you want me to believe what she's telling me and move on? You can't really deny it if you don't remember. I mean, if you inserted your finger into her vagina that's sexual assault...if you were sleeping and you had no idea what happened, then I can't say that's not true. Alright?"

This led to half-hearted admissions that he might remember. Pretty soon, this was followed by attempts to get the suspect to admit that he knew what he was doing, that he made a mistake that he would take responsibility for. The suspect's counterarguments were met with the detective's question:

"I can't move on until you tell me, look Detective Lampert, I'm not a child molester, you know if..if you're not..Detective Lampert I'm not a child molester, I made this mistake it won't happen, how do I know it's not going to happen again? If you don't know what you're doing, you're sleeping, how..how can you assure me it's not going to happen again?"

Essentially, through a brilliant foot-in-the door, lowballing, bait-and-switch strategy, Detective Lampert herded the suspect into making full admissions of intentional sexual assault, while still managing to convey to the suspect that he would be better off by making such admissions. Although the initial hope that he could claim total lack of awareness of the crime was dashed, he would still expect to achieve the benefit of showing remorse and assuring the detective that it would not happen again (with the associated possibility of being sent to counseling instead of jail - as suggested in the set-up question as well as later in the interrogation); and he would avoid the potential costs of not confessing (as we shortly discuss).

The interrogation so thoroughly overwhelmed the suspect's capacity to track what was happening to him as he was tricked into progressively more and more damaging admissions that he later consistently and vehemently insisted that the videotape and the transcript were "doctored," refusing to believe that he had admitted to what he clearly did say on the record.

Maximizing the Costs of Denial

Defendant: "If you fight a case, you might be free. If you fight your case."
Detective: "Maybe, Maybe not. But if you didn't do anything wrong, you were just at the wrong place at the wrong time, what is it you're going to fight? Fight something that's not there."
Defendant: "My innocence"
Detective: "Innocence from what, Arael? What innocence? Being at the wrong place at the wrong time is not a crime. Fighting with somebody who's fighting with you is not a crime. Attacking somebody-attacking somebody that doesn't mean no harm to you, yeah. That's a crime. What is it-what innocence are you going to be fighting? The only thing you're going to be doing is putting the spotlight on yourself. Saying okay. I got something to hide. That's only going to make people more suspicious of you."

Recall our earlier assertion that interrogation can be thought of as an extended "Anti-Miranda Warning" in which the message is that everything you say can and will be used for your benefit, whereas denial or refusal to talk can and will be held against you. The above exchange is illustrative of many messages interrogators convey concerning the costs of denial. The detective says what many are already inclined to believe-through denial or refusal to talk, you will only make yourself appear guilty. Here the detective even suggests this will cause the investigation to focus on the suspect.

Very often, implied costs of silence or denial are conveyed through the infamous "co-perpetrator" ploy, in which the detective claims that an alleged co-perpetrator has implicated the suspect, and has claimed the suspect engaged in the most legally serious role in the offense.

"And you know what's going to happen after, you know, everybody says exactly what happened and you're---you're back there and you're the one screwing around with this thing. Who do you think they're going to focus their attention on?"

"You got to stand up like..like a man. You just can't lay down there like a dead dog. You got to stand up. You got to defend yourself. You got to put your side on the table. Otherwise people are going to walk all over you. People are going to point fingers at you. People are going to lie about you. In fact, they're already pointing fingers at you, saying you were the one who started this, who planned it, and the one who made the first shot. But I don't think that's what happened. I think you were just in the wrong place at the wrong time....but if you don't stand up and tell me what really happened, your side of the story, the DA's gonna have to go with the story he's got...."

Here, the detective has essentially threatened the suspect with more serious charges -those appropriate for what the co-perpetrator is allegedly accusing him of-if he fails to offer his "side" of what happened. That is, he must admit he had a role, but can claim a more benign role than he would otherwise be held accountable for.

Another commonly used argument concerns the likely reactions of judge and jury. The idea that no one will believe the person is innocent is combined with arguments concerning how he will be perceived if he continues to deny guilt:

"But if you..if you come in and tell me right now, okay look this might have happened once, I made a mistake, I thought my wife was here, or whatever, I've been drinking..I can understand that, okay? But if..if you sit here and say hey, you know what, that never happened. I never touched that girl, she's lying this and that, the fact is that it's not, I think you're exaggerating the truth okay? Then that makes you look bad.."

"If you can come up and say yeah, this is what happened, you know it was one time, it was a mistake, I knew it was a mistake and I stopped, man I can understand that. But if you don't say anything..then what happens is ..and what happens is, you look like a..you like somebody who's looking..preying on these little girls okay? If you're lying about what happened. That's the perception people get...you understand that, that's..that's the way people look at ya'."

"Okay, ...if you had twelve people judging you, alright? And you have twelve people listening to your story. Okay? Would you feel better about somebody that..that..that eventually came out and

just admitted okay, yeah, I did it but I know it was a mistake afterwards and I didn't do it anymore, or do you think somebody telling me well I was asleep and I didn't know I was doing it and that's how this happened. Uh..who would out you feel better about? The guy that admitted it happened or would you believe the guy that was telling you that it happened when he was asleep? Would you believe somebody telling you, okay this happened when I was sleeping, two separate times, then I got up both times? And said oh, well it's not going to happen anymore. Or would it make you feel better if somebody said yeah, you know what, I wasn't sleeping, I did it, it was a mistake, I knew it was a mistake and I want to get on with my life. Which one would you feel better about? If you were sitting there looking at somebody else saying these things? Would you feel better about the guy that admitted it was a mistake and just wanted to move on? If I was the Judge if I was somebody looking at you..And I have all this proof, I can prove it happened. And then the guy's that's..that's you right, are telling me okay, well I..I was sleeping and when I woke up and saw I was doing it, I stopped right away. That's not believable okay?"

"I understand what you're saying but I would feel better, I would feel better about somebody saying, hey you know what I was afraid to tell the truth, here's what happened. I did to this girl, it was a mistake and I stopped. And actually you know what? I think I may need some help. I'm afraid to be around children right now because I want to get some help and move on with my life. Can you see how that would..uh..that would make me feel better, how that would make..make you look better?"

The detective has clearly both (1) implied that he will receive more lenient reactions from judge and jury if he admits deliberately molesting the girl and knows it was a mistake than if he lies by denying intent, (2) reinforced the notion that establishing innocence is off the table, and (3) reinforced the hope that if he admits it he may be even more likely to get the counseling or help or "second chance" referred to in the Set-up Question and throughout the interrogation.

Perhaps the most pervasive "threat" offered by the typical interrogator is the threat of withdrawal of his own support-something likely to be highly valued by the suspect, and something he is likely to try to protect and maintain. Typically, the detective threatens to withdraw his "help" if the suspect refuses to cooperate by "telling the truth."

DET: I'm willing to work with somebody who's willing to work with me. You know what I mean?
Suspect: Yeah.
DET: Where, where, where I can't help someone out is if it looks like they ain't being a hundred percent straight with stuff, all right? You need to try to help yourself here....You know, right now this thing's in my hand. Okay? To get this thing straightened out with you...But I can't stay here all night. I mean I got a family to go home to. I'm, you know...so I'm going to leave. I can call these other guys and tell them I'm done."

The detective in this exchange reinforces the notion of his own authority to "work with" and help the suspect (get "this thing" "straightened out"), as well as the contingent nature of his offer to help, and emphasizes that the suspect is about to lose his help if he fails to cooperate.

Generally, like promises of leniency, threats of more serious legal consequences are conveyed indirectly and by implication. Nevertheless, they are understood just as clearly as if explicitly stated. The suspect may not know what specific differences in charges there may be, but he clearly receives the message that the charges or outcomes will be more harsh if he doesn't fully admit his role in the alleged criminal behavior.

The Final Product: True and False Confessions

Once the suspect has admitted to some role in the crime, the detective will ask the suspect to put it in writing-stating exactly what happened, often including an apology to the victim(s) and expressions of remorse (which he is led to believe will help him with the DA, judge and/or jury). Unfortunately, much of the information elicited through interrogation is inaccurate. The interrogation techniques are heavily suggestive, and the detective does most of the talking, all the time suggesting to the suspect what he thinks happened. The suspect tells stories based on a mixture of true and false arguments and "evidence" he is confronted with during the interrogation. Essentially, the interrogators knowingly suggest and elicit a great deal of false or misleading information in order to get any kind of incriminating statement from the suspect. While they often believe that this false information will be a "stepping stone" approach to eventually getting the full truth, they underestimate the biasing influences the suspect is subject to, and overestimate the extent to which these biased stories will eventually be cast aside in favor of a fully accurate account.

Unfortunately, the truth may never emerge fully, during the interrogation or ever. False statements can range from full false confessions to horrific crimes, to false implication of others, to false details that can nevertheless affect charges filed against the suspect or others. The co-perpetrator ploy, for example, seems to be heavily implicated in known cases of false confession and false implication of others. Drizin and Leo (2004) identified 125 cases involving known false confessions. For more than 30% of their sample, more than one defendant confessed falsely to the same crime-ranging from 2 to 5 false confessors per case.

Although the steadily increasing tide of DNA and other exonerations of the wrongfully convicted has cast a spotlight on the role of false confessions elicited through the tactics described here, too little attention has yet been paid to the fact that false confessions represent only the tip of the iceberg of false information elicited through police interrogation. The issue of the "quality" of information elicited via coercive interrogations seems to arise more prominently when involving physical coercion or torture. It remains for law enforcement and the legal community to expand their awareness of the potentially devastating effects of false information to include not just whether a person falsely confessed to a crime, but to encompass the many additional falsehoods affecting the nature of legal charges against the suspect as well as potential charges against others the suspect may implicate. The devil is often in the details, and if the details cannot be counted on neither can we count on a just result.

Suggested Readings

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EDUCATION

H.S.	Spring Branch High School: Houston, Texas June, 1968
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EMPLOYMENT HISTORY

1971-73	National Institute of Mental Health Pre-doctoral trainee in social psychology Ohio State University; Columbus, Ohio
1973-75	Post-doctoral research associate Ohio State University; Columbus, Ohio
1975-77	Assistant Professor, Psychology Department Southern Illinois University; Carbondale, Illinois
1977-78	Assistant Professor, Psychology Department Georgia State University; Atlanta, Georgia
1978 -	Psychology Department University of Nevada; Reno, Nevada
1982-1988	Chair, Interdisciplinary Doctoral Program in Social Psychology, UNR
1986-2011	President, Sierra Trial & Opinion Consultants
1981-2012	Clarinetist, Reno Chamber Orchestra
1981-2005	Clarinetist, Reno Philharmonic Orchestra

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

Association for Psychological Science
American Psychology and Law Society
Society of Personality and Social Psychology
Society of Applied Social Psychology
Society of Experimental Social Psychology

TEACHING EXPERIENCE

UNDERGRADUATE

Introduction to Psychology
Introduction to Social Psychology
Theories of Social Psychology
Research Methods in Social Psychology
Adolescent Psychology
Mate Selection and Marital Satisfaction
Statistics
Psychology and Law
Prejudice and Discrimination
Personality
Experimental Psychology
Attitudes and Persuasion
Memory on Trial
Social Influence

GRADUATE

Social Psychology
Psychology and Law
Research Methods
Theories of Social Psychology
Intraindividual Processes
Analysis of Social Interaction
Language and Conversation
Memory on Trial
Social Influence
Attachment and Close Relationships
Social Skills
Prejudice and Discrimination
Attitudes and Persuasion
Memory and Social Cognition
Practical Experience with Research Design
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RESEARCH, THESIS & DISSERTATION SUPERVISION

1975 to Present-- Supervised individual research projects, theses and dissertations for Graduate students in psychology.

1988 to Present-- Supervise theses and dissertations for Master's and Ph.D. in Judicial Studies candidates at the National Judicial College in Reno.

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1988 to Present Periodic guest lecturer at the National Judicial College on issues and research in the area of Psychology and Law; Member, Thesis or Dissertation Committees for Judges in Master's or Ph.D. Programs in Judicial Studies

CONTINUING LEGAL EDUCATION

Northern Nevada Women's Attorneys (1988)
Carson City Bar Association (1988)
Nevada Association of Defense Counsel (1989)
Washington D. C. Women's Bar Association (1989)
Washington D. C. Association of Defense Counsel (1989)
American Trial Lawyer's Seminar, Lake Tahoe (1989)
Inns of Court, Reno (1989, 1990, 1994, 1995, 1996, 1997, 1998, 2000)
New York Bar Association (1996)
National College of Trial Advocacy (Association of Trial Lawyers of America) (1996)
Journal of Air Law and Commerce Symposium (2001)
Washoe County Public Defenders (2001, 2002, 2003)
Washoe County Bar (2009)
National Defender Investigator Association (2002; 2008; 2010)
Northern California Defender Investigator Association (2003)
California Attorneys for Criminal Justice (2004, 2005)
Indiana Public Defender Association (2004)
Missouri State Public Defender Winter Workshop (2005)
Texas Criminal Defense Lawyers Association (2004)
Edison Electric Institute Claims Committee (2004)
National Seminar for Federal Defenders (2005)
Association of American Law Schools (2006)
Nevada Bar Association, Las Vegas & Reno (2006)
Baton Rouge, LA; Shreveport, LA (2007) (Arranged by Judges and Private Attys)
National Judicial College, Reno (2007, 2009, 2010, 2013, 2014)
Tennessee Association of Criminal Defense Lawyers, Nashville (2007)
Osgood Hall Law School, Toronto, Canada (2007)
National Counsel of Juvenile and Family Court Judges (2008, 2011, 2012)
Law and All That Jazz CLE Seminar, New Orleans (2008)
(Louisiana Association of Criminal Defense Lawyers)
Expert Symposium, U.S. Army Jag Attorneys, New Orleans (2011)
Wisconsin Association of Criminal Defense Attorneys (2012)
National Judicial College Seminar on Children and the Law (2012)
Louisiana Investigator Association (2012)

EDITORIAL ACTIVITIES

EDITOR

1991- Editor and publisher of "**FROM THE MIND'S EYE**". From The Mind's Eye was a newsletter designed to report social science research on law and courtroom psychology.

EDITORIAL BOARDS

1970-1973 Representative Research in Social Psychology.
1980-1988 Journal of Experimental Social Psychology.
1985-1988 Journal of Personality and Social Psychology.
2008 - Personal Relationships
2007 - Journal of Behavior Analysis of Offender and Victim Treatment and Prevention

AD-HOC REVIEWING

JOURNALS

Journal of Personality and Social Psychology
Journal of Experimental Social Psychology
Personality and Social Psychology Bulletin
Journal of Applied Social Psychology
Journal of Research in Personality
Journal of Personality
Social Psychology Quarterly
Psychological Review
Psychological Bulletin
International Journal of Aging and Human Development
Body Image: An International Journal of Research
Human Communication Research
Evolutionary Psychology
Personal Relationships
European Journal of Social Psychology
Representative Research in Social Psychology
Journal of Behavior Analysis of Offender and Victim Treatment and Prevention
Journal of Experimental Psychology: Applied
Applied Cognitive Psychology
Journal of Forensic Psychology Practice
Psychology, Public Policy and Law
Psychology, Crime and Law
Behavioral Sciences and the Law
Law and Human Behavior

GRANTING AGENCIES

National Science Foundation
National Institute of Mental Health
Canadian Research Council
Israel Science Foundation

GRANTS RECEIVED

2012-13 "Flying under the radar: Undermining resistance to investigative interviewing through interviewer priming, social ostracism and self-affirmation" DOJ/FBI $175,000

PUBLICATIONS

Davis, D., & Leo, R. A. (in press). Stereotype threat and the special vulnerabilities of sexual abuse/assault suspects to false confession. In R. Burnett (Ed.) *Vilified: Wrongful allegations of person abuse.* Oxford: Oxford University Press.

Villalobos, J. G., Davis, D., & Leo, R. A. (in press). Remembering sexual consent: Sexual miscommunication, motivated remembering, and pathways to false accusations and denials. In R. Burnett (Ed.) *Vilified: Wrongful allegations of person abuse.* Oxford: Oxford University Press.

Wylie, L. E., Patihis, L., McCuller, L. L., Davis, D., Brank, E. M., Loftus, E. F., & Bornstein, B. H. (in press). Misinformation effects in older versus younger adults: A meta-analysis and review. In M. P. Toglia, D. F. Ross, J. Pozzulo, & E. Pica (Eds) The Elderly Eyewitness in Court, UK: Taylor & Francis.

Davis, D., Leo, R. A. & Williams, M. J. (2014) Disputed interrogation techniques in America: True and False Confessions and the Estimation and Valuation of Type I and II Errors. Cooper, S (Ed.), *Controversies in Innocence Cases in America.*

Perez, L., Ghiglieri, M., & Davis, D. (2014). Coyotes. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Ghiglieri, M., Bell, V., & Davis, D. (2014). Justice. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Bell, V., Villalobos, J. G., & Davis, D. (2014). Attorneys. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Williams, M. J., Perez, L., & Davis, D. (2014). Conspiracies. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Bell, V., Ghiglieri, M., & Davis, D. (2014). Duping delight. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Villlalobos, J. G., Ogundimu, O., & Davis, D. Magic tricks. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Botton, S. R., & Davis, D. Piltdown man. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Villalobos, J. G., Williams, M. J., & Davis, D. (in press). Trickery and deceit in law enforcement. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Davis, D., & Leo, R. A. (2012). Acute suggestibility in police interrogation: Self-regulation failure as a primary mechanism of vulnerability. In A. Ridley, F. Gabbert, & La Rooy, D. J. (Eds.), *Suggestibility in legal contexts: Psychological research and forensic implications.* New York: Wiley.

Williams, M. J., Villalobos, J. G., & Davis, D. (2014). Confessions. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Davis, D. & Leo, R. A. (2014). The problem of police-induced false confession: Sources of failure in prevention and detection. In. S. Morewitz & M. L. Goldstein (Eds), *Handbook of Forensic Sociology and Psychology* (pp.47-75) . NY: Springer.

Davis, D., & Leo, R. A. (in press). The Problem of False Confession: Causes and Consequences. In J. Albanese (Ed.), *The Encyclopedia of Criminology and Criminal Justice.*

Pathitis, L., Loftus, E. F., & Davis, D. (in press). Memory and Self-Deception. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Pathitis, L., Loftus, E. F., & Davis, D. (in press). Recovered memories: Deceiving Oneself and Others. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Davis, D., & Loftus, E. F. (in press). "Repressed" and "Recovered" Memories: Myth or Reality? In R. L. Cautin & S. O. Lilienfeld (Eds.), *The Encyclopedia of Clinical Psychology.* New York: John Wiley & Sons.

Aronson, E. & Davis, D. (in press). Self-justification. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

Davis, D. & Villalobos, J. G. (in press). Language and the Law: Illustrations from Cases of Disputed Sexual Consent. In T. Holtgraves (Ed.), *Handbook of Language and Social Psychology.* Oxford: Oxford University Press.

Davis, D., & Leo, R. A. (2012). To Walk In Their Shoes: The Problem of Missing, Misrepresented and Misunderstood Context in Judging Criminal Confessions. *New England Law Review, 46 (4),* 737-767.

Davis, D., & Leo, R. A. (2012). "Interrogation-related regulatory decline:" Ego-depletion, self-regulation failure, and the decision to confess. *Psychology, Public Policy and Law, 18(4),* 673-704.

Porter, L. S., Keefe, F. J., Davis, D., Rumble, M., Scipio, C., & Garst, J. (2012). Attachment styles in patients with lung cancer and their spouses: Associations with patient and spouse adjustment. *Supportive Care in Cancer, 20,* 2459-2466.

Davis, D., & Loftus, E. F. (2012). The Dangers of Eyewitnesses for the Innocent: Learning

from the Past and Projecting Into the Age of Social Media. *New England Law Review, 46 (4),* 769-809.

Davis, D., & Loftus, E. F. (2012) Inconsistencies between law and the limits of human cognition: Applications to eyewitness identification. In L. Nadel & W. Sinnott-Armstrong (Eds.), *Memory and the law* (pp 29-58). Oxford University Press.

Davis, D. & Leo, R. A. (2012). Interrogation through Pragmatic Implication: In L. Solan & P. Tiersma (Eds.), *The Oxford Handbook on Language and Law* (pp. 354-366). Cambridge: Oxford University Press.

Davis, D. & Leo, R. A. (2011). Three Prongs of the Confession Problem: Issues and Proposed Solutions. In Epstein, J. (Ed.) *The future of evidence* (pp. 233-264). Westlaw.

Nelson, K. J., Laney, C., Fowler, N. B., Knowles, E. D., Davis, D. & Loftus, E. F. (2011). Change blindness can cause mistaken eyewitness misidentification. *Legal and Criminological Psychology, 16, 62-74.*

Davis, D., Leo, R. A., & Follette, W. C. (2010). Selling confession: Setting the stage with the "Sympathetic Detective with a Time-Limited offer. *Journal of Contemporary Criminal Justice, 26(4) 441-457.* (INVITED FOR SPECIAL ISSUE)

Davis, D., & Leo, R. A. (2010). Overcoming judicial preferences for person versus situation-based analyses of interrogation induced confessions. *Journal of the American Academy of Psychiatry and the Law, 38(2), 187-194.* (INVITED PAPER).

Davis, D. (2010). Lies, *Damned Lies,* and the Path from Police Interrogation to Wrongful Conviction. M. H. Gonzales, C. Tavris, & J. Aronson, (Eds.), *The scientist and the humanist: A festschrift in honor of Elliot Aronson (211-247).* New York: Psychology Press.

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***Reprinted in Begam, A. (Ed.) (2010). *Law and Justice* (pp. 59-98). Nagarjuna Hills, Punjagutta, India: Amicus Books: Icfai University Press.

Davis, D. (2009). Attachment and sex. In H. Reis & S. Sprecher (Eds.) *The Encyclopedia of Human Relationships.* Thousand Oaks, CA. Sage.

Davis, D., & Loftus, E. F. (2009). The scientific basis of testimony regarding recovered memories of sexual abuse. In K.S. Douglas, J. L. Skeem & S. O. Lilienfeld (Eds.) *Psychological Science in the Courtroom: Controversies and Consensus* (pp. 55-79). New York: Guilford Press.

Follette, W. C., & Davis, D. (2009). Termination of psychotherapy and medication. In W. T.

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Davis, D. (2008) Selling confession: The interrogator, the con man, and their weapons of influence. *Wisconsin Defender, 16 (1),* 1-16.

Davis, D., Loftus, E. F., Vanous, S., & Cucciare, M. (2008). *"Unconscious transference"* can be an instance of change blindness. *Applied Cognitive Psychology, 22,* 605-623.

Follette, W. C., Davis, D., & Leo, R. A. (2007). Mental health status and vulnerability to interrogative influence. *Criminal Justice* (A publication of the American Bar Association). Special symposium on mental health and the law: *22 (3),* 42-49.

Porter, L. S., Davis, D., & Keefe, F. J. (2007). Attachment and pain: Recent findings and future directions. *Pain, 128,* 195-198.

Davis, D., & Loftus, E. F. (2007). Internal and external sources of distortion in adult witness memory. In M. P. Toglia, J. D. Read, D. R. Ross, & R. C. L. Lindsay (Eds.), *Handbook of Eyewitness Memory (*Vol. 1): *Memory for Events (pp. 195-237).* Mahwah, NJ: Erlbaum.

Davis, D., & Friedman, R. D. (2007). Memory for conversation: The orphan child of witness memory researchers. In M. P. Toglia, J. D. Read, D. R. Ross, & R. C. L. Lindsay (Eds.), *Handbook of Eyewitness Memory (*Vol. 1): *Memory for Events, (pp. 3-52)*. Mahwah, NJ: Erlbaum.

Davis, D., & Leo, R. A. (2006). Psychological weapons of influence: Applications in the interrogation room. *Nevada Lawyer, 14,* 14-18.

Davis, D., Shaver, P. R., Widaman, K. E., Vernon, M. L., Beitz, K., Follette, W. C. (2006). "I Can't Get No Satisfaction:" Insecure attachment, Inhibited Sexual Communication,

and Dissatisfaction. *Personal Relationships, 13,* 465-483.

Davis, D., & Leo, R. (2006). Strategies for prevention of false confessions. In M. Kebbell & G. Davies (Eds.), *Practical psychology for forensic investigations and prosecutions (pp. 121-150).* New York: John Wiley.

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Davis, D. & Loftus, E. F. (2006). Psychologists in the forensic world. In S. I. Donaldson, S. D. E. Berger, & K. Pezdek (Eds.), *The rise of applied psychology: New frontiers and rewarding careers (pp. 171-200).* Mahwah, NJ: Erlbaum.

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Davis, D., Kemmelmeier, M., & Follette, W. C. (2005). Conversational memory on trial. . In Y. I. Noy & W. Karwowski (Eds.), *Handbook of human factors in litigation* (pp. 12-1 to 12-29). New York: CRC Press.

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Davis, D., & O'Donohue, W. T. (2004). The road to perdition: "Extreme influence" tactics in the interrogation room. In W. T. O'Donohue, E. Levensky (Eds.) *Handbook of forensic psychology* (pp. 897-996). New York, Elsevier Academic Press.

Davis, D., & Loftus, E. F. (2004). What's good for the goose cooks the gander: Inconsistencies between the law and psychology of voluntary intoxication and sexual assault. In W. T. O'Donohue & E. Levensky (Eds.) *Handbook of forensic psychology* (pp. 997-1032) New York, Elsevier Academic Press

Davis, D., & Follette, W. C. (2003). Toward an empirical approach to evidentiary ruling. *Law and Human Behavior, 27 (6),* 661-684.

Kemmelmeier, M., & Davis, D., & Follette, W. C. (2003). Seven sins of misdirection? Ethical considerations and constraints surrounding the use of deception in research.. In

O'Donohue, W., & Ferguson, K. (Eds.) *The Handbook of Professional Ethics for Psychologists.*. Sage: Thousand Oaks.

Follette, W. C., Davis, D., & Kemmelmeier, M. (2003). Ideals and realities in the development and practice of informed consent. In O'Donohue, W., & Ferguson, K. (Eds.) *The Handbook of Professional Ethics for Psychologists.*. Sage: Thousand Oaks.

Davis, D., Shaver, P. R., & Vernon, M. L. (2003). Physical, emotional and behavioral reactions to breaking up: The roles of gender, age and attachment style. *Personality and Social Psychology Bulletin, 29,* 871-884.

Davis, D., & Follette, W. C. (2002) Rethinking probative value of evidence: Base rates, intuitive profiling and the *post*diction of behavior. *Law and Human Behavior, 26,* 133-158.

Loftus, E. F., & Davis, D. (2002). Dispatch from the recovered memories legal front. *Psychiatric Times. (April), 14, 54.*

Davis, D., & Lesbo, M. V. (2002). Sculpting the body beautiful: Attachment style, neuroticism, and use of cosmetic surgeries. *Sex Roles, 47,* 129-138.

Davis, D., & Follette, W. C. (2001). Foibles of witness memory in high profile/traumatic cases. *Journal of Air Law and Commerce, 66*, 1421-1549. (Published by the Southern Methodist University Law Review). Also published in *Proceedings of the Journal of Air Law and Commerce Symposium*

****Reprinted in the Defense Law Journal 2003, 52, 609-736*

Davis, D., & Follette, W. C. (2001). "*DIPP*ing" in the jury pool: Designing voir dire questions to *D*iagnose, *I*ngratiate, *P*ersuade, and *P*rocure the jury you want. *Proceedings of the Journal of Air Law and Commerce Symposium.*

Davis, D., Loftus, E. F., & Follette, W. C. (2001). How, when, and whether to use informed consent for recovered memory therapy. *Journal of the American Academy of Psychiatry and the Law, 29,* 148-159.

Davis, D., Davis, D., & Lesbo, M. (2000). Personal control as a determinant of bet size and type of bets in casino craps games. *Journal of Applied Social Psychology, 30*, 1224-1242.

Davis, D., Follette, W. C., & Merlino, M. L. (1999). Seeds of Rape: Female behavior is probative for females, definitive for males. *Psychological Expertise and Criminal Justice*, 101-140. Washington, D. C.: American Psychological Association.

Davis, D. (1996). Jury selection in the 90's: Perspectives of a trial consultant. *Torts, Insurance & Compensation Law Section Journal, 25* (1), 18-26.

Davis, D. (1992). Smiling faces sometimes tell lies. *Orange County Lawyer*, April.

Davis, D. (1992). Editor, Special Issue "Free press versus fair trial: Behavioral research on the effects of pretrial publicity." *From The Mind's Eye, 1*, (3).

Davis, D. (1991). Facing justice and judging faces: What do they have in common? In D. Davis (Ed.) *From the Mind's Eye. 1* (1).

Davis, D. (1991). Making the best use of physical characteristics in court. In D. Davis (Ed.), *From the Mind's Eye. 1* (1).

Davis, D. (1991). Standards of proof: Do jurors distinguish? In D. Davis (Ed.), *From the Mind's Eye. 1* (1).

Davis, D. (1991). In the jury box: Tips for jury selection. In D. Davis (Ed.), *From The Mind's Eye. 1* (1).

Davis, D. (1991). Death by procedure: Biasing effects of considering the harshest verdict first. In D. Davis (Ed.), *From The Mind's Eye,* 1, (1).

Davis, D. (1991). Deep pockets and bleeding hearts: Is Robin Hood alive and well in the American Jury? In D. Davis (Ed.), *From The Mind's Eye*, 1, (1).

Davis, D. (1991). Physicians and other high status defendants: with greater privilege goes greater responsibility. In D. Davis (Ed.), *From the Mind's Eye, 1,* (1).

Davis, D. (1991). Criminal juries and the leniency bias. In D. Davis (Ed.), *From the Mind's Eye, 1,* (1).

Davis, D. (1991). Human judgment and the hindsight bias. In D. Davis (Ed.), *From the Mind's Eye, 1,* (2).

Davis, D. (1991). To catch a liar: Are professionals more skillful? In D. Davis (Ed.), *From The Mind's Eye, 1,* (2).

Davis, D. (1991). Day in the life videos, the next generation: Bumps, cracks, and other accidents in waiting. In D. Davis (Ed.), *From The Mind's Eye, 1*, (2)

Davis, D. (1991). Half full or half empty: There is a difference (Or so we think!). In D. Davis (Ed.), *From The Mind's Eye, 1,* (2).

Davis, D. (1991). The importance of timing: Defense opening is most effective at the first opportunity. In D. Davis (Ed.), *From The Mind's Eye, 1,* (2).

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problem? *Nevada Family Law Review*, February.

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Davis, D., & Olmsted, J. (1988). Trial consulting services: The winning edge from litigation support technology. *Inter Alia: Journal of the State Bar of Nevada, 53 (2)*, 14-17.

Davis, D., & Ostrom, T. M. (1984). Attitude measurement. In R. J. Corsini (Ed.), *Wiley Encyclopedia of Psychology*. New York: Wiley, Vol. 1, 97-99.

Davis, D. & Holtgraves, T. (1984). Perceptions of unresponsive others: Attribution, attraction, understandability, and memory for their utterances. *Journal of Experimental Social Psychology, 20,* 383-408.

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Davis, D. (1981). Implications for interaction versus effectance as mediators of the similarity-attraction relationship. *Journal of Experimental Social Psychology, 17*, 96-116.

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Davis, D., & Martin, H. J. (1978). When pleasure begets pleasure: Recipient responsiveness as a determinant of physical pleasuring between heterosexual dating couples and strangers. *Journal of Personality and Social Psychology, 36*, 767-777.

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Davis, D., & Brock, T. C. (1975). Use of first person pronouns as a function of increased objective self-awareness and performance feedback. *Journal of Experimental Social Psychology, 11,* 381-388.

Davis, D., & Wicklund, R. A. (1973). An objective self-awareness analysis of

communication sets. In S. Duval & R. A. Wicklund, *A theory of objective self-awareness.* New York: Academic Press, 180-186.

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Jellison, J. M., & Davis, D. (1973). Relationships between perceived ability and attitude extremity. *Journal of Experimental Social Psychology, 27,* 430-436.

Davis, D., & Brock, T. C. (1972). Paradoxical instigation of self-criticism by inordinate praise. *Proceedings, LXXX Annual Convention. American psychological association,* 191-192.

Ostrom, T. M., Edwards, J. D., Rosenblood, L. K., & Davis, D. (1972). Communication discrepancy and attitude change: a bibliography of research and theory. *Catalog of Selected Documents in Psychology, 2*, 64-84.

PRESENTATIONS

NATIONAL MEETINGS

Davis, D., & Jellison, J. M. (1972). Relationships between perceived ability and attitude extremity. Eastern Psychological Association, Boston.

Davis, D., & Brock, T. C. (1972). Paradoxical instigation of self criticism by inordinate praise. American Psychological Association, Honolulu.

Davis, D., & Ostrom, T. M. (1973) Trait implication in impression formation. American Psychological Association, Montreal.

Davis, D., Ostrom, T. M., & Caldwell, J. (1973). Meaning shift and the set size effect. Western Psychological Association, Anaheim.

Davis, D., & Brock, T. C. (1973) Heightened self-awareness, self-esteem, and egocentric thought. Eastern Psychological Association, Washington, D. C.

Davis, D., & Brock, T. C. (1974). Social determinants of physical pleasuring: Effects of the relative status of the pleasurer and the recipient. Western Psychological Association, San Francisco.

Davis, D., Brock, T. C., & Rainey, H. G. (1974). Social determinants of physical pleasuring: Effects of the attractiveness and responsiveness of the recipient. Eastern Psychological Association, Philadelphia.

Ostrom, T. M., & Davis, D. (1975). Stimulus interaction in impression formation. Eastern Psychological Association, New York.

Davis, D. (1975). Use of first person pronouns as a function of increased objective self-awareness and prior feedback. Eastern Psychological Association, New York,.

Davis, D., & Perkowitz, W. T. (1977) Effects of responsiveness in a verbal exchange on interpersonal attraction. American Psychological Association, San Francisco.

Martin, H. J., & Davis, D. (1977) Effects of sex, responsiveness, and relationship meaningfulness on physical pleasuring. American Psychological Association, San Francisco.

Davis, D. (1978). Similarity, interaction, and interpersonal attraction. American Psychological Association, Toronto, Canada.

Davis, D. (1978). Instrumental conditioning of conversational behavior: Responsiveness is rewarding. American Psychological Association, Toronto, Canada.

Davis, D., Holtgraves, T., Kasmer, J., & Ginsburg, G. (1982). Self-consciousness, attitudes, subjective norms, and behavioral intentions. American Psychological

Association, Washington, D. C.

Davis, D. (1982). Information-processing consequences of responsiveness in dyadic interaction. Nags Head Conference on Social Cognition, Nags Head, North Carolina. (Invited address).

Davis, D. (1982). Antecedents and consequences of responsiveness in dyadic interaction. Nags Head Conference on Naturalistic Studies of Social Interaction, Nags Head, North Carolina. (Invited address).

Holtgraves, T., & Davis, D. (1983). Perceptions of unresponsive others: Attributions, attraction, understandability, and memory for their utterances. Western Psychological Association, San Francisco, California.

Holtgraves, T., & Davis, D. (1983). Processing efficiency of responsive and unresponsive content. American Psychological Association, Anaheim, California.

Davis, D. (1983). Moderators of the consequences of responsiveness in dyadic interaction. Nags Head Conference on Social Cognition, Nags Head, North Carolina. (Invited address).

Davis, D. (1983). When unresponsive behavior is not so bad. Nags Head Conference on Interpersonal Relations, Nags Head, North Carolina.

Davis, D. (1984) Antecedents and consequences of responsiveness in dyadic interaction. Southwestern Psychological Association, New Orleans. (Invited Address)

Davis, D. (1984) Antecedents and consequences of responsiveness in dyadic interaction. International Communications Association, San Francisco. (Invited Address).

Dewitt, J. S., Davis, D., Naseth, G. J., & Carney, A. (1984). Moderators of the consequences of responsiveness in communication. International Communications Association, San Francisco. (Invited address).

Davis, D. (1984) Speech acts and planning in conversation. Symposium; International Communications Association, San Francisco. (Invited to organize and chair this symposium)

Davis, D., & Droll, D. (1984). Toward a psychology of forgiving. American Psychological Association, Toronto. (Invited address).

Holtgraves, T. M., & Davis, D. (1984) Attributional consequences of responsiveness in conversation. American Psychological Association, Toronto. (Invited address).

Davis, D. (1984). The role of responsiveness in interpersonal relations. Society of Experimental Social Psychology. Snowbird Resort, Utah. (Invited address).

Davis, D., & Droll, D. (1985). Relative power, accounts and apologies as

determinants of forgiving. American Psychological Association, Los Angeles.

Carney, A., Davis, D., & Lipparelli, M. A. (1986). A reformulation and extension of Brown and Levinson's theory of politeness. Western Psychological Association, Los Angeles.

Carney, A., Dewitt, J. S., & Davis, D. (1986). Effects of stereotypes, order of presentation, and familiarity on person memory. Western Psychological Association, Los Angeles, 1986.

Davis, D., Carney, A., & Dewitt, J. S. (1986). Comprehension and face as determinants of listener responsiveness in conversation. American Psychological Association, Washington, D. C.

Davis, D. (1986). Chair, session entitled "The social relations model." American Psychological Association, Washington, D. C.

Davis, D. (1986). Effects of listener status and familiarity, and the magnitude of request on use of polite form in conversation. Hags Head Conference on Groups, networks and organizations, Nags Head, North Carolina. (Invited address).

Davis, D. (1987). Psychology and the legal system. Society of Experimental Social Psychology, Charlottesville, Virginia.

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IN THE COURT OF COMMON PLEAS
FOR TRUMBULL COUNTY

STATE OF OHIO,	)	**CASE NO. 85-CR-317**
	)	
Plaintiff/Respondent,	)	**CAPITAL CASE**
	)	
vs.	)	
	)	
DANNY LEE HILL,	)	
	)	
Defendant/Petitioner.	)	

PETITIONER DANNY HILL'S MOTION FOR NEW TRIAL

Petitioner Danny Lee Hill, through undersigned counsel, requests this Court grant this motion for new trial pursuant Ohio Criminal Rule 33(B). On June 7, 2016, this Court granted Mr. Hill's request to file this Motion for New Trial after concluding that petitioner "was unavoidably prevented from filing his motion within the prescribed window set forth in Crim. R. 33(B)". Order at 10. Petitioner Hill requests a full evidentiary hearing on the motion where witnesses and evidence can be presented in support of the motion. At the conclusion, Petitioner Hill requests the Court find that a new trial is warranted in this case. This Motion for New Trial is timely filed.

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PRELIMINARY STATEMENT

Pursuant to Ohio Rule of Criminal Procedure 33(B), Defendant Danny Lee Hill ("Mr. Hill") respectfully submits this memorandum of law in support of his motion for a new trial. Mr. Hill's conviction and sentencing for the assault and murder of Raymond Fife constitute precisely the circumstances for which Rule 33(B) was intended to provide relief. In light of newly discovered material evidence that calls Mr. Hill's conviction into serious doubt, including a recantation by the State's "bite-mark" expert responsible for the only "physical" evidence purportedly tying Mr. Hill to the crime, a new trial should be ordered.

Mr. Hill has always maintained his innocence – an innocence wrongly obscured at his trial by the State's presentation of inflammatory pseudoscience under the imprimatur of objective expert opinion. In place of empirically verifiable evidence, the prosecution relied on the baseless testimony of two experts, Dr. Curtis Mertz and Dr. Howard Adelman. Dr. Mertz, a dentist and oral surgeon, testified that an injury found on Raymond Fife's penis could be linked definitively to the dentition of Mr. Hill, to the exclusion of any other possible contributor. Dr. Adelman, a pathologist, opined that a stick found by police near the scene fit like a "key in a lock" into the injuries found to Fife's anus and internal organs. Both experts testified that there was medical support for the probability that Fife sustained an erection during his attack due to asphyxiation. The State supplemented this testimony with a purported confession obtained from Mr. Hill over three separate interviews, which included sustained custodial interrogation.

The asphyxiation/erection testimony provided by Drs. Mertz and Adelman was not just sensational and inflammatory, it was also fundamental to the bite-mark

identification used to convict Mr. Hill. Dr. Mertz originally found he could not "use direct measurements with any degree of great accuracy" to match the marks found on Fife to Mr. Hill. 12/19/1985 Notes on Fife Bite Mark Procedures and Findings – Fife Homicide, at 2 ("Mertz Notes") (attached as Ex. A). Only by speculating that Fife's "penis may have been in a state of full or partial erection at the time the bite was inflicted" could Dr. Mertz "explain" the one-third disparity in size and scale between the marks on Fife and Mr. Hill's teeth. *Id.*; Trial Transcript at 956:5-17 (attached as Ex. B). Dr. Mertz's testimony, which the State characterized as "especially significant" and as its "best evidence" in its closing arguments, Trial Tr. at 1199:8-1200:7, constituted the only evidence presented that directly tied Mr. Hill to the scene of the crime. And yet, years later, as Mr. Hill awaited execution on death row, Dr. Mertz twice recanted his entire opinion to his friend and mentee, Dr. Franklin Wright.[1]

There are four categories of new, material evidence, each of which was discovered subsequent to Mr. Hill's 1986 trial and conviction, and each of which, standing alone, warrants granting Mr. Hill a new trial. In the aggregate, this evidence undeniably demands a new trial. *See State v. Gillispie*, 2d Dist. No. 24456, 2012-Ohio-1656, ¶ 58 (stating that newly discovered evidence may be considered cumulatively). The four categories of evidence are:

> (1) The Relevant Scientific Community Has Now Recognized That It Is Impossible To Identify a Single Biter to the Exclusion of All Others: As evidenced by an authoritative report from the National Academy of Sciences ("NAS") and the recent recommendation of the Texas Forensic Science Commission ("TFSC") to cease the use of bite mark evidence in Texas it is not scientifically possible to positively match a single biter to a patterned injury, as Dr. Mertz purported to do at Mr. Hill's trial. In August

[1] Dr. Mertz died in 2005.

2013, the American Board of Forensic Odontology ("ABFO"), the organization responsible for accrediting and establishing standards for bite-mark analysts, stated for the first time, in its *Reference Manual*, that the identification of a single biter from an open population of possible biters (like Dr. Mertz's identification of Mr. Hill) is no longer sanctioned. The ABFO, Dr. Mertz's board-certifying entity, further restricted its Guidelines in March of this year; now, the identification of a person as "the biter" is no longer sanctioned under any circumstances.

(2) New Expert Bite-Mark Opinions – Including that of Dr. Mertz – Confirm that the Patterned Injury on Raymond Fife Was Not Even a Human Bite-Mark: Dr. Mertz, the centerpiece of the State's prosecution, recanted his trial testimony, and admitted not only that he could not reliably identify Mr. Hill as the source of Fife's injury, but also that he could not reliably determine that the relevant injury was even a human bite-mark. Further, Drs. Franklin Wright, Iain Pretty, Cynthia Brzozowski, Anthony R. Cardoza, James D. Wood (*See* Exhibit. O), and Gary Berman (*See* Exhibit. P) – all respected odontologists – have independently concluded (i) that Dr. Mertz's opinion deviated from the methodology established by the ABFO; (ii) that Dr. Mertz's opinion was unreliable and unscientific; and (iii) that the injury was not a human bite-mark.

(3) New Pathology Evidence Undermines the State's Asphyxiation Theory: Independent pathologist Dr. Zhongxue Hua has determined that the opinions presented by Drs. Mertz and Adelman regarding the injuries found to and on Fife were speculative and unscientific, and that there was no basis to conclude that Fife sustained a genital erection at the time of his attack or to extrapolate a size differential for that hypothetical erection. Dr. Hua also determined that Dr. Adelman's testimony regarding a stick that purportedly caused injuries to Fife was equally baseless.

(4) New Evidence Relating To Mr. Hill's Confession: Dr. Debra Davis, a renowned psychology professor and expert on the psychology surrounding confessions in criminal cases, has provided testimony that (i) the "confession" solicited from Mr. Hill is unreliable; (ii) that scientific research over the last ten years has confirmed that the application of interrogation techniques like those used on Mr. Hill pose a significant risk of producing a false confession; and (iii) that Mr. Hill, who was and is mentally retarded and without counsel, was particularly susceptible to falsely confessing.

These new facts and opinions, which sever any and all ties between Mr. Hill and Fife, are powerful proof of Mr. Hill's actual innocence. Further, the findings by the NAS and the

TFSC, and the radical methodological changes undertaken by the ABFO both in 2013 and today, do not simply undermine the opinions Dr. Mertz provided at trial; instead, they mean that there is currently no scientifically-sanctioned analysis that could arrive at the specific conclusion that Dr. Mertz provided against Mr. Hill at trial. At a minimum, these new revelations indisputably raise a "strong probability" that Mr. Hill would not be convicted and sentenced to death for the rape and murder of Fife if he were to be retried.

None of the new evidence cited above was available to Mr. Hill at the time of his trial. His ability to present it now is the product of fundamental changes in the scientific understanding of the evidence presented at trial – changes which have brought to light an extraordinary number of wrongful convictions.[2] In this case, the evidence presented against Mr. Hill at trial was so flawed and scientifically baseless that it led to a subsequent recantation by the State's "especially significant" expert witness, as well as the excoriating analysis of independent experts. Finally, Mr. Hill's conviction on the basis of false and misleading evidence – repeatedly trumpeted by the prosecution as conclusive, "scientific" evidence of guilt – constitutes a violation of his Fifth, Eighth, and Fourteenth Amendment rights. For all of the reasons above and those further discussed below, Mr. Hill's conviction should be vacated and a new trial ordered.

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[2] At least sixteen prisoners who were "matched" to a crime by bite-mark evidence and convicted have been exonerated evidence since Mr. Hill's trial. They include Robert Lee Stinson, Willie Jackson, Roy Brown, Ray Krone, Calvin Washington, Joe Sidney Williams, James O'Donnell, Levon Brooks, Kennedy Brewer, Bennie Starks, Michael Cristini, Jeffrey Moldowan, Anthony Keko, Harold Hill, Dan Young Jr., and Greg Wilhoit. *See* Appendix A for a description of these cases.

PROCEDURAL HISTORY

The Trumbull County Grand Jury indicted Mr. Hill for the September 12, 1985 aggravated murder of Raymond Fife. On January 7, 1986, Mr. Hill executed a waiver of his right to a jury trial. A three-judge panel presided over his trial during January 21-31, 1986. After a five-hour deliberation, the panel unanimously found Mr. Hill guilty of capital felony murder. The panel held a mitigation hearing beginning on February 26, 1986, and concluded that the aggravating circumstances outweighed the mitigating factors beyond a reasonable doubt. Two days later, on February 28, 1986, the panel sentenced Mr. Hill to twenty-five years' imprisonment for aggravated arson and kidnapping, life imprisonment for rape and felonious sexual penetration, and the death penalty for aggravated murder with specifications.

Mr. Hill appealed his conviction and sentence to the Eleventh District Court of Appeals and the Ohio Supreme Court on the basis that he was intellectually disabled, and that, because of his condition, his constitutional rights were violated during the police interrogation and trial. The Ohio courts affirmed his conviction and sentence on direct appeal. *State v. Hill*, 11th Dist. Nos. 3720, 3745, 1989 WL 142761 (Nov. 27, 1989); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (1992).

Mr. Hill thereafter filed a Petition to Vacate or Set Aside Judgment and/or Sentence Pursuant to Ohio Revised Code Section 2953.21 with this Court. Although Mr. Hill requested discovery, the Court issued its opinion denying the decision without an evidentiary hearing or discovery. Mr. Hill appealed to the Eleventh District Court of Appeals, which affirmed this Court's decision. *State v. Hill*, 11th Dist. No. 94-T-5116, 1995 WL 418683 (June 16, 1995). The Ohio Supreme Court declined to accept

jurisdiction to review. *State v. Hill*, 74 Ohio St. 3d 1456, 656 N.E.2d 951 (1995). No application for re-opening the direct appeal pursuant to Ohio Rule of Appellate Procedure 26(B) was filed on Mr. Hill's behalf.

Having exhausted all avenues for relief in state court, Mr. Hill filed a habeas petition in the U.S. District Court for the Northern District of Ohio, again rooted in his intellectual disability claims. The Northern District of Ohio denied that petition on September 29, 1999, and Mr. Hill timely appealed to the Sixth Circuit. While that appeal was pending, the Supreme Court decided *Atkins v. Virginia*, 536 U.S. 304, 122 S. Ct. 2242, 153 L. Ed. 2d 335 (2002), which barred the execution of intellectually disabled offenders.

Mr. Hill filed a petition to vacate his death sentence with this Court based on an *Atkins* claim on November 27, 2002, and filed an amended petition to vacate on January 17, 2003. This Court denied the *Atkins* petition on February 15, 2006. The Eleventh District Court of Appeals affirmed that decision on July 11, 2008, *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509, 894 N.E.2d 108, and on August 26, 2009, the Ohio Supreme Court declined to review the case. *State v. Hill*, 122 Ohio St. 3d 1502, 2009-Ohio-4233, 912 N.E.2d 107 (table). Mr. Hill then filed a habeas petition in the Northern District of Ohio on March 15, 2010. On June 25, 2014, the Northern District of Ohio denied Mr. Hill's habeas petition. That decision is currently being appealed to the Sixth Circuit Court of Appeals. *Hill v. Anderson*, Case No. 99-4317.

On November 14, 2014, pro bono counsel filed the Petitioner's Request for Leave to File a Motion for New Trial Pursuant to Ohio Criminal Rule 33(B). After a hearing on that request on December 21, 2015, the Court found by clear and convincing evidence

that, under the time constraints of Rule 33(B), Petitioner was unavoidably prevented from filing the Motion for New Trial. Therefore, pursuant Rule 33(B), the Court instructed Petitioner to file the Motion for New Trial within seven days.

LEGAL STANDARD

A trial court may grant a motion for a new trial based on newly discovered evidence when such evidence is material and "could not with reasonable diligence have [been] discovered and produced at the trial." Crim. R. 33(A)(6).[3] In order to warrant a new trial based on newly discovered evidence, the defendant must "show that the new evidence (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence." *See State v. Petro*, 148 Ohio St. 505, 505, 76 N.E.2d 370 (1947). The *Petro* test was not intended to "establish[] a *per se* rule excluding newly discovered evidence as a basis for a new trial simply because that evidence is in the nature of impeaching or contradicting evidence." *City of Dayton v. Martin*, 43 Ohio App. 3d 87, 90, 539 N.E.2d 646 (2d Dist. 1987). Instead, the question is whether the "newly discovered evidence, though it is impeaching or contradicting in character, would be likely to change the outcome of the trial." *Id.*

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[3] This Court has "jurisdiction to decide a motion for a new trial based on newly discovered evidence when the specific issue has not been decided upon direct appeal," as is the case here. *State v. Davis*, 131 Ohio St. 3d 1, 2011-Ohio-5028, 959 N.E. 2d 516, 524, ¶ 37.

Further, the *Petro* analysis is not applied in a vacuum; where, as here, the evidence offered at trial is weak, "the less compelling the newly discovered evidence would have to be in order to produce a strong probability of a different result." *State v. Gillispie*, 2012 Ohio 1656, at ¶ 35, 2012 WL 1264496 (2nd Dist April 13, 2012). "While the granting of a new trial based on newly discovered evidence obviously involves consideration of newly discovered evidence, the requirement that there be a strong probability of a different result less obviously requires consideration of the evidence adduced at trial." *Id.* Because the ultimate burden of proof in criminal cases rests with the prosecution, "newly discovered evidence need not conclusively establish a defendant's innocence in order to create a strong probability that a jury in a new trial would find reasonable doubt." *Id.*

THE EVIDENCE AGAINST DANNY LEE HILL

Danny Lee Hill's conviction for the assault and murder of Raymond Fife rests solely on circumstantial evidence and expert opinion testimony. The State acknowledged as much in its opening and closing statements, admitting it would "like to have . . . forensic evidence," but conceding it could point to "no evidence of blood" and "no blood test" linking Mr. Hill to the crime. Trial Tr. at 21:22-22:4; 1196:4. In fact, there was no physical evidence linking Mr. Hill to the scene of the crime: there was no DNA, no blood, no fingerprints, no hair, and no skin found on the victim or at the crime scene. In the absence of biological evidence, the State offered pseudoscience under the guise of expert testimony regarding (i) an injury found on Fife's penis that purportedly matched the dentition of Mr. Hill, and (ii) a stick that the State's expert pathologist, Dr. Howard Adelman, testified "fit" the injuries to Fife's anus and internal organs like a "key in a

lock." The State suggested – falsely – that Fife's injuries could be analyzed and interpreted in a distinctive, singular fashion, like a "fingerprint," "blueprint," or "trademark," which tied Mr. Hill, and only Mr. Hill, to the crime. Trial Tr. at 383:1-3; *see also id.* at 1192:15-25 ("[W]e don't even have to have Danny admit [it] because Doctor Adelman . . . gave excellent testimony."); *id.* at 1200:1-10. This, in addition to a rambling, incoherent statement that Mr. Hill provided the police over three separate interrogations without legal representation,[4] in which he never once deviated from his assertion that he did not assault or harm Fife, constituted the core of the State's case against him.

I. THE BITE-MARK OPINION AND TESTIMONY OF DR. MERTZ WAS BASELESS AND UNSCIENTIFIC

A. Mr. Hill's Conviction Was Based in Large Part on Dr. Mertz's Unscientific Identification of Mr. Hill as "the Biter" of Raymond Fife

Crucial to the State's case against Mr. Hill was the testimony of Dr. Curtis Mertz, a dentist and oral surgeon who, at the time of trial, was Chief of Dental Staff at Ashtabula Medical Center, in Ashtabula, Ohio. Dr. Mertz was also a Diplomate, and former President, of the American Board of Forensic Odontology ("ABFO"). *See* Trial Tr. at 908:5-6; *id.* at 908:11-909:7. "On or about September 13th, 1985," the Trumbull County Coroner's Office contacted Dr. Mertz and asked him to "come down and view what the pathologist felt may well be a bite mark on a homicide victim" Raymond Fife. *Id.* at 917:5-11. Dr. Mertz testified unequivocally at trial that the injuries found on Fife's penis were human bite-marks caused by Mr. Hill. *See id.* at 937:1-7 ("It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the

[4] *See infra* Part III for more on Mr. Hill's interrogation and so-called "confession."

models and photographs that I had, made the bite on [the victim]."). He also testified that he could unequivocally ascertain the precise mechanism or method through which Mr. Hill left the marks on Fife. *See id.* at 941:18-942:5 ("And the bites undoubtedly were inflicted in this manner.") (emphasis added). Departing from the scientific protocols that governed at the time of his testimony, Dr. Mertz assured the court: "My opinion is very strong that you can exclude [co-defendant], and my opinion is, if you want to put it on a varying scale, slightly stronger that it is [Mr. Hill's] bite." *Id.* at 952:18-20.

The State, aware that the bite-mark evidence constituted the only "physical" evidence linking Mr. Hill to the crime, emphasized Dr. Mertz's testimony repeatedly in both its opening and closing arguments:

> Evidence will show that in odontology, that teeth, like fingerprints in a way, leave identifying characteristics . . . Doctor Mertz will tell this Court that in his opinion, with reasonable medical and dental certainty, that the teeth marks on the private part of Raymond Fife were made by [Mr. Hill] . . . [Mr. Hill] has a rotated tooth and a chipped tooth which is sufficient enough for Doctor Mertz to come to the conclusion that [Mr. Hill]'s teeth marks are on [the victim].
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> I think that especially significant is the odontology evidence in this case . . . [N]ot only do we have exclusion of [co-defendant], we have, with reasonable medical certainty from Doctor Mertz, that [Mr. Hill's] tooth . . . gives us the best evidence because that's what Doctor Mertz says is a trademark and blueprint that we can follow in the pattern of injury on [the victim].

Trial Tr. at 30:23-32:8; *id.* at 1199:8-1200:7 (emphasis added).[5] Not surprisingly, the State's dramatic, inflammatory focus on the purported bite-marks was noted in local

[5] In addition to Dr. Mertz, another forensic odontologist, Dr. Lowell Levine, testified as a defense witness that it was "likely that one portion of the patterned injury was caused by [Mr. Hill]." Tr. at 1157; *see also* Tr. at 1158. Dr. Levine originally consulted on the case at the behest of the State, and did not reach the same

newspaper coverage of the trial, which singled it out as "key testimony."[6] According to the State, Dr. Mertz identified a distinct, direct, and exclusive similarity between Fife's injuries and Mr. Hill's dentition. But, as explained in detail below, bite-mark evidence is not like fingerprint evidence, and even under the best of conditions, a human bite-mark left in human skin is not a "trademark" or "blueprint" that can be traced back to a single individual. Here, moreover, the conditions were far from ideal – the marks on Fife's penis were irregular and indistinct, and located in an area uniquely prone to gross distortion. In fact, in his pre-trial notes, Dr. Mertz wrote that he could not "use direct measurements with any degree of great accuracy" and thus could not match the injury to Mr. Hill without unsupported statistical manipulation and speculation about the supposed size and state of Fife's penis at the time of the injury. Mertz Notes at 2. Only through this baseless manipulation and speculation was Dr. Mertz able to testify that the injury matched Mr. Hill's dentition.

B. Since Mr. Hill's Conviction, Bite-Mark Identification of a Single "Biter," Like That Proffered Against Mr. Hill, Has Been Rejected

In the thirty years since Mr. Hill's conviction, the erroneous nature of Dr. Mertz's testimony – that the marks on Fife could be conclusively and reliably linked to Mr. Hill, and only Mr. Hill – has become abundantly clear. Not only has subsequent expert opinion revealed flaws specific to his testimony, but a searching examination of bite-

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conclusions as Dr. Mertz. Regardless, Drs. Wright and Pretty explain in their attached affidavits that Dr. Levine's testimony was vague and unscientific, and deviated from the relevant standards. *See* 9/22/2014 Affidavit of Dr. Franklin Wright (attached as Ex. C); 9/29/2014 Statement of Dr. Iain Pretty (attached as Ex D). It should be accorded no weight.

[6] See Wills, *Death Possible for Hill*, The Vindicator, Feb. 1, 1985 at 1:6.

mark analysis as a forensic science by the National Academy of Sciences ("NAS") has eroded the biological, statistical, and, finally, epistemological foundation of the field. The resulting, authoritative, 2009 report, *Strengthening Forensic Science in the United States: A Path Forward* ("NAS Report") (relevant pages attached as Ex. F), subjected bite-mark evidence to a scathing critique.[7] Although the report discussed numerous forensic fields and specializations, no other subject was so severely critiqued as bite-mark evidence. Tellingly, the NAS Report constituted the first independent examination of the validity and reliability of bite-mark evidence by a neutral committee of scientists.[8] Up until that point, forensic odontologists had set their own standards, approved their own methodologies, and identified the permissible scope of their own testimony. Under the independent analysis of NAS scrutiny, however, any pretense of validity and reliability for bite-mark "science" disappeared. The report's conclusions were damning. Specifically, the NAS concluded that:

> (1) The uniqueness of the human dentition has not been scientifically established.

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[7] Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council (2009). The 2009 NAS Report was the culmination of nearly four years of work by a select committee of members of the forensic, scientific and legal communities, who were directed by Congress to assess the current state of forensic science in this country and make recommendations to strengthen it. The committee heard extensive testimony from a vast array of scientists, law enforcement officials, medical examiners, crime laboratory officials, investigators, attorneys and leaders of professional and standard-setting organizations. The NAS Report is the most comprehensive assessment of bite-mark evidence to date, and was conducted by highly-respected members of the scientific and legal communities, including a federal judge, prosecutor and defense attorney.

[8] The Texas Forensic Science Commission is the second such entity to undertake such an examination; its findings, which mirror the NAS's, are discussed below.

> (2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.
>
> (3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

NAS Report at 175-76; *see also* Pretty Statement at 2.1-2.3. In reaching its conclusions, the NAS heard testimony from leading experts in the field, including then-ABFO president Dr. David Senn, and conducted an extensive review of recent bite-mark literature and research. Based on its review, the NAS concluded that, at a minimum, there existed "considerable dispute" in the scientific community "about the value and reliability" of bite-mark evidence. NAS Report at 176. This is due to the "inherent weaknesses" and "basic problems inherent in bite mark analysis" which have "led to questioning of the value and scientific objectivity" of the discipline. *Id.* at 174, 176.

The only way to validate a scientific discipline and establish its reliability is by testing its basic hypotheses through the scientific method. Even assuming an injury can be determined to be a bite-mark – and, as explained below, it is clear that no such determination was possible in this case – the identification of a single "biter" to the exclusion of anyone else, like that proffered against Mr. Hill, rests on two hypotheses. First, that a properly trained forensic dentist can determine that a bite-mark and a suspect's dentition are indistinguishably similar, i.e., a "match." Second, that once an association is made, a forensic dentist can provide a scientifically valid estimate of the rareness or frequency of that association. Neither of these hypotheses has ever been scientifically validated. In fact, the NAS determined that there are no criteria and no objective standards to render conclusions about whether a particular suspect's dentition

can be reliably associated with a bite-mark. The NAS Report found that no scientifically valid studies had ever been conducted to determine what aspects of the teeth and bite-mark should be measured to make any such comparisons.[9] No study has demonstrated whether the instruments dentists use for measurements or comparisons are reliable under non-ideal and non-uniform conditions, or whether, after a measurement is taken, that measurement would be considered "unique" or "different" enough to distinguish the bite-mark or teeth from the general population.

Dr. Mertz identified the biter of Fife as Danny Lee Hill. But the NAS study found that there is "no science" establishing how to quantify the probability of a "match," and "no evidence of an existing scientific basis for identifying an individual to the exclusion of all others." NAS Rep. at 176 (emphasis added); *see also* Pretty Statement at ¶¶ 2.1-2.3. According to the NAS, forensic odontologists lack "the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source," *id.* at 7, and thus "[a]lthough forensic odontologists understand the anatomy of teeth and the mechanics of biting . . . the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match." *Id.* at 175 (emphasis added); *see also* Pretty Statement at ¶¶ 2.1-2.3. Moreover, there is no way to determine the probability of a match because "there is no established science indicating what percentage of the population or subgroup of the population could also have produced the bite." *Id.* at 174; *see also* Pretty Statement at ¶¶ 2.1-2.3. In other

[9] NAS Report at 176 ("A standard for the type, quality and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.").

words, there is no existing scientific basis for the bite-mark testimony that Dr. Mertz provided at Mr. Hill's trial.

In addition to these substantial shortcomings and inherent flaws, the NAS also recognized the bias risk posed by a pressurized legal or judicial context in which biter-identification analysis takes place:

> [F]orensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which to choose in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect.

Id. at 175. In doing so, the NAS perfectly described Mr. Hill's prosecution. Not only did the State and Dr. Mertz fall prey to these methodological errors, they did so in just such a sensationalized and pressurized environment. As the local press acknowledged at the time, the investigation and trial of Mr. Hill occupied a "prominent position in the media spotlight," producing an endless barrage of "film footage and pictures [that] filled television screens and newspapers with a stoic family enduring the graphic retelling of their son's death."[10]

The NAS criticism did not go unnoticed by the ABFO. For decades, ABFO board-certified dentists had claimed (with, as we now know, no basis in science) the ability to identify "the Biter": the single individual responsible for a bite-mark to the exclusion of all other potential sources. In August 2013, in the wake of the devastating conclusions of NAS report—not to mention *dozens* of wrongful convictions and

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[10] *See* McCarthy, *Fife Case Coverage Prompts Questions*, The Vindicator, Feb. 23, 1986 at A6.

indictments, lawsuits against the dentists who proffered false and misleading testimony, and mounting criticism from independent researchers[11] – the ABFO finally conceded that individualization claims are invalid in "open" or "undefined population" cases like Mr. Hill's, in which the universe of potential suspects (and thus potential biters) is unknown. When the ABFO updated its Reference Manual that month, it no longer included individualized identification of "the Biter," i.e., a single individual responsible for the bite-mark at issue, among its sanctioned conclusions. *See* American Board of Forensic Odontology, Inc. Diplomates Reference Manual, 2013 ABFO Standards for Bite Mark

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[11] The amount of research and analysis questioning the validity of bite-mark analysis since the NAS report in 2009 (and Mr. Hill's 1986 trial and conviction) is substantial. *See* Bush, M.A., Bush, P.J., and Sheets, H.D., *A Study of Multiple Bitemarks Inflicted in Human Skin by a Single Dentition Using Geometric Morphometric Analysis*, For. Sci. Int'l 211:1-8 (2011); Bush, M.A., Miller, R.G., Bush, P.J., and Dorion, R.B., *Biomechanical Factors in Human Dermal Bitemarks in a Cadaver Model,* J. Forensic Sci. 54(1):167-176 (2009); Sheets, H.D., Bush, P.J., Brzozowski, C., Nawrocki, L.A., Ho, P., and Bush, M.A., *Dental Shape Match Rates in Selected and Orthodontically Treated Populations in New York State: A Two Dimensional Study*, J. Forensic Sci. 56(3):621-626 (2011); Bush, M.A., Bush, P.J., and Sheets, H.D., *Similarity and Match Rates of the Human Dentition In 3 Dimensions: Relevance to Bitemark Analysis*, Int'l J. Leg. Med. 125(6):779-784 (2011); Bush, M.A., Bush, P.J., and Sheets, H.D., *Statistical Evidence for the Similarity of the Human Dentition,* J. Forensic Sci. 56(1):118-123 (2011); Bush, M.A., Thorsrud, K., Miller, R.G., Dorion, R.B.J., and Bush, P.J., *The Response of Skin to Applied Stress: Investigation of Bitemark Distortion in a Cadaver Model*, J. Forensic Sci. 55(1):71-76 (2010); Miller, R.G., Bush, P.J., Dorion, R.B., and Bush, M.A., *Uniqueness of the Dentition as Impressed in Human Skin: A Cadaver Mode*l, J. Forensic Sci. 54(4):909-914 (2009); Bush, M.A., Cooper, H.I., and Dorion, R.B., *Inquiry into the Scientific Basis For Bitemark Profiling and Arbitrary Distortion Compensation*, J. Forensic Sci. 55(4):976-983 (2010); Sheets, H.D., and Bush, M.A., *Mathematical Matching of a Dentition to Bitemarks: Use and Evaluation of Affine Methods*, Forensic Sci. Int'l 207(1-3):111-118 (2011); Sheets, H.D., Bush, P.J., and Bush, M.A., *Bitemarks: Distortion and Covariation of the Maxillary and Mandibular Dentition as Impressed in Human Skin*, Forensic Sci. Int'l (2012); Pretty, Freedman, *Construct Validity Bitemark Assessments Using the ABFO Bitemark Decision Tree* (2015). Broadly speaking, this research scientifically establishes that, even assuming the uniqueness of human dentition, human skin is not capable of capturing that uniqueness with sufficient fidelity to identify a "biter," as Dr. Mertz purported to do in this case.

Terminology at 117 ("The ABFO does not support a conclusion of 'The Biter' in an open population case(s)"); *see also* Pretty Statement at ¶¶ 3.4-3.6.[12] This constituted a dramatic shift in ABFO sanctioned-methodology and, standing alone, invalidates the testimony Dr. Mertz provided against Mr. Hill.

Given that both of its fundamental assumptions are disproved, it is a foregone conclusion that the scientific community has also found that forensic dentists cannot reliably associate a dentition with a bite mark. As an initial matter, error rates by forensic dentists are perhaps the highest of any forensic identification specialty still being practiced. Research by forensic dentists themselves demonstrates the profound unreliability that pervades bite mark analysis at even the most basic levels. One recent study conducted by the current President of the American Board of Forensic Odontology ("ABFO"), forensic odontology's only board-certifying body, along with another forensic odontologist, demonstrates that even the most experienced forensic odontologists cannot agree on whether an injury is a bite mark *at all,* to say nothing of whether it was caused by a particular individual.

As part of this study, entitled *Construct Validity Bitemark Assessments Using the ABFO Bitemark Decision Tree* ("Construct Validity Study"), photographs of 100 patterned injuries were shown to 103 ABFO board-certified Diplomates. They were asked to decide three questions: first, whether there was sufficient evidence to render an opinion on whether the patterned injury was a human bite mark; second, whether, consistent with the ABFO decision tree, the injury could be determined to be either a human bite mark, not a human bite mark, or suggestive of a human bite mark (the three

[12] The relevant portions of the 2012 and 2013 Reference Manual are attached as Ex. G.

options the ABFO's guidelines then provided); and third, if a human bite mark, whether it had distinct, identifiable arches and individual tooth marks. *See* Exhibit -- (Radley Balko, *A Bite Mark Matching Advocacy Group Just Conducted A Study That Discredits Bite Mark Evidence,* WASHINGTON POST, April 8, 2015 ("Balko, Advocacy")). Thirty-nine diplomates-accounting for nearly 40% of practicing ABFO diplomates-finished all 100 questions, resulting in nearly 4,000 decisions. Ors. Iain Pretty and Adam Freeman, the forensic odontologists who conducted the Construct Validity Study, did not examine the results for ground truth-i.e., whether the diplomates accurately determined what type of injury they were looking at-but rather, on an even more basic level, whether the diplomates agreed with one another. The results were shockingly poor. Determinations were wildly inconsistent across forensic odontologists on the vast majority of marks. As *The Washington Post* reported, on the question of whether the injury provided sufficient information from which to make a determination as to origin-"the most basic question a bite mark specialist should answer before performing an analysis"-

> the 39 analysts came to unanimous agreement on just 4 of the 100 case studies. In only 20 of the 100 was there agreement of 90 percent or more on this question. By the time the analysts finished question two - whether the photographed mark is indeed a human bite - there remained only 16 of 100 cases in which 90 percent or more of the analysts were still in agreement. And there were only 38 cases in which at least 75 percent were still in agreement. ... By the time the analysts finished question three, they were significantly fractionalized on nearly all the cases. Of the initial 100, there remained just 8 case studies in which at least 90 percent of the analysts were still in agreement.

Id. These failures are deeply disturbing.

Given the lack of a scientific basis for bite mark comparison evidence, the Construct Validity Study's results are hardly surprising. Nor are they anomalous; a study

published in the May 2013 *Journal of Forensic Sciences* largely presaged its findings. (*See* Mark Page, et al., *Expert Interpretation of Bitemark Injuries-A Contemporary Study,* 58(3) J. FORENSIC SCI. 664 (May 2013)). As that study noted, "[w]hile most odontologists would suggest they can determine with a reasonable degree of certainty what is and what is not a bitemark, there is little evidence to support this claim." *Id.* at 664 Looking to close this gap, researchers asked fifteen Australian forensic odontologists-- who comprised the majority of those practicing forensic odontology in Australia-- to examine six images of potential bite marks, five of which were of marks confirmed by living victims to have been caused by teeth. *Id.* at 665. The odontologists were then asked in narrative form whether the injuries were, in fact, bite marks. As with the Construct Validity Study, "conclusions between practitioners [were] highly variable." *Id.* at 671. Thus, "the qualitative data plainly verifie[d] the fact that there is a wide range of opinion expressed over even the most basic assumption in bitemark analysis: that of the origin of the mark itself." *Id.* The study further concluded that this "inconsistency indicates a fundamental flaw in the methodology of bitemark analysis and should lead to concerns regarding the reliability of any conclusions reached about matching such a bitemark to a dentition." *Id.* at 670.

The criticism did not stop there, however. Recently, the Texas Forensic Science Commission, which operates as a forensic "watchdog" for the state of Texas, undertook an exhaustive 6-month investigation into the scientific reliability of bitemark comparison

evidence.[13] On April 12, 2016, the Commission issued the Forensic Bitemark Comparison Complaint Filed by National Innocence Project on Behalf of Steven Mark Chaney. (Exhibit T)[14] The Commission's conclusions cut deep:

> First, there is no scientific basis for stating that a particular patterned injury can be associated to an individual's dentition. Any testimony describing human dentition as "like a fingerprint" or incorporating similar analogies lacks scientific support. Second, there is no scientific basis for assigning probability or statistical weight to an association, regardless of whether such probability or weight is expressed numerically (*e.g.* 1 in a million) or using some form of verbal scale (*e.g.*, highly likely/unlikely). Though these types of claims were once thought to be acceptable and have been admitted into evidence in criminal cases in and outside of Texas, it is now clear they have no place in our criminal justice system because they lack any credible supporting data.

Exhibit T, Final Report at 11-12.

As a result of the Commission's study and review, it recommended "that bitemark comparison not be admitted in criminal cases in Texas unless and until" the scientific community establishes both the reliability of bite-mark comparison and sufficient proficiency and accreditation protocols to ensure that reliability. *Id.* at 15-16. The Commission was also highly critical of the ABFO, deriding "its glacial pace, reticence to publish critical data, and willingness to allow overstatements of science to go unchecked for decades," as the source of "a barrage of well-founded criticism." *Id.* at 17.

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[13] Under Texas law, the Commission oversees the accreditation of all laboratories in Texas, but also investigates allegations of professional negligence or misconduct against any laboratory, facility or entity that provides scientific testimony at trial.

[14] Over 1200 pages of exhibits were also released in support of report. Counsel have not attached all of the exhibits to the Report to this motion, but will provide those upon request. The report and all of the exhibits are available online at http://www.fsc.texas.gov/sites/default/files/ FinalBiteMarkReport.pdf.

In March of this year, following the Texas Forensic Science Commission's findings and still more wrongful bite mark convictions overturned, the ABFO once again revised its protocols, this time introducing even greater restrictions on the scope and certainty of bite-mark testimony. (Exhibit S, ABFO Reference Manual 2016 Excerpt) Today, the only permissible conclusions under the ABFO Guidelines are broad and generic and bear no resemblance to the testimony presented at Mr. Hill's trial. Rather than identifying a single biter, or even testifying that an individual is within a group that could have left a bite-mark, forensic odontologists are now permitted to classify their conclusions in only three ways: "inconclusive"; "excluded as having made the bite mark" (i.e., "the bitemark demonstrates class and/or individual characteristics that could not have been created by the dentition in question"); and "not excluded as having made the bitemark" (i.e., "the bitemark demonstrates class and/or individual characteristics that could have been created by the dentition in question"). American Board of Forensic Odontology, Inc. Diplomates Reference Manual, 2013 ABFO Standards for Bite Mark Terminology, updated March 16, 2016 at 102 (emphasis in original).

Indeed, even the August 2013 decision tree, introduced by the ABFO in response to the NAS report, has been abandoned and a new one adopted to replace it. Taken together, the dramatic and unprecedented changes in the ABFO Guidelines constitutes a tragically overdue, if implicit, admission that decades of "expert" testimony provided by forensic odontologists is scientifically baseless. Put differently, both the relevant, and objective, scientific community, as well as Dr. Mertz's erstwhile peers in the ABFO, have rejected as invalid – and, in fact, as scientifically indefensible – the forensic opinions and conclusions proffered to the trial court and used to convict Mr. Hill and sentence him to

death. Exhibit R, New ABFO Decision Tree. Further, these developments highlight the fact that even proponents of bitemark comparison cannot agree on how to ensure its scientific reliability. Whether the ABFO will ever been able to do so is not relevant to Mr. Hill's case. For no matter how this case is reviewed, Mr. Hill's right to a fair trial and due process of law was completely undermined by the admission of this junk science at his capital trial.

Notably, Ohio trial courts have recognized the dramatic changes in the scientific community's perception of bite-mark evidence. The Summit County Court of Common Pleas concluded in 2013 that, "'new [bite mark] research and studies [including the NAS Report] cast serious doubt to a degree that was not able to be raised by the expert testimony presented at the original determination of guilt by the fact-finder [in a trial held in 1998].'" *State v. Prade*, Summit C.P., No. CR 1998-02-0463, 2013 WL 658266 (Jan. 29, 2013) (citation omitted), rev'd, 9th Dist. No. 26775, 2014-Ohio-1035, 9 N.E. 3d 1072. The *Prade* court based its recognition that "forensic odontology is a field in flux" in part on the NAS Report. *Id.* at 14.[15] *See also Stark v. City of Waukegan*, 123 F.Supp.3d 1036, 1051-52 (N.D. Ill 2015).

Because of these changes and revisions, Mr. Hill's new evidence goes far beyond an attempt to impeach or undermine the authority of the expert testimony proffered against him at his trial. Under Ohio law, where expert testimony is revealed post-trial to

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[15] The trial court's opinion in *Prade* was reversed on appeal based on the Ohio Supreme Court's rejection of "actual innocence" due to the "enormity of the evidence in support of Prade's guilt." *State v. Prade*, 9th Dist. No. 26775, 2014-Ohio-1035, 9 N.E. 3d 1072, ¶ 130. Dr. Wright testified for the State in *Prade*, in defense of the bite-mark evidence. That he has chosen to criticize the testimony offered at Mr. Hill's trial is telling.

suffer from errors or flaws, new expert opinion correcting those errors or flaws is sufficient grounds for granting a motion for new trial. *See State v. Holzapfel*, 10th Dist. Franklin, No. 10AP-17, 10AP-18, 2010-Ohio-2856 at ¶ 21 (new trial warranted "based on [a] corrected mathematical calculation, constituted new evidence not known during the trial, despite the fact that it was not new 'physical' evidence upon which to base the calculation."). The correction provided by Dr. Wright's analysis and opinion could not be more necessary or more straightforward: the State relied upon Dr. Mertz's history as an ex-president of the ABFO to establish his qualifications and credibility, *see* Trial Tr. at 908:13-909:13, and Dr. Mertz testified that he relied upon ABFO-certified methodology in arriving at, and verifying, his conclusions. *See* Trial Tr. at 949:15-950:24. During trial, Dr. Mertz testified at length regarding the ABFO "scoring sheet" he utilized in his analysis (the State entered it into evidence to buttress his testimony) and explained how he used the sheet to identify Mr. Hill as the "biter" of Raymond Fife. *See* Trial Tr. at 949:15-950:7. Now, Mr. Hill, via the testimony of Dr. Franklin Wright, himself a proponent of bitemark comparison,[16] seeks to present not simply a re-examination of the known evidence, but also to provide in his defense an opinion based on the ABFO's corrections to the very methodology used to convict him in 1986.

[16] Dr. Franklin D. Wright has been the forensic dental consultant to the Hamilton County, Ohio Coroner's Office since 1986. Over nearly thirty years in the field, Dr. Wright has investigated, consulted on, and reviewed hundreds of bite-mark cases. He has been proffered as a bite-mark expert on behalf of the State of Ohio in numerous trials, including homicides. Wright Affidavit at ¶4. At the behest of Mr. Hill's counsel, Dr. Wright recently analyzed the photographs, expert opinions, and expert testimony relating to the alleged bite-marks on the victim attributed to Mr. Hill. Wright Affidavit at ¶ 8.

Like Dr. Mertz at the time of Mr. Hill's trial, Dr. Wright has served both as a Diplomate and a President of the ABFO. Applying the current ABFO guidelines in place of the flawed and scientifically invalid methodology employed by Dr. Mertz, Dr. Wright will testify that there is no longer any sanctioned (and thus generally-accepted or scientifically-recognized) analysis that would permit an expert to conclude that Mr. Hill, and only Mr. Hill, bit Raymond Fife.[17] In other words, under the current standards, even if Dr. Mertz were to disagree with the opinions of Mr. Hill's two independent forensic odontologists that the injuries to Fife are not a human bite-mark, the strongest conclusion sanctioned by the ABFO today is that the alleged biter may be included within an unquantified and unquantifiable world of possible biters. Such a conclusion is a far cry from the scientific certainty invoked at trial, and bears no relationship to the State's characterization of Dr. Mertz's identification as being as singular, or as reliable, as a fingerprint. Trial Tr. at 30:23-32:8. In short, the ABFO's newly adopted methodology and the overwhelming consensus of the broader scientific community completely forecloses the testimony at the center of the State's case against Mr. Hill.

C. Independent Experts Dr. Franklin Wright and Dr. Iain Pretty Agree That Dr. Mertz's Testimony Was Baseless, Unscientific, and Contrary to ABFO Standards

As noted above, even if bite-mark identification had not fallen into broad and general disrepute, independent forensic odontologists have found that Dr. Mertz's opinions about the bite-marks located on Fife amount to nothing more than inflammatory

[17] *See* Petitioner's Request for Leave to File a Motion for New Trial Pursuant to Ohio Criminal Rule 33(B), Exhibit 1, p. 3 (flow chart).

pseudoscience – a fact Dr. Mertz conceded in the years subsequent to Mr. Hill's trial when he privately recanted his testimony to Dr. Wright.

According to Dr. Wright, Dr. Mertz served as his "mentor" and he considered Dr. Mertz "a respected teacher and scholar in the forensic odontology community." Wright Affidavit at ¶ 20. Nonetheless, during Dr. Wright's review of the materials, he revealed to Mr. Hill's counsel that Dr. Mertz had privately recanted all of the testimony he proffered at trial, acknowledging that it was scientifically unsupportable and that, if asked to testify again that Mr. Hill bit Fife, he would not have given the same (false) testimony. Wright Affidavit at ¶ 20, ¶ 22. This recanted testimony included not only Dr. Mertz's identification of Mr. Hill as the source of the victim's injury, but even his conclusion that the injury could be classified as a human bite-mark. *Id.* at ¶ 22. Dr. Mertz related these doubts to Dr. Wright during two separate conversations, on two separate occasions, telling him that he "regretted the testimony" against Mr. Hill. *Id.* at ¶ 20. At the time, Dr. Mertz shared with Dr. Wright neither the name of the victim nor the name of the defendant, nor even the defendant, had been convicted and sentenced to death.

Dr. Wright's opinions, based upon his independent review of the materials from the 1986 trial, help explain Dr. Mertz's post-trial recantation. According to Dr. Wright, Dr. Mertz's testimony and opinions are wholly unsupported, and unsupportable; Dr. Wright further states not only that – given the available evidence – "analysis and comparison to any suspected biter is not sanctioned [by ABFO-approved methodology]," but also that "the patterned injury on the victim . . . is not a human bitemark." Wright Affidavit at ¶¶ 11-12. According to Dr. Wright, Dr. Mertz's testimony was speculative and biased, and the underlying assumptions Dr. Mertz accepted in an attempt to make his

analysis coherent "suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias." Wright Affidavit at ¶ 18.[18] Further, Dr. Mertz selectively analyzed "only those aspects of the patterned injury that he felt he could link to Mr. Hill's dentition," and ignored "other aspects of the patterned injury that he could not link to Mr. Hill," which only make this bias more apparent. Wright Affidavit at ¶ 19.

Dr. Wright's opinions are corroborated, and elaborated upon, by Dr. Iain Pretty, a widely published British dental surgeon and forensic odontologist, and former chair of the American Academy of Forensic Science's Odontology Section. Unlike Dr. Wright, Dr. Pretty has no personal connection to Dr. Mertz, the State of Ohio, or Mr. Hill's conviction. His review of the same materials likewise found that a "conclusion of a definite human bitemark cannot be reached" under current forensic standards and that:

> there is insufficient evidence to reach a conclusion at any level of certainty regarding the causation of the small circular wounds to the glans penis of Raymond Fife. Given this conclusion, any further analysis of the injury is inappropriate. Even if the evidence had supported a conclusion of "suggestive of a bitemark" (which it does not) further analysis, according to the ABFO decision model, would still be considered inappropriate.

Pretty Statement at ¶ 5.6. According to Dr. Pretty, the bite-mark analysis used to convict Mr. Hill "offer[ed] little in the way of scientific justification" and was "not based on

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[18] "Bias" as the term is used here is not a form of conscious prejudice. Rather, studies have increasingly shown that "contextual contamination" – the exposure of otherwise objective scientists to "contextual cues, irrelevant details of the case, prior experiences, expectations and institutional pressures," among other things – affects the interpretation and analysis of evidence. *See generally* Edmond, G. et al, *Contextual Bias and Cross-contamination in the Forensic Sciences: the Corrosive Implications for Investigations, Plea Bargains, Trials and Appeals*, Law Prob & Risk (2014); Page, M. et al, *Context Effects and Observer Bias-Implications for Forensic Odontology*, 57 J Forensic Sci, 108-111 (Jan. 2012).

scientific principles or processes." *Id.* at ¶ 8.5. Further, Dr. Mertz was guilty of relying on "spurious data to account for inconsistencies in measurements." *Id.* at ¶¶ 8.6-8.7.

D. Dr. Mertz's Bite-Mark Opinions Embody the Lack of Standards Criticized By the NAS

The subjectivity and speculation in Dr. Mertz's opinions are even more troubling when viewed in light of the analysis and review of the field of bite-mark evidence by NAS and the Texas Forensic Commission. At the core of the criticism by both entities is the need for standardized metrics, a validated measurement or comparison process, and a substantiated statistical basis in order for a reliable bite-mark identification to be feasible. *See* Subsection B, *supra*, at 10-11. As the NAS made clear, in the absence of these elements, an expert's opinion is impossible to verify, reducing acceptance to an article of faith – a faith Mr. Hill's trial court far-too-readily extended to Dr. Mertz, who did not even bring his measurements and calculations with him to trial so that they could be reviewed on cross-examination. *See* Trial Tr. at 977:14-22 ("I do not have the measurements here with me . . . And I do not have them from memory nor do I have a metal rule with me to give you the measurements.") Dr. Mertz's opinions and testimony – speculative, subjective, and unsupported – embody the fundamental flaws and limitations inherent in bite-mark comparison analysis.

As noted above, the ability of skin to retain a reliable impression or injury such that a match to human dentition can be ascertained has been called into question over the last seven years. *See*, Subsection B, *supra*, at 12. But even if human skin was not unreliable, "the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question." Wright Affidavit at ¶ 18. According to Dr. Pretty, this is because

> [t]he tissue is highly distortable and it is, of course, impossible to assess if the penis was flaccid, erect or semi-erect during the infliction of the injury. The surface is curved, soft and the risk of postural distortion high.

Pretty Statement at ¶ 5.1. The injury on Fife was located on the *glans*, or "corona," of the penis. Rather than acknowledging the impossibility of drawing a reliable conclusion from Fife's injury, however, Dr. Mertz instead relied on the variability in penile skin as an explanation for why his measurements were off by "consistently about a third." Trial Tr. at 956:13-17; *id.* at 979:10-12. Indeed, Dr. Mertz accounted for this difference in scale by opining with no basis in science that (i) Fife's penis was erect at the time of the purported bite as a result of his asphyxiation, and (ii) that the erection accounts for the "approximately" 33% size differential between the marks in Fife's skin and Hill's teeth. To be clear, Dr. Mertz's opinion rests entirely on these baseless assumptions, which were the only means by which Dr. Mertz could match the marks on Fife to Hill's teeth – no "direct measurements" with any "great accuracy" were otherwise feasible. Mertz Notes, at 2.

As Dr. Wright explains, Dr. Mertz's methods suggest serious confirmation bias – a bias Dr. Mertz implicitly conceded at trial when he explained that "the reason [he] went to [the medical] literature" was to find something to "explain[] the difference in the measured size of approximately a third less than in the measurements when teeth mark sizes are compared." Trial Tr. at 954:7-23; *id.* at 956:14-17; *id.* at 979:8 ("I didn't know anything about the 1.307 until after I had made all the measurements."). It is telling that Dr. Mertz expressed his confidence that "the bitemarks found on the penis of Raymond Fife match those of the models of the teeth of Danny Lee Hill" in a November 4, 1985 letter to prosecutor Dennis Watkins, nearly a month and a half before the December 19,

1985 date on the "notes" he "made in studying these cases." *Id.* at 947:1-6. Put plainly, contrary to the basic tenets of independent scientific analysis, Dr. Mertz sought out obscure literature in a conscious effort to concoct a theory that would allow him to "match" Mr. Hill to the injury.

Not surprisingly, the forensic odontologists and a pathologist who reviewed Dr. Mertz's testimony each characterized his opinions regarding asphyxiation, genital erection, and penis size as baseless and irresponsible. Dr. Wright characterizes this portion of Dr. Mertz's testimony as "nothing but a blind guess," impermissible under the ABFO guidelines. Wright Affidavit at ¶ 18. Dr. Pretty labels this testimony as "unscientific, unsubstantiated, and speculative." Pretty Statement at ¶ 7.2. And Dr. Hua, an independent pathologist, has opined that "Dr. Mertz ignore[d] both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed." Hua Affidavit, attached as Ex. E, at ¶ 21.

Dr. Mertz cited just two sources in support of his foundational opinion that Fife "probably" sustained an erection while being asphyxiated: the introduction to a chapter on asphyxiation from the 1968 edition of *Gradwohl's Legal Medicine* (attached as Ex. H), and a 1971 article by L.G. Farkas, "Basic Morphological Data of External Genitals in 177 Healthy Central European Men," in the American Journal of Physical Anthropology (attached as Ex. I.)[19] This "review of the literature was cursory and inadequate, and the

[19] To the extent that Dr. Mertz's entire opinion is based on the validity of medical literature authored by others, it should have been excluded at the time of his trial. *See Beard v. Meridia Huron Hosp.*, 106 Ohio St.3d 237, 240, 2005-Ohio-4787, 834 N.E.2d 323, ¶ 23 (2005), *citing Piotrowski v. Corey Hosp.*, 172 Ohio St. 61, 69, 173 N.E. 2d 355 (1961) (exclusion required where expert relies on "statements from professional literature to prove the truth of the matter asserted in those statements

texts he relied upon inapposite and outdated." Hua Affidavit at ¶ 17. To be sure, Dr. Mertz's testimony regarding these articles was inexpert to the point of fantasy and fabrication. In using the introduction to a chapter on various forms of asphyxiation in *Gradwohl's Legal Medicine*, Dr. Mertz:

> Selectively ignored the qualifications provided by his own authority, including the fact that there is 'undoubtedly great variation' and there are 'many factors [that] may interfere' with the symptoms listed, as well as the statement that 'it is usually difficult or impossible to predict the physiological results' of asphyxia 'with any accuracy at all.' No reliable opinion that a penile erection was 'probable' during manual strangulation could be based upon these limited findings.

Hua Affidavit at ¶ 18. Similarly, Dr. Mertz's "explanation" for his identification of Mr. Hill in spite of the absence of an actual match in size and scale, Farkas's *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men*, also does not support his opinion:

> First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve-year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault.

Hua Affidavit at ¶ 21.

As Dr. Hua concludes, Dr. Mertz's opinion is "post-hoc guesswork" and "do[es] not constitute reliable scientific opinion." Hua Affidavit at ¶ 22. Among his errors, Dr. Mertz ignored the fact that the Farkas study was based on circumference measured at "the mid portion of the penile shaft," Farkas at 325, while the injury on Fife was located on the *glans*. Dr. Mertz provided no evidence that the increase of the size of the *glans*

[because] the witness would be acting as a conduit for the out-of-court statements of the authors of those literary works").

occurs in the same proportion as the increase in the size of the shaft, nor did he look at any medical literature discussing studies of the growth of the glans during erection. Further, Dr. Mertz's calculations – the statistical manipulations necessary to match the injury to Mr. Hill – are erroneous. Even assuming some scientific foundation for these calculations existed (and none did), Dr. Mertz ignored the lack of uniformity in the underlying data: the Farkas study actually indicates flaccid-to-erect size differential can range between 1.307 and 1.5.[20] In other words, Dr. Mertz's attempt to extrapolate an "average" increase in erect state is rebutted by his own evidence.

II. NEW EVIDENCE ESTABLISHES THAT THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN WAS UNSCIENTIFIC AND UNRELIABLE

The State also presented Dr. Howard Adelman, a Warren County, Ohio pathologist, who performed an autopsy on Raymond Fife on September 13, 1985. Dr. Adelman identified blunt force trauma; ligature strangulation; subdural hemorrhage; retroperitoneal and abdominal contusions; penetration and perforation of the anus, the rectum, and urinary bladder; and third-degree burns. *See* Trial Tr. at 349-63. Like Dr. Mertz, Dr. Adelman testified that it was "know[n] that asphyxia can cause erections, and in legal hangings, it's been described that there are erections and ejaculations that occur." *Id.* at 418:5-14. And like Dr. Mertz's testimony on this subject, Dr. Adelman proffered nothing but empty speculation. Dr. Adelman also testified that a stick found near the scene fit Fife's anus like a "key in a lock." *Id.* at 383:1-3. The State linked Dr. Adelman's

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[20] The underlying study on which Farkas relied for his 20-30mm increase actually found a "medium measurement" of 90 mm after that 20-30 mm increase in circumference, for an average flaccid circumference of 60-70mm. This indicates that the ratio of flaccid-to-erect circumference can range up to 1.5. *See* Farkas at 327.

testimony regarding the stick to "the specificity and the fine description of the stick that [Mr. Hill] had." *Id.* at 1194:1-5.

Neither opinion was challenged with expert testimony at trial. And neither can withstand scrutiny. As Dr. Hua makes clear, "Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion [on Fife's possible erection] is . . . inappropriate and renders his opinions in this specific case speculative and unreliable." Hua Affidavit at ¶ 11.[21] There was no basis, for instance, for the speculation that Fife could have sustained an erection during his assault based on judicial hanging and autoerotic asphyxia because, as we know now, "the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects of one to the others is baseless." Hua Affidavit at ¶ 12. As for the stick, "it [was] not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock." Hua Affidavit at ¶ 8. Like the testimony of Dr. Mertz, Dr. Adelman's opinions amount to nothing more than speculation: a purportedly "scientific" discipline stretched beyond recognition in an attempt to compensate for the glaring holes in the State's case.

[21] Dr. Adelman admitted he was "not exactly sure of the mechanism" through which asphyxia causes an erection, but rather that it "just occurs." Trial Tr. at 418:16-17.

III. MR. HILL WAS SUBJECTED TO INTERROGATION TECHNIQUES THAT THE SCIENTIFIC AND LEGAL COMMUNITIES BOTH NOW RECOGNIZE GREATLY INCREASE THE RISK OF INDUCING A FALSE CONFESSION

Beyond the expert testimony described above, the State's remaining evidence against Danny Lee Hill was a statement he gave to the police over three separate interviews and interrogations. There is no basis to refer to any of Mr. Hill's statements as a "confession." But the circumstances of that purported "confession" are as troubling as the rampant speculation of the State's expert witnesses. At the time of Mr. Hill's trial, post-trial DNA evidence had yet to prove a confession false in any case. Today, we know that false confessions are common and we know the factors that contribute to such false confessions. Medical professionals, social scientists, and the United States Supreme Court have all acknowledged the mounting evidence that interrogation techniques like those used against Mr. Hill produce false confessions at an alarming rate. These authorities and studies also acknowledge that the rate of false confessions increases dramatically when the techniques are applied to highly-susceptible individuals like Mr. Hill.

Mr. Hill was 18 years old when he "confessed" to being present (but not a participant) when Raymond Fife was assaulted and killed. Mr. Hill has been identified as intellectually disabled (also known as mentally retarded) all of his life. *See* 4/27/2011 Report of Dr. Stephen Greenspan at 23 (attached as Ex. J). By the time of the crime, his IQ had been estimated at various times to be between 49 and 70. He struggled most with vocabulary, spelling, and word recognition. Given all of this, it is not surprising that Mr. Hill was not aware that he could refuse to talk to the police and was not competent to

understand his rights when he was subjected to repeated and lengthy interviews.[22] Nor was he capable of comprehending the grave and complicated long-term ramifications of waiving those rights.[23] Already highly susceptible to influence given his age and mental capacity,[24] Mr. Hill's pliability was augmented by the fact that the police used a family member and authority figure, his uncle Morris Hill, who was a police detective, to apply pressure. The State relied heavily on Mr. Hill's statements to the police during its closing argument, cherry-picking details in a protracted recounting that consumes pages of the trial transcript. *See, e.g.*, Trial Tr. at 1179:21-1184:18; *id.* at 1190:15-1195:24.

In the years since Mr. Hill's conviction, the Supreme Court has repeatedly acknowledged the grave threat posed by false confessions, identifying "mounting empirical evidence that these pressures [associated with custodial police interrogation] can induce a frighteningly high percentage of people to confess to crimes they never committed." *Corley v. United States*, 556 U.S. 303, 321, 129 S. Ct. 1558, 173 L.Ed. 2d 443 (2009) (citing Drizin & Leo, *The Problem of False Confessions in the Post–DNA World*, 82 N.C. L. Rev. 891, 906-07 (2004)); *accord J.D.B. v. North Carolina*, -- U.S. --, 131 S. Ct. 2394, 2401 (2011). The Innocence Project, which tracks DNA exonerations

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[22] In fact, an attorney, Roger Bauer, did appear at the police station and tried to advise Mr. Hill not to talk to the police. Attorney Bauer was removed by the interrogating detectives, however. The Warren Police Department later filed a grievance against Attorney Bauer. 9/8/2014 Affidavit of Roger Bauer (attached as Ex. K).

[23] *See, e.g.*, Steinberg, L., et al., *Age differences in future orientation and delay discounting,* 80 Child Dev. 1, 28-44 (2009).

[24] *See, e.g.*, Grisso, T., et al., *Juveniles' Competence to Stand Trial: A Comparison of Adolescents' and Adults' Capacities as Trial Defendants*, 27 Law Hum. Behav. 4, 333-363 (2003); Cleary, Hayley, M.D., *Police Interviewing and Interrogation of Juvenile Suspects: A Descriptive Examination of Actual Cases*, 38 Law Hum. Behav. 3, 271-28 (2014).

nationally, reports that innocent individuals have falsely confessed in approximately 27% of 321 known DNA exonerations, and that false confessions are the leading cause of wrongful conviction in homicide cases.[25] The National Registry of Exonerations, which has compiled data on all wrongful convictions since 1989 (whether uncovered by DNA evidence or otherwise), has identified at least 177 false confessions among 1,405 known wrongful convictions nationwide (12.5%).[26] Even more troubling, however, is the greatly increased risk of a false confession when tactics like those espoused in the "Reid Technique," a "method" developed and refined by John E. Reid & Associates, Inc. over the last 70 years, are deployed against children, adolescents, or functional adolescents like Mr. Hill. *See* Inbau, Reid, Buckley & Jayne, *Criminal Interrogations and Confessions* (5th ed. 2013); Kassin et al., *Police-Induced Confessions: Risk Factors and Recommendations*, 34 Law & Hum. Behav. 3, 20 (2010).[27]

There is no question that Mr. Hill was subjected to interrogation techniques designed to produce a confession. Indeed, whether they knew it or not, the Warren police

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[25] Innocence Project, Know the Causes, False Confessions, http://www.innocenceproject.org/causes/false-confessions-admissions/ (last checked June 10, 2016). [will need to provide an update]

[26] National Registry of Exonerations, Browse the Cases, Filtered by False Confession, available at https://www.law.umich.edu/special/exoneration/Pages/browse.aspx?View={B8342AE7-6520-4A32-8A06-4B326208BAF8}&FilterField1=Contributing%5Fx0020%5FFactors%5Fx0020&FilterValue1=False%20Confession (last checked November 5, 2014). [will need to provide an update] All of these addresses on IP site has changed, so youll need to update those too.

[27] The Reid Technique *begins* with the assumption that the interviewee is guilty. *See also* Meyer & Reppucci, *Police Practices and Perceptions Regarding Juvenile Interrogation and Interrogative Suggestibility*, 25 Behav. Sc. L. 1, 1-24 (2007).

officers who interrogated him hewed closely to the now-archetypal blueprint of the Reid Technique. Among the techniques applied during Mr. Hill's interviews and interrogations:

- The Warren police separated Hill from his family and friends and isolated him in a small interrogation room specially designed to increase his anxiety. *See* Kassin et al., 34 Law & Hum. Behav. at 7, 16.
- The officers attempted to build rapport with Mr. Hill before deploying a series of tactics intended to shake his adherence to his claim of innocence. *Id.* at 11-12; *see also* 9/16/85 Interview Transcript Part 1, at pp. 45-46 (attached as Ex. L); 9/16/85 Interview Transcript Part 2 at p. 3 (attached as Ex. M).
- The officers became confrontational, directly and repeatedly accusing Hill of lying, refusing to listen to his claims of innocence, and exuding unwavering confidence in his guilt. *See* Ofshe & Leo, *The Decision to Confess Falsely: Rational Choice and Irrational Action*, 74 Den. U. L. Rev. 979, 990 (1997); *see also* 9/16/85 Interview Tr. Part 1 at pp. 35, 42-43.
- The officers invented incriminating evidence to convince Mr. Hill that his guilt was a foregone conclusion and that nothing he said would change their mind about this "fact" in an attempt to make Mr. Hill feel thoroughly hopeless and trapped. *See* Kassin *et al*, 34 Law & Hum. Behav. at 16-17; *see also* 9/16/85 Interview Tr. Part 1 at p. 42; 9/16/85 Interview Tr. Part 2 at pp. 15-16, 33, 40-41.
- The officers then provided Mr. Hill a way out: confession, minimizing or rationalizing his purported involvement in the crime, focusing on his role as a witness, in an attempt to make confessing seem less damaging. *See* Drizin & Leo, 82 N.C. L. Rev. at 1056-60; *see also* 9/16/85 Interview Tr. Part 1 at p. 44.
- The officers assured Mr. Hill that confessing was in his best interests, playing on Mr. Hill's lack of knowledge about the adult criminal justice and penal system. *See id.*; *see also* 9/16/85 Interview Tr. Part 1 at pp. 42-43.

By deploying these tactics at the right psychological pressure points, experienced interrogators can be extraordinarily effective in causing a suspect to produce self-incriminating information. With Mr. Hill, a functional adolescent suffering from severely

diminished intellectual capacity who was denied unconflicted familial or legal assistance, the success of these techniques was a foregone conclusion.

In fact, the interrogators were so effective at soliciting their own version of events from Mr. Hill that they could not help but comment on the efficacy of their techniques during the interrogation, stating to Mr. Hill "it seems like everything we suggest to you, you agree with us [.]" 9/16/85 Interview Tr. Part 2 at 35; 9/3/14 Affidavit of Dr. Debra Davis at ¶ 32 (attached as Ex. N). As Dr. Debra Davis, a psychologist at the University of Nevada, Reno who specializes in false confessions, points out, the videos and transcripts make it clear that Mr. Hill received prompts and was provided facts from his interrogators, through suggestive questions and outright factual assertions. Davis Affidavit at ¶ 34. In other words, rather than revealing knowledge and culpability, Mr. Hill's "confession" amounts to nothing more than his "answers essentially agreeing with what he was asked." *Id.* The State thought otherwise, however, and during closing argument the State leaned heavily on the "confession" as proof not only of Mr. Hill's culpability, but also his alleged depravity. *See* Trial Tr. at 1169:6-8 ("But I submit the term 'animal' . . . does not fit. It's too kind!"). As Dr. Davis's opinion illustrates, however, the substantial prejudice of the State's argument far outweighs the "confession's" probative value, and thus it never should have been admitted:

> Given Danny Hill's personal characteristics and vulnerability to influence, his personal history with his interrogators, the demands placed on him to confess, and the way in which the content of his confession was fed to him, little weight should be given to his confession as evidence of his guilt.

Davis Affidavit at ¶ 39.

At no point during these extensive interviews and interrogations did Mr. Hill fashion a coherent narrative; repeatedly he proved incapable of getting the timing, the setting, and the actual events correct. At various points he stated that the attack took place over two or three hours, when in fact it was likely no more than fifteen minutes in duration. *See* 9/16/85 Interview Tr. Part 1 at p. 23; 9/16/85 Interview Tr. Part 2 at p. 27. At another point, Mr. Hill testified that Timothy Combs (who was also charged with the crime) had torn Fife's penis wholly from his body. *See* 9/16/85 Interview Tr. Part 2 at p. 10. As Dr. Davis explains, Mr. Hill's story is "not plausible . . . because he didn't know the real facts," and its inconsistencies are the result of a give-and-take in the interrogation room, where the officers "corrected him and told him what they believe happened" whenever "he gave an answer inconsistent with what interrogators knew (or thought they knew)." Davis Affidavit at ¶ 34. To compensate for these inconsistencies, the State's closing argument cherry-picked isolated pieces from his interrogations, stringing them together to "prove" that Hill was able to "describe[ ] [events] to a tee." Trial Tr. at 1190:15-20. The State also argued that Mr. Hill's inability to construct a coherent narrative of events – that he instead gave "the most ridiculous, unbelievable story"[28] – was in fact proof of his guilt under the law:

> This defendant on Thursday and Friday comes back to the police station and gives an exculpatory story; he lies and this leads police officers . . . The general rule in this country "is that guilty knowledge, as well as intent to violate the law, may be shown by any false or misleading statements that the defendant makes to arresting officers demonstrated by independent evidence to have been made for the purpose of misleading the officer or warding off suspicion . . .'[A]n attempt to fabricate evidence is to be considered as evidence of guilt as to the main facts charged.'

[28] Trial Tr. at 1173:8-20.

Id. at 1172:2-1173:7.

Although the State acknowledged Mr. Hill's limited mental capacity, calling him "stupid," it suggested he was not "stupid" enough to be fooled into confessing to a crime he did not commit. Trial Tr. at 1191:2-16; *id.* at 1267:18-21. In the last twelve years, an increasing number of DNA exonerations and clinical studies have shown that one does not need to be "stupid" to confess falsely to a crime – individuals of varying intelligence and aptitude have falsely confessed to crimes when subjected to the interrogation techniques used on Mr. Hill. These exonerations and clinical studies have also shown that the application of these techniques to the young and/or mentally-challenged (like Mr. Hill) significantly heightens the risk that a false confession will be elicited.

IV. THE NEWLY DISCOVERED EVIDENCE SATISFIES THE *PETRO* TEST

As noted above, in order to warrant a new trial based on newly discovered evidence, a defendant must show that the new evidence "(1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence." *Petro*, *supra,* at 505. Mr. Hill has provided abundant new evidence in the form of the expert affidavits of Drs. Davis, Hua, Pretty, and Wright. This "newly discovered evidence, when considered cumulatively, may be of even greater significance . . . when considered in light of studies . . . that have been conducted in the years since [defendant's] trial." *Gillispie, supra,* at ¶ 58; *see also id.* (considering developments in the field of eyewitness testimony to buttress new evidence).

First, none of the evidence discussed in this motion and memorandum existed as of January 21-31 1986, the time of Mr. Hill's trial, and thus no amount of diligence would have allowed its discovery before trial.

- The NAS Report, which was the first independent and comprehensive assessment of the scientific reliability of bite-mark evidence, was not completed until August 2009. The ABFO did not even limit individual "biter" identification until 2013; it was only this year that the practice was abandoned altogether.
- The first time that Dr. Wright learned that Dr. Mertz had doubts about his trial testimony was more than two years *after* Mr. Hill's trial concluded. Further, Mr. Hill could not have known about Dr. Mertz's change of heart – it was only by happenstance that, when Mr. Hill's counsel solicited an opinion from Dr. Wright, Dr. Wright revealed Dr. Mertz's related recantation. Dr. Wright was not aware of the name of the defendant or the victim in the case though, or even that the defendant had been sentenced to death.
- Neither Dr. Wright nor Dr. Pretty became board-certified forensic odontologists until after trial, and it was only through the application of an evolving understanding of bite-mark methodology and recently adopted ABFO Guidelines (which did not exist at the time of Mr. Hill's trial) that they were able to provide the specific opinion testimony they provide here.
- Dr. Hua's testimony reflects changes in the study of pathology since Mr. Hill's trial. For instance, the science regarding hangings and asphyxiation has been in constant development in the years subsequent to Mr. Hill's conviction, with the analysis of the mechanisms intensifying over the last ten years. *See, e.g.*, Rutty, et al (ed.), *Essentials of Autopsy Practice*, Springer (2014) ("Despite great advances in the forensic sciences in the last few decades our understanding of the pathophysiology of hanging, as summarized previously, is still largely based on historical writings and experimentation from the end of the nineteenth and beginning of the twentieth centuries. Since that time, there were very limited advances in our knowledge of the pathophysiology of hanging until recent studies of filmed hangings by the Working Group on Human Asphyxia.").
- The work of Dr. Davis is based on voluminous evidence regarding false confessions that has accumulated after 1986. It has only been in the last seventeen years that significant empirical evidence regarding the psychological and statistical impact of interrogation techniques like

> that used against Mr. Hill has become available. *See* Cleary, *Police Interviewing and Interrogation of Juvenile Suspects: A Descriptive Examination of Actual Cases*, 38 Law & Hum. Behav. 3, 271-282 (2014) ("Although empirical attention to police interrogation has gained traction in recent years, comparatively few studies have examined interrogation of juvenile suspects, and virtually none have examined actual interrogations.").[29]

Second, there can be no genuine dispute that the newly discovered evidence is both material and relevant to the issues surrounding Mr. Hill's conviction. The case against Mr. Hill was long on innuendo, hyperbole, and pseudoscience but remarkably threadbare when it came to evidence tying Mr. Hill to the crime. The facts and expert opinion provided with this motion serve to sever the last threads tying Mr. Hill to the crime, and reveal, for the first time, the total lack of valid and reliable scientific evidence supporting the State's case. In sum, nothing could be more material than new evidence that calls into question – in fact, negates – the very evidence the prosecution itself characterized as "especially significant." Trial Tr. at 1199:8-1200:7; *see Ege v. Yukins*, 485 F.3d 364, 377 (6th Cir. 2007) ("If the prosecution felt that the bite mark evidence was so important, it does not take much of a cognitive leap to believe that the jury viewed it as important as well."); *see also Ege v. Yukins*, 380 F. Supp. 2d 852, 880 (E.D. Mich. 2005), *aff'd in relevant part*, 485 F.3d 364 (6th Cir. 2007) (finding bite mark analysis evidence "plainly . . . 'material in the sense of a crucial critical highly significant factor'") (citation omitted); *Stark v. City of Waukegan*, 123 F.Supp.3d 1036, 1051-52 (N.D. Ill 2015). The significance and materiality of the expert evidence used to convict Mr. Hill is

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[29] *See also* Brodsky, *Psychological Assessments of Confessions and Suggestibility in Mentally Retarded Suspects*, 33 J. Psych. & Law 359-366 (2005); O'Connell, *Miranda Comprehension in Adults with Mental Retardation and the Effects of Feedback on Style and Suggestibility*, 29 Law & Hum. Behav. 359-369 (2005).

only heightened in this case by the notable absence of any corroborating physical evidence tying Mr. Hill to the crime.

Third, the newly discovered evidence is not cumulative to evidence introduced at trial, nor is it mere impeachment testimony. Its unavailability at the time of the 1986 trial aside, Mr. Hill never benefited from any testimony about the limits of forensic odontology as a field, nor did any expert testify that the injury found on Fife could not even be classified as a human bite-mark. Mr. Hill's confession was never challenged by expert evidence regarding the general and case-specific psychological effects of coercive interrogation techniques. And Mr. Hill never benefited from an expert pathologist who could challenge the grossly unscientific testimony of Drs. Adelman and Mertz.

For all of these reasons, the newly proffered evidence cannot be characterized as mere impeachment evidence. Instead, it calls into question the very "rationale that [the expert] used to reach his conclusion provided at trial," and necessarily would have resulted in "different testimony and different evidence to be considered by the jury." *State v. Holzapfel*, 10th Dist. Nos. 10AP-17, 10AP-18, 2010-Ohio-2856, ¶ 24. As the Ohio Court of Appeals in *Holzapfel* noted, new evidence that "provides specific areas of conflict between the two experts and their analysis . . . is not 'merely cumulative' nor 'merely' contradictory." *Id.* There can be little question that, if proffered today, the testimony and evidence from Drs. Adelman and Mertz would be inadmissible. Absent this evidence, it is unlikely that Mr. Hill would have faced trial, let alone a conviction for murder.

V. THE TRIAL AND CONVICTION OF MR. HILL VIOLATED HIS FIFTH, EIGHTH, AND FOURTEENTH AMENDMENT RIGHTS

The egregiousness of the prosecution and conviction of Mr. Hill on the basis of unscientific bite-mark evidence constitutes a violation of his Due Process rights pursuant to *Chambers v. Mississippi*, 410 U.S. 284, 294, 93 S. Ct. 1038, 35 L. Ed. 2d 297 (1973); *see also Napue v. Illinois*, 360 U.S. 264, 271, 79 S. Ct. 1173, 3 L. Ed. 2d 1217 (1959) (conviction based on misleading evidence a violation of Due Process); *Alcorta v. Texas*, 355 U.S. 28, 31, 78 S. Ct. 103, 2 L. Ed. 2d 9 (1957) (same).[30]

Courts around the country – including the federal Sixth Circuit Court of Appeals, in a bitemark case – have recognized that the Constitution's fundamental guarantee of due process requires courts to intervene and overturn a conviction when the basic tenets of fairness have been violated. *See Ege*, *supra*, at 376-78. In *Ege*, the Sixth Circuit held that the use of erroneous and unreliable scientific evidence – that a bitemark on the victim established 3.5 million–to–one odds that anyone but the defendant could have made the bitemark – violated the defendant's Due Process right to a fair trial. *Id.*[31] The

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[30] The bitemark evidence may also constitute a *Brady* violation. Under *Brady v. Maryland*, "the suppression by the prosecution of evidence favorable to an accused upon request violates due process where the evidence is material either to guilt or punishment, irrespective of the good faith or bad faith of the prosecution." 373 U.S. 83, 87, 83 S. Ct. 1194, 10 L. Ed. 2d 215 (1963). "There are three components of a true *Brady* violation: The evidence at issue must be favorable to the accused, either because it is exculpatory, or because it is impeaching; that evidence must have been suppressed by the State, either willfully or inadvertently; and prejudice must have ensued." *Strickler v. Greene*, 527 U.S. 263, 281-82, 119 S. Ct. 1936, 144 L. Ed. 2d 286 (1999). Further, "the nondisclosure" must have been "so serious that there is a reasonable probability that the suppressed evidence would have produced a different verdict." *Id.* at 281.

[31] *See also Han Tak Lee v. Glunt*, 667 F.3d 397 (3d Cir. 2012); *Maxwell v. Roe*, 628 F.3d 486, 507 (9th Cir. 2010); *United States v. Young*, 17 F.3d 1201 (9th Cir. 1994);

testimony proffered by Dr. Mertz against Mr. Hill goes far beyond the trumped-up odds ratio at issue in *Ege*, however; in addition to testifying beyond the limits of his field, Dr. Mertz also opined outside his expertise, manipulated his data, and eventually (and privately) recanted his testimony while Mr. Hill awaited execution. Dr. Mertz's trial testimony was so contrary to science and logic – so demonstrably false at the time he gave it – that it can only be labeled pure fabrication.[32]

As other courts have noted, the threat to Due Process posed by false expert testimony, particularly testimony by forensic scientists (a leading cause of wrongful conviction), is far greater than that of a lay witness.[33] The authority granted, and ceded to, forensic scientists is enormous – the veneer of scientific objectivity combined with subject matter beyond the knowledge of a lay-person risks placing the testimony beyond the reach of informed critique. When experts parade pseudoscience before a fact-finder

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Armstead v. Maryland, 342 Md. 38, 84, 673 A.2d (1996); *Ex Parte Turner*, 394 S.W.3d 513 (Tex. Crim. App. 2013).

[32] For instance, Dr. Mertz testified that his opinion was "very strong that you can exclude [co-defendant]," while simultaneously being "slightly stronger that it is [Mr. Hill's] bite." Trial Tr. at 952:18-20. But this is fundamentally impossible: a bitemark identification is based on the "exclusion of all others" and thus the confidence in an exclusion necessarily must be stronger than the confidence in an identification.

[33] Approximately 50% of all wrongful convictions overturned through post-conviction DNA evidence involved the use of invalid or improper forensic science. *See* INNOCENCE PROJECT, *Unreliable or Improper Forensic Science*, available at http://www.innocenceproject.org/ understand/Unreliable-Limited-Science.php (last visited Feb. 11, 2014); *Hinton v. Alabama*, -- U.S. --, 134 S. Ct. 1081, 1090, 188 L. Ed. 2d 9 (2014) ("we have recognized the threat to fair criminal trials posed by the potential for incompetent or fraudulent prosecution forensics experts" and "that '[s]erious deficiencies have been found in the forensic evidence used in criminal trials'").

that is unable to challenge its veracity, the adversarial process is denied its essential truth-seeking function.

Here, in particular, the introduction of the now discredited bitemark evidence, proffered to the panel and hyped by the State as infallible "scientific" evidence of guilt – a trademark stamped by Mr. Hill (that could only have been stamped by Mr. Hill) on the adolescent body of Raymond Fife – was so unfair it resulted in just such a "breakdown in the adversarial process." *Strickland v. Washington*, 466 U.S. 668, 696, 104 S. Ct. 2052, 80 L. Ed. 2d 674 (1984); *see also Brecht v. Abrahamson,* 507 U.S. 619, 639, 113 S. Ct. 1710, 123 L. Ed. 2d 353 (1993) (Stevens, J., concurring) ("The Fourteenth Amendment prohibits the deprivation of liberty 'without due process of law'; that guarantee is the source of the federal right to challenge state criminal convictions that result from fundamentally unfair trial proceedings.").[34]

The trial court's abdication of its gatekeeping role goes far beyond the decision to let Dr. Mertz take the stand. Once there, he was permitted to opine about anatomy, biomechanics, sexuality, and other topics far beyond his expertise. He testified, under oath, that he could be "certain" of his identification of Danny Lee Hill – a conclusion that

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[34] *See also Estelle v. McGuire*, 502 U.S. 62, 70, 12 S. Ct. 475, 116 L. Ed. 2d 385 (1991); *Spencer v. Texas,* 385 U.S. 554, 563-64, 87 S. Ct. 648, 17 L. Ed. 2d 606 (1967). *see also* Dawn McQuiston–Surrett & Michael J. Saks, *Communicating Opinion Evidence in the Forensic Identification Sciences: Accuracy and Impact,* 59 HASTINGS L. J. 1159, 1188 (2008) (recognizing that "most jurors begin with an exaggerated view of the nature and capabilities of forensic identification"); Michael Mann, *The CSI Effect: Better Jurors Through Television and Science?*, 24 BUFF. PUB. INT. L. J. 211, 235 (2006) (discussing the unfortunate legal atmosphere where "the use of science, DNA in particular, is required to fix an injustice"); Tom R. Tyler, *Viewing CSI and the Threshold of Guilt: Managing Truth and Justice in Reality and Fiction*, 115 YALE L. J. 1050, 1072 (2006) (summarizing poll conducted by National Opinion Research Center).

is now recognized as scientifically indefensible. Dr. Mertz's inaccurate and pseudoscientific opinions about asphyxiation, erection, and genital size differential were essential to his opinions tying Mr. Hill to the murder and were likely the primary factor in Mr. Hill's conviction and sentencing. The violation of Mr. Hill's constitutional rights is only exacerbated by the fact that Dr. Mertz privately recanted his testimony in the years after he presented it, while Mr. Hill awaited execution on death row. In light of the above, it is clear that the events that led to Mr. Hill's conviction constitute a violation of his Fifth, Eighth, and Fourteenth Amendment rights. Now that we have the benefit and clarity of time, and an evolved understanding of the science at issue, letting the conviction stand in spite of the facts would constitute an even more egregious violation of Mr. Hill's rights, but also of the principles of fairness and justice the Fifth, Eighth and Fourteenth Amendment were enacted to guarantee.

CONCLUSION

For the reasons set forth above, Danny Lee Hill respectfully requests that this Honorable Court grant his motion for a new trial.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **MOTION FOR NEW TRIAL** was delivered via email to Judge Patricia Cosgrove, and to the Trumbull County Prosecutor's Office, 160 High St., N.W., 4th Floor, Warren, Ohio, 44481 on this 13th day of June, 2016.

Vicki Werneke

VICKI RUTH ADAMS WERNEKE

DESCRIPTION OF BITE MARK EXONERATIONS

1. **Keith Allen Harward:** Keith Harward was convicted of the September 1982 murder of a man and the rape of his wife. The assailant, who was dressed as a sailor, bit the rape victim's legs multiple times during the commission of the rape. Because of this description, the investigation focused on the sailors aboard Navy ship dry-docked near the victims' Newport News, Virginia home. Dentists aboard the ship ran visual screens of the dental records and teeth of between 1,000 and 3,000 officers aboard the ship; though Harward's dentition was initially highlighted for additional screening, a forensic dentist later excluded Harward as the source of the bites. The crime went unsolved for six months, until detectives were notified that Harward was accused of biting his then-girlfriend in a dispute. The Commonwealth then re-submitted wax impressions and dental molds of Harward's dentition to two ABFO board-certified Diplomates, Drs. Lowell Levine and Alvin Kagey, who both concluded that Harward was the source of bite marks on the rape victim. Although the naval and local dentists who conducted the initial screenings had excluded Harward as the source of the bites, in the wake of the ABFO Diplomates' opinions they both changed their opinions. Harward's defense attorneys also sought opinions from two additional forensic dentists prior to his trials, but those experts also concluded that Harward inflicted the bites; in total, six forensic dentists falsely identified Harward as the biter.

   At Harward's second trial, Dr. Levine testified there was "a very, very, very high degree or probability"—so high that it would be a "[p]ractical impossibility"—that anyone other than Harward inflicted the bites on the victim. Similarly, Dr. Kagey testified that Harward was the biter "with all medical certainty" and "that there is just not anyone else that would have this unique dentition." Post-conviction DNA evidence, however, excluded Harward as the source of all biological evidence collected from the victim and the crime scene, and identified the true perpetrator, a sailor who was aboard Harward's ship at the time of the crime. That man died in an Ohio prison in 2006 while serving time for abduction. On April 27, 2016, Harward was declared innocent by the Virginia Supreme Court, and he walked out prison the next day, following 33 years of wrongful imprisonment.[1]

2. **Robert Lee Stinson:** Robert Lee Stinson served over 23 years in a Wisconsin prison for the brutal rape and murder of 63-year-old victim Ione Cychosz. The only physical evidence against Stinson at his 1985 trial was the bite mark testimony of two board-certified ABFO Diplomates, Drs. Lowell Thomas Johnson and Raymond Rawson. Dr. Johnson concluded that the bite marks "had to have been made by teeth identical" to Stinson's, and claimed that there was "no margin for error" in his conclusion. Dr. Rawson, the chairman of the Bite Mark Standards Committee of the ABFO testified that the bite mark evidence was "high quality" and "overwhelming." Both experts testified "to a reasonable degree of

[1] *The Innocence Project – Know the Cases: Browse Profiles: Keith Harward*, http://www.innocenceproject.org/cases/keith-allen-harward/

scientific certainty," that the bite marks on the victim had been inflicted at or near the time of death, and that Stinson was the only person who could have inflicted the wounds. After examining Dr. Johnson's workup, Dr. Rawson stated that the methods Dr. Johnson used in gathering the evidence complied with the "standards of the American Board of Forensic Odontology."

The Wisconsin Innocence Project accepted Stinson's case in 2005, and sought DNA testing of saliva and blood-stains on the victim's sweater, which ultimately excluded Stinson. On January 30, 2009, Stinson, then 44, was freed and his conviction was vacated.[2]

3. **Gerard Richardson:** On December 17, 2013, Gerard Richardson was exonerated after post-conviction DNA testing proved his innocence in a 1994 murder case. He spent nearly 20 years in prison for a crime he did not commit. At Richardson's 1995 trial, ABFO board-certified Diplomate Dr. Ira Titunik testified that a bite mark found on the victim's back "was made by Gerard Richardson . . . there was no question in my mind," and the prosecutor argued that the bite mark was indisputably made by Richardson: "Mr. Richardson, in effect, left a calling card. . . . It's as if he left a note that said, 'I was here,' and signed it because the mark on her back was made by no one else's teeth." There was no other physical evidence tying Richardson to the crime. He was sentenced to 30 years in prison without the possibility of parole. More than 19 years after Monica Reyes was murdered, new evidence demonstrated that Richardson was innocent.[3]

4. **Willie Jackson:** On May 26, 2006, Willie Jackson was exonerated after post-conviction DNA testing proved his innocence in a 1986 sexual assault case. He had spent 17 years in prison for a crime he did not commit. At Jackson's trial, Dr. Robert Barsley, past president of the American Board of Forensic Odontology (ABFO), told the jury that the bite marks on the victim matched Jackson, testifying: "My conclusion is that Mr. Jackson is the person who bit this lady." Ultimately, DNA evidence showed that it was Willie Jackson's brother, Milton Jackson, who attacked and raped the victim.[4]

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[2] *The Innocence Project – Know the Cases: Browse Profiles: Robert Lee Stinson, http://www.innocenceproject.org/Content/Robert_Lee_Stinson.php*; *State v. Stinson*, 134 Wis. 2d 224, 228, 231, 397 N.W.2d 136, 137-38 (Ct. App. 1986).

[3] *The Innocence Project – Know the Cases: Browse Profiles: Gerard Richardson, http://www.innocenceproject.org/Content/Gerard_Richardson.php*; *http://www.innocenceproject.org/docs/Richardson_Final_Motion_to_Vacate_091713.pdf.*

[4] *The Innocence Project – Know the Cases: Browse Profiles: Willie Jackson, http://www.innocenceproject.org/Content/Willie_Jackson.php*; *Jackson v. Day*, No. Civ. A. 95-1224, 1996

5. **Roy Brown:** In January 2007, Roy Brown was exonerated of stabbing and strangling Sabina Kulakowski after spending 15 years in prison. He was convicted of her murder in January 1992 based on bite mark evidence which was the centerpiece of the prosecution's case against Brown. Kulakowski's body had been discovered with multiple bite marks on her back, arm and thigh, all of which board-certified ABFO Diplomate Dr. Edward Mofson[5] claimed matched Brown's teeth. Mofson testified to a "reasonable degree of dental certainty" that Brown's dentition was "entirely consistent" and "completely consistent" with all of the bite marks, noting that the bite marks depicted the absence of the same two teeth Brown was missing.

   15 years after the conviction, however, DNA testing performed on saliva stains left by the perpetrator excluded Brown and matched another suspect, Barry Bench. Nevertheless, citing the prosecution's bite mark evidence at the original trial, which the jury asked to review during deliberations, the judge in the case initially refused to release Brown. Ultimately, in January 2007, the district attorney acknowledged Brown's innocence and he was exonerated after spending 15 years in prison for a murder he did not commit.[6]

6. **Ray Krone:** On December 31, 1991, Ray Krone was arrested and charged with the murder, kidnapping, and sexual assault of a woman who worked at a bar he frequented. Police had a Styrofoam impression made of Krone's teeth for comparison to bite marks found on the victim's body and, thereafter, he became known in the media as the "Snaggle Tooth Killer" due to his crooked teeth. Dr. Raymond Rawson, a board-certified ABFO Diplomate, testified that the bite marks found on the victim's body matched Krone's teeth. Based on this, Krone was convicted of murder and kidnapping, and sentenced to death.

WL 225021, at *1 (E.D. La. May 2, 1996), *rev'd*, 121 F.3d 705 (5th Cir. 1997); Barsley 1989 trial court testimony, *transcript available at http://www.law.virginia.edu/pdf/faculty/garrett/innocence/jackson.pdf.*

[5] All representations that the dentists at issue in this appendix were "board-certified ABFO Diplomates" are based on the *American Board of Forensic Odontology Diplomate Information, available at http://www.abfo.org/wp-content/uploads/2012/08/ABFO-Diplomate-Information-revised-November-2012.pdf.*

[6] Fernando Santos, *In Quest for a Killer, an Inmate Finds Vindication*, N.Y. Times (Dec. 21, 2006), *http://www.nytimes.com/2006/12/21/nyregion/21brown.html?pagewanted=all&_r=0*; *The Innocence Project - Know the Cases: Browse Profiles: Roy Brown, http://www.innocenceproject.org/Content/Proven_Innocent_by_DNA_Roy_Brown_Is_Fully_Exonerated.php*; Brandon L. Garrett, *Convicting the Innocent: Where Criminal Prosecutions Go Wrong* 108-09 (Harvard University Press 2011); Mofson 1992 trial court testimony, *transcript available at http://www.law.virginia.edu/pdf/faculty/garrett/innocence/brown1.pdf*; David Lohr, *Quest for Freedom: The True Story of Roy Brown, http://www.trutv.com/library/crime/criminal_mind/forensics/ff311_roy_brown/5.html.*

In 1996, Krone won a new trial on appeal, but was convicted again based mainly on the state's supposed expert bite mark testimony. This time, however, the judge sentenced him to life in prison, citing doubts about whether or not Krone was the true killer. It was not until 2002, after Krone had served more than 10 years in prison, that DNA testing proved his innocence.[7]

7. **Calvin Washington & Joe Sidney Williams:** Calvin Washington was convicted of capital murder in 1987 after a woman was found beaten, raped, and murdered in Waco, Texas. It was alleged that Washington and Williams murdered and sexually assaulted the victim in the course of committing a burglary. Forensic dentist and former president of the American Academy of Forensic Sciences, Dr. Homer Campbell, testified that a bite mark found on the victim was "consistent with" Williams' dentition. While Campbell excluded Washington as the source of the bite mark, his bite mark testimony about Williams (which was given at Washington's trial) tied Washington to the crime.

   After serving more than 13 years of this sentence, Washington was finally exonerated in 2000 when DNA testing showed that blood on a shirt found in Washington's home did not come from the victim, as previously asserted; testing conducted a year later pointed to another man as the perpetrator.[8] Prior to Washington's exoneration, the Texas Court of Criminal Appeals had set aside Williams' conviction in 1992 and charges against him were dismissed on June 30, 1993.

8. **James O'Donnell:** James O'Donnell was convicted in 1998 of attempted sodomy and second-degree assault. Board-certified ABFO Diplomate Dr. Harvey Silverstein opined that a bite mark on the victim's hand was consistent with O'Donnell's dentition. Based on the eyewitness identification and the bite mark evidence, and despite testimony from his wife and son that he had been at home with them when the crime occurred, the jury convicted O'Donnell. He was sentenced to three-and-a-half to seven years in prison.

   In 2000, after DNA samples from a rape kit excluded O'Donnell as the source of

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[7] *The Innocence Project – Know the Cases: Browse Profiles: Ray Krone, http://www.innocenceproject.org/Content/Ray_Krone.php.*

[8] *The Innocence Project – Know the Cases: Browse Profiles: Calvin Washington, http://www.innocenceproject.org/Content/Calvin_Washington.php*; Michael Hall, *The Exonerated*, Texas Monthly (Nov. 2008), *available at http:// www.texasmonthly.com/story/exonerated.*

the semen found on the victim, his conviction was formally vacated.[9]

9. **Levon Brooks:** Levon Brooks spent 16 years in prison for the rape and murder of a three-year-old girl that he did not commit. Forensic dentist Dr. Michael West claimed that the marks on the victim's body were human bite marks and he testified at Brooks' trial that, of 13 suspects whose bite marks he had compared to the ones on the victim's body, Brooks' teeth "matched" the marks on the victim. As he explained, "it could be no one but Levon Brooks that bit this girl's arm." Based on this, Brooks was convicted of capital murder and sentenced to life in prison.

   In 2001, DNA testing and a subsequent confession revealed that Justin Albert Johnson committed the murder. Johnson had been one of the 12 other suspects whose dental impressions Dr. West had determined did not match the bite marks on the victim's body. Following Johnson's confession, Brooks was freed on February 15, 2008.[10]

10. **Kennedy Brewer:** In 1992, Kennedy Brewer was arrested in Mississippi and accused of killing his girlfriend's three-year-old daughter. The medical examiner who conducted the autopsy, Steven Hayne, testified that he had found several marks on the victim's body that he believed to be bite marks. Hayne called in Dr. West to analyze the marks and Dr. West concluded that 19 marks found on the victim's body were "indeed and without a doubt" inflicted by Brewer. Brewer was convicted of capital murder and sexual battery on March 24, 1995, and sentenced to death. His conviction was based almost entirely on the bite mark evidence.

    In 2001, DNA tests proved that Justin Albert Johnson, not Kennedy Brewer, committed the crime. Johnson was the same perpetrator responsible for murdering the child in the Levon Brooks case. As a result of the DNA testing, Brewer's conviction was overturned. He had served seven years on death row and

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[9] *The Innocence Project – Know the Cases: Cases Where DNA Revealed That Bite Mark Analysis Led to Wrongful Arrests and Convictions, http://www.innocenceproject.org/Content/Cases_Where_DNA_Revealed_that_Bite_Mark_Analysis_Led_to_Wrongful_Arrests_and_Convictions.php*; Silverstein 1998 trial court testimony, *transcript available at http://www. law.virginia.edu/pdf/faculty/garrett/innocence/odonnell.pdf.*

[10] *The Innocence Project – Know the Cases: Browse Profiles: Levon Brooks, http://www.innocenceproject.org/Content/Levon_Brooks.php.*

one year in jail awaiting trial.[11]

11. **Bennie Starks:** Bennie Starks was convicted of raping and assaulting a 69-year-old woman in 1986, based in part on testimony by two forensic dentists, Drs. Russell Schneider and Carl Hagstrom. Both dentists testified that a bite mark on the victim's shoulder matched Starks' dentition. Starks spent 20 years in prison before an appeals court ordered a new trial, after DNA testing on semen recovered from the victim excluded Starks. On January 7, 2013, the district attorney dismissed all charges against Starks.[12]

12. **Michael Cristini & Jeffrey Moldowan:** In 1991, Michael Cristini and Jeffrey Moldowan were convicted of the rape, kidnapping, and attempted murder of Moldowan's ex-girlfriend, Maureen Fournier. At trial, two board-certified ABFO Diplomates, Drs. Allan Warnick and Pamela Hammel, testified that bite marks on the victim's body had to have come from both defendants, to the exclusion of all others. Both men were convicted. Cristini was sentenced to 44 to 60 years, and Moldowan to 60 to 90 years.

    After the conviction, an investigator hired by the Moldowan family found a witness who said he had seen four black men standing around a naked woman at the scene of the crime. The witness' story contradicted Fournier's, as Cristini and Moldowan are both white. Dr. Hammel then recanted her testimony, saying that she had been uncertain that either defendant had in fact been responsible for the bite marks. According to Dr. Hammel, she had agreed to testify only when Dr. Warnick had assured her that a third odontologist had also confirmed that the bite marks could be matched to Cristini and Moldowan to the exclusion of all others.

    On October 20, 2003, the Macomb County Circuit Court granted Cristini a new trial, citing the new eyewitness evidence, Dr. Hammel's recantation, and stronger alibi evidence. Cristini was acquitted by a jury on April 8, 2004, after having served 13 years in prison. Later, Cristini filed wrongful conviction lawsuits against the city of Warren, Macomb County, and Dr. Warnick. The suit against

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[11] *The Innocence Project – Know the Cases: Browse Profiles: Kennedy Brewer, http://www.innocenceproject.org/Content/Kennedy_Brewer.php.*

[12] *The Innocence Project – Innocence Blog: Bennie Starks Exonerated After 25 Year Struggle to Clear His Name, http://www.innocenceproject.org/Content/Bennie_Starks_Exonerated_After_25_Year_Struggle_to_Clear_His_Name.php*; Lisa Black, *Exonerated Man's Ordeal Ends: 'I Am Overwhelmed with Joy'*, Chicago Tribune (Jan. 7, 2013), *http://articles.chicagotribune.com/2013-01-07/news/chi-bennie-starks-lake-county-charges-dropped_1_bennie-starks-mike-nerheim-ordeal-ends*; Donna Domino, *Dentists Sue Over Bite Mark Testimony, http://www.drbicuspid.com/index.aspx?sec=nws&sub=rad&pag=dis&ItemID=309572.*

Dr. Warnick was settled quickly for an undisclosed amount.

In 2002, the Michigan Supreme Court reversed Moldowan's conviction. On retrial, in February 2003, Moldowan was acquitted of all charges and released, having served nearly twelve years in prison. Moldowan's lawsuit was settled for $2.8 million in 2011.[13]

13. **Anthony Keko:** Anthony Keko was convicted in 1994 for the 1991 murder of his estranged wife Louise Keko. Dr. Michael West testified that a bite mark on the victim's shoulder matched Anthony Keko's dentition. Dr. West's testimony was the only direct evidence linking Keko to the crime, and prosecutors conceded that without the bite mark evidence there was no case. Keko was found guilty and sentenced to life in prison. In December 1994, however, the trial judge became aware of previously undisclosed disciplinary proceedings against Dr. West. The judge began to express doubts regarding West's forensic abilities and ultimately reversed Keko's conviction.[14]

14. **Harold Hill & Dan Young Jr.:** Harold Hill was 16 when he and his codefendant, Dan Young, Jr., were convicted of the rape and murder of 39-year-old Kathy Morgan in 1990. Both men would end up spending 15 years in prison for a crime they did not commit. At trial, board-certified ABFO Diplomate Dr. John Kenney linked a bruise and a bite mark on the victim's body to Hill and Young. Both were found guilty and sentenced to life in prison without parole. It wasn't until 2004 that DNA tests excluded both Hill and Young as the source of DNA evidence found on the victim. In 2005 prosecutors finally dismissed the charges against both men. Dr. Kenney later said that the prosecution pushed him

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[13] *People v. Moldowan*, 466 Mich. 862, 643 N.W.2d 570 (2002); *Moldowan v. City of Warren*, 578 F.3d 351 (6th Cir. 2009); Ed White, *Warren Settles Rape Case Lawsuit for $2.8 Million – Falsely Imprisoned Man Sued for Violation of His Civil Rights*, Detroit Legal News (Oct. 19, 2011). *http://www.legalnews.com/detroit/1109085*; Jameson Cook, *Michael Cristini Wants Bigger Settlement than Jeffrey Moldowan*, Macomb Daily (Dec. 25, 2012), *http://www.macombdaily.com/article/20121225/NEWS01/121229769/michael-cristini-wants-bigger-settlement-than-jeffrey-moldowan#full_story*; Michael S. Perry, *Exoneration Case Detail: Michael Cristini*, Nat'l Registry of Exonerations, *http://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3133* (last visited Apr. 12, 2013); Hans Sherrer, *Prosecutor Indicted For Bribery After Two Men Exonerated of Kidnapping and Rape*, Justice: Denied, no. 27, 2005, at 10, *available at http://www.justicedenied.org/issue/issue_27/Moldowan_cristini_exonerated.html.*

[14] *A Dentist Takes The Stand*, The Daily Beast, Newsweek & The Daily Beast (Aug. 19, 2001, 8:00 P.M.), *http://www.thedailybeast.com/newsweek/2001/08/20/a-dentist-takes-the-stand.html*; Mark Hansen, *Out of the Blue*, ABA J., Feb. 1996, *available at http://www.abajournal.com/magazine/article/out_of_the_blue/print/.*

to exaggerate his results.[15]

15. **Greg Wilhoit:** Greg Wilhoit's wife, Kathy, was murdered in Tulsa, Oklahoma in June 1985. Wilhoit was left to raise his two daughters—a 4-month-old and a 1-year-old. A year later, he was arrested and charged with the murder based on the opinions of two forensic odontologists that his dentition matched a bite mark on his wife's body. Wilhoit was found guilty and sentenced to death.

    During his appeal, other forensic odontologists examined the bite mark evidence and independently concluded that the bite mark could not be matched to Wilhoit. He was released on bail for two years and when a retrial was finally held in 1993 the judge issued a directed innocence verdict. In total, Wilhoit dealt with this tragedy for 8 years, fighting a case built entirely on bite mark analysis. Wilhoit's story was documented by John Grisham in "The Innocent Man."[16]

16. **Crystal Weimer:** A Fayette County, Pennsylvania, jury convicted Crystal Weimer of third-degree murder in 2006 for the beating death of Curtis Haith. Apart from a jailhouse informant, the only evidence placing Weimer at the scene was the testimony of forensic odontologist Dr. Constantine Karazulas, who concluded that a bite mark on the victim's hand was a "match" with Weimar's dentition. After the National Academy of Science's landmark 2009 report, *Strengthening Forensic Science in the United States: A Path Forward*, criticized the lack of scientific support for bite mark analysis, Dr. Karazulas undertook an independent review of the "science" of bite mark and his testimony. He concluded that bite marks cannot be used for conclusive matches to an individual. On the basis of Dr. Karazulas' recantation, as well as a recantation from the informant, Weimer's conviction was vacated in October 2015.[17]

17. **Steven Mark Chaney:** Steven Chaney was convicted of the murder of John Sweek, a Dallas-area cocaine dealer, in 1987; Sweek's wife was also killed Although nine alibi witnesses accounted for Chaney's whereabouts on the day the crime occurred, the state's case relied largely on the testimony of two ABFO

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[15] Ctr. on Wrongful Convictions, *Exoneration Case Detail: Harold Hill*, Nat'l Registry of Exonerations, *http://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3296* (last visited Apr. 12, 2013).

[16] Journey of Hope, Greg Wilhoit, CA, *available at http://journeyofhope.org/who-we-are/exonerated-from-death-row/greg-wilhoit/*; Witness to Innocence, *Exonerees: Greg Wilhoit, available at http://www.witnesstoinnocence.org/exonerees/greg-wilhoit.html.*

[17] Joe Mandak, *Bite-mark backtrack helps toss verdict*, The Boston Globe (October 2, 2015), available at https://www.bostonglobe.com/news/nation/2015/10/01/woman-conviction-tossed-junk-science-bite-mark-case/Dgi1n45ib85uqdW1u2yqNO/story.html

board-certified forensic dentists, Drs. Jim Hales and Homer Campbell. At trial, Dr. Hales purported to match a bite mark on the victim's arm to Chaney and claimed that there was a "one to a million" chance that someone other than Chaney was the biter. Similarly, Dr. Campbell opined to a reasonable degree of dental certainty that Chaney left the bite mark. Decades after Chaney's conviction, Dr. Hales admitted that his matching testimony exceeded the limits of the science and that there was no basis for his statistical testimony in the "scientific literature," in contrast to his claims at trial. In light of the change in the scientific understanding of bite mark evidence since 1987 and Dr. Hales's recantation, the Dallas County District Attorney's Office agreed to vacate Mr. Chaney's conviction pursuant to Texas's "junk science wit", which provides an avenue for post-conviction relief where the science used at trial is subsequently discredited. In October 2015, Chaney was released after 28 years of wrongful incarceration; his case is currently pending before the Texas Court of Criminal Appeals, which as final authority in Texas over all habeas determinations.[18]

18. **William Joseph Richards:** In 1997, Bill Richards was convicted of the 1993 murder of his estranged wife. On the night of her murder, Richards returned home from the graveyard shift at his job and discovered his wife bludgeoned to death. The crime scene evidence revealed a violent struggle, and an autopsy of the victim uncovered a crescent-shaped lesion on her hand. To analyze that wound, the prosecution contacted Dr. Norman Sperber, an ABFO Diplomate, who examined a photograph of the lesion and opined that the wound was a human bite mark. At Richards' fourth trial—the first three attempts to try Richards did not include bite mark evidence and ended in mistrials—Dr. Sperber testified that his comparison of Richards' dentition to the photograph of the purported bite mark yielded a "pretty good alignment," and that Richards' teeth were consistent with the lesion. Dr. Sperber also testified that one facet of Richards' dentition was relatively rare. Richards presented an alibi defense based on the time of death, and he presented testimony from another ABFO board-certified forensic odontologist, Dr. Gregory Golden, who opined that although he could not eliminate Richards as the source of the bite, five out of fifteen sample dental molds from his clients in private practice also matched the lesion. With the introduction of the bite mark testimony, Richards was convicted and given a 25-year-to-life sentence.

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[18] Jennifer Emily, *Dallas County man freed after serving 25 years for murder over faulty science of bite marks*, The Dallas Morning News, Oct. 12, 2015, http://crimeblog.dallasnews.com/2015/10/dallas-county-man-freed-after-serving-25-years-for-murder-over-faulty-science-of-bite-marks.html/

In 2007, Dr. Sperber recanted his bite mark testimony at a post-conviction evidentiary hearing, but the California Supreme Court ultimately ruled against Richards in 2012, finding that recanted expert testimony does not constitute "false evidence." In response to the Court's decision, the California state legislature amended the habeas corpus statute the following year to explicitly deem expert recantations false evidence, and Richards filed a successive habeas petitioner shortly thereafter. In May 2016, the California Supreme Court finally granted his habeas petition and vacated his conviction.[19]

DESCRIPTIONS OF WRONGFUL INDICTMENTS BASED ON BITE MARK EVIDENCE

1. **Dale Morris, Jr.:** In 1997, Dale Morris, Jr. was arrested based on bite mark analysis matching his dentition to a mark found on a nine-year-old murder victim, Sharra Ferger. Morris was a neighbor to the little girl, who had been found, stabbed, sexually assaulted and bitten, in a field near her Florida home. Board-certified ABFO Diplomates Dr. Richard Souviron and Dr. Kenneth Martin agreed that the bite marks on the girl were a probable match to Morris. Morris spent four months in jail until DNA tests proved his innocence. Highlighting the importance of the bite mark evidence to the police's decision to arrest Morris, Detective John Corbin said that Morris "was probably one of our least likely suspects in the neighborhood, but through the forensics that we conducted in the investigation he was linked to the crime."[20]

2. **James Earl Gates:** In April 1997, prosecutors from Humphreys County, Mississippi, arrested James Earl Gates for the capital murder of his then-girlfriend. Gates' indictment rested solely on the purported match between a bite mark found on the victim and Gates' teeth. Dr. Steven Hayne claimed to have found bite marks on the victim while conducting an autopsy, and forensic odontologist Dr. Michael West confirmed the marks were bites and concluded that they matched Gates' dentition. Gates spent several months in jail, awaiting trial, before nascent DNA technology excluded him from a profile obtained

[19] *In re Rich*ards, Case No. S223651, 2016 WL 3017139 (Cal. May 26, 2016), *available at* http://www.courts.ca.gov/opinions/documents/S223651.PDF.

[20] Ian James & Geoff Dougherty, *Suspect in Girl's Murder Freed after Four Months*, St. Petersburg Times, Feb. 28, 1998, at 1.A, *available at http://www.wearethehope.org/pdf/times_02_28_1998.pdf; Cases Where DNA Revealed That Bite Mark Analysis Led to Wrongful Arrests and Convictions*, Innocence Project, *supra* note 7; Flynn McRoberts & Steve Mills, *From the Start, a Faulty Science*, Chic. Trib. (Oct. 19, 2004), *http://www.chicagotribune.com/news/watchdog/chi-041019forensics,0,7597688.story.*

through scraping's from the victim's fingernails. Prosecutors dismissed the case. In 2012, the Mississippi Crime Lab, at the request of Humphreys County law enforcement, engaged in additional DNA testing of the biological material collected at the murder scene. Because of advancements in technology, the subsequent testing yielded an identifiable profile of an individual who had, in the initial stages of investigation, been a prime suspect. That individual had since been convicted of another homicide. [21]

3. **Edmund Burke**: In 1998, Edmund Burke was arrested for raping and murdering a 75-year-old woman. The victim had bite marks on her breasts and board-certified ABFO Diplomate Dr. Lowell Levine, the same expert involved in Douglas Prade's case (discussed above), "formed an initial opinion that Burke could not be excluded as the source of the bite marks," but asked to see enhanced photos before rendering a final opinion. After examining the enhanced photos, Dr. Levine concluded that Burke's teeth matched the bite mark on the victim's left breast to a "reasonable degree of scientific certainty." DNA testing on saliva taken from the bite mark site excluded Burke as the source of the DNA, however, and prosecutors dropped the case against him. The true killer was later identified when DNA from the bite mark was matched to a profile in the national DNA database. Dr. Levine remains one of the few full-time forensic odontologists in the nation, and is regarded as one of the field's top practitioners.[22]

4. **Anthony Otero:** In 1994, Anthony Otero was charged with larceny and the first-degree murder and rape of a 60-year-old woman, Virginia Airasolo, in Detroit, Michigan. A warrant for Otero's arrest was issued after ABFO Dimplomate Dr. Allan Warnick claimed to have matched the bite marks on the victim's body to Otero's dentition. At the preliminary hearing on December 13, 1994, Dr. Warnick testified that Otero was "the only person in the world" who could have caused the bite marks on Airasolo's body.

   In January 1995, DNA testing excluded Otero as the source of the DNA found on the victim and he was released in April, after spending 5 months in jail. Following Otero's release, a second forensic odontologist, ABFO Diplomate Dr. Richard Souviron, concluded that the marks on the victim were consistent with human bite marks, but were too indistinct to be used to identify a suspect.

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[21] Radley Balko, *Solving Kathy Mabry's Murder: Brutal 15-Year-Old Crime Highlights Decades-Long Mississippi Scandal*, Huffington Post, Nov. 7, 2013, 9:46 a.m., http://www.huffingtonpost.com/2013/01/17/kathy-mabry-murder-steven-hayne-michael-west_n_2456970.html.

[22] *Burke v. Town of Walpole*, 405 F.3d 66, 73 (1st Cir. 2005).

Ultimately, the charges against Otero were dismissed.[23]

5. **Johnny Bourn:** In 1992, Johnny Bourn was arrested for the rape and murder of an elderly Mississippi man after Dr. Michael West matched a bite mark on the victim to Bourn. Bourn was imprisoned for 18 months, despite hair and fingerprint evidence pointing to another suspect. Ultimately, Bourn was released when he was excluded as a suspect by DNA testing performed on fingernail scrapings from the victim, but not before he had spent about one and half years in jail awaiting trial.[24]

6. **Dane Collins:** In 1989, Dane Collins was arrested and charged with the rape and murder of his 22-year-old stepdaughter, based largely on bite mark comparison evidence. The Sante Fe, New Mexico District Attorney declared his intent to seek the death penalty. Despite evidence that Collins could not produce sperm and therefore could not have been the perpetrator, the DA gave several public interviews stating that while there was not enough evidence to try the case, he believed Collins was guilty of the crime. Fifteen years later, Chris McClendon was matched to DNA found on the victim. He pled "no contest" to the crime in exchange for describing how he had committed the rape and murder. (McClendon was already serving life in prison after he was convicted of kidnapping and raping a 24-year-old woman.)[25]

7. **Ricky Amolsch:** Ricky Amolsch's girlfriend, Jane Marie Fray, was found dead on August 23, 1994. She had been stabbed 22 times and had an electrical cord wrapped around her neck. The arrest warrant for Amolsch was based on a finding by Dr. Allan Warnick that a bite mark that had been found on the victim's left ear was "highly consistent" with Amolsch's dentition. Charges were not dropped until 10 months later when the eyewitness who had identified Amolsch's van at the crime scene was himself arrested for raping another woman in the same trailer park. Amolsch was jailed for 10 months until his trial. During that time, he lost his home, savings and children.[26]

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[23] *Cases Where DNA Revealed That Bite Mark Analysis Led to Wrongful Arrests and Convictions*, Innocence Project, *supra* note 7; *Otero v. Warnick*, 614 N.W.2d 177, 178-79 (Mich. Ct. App. 2000).

[24] Hansen, *supra* note 13; *Michael West Responds*, Part 167, The Agitator (March 1, 2009), *http://www.theagitator.com/page/167/*; Paul C. Giannelli & Kevin C. McMunigal, *Prosecutors, Ethics, and Expert Witnesses*, 76 Fordham L. Rev. 1493 (2007).

[25] Jeremy Pawloski, *Suspect in '89 Slaying to Plead Guilty*, Albuquerque J. (Aug. 11, 2005), *http://www.abqjournal.com/north/379728north_news08-11-05.htm.*

[26] *Bite Mark Evidence*, Forensics Under Fire, Jim Fisher, The Official Website, *http://jimfisher.edinboro.edu/forensics/fire/mark.html* (last updated Jan. 16, 2008); Katherine Ramsland,

Bite Marks as Evidence to Convict – Whose Bite Mark is it, Anyway?, Crime Library, TruTV.com, *http://www.trutv.com/library/crime/criminal_mind/forensics/bitemarks/5.html* (last visited Apr. 12, 2013).

NOTES ON FIFE BITE MARK PROCEDURES AND FINDINGS---FIFE HOMICIDE

Following a thorough visual study of the body of Fife in the morgue, materials used in the analysis of this case---15 8 x 12 color enlargements of original color slides, 6 Black & White (Panatomic X film) prints and enlargements, models of the teeth and arches of both Hill and Combs. Records of a comple oral examination and complete mouth radiographs, of both suspects, were provided. Measurments were made with a magnifying glass, dividers, and a metal rule.

Upon receipt of the models of the suspects Hill & Combs I made comparisons of the teeth and arch forms of both.

Combs's arch of the maxilla is slighly smaller than that of Hill. The lower teeth of Combs, when the mouth is closed together, occlude lingual to and closer to the incisal angles of his upper anterior teeth. This relationship of the lower to the upper teeth would, in all likelyhood, have left clear incisal marks on the penis of Fife following a bite.

Tooth #11, the upper left cuspid, of Combs is missing. There is no area of tissue entrapment on the bite marks on the penis.

There is a diastema, abnormal space between the upper right central incisors (#8) and the upper left central incisor (#9), present in the maxillary arch of Mr. Combs. This has been reported in the Journal of Prosthetic Dentistry by McVay and Latta, Vol 52, Number 6, December 1984 to be present in 3.5% in whites, 5.2% in blacks, and 3.4% in Mongolians of the American population in the 18 to 25 year age range.

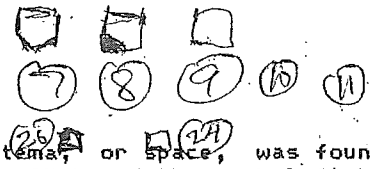
It is my conclusion that Combs, in all likelyhood, did not make the bite on the penis of Fife.

The study of Hill's models and all materials reveals the following:

The arch form, and size of Hill's mouth is consistant with the marks found on the penis of Fife.

The upper right central incisor (#8) has a sharp mesio-incisal angle and the distal, incisal, and lingual surfaces are fractured on an angle. This would give a sharp mesial cervical incisal mark found on the penis of Fife. Because of the angle of the fracture, as expected, a less sharp wound was present.

DEFENDANT'S EXHIBIT A



A diastema, or space, was found between the upper right central incisor (#8) and the mark left by the upper left central incisor (#9) on the penis of Fife. This matches the model of Hill's teeth and arch form.

The model of Hill's maxillary teeth reveal that the upper right lateral incisor, (#7), has a slighly longer point located about midway between the mesial and distal incisal surfaces on the incisal edge. The tooth is set back from the distal of #8. This is consistant with the bite mark on the penis of Fife.

The upper left lateral incisor of Hill is about one mm shorter(incisally) to the adjacent tooth, (#9). The position of the lightly marked area on the penis of Fife would be consistant with a mark left by this tooth.

The arch form of Hill's mandible is consistant with the bite mark left on Fife's penis. (Black & White Picture #2 and Color enlargment # III)

The bite was inflicted on the penis in a slighly rotated (not perpendicular) to its shaft.

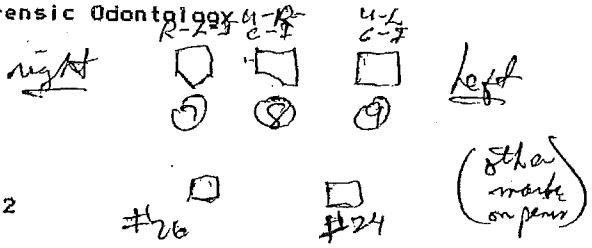
The reason the marks of the lower teeth do not match or imprint clearly is becasuse when the teeth are closed the lower incisors occlude with the lingual high up near the beginning of the hard palate(roof of the mouth) and leave only puncture marks of #26(the lower right lateral incisor) and possibly #24, the lower left central incisor.

Usually in a bite on a flat or slightly curved surface of more stable skin the lower teeth will leave a more distinct impression because the mandibular lower teeth are forcing the tissue to move upward against the lingual and incisal edges of the upper teeth with more firm tissue in between.

Both Hill and Combs have a midline(#8--#9) diastimas.

The reason that you cannot use direct measurments with any degree of great accuracy(like would be possible in a piece or cheese or an apple) is that the penis may have been in a state of full or partial erection at the time the bite was inflicted.This often occurs following in partial strangulations or in hangings.

Curtis A. Mertz, D. D. S.
Diplomate, American Board of Forensic Odontology
December 19, 1985



NOTES ON FIFE BITE MARK PROCEDURES AND FINDINGS---FIFE HOMICIDE

Following a thorough visual study of the body of Fife in the morgue, materials used in the analysis of this case---15 8 x 12 color enlargements of original color slides, 6 Black & White (Panatomic X film) prints and enlargements, models of the teeth and arches of both Hill and Combs. Records of a comple oral examination and complete mouth radiographs, of both suspects, were provided. Measurments were made with a magnifying glass, dividers, and a metal rule.

Upon receipt of the models of the suspects Hill & Combs I made comparisons of the teeth and arch forms of both.

Combs's arch of the maxilla is slighly smaller than that of Hill. The lower teeth of Combs, when the mouth is closed together, occlude lingual to and closer to the incisal angles of his upper anterior teeth. This relationship of the lower to the upper teeth would, in all likelyhood, have left clear incisal marks on the penis of Fife following a bite.

Tooth #11, the upper left cuspid, of Combs is missing. There is no area of tissue entrapment on the bite marks on the penis.

There is a diastema, abnormal space between the upper right central incisors (#8) and the upper left central incisor (#9), present in the maxillary arch of Mr. Combs. This has been reported in the Journal of Prosthetic Dentistry by McVay and Latta, Vol 52, Number 6, December 1984 to be present in 3.5% in whites, 5.2% in blacks, and 3.4% in Mongolians of the American population in the 18 to 25 year age range.

It is my conclusion that Combs, in all likelyhood, did not make the bite on the penis of Fife.

The study of Hill's models and all materials reveals the following:

The arch form, and size of Hill's mouth is consistant with the marks found on the penis of Fife.

The upper right central incisor (#8) has a sharp mesio-incisal angle and the distal, incisal, and lingual surfaces are fractured on an angle. This would give a sharp mesial cervical incisal mark found on the penis of Fife. Because of the angle of the fracture, as expected, a less sharp wound was present.

A diastema, or space, was found between the upper right central incisor (#8) and the mark left by the upper left central incisor (#9) on the penis of Fife. This matches the model of HILL's teeth and arch form.

The model of Hill's maxillary teeth reveal that the upper right lateral incisor, (#7), has a slighly longer point located about midway between the mesial and distal incisal surfaces on the incisal edge. The tooth is set back from the distal of #8. This is consistant with the bite mark on the penis of Fife.

The upper left lateral incisor of Hill is about one mm shorter(incisally) to the adjacent tooth, (#9). The position of the lightly marked area on the penis of Fife would be consistant with a mark left by this tooth.

The arch form of Hill's mandible is consistant with the bite mark left on Fife's penis. (Black & White Picture #2 and Color enlargment # III)

The bite was inflicted on the penis in a slighly rotated (not perpendicular) to its shaft.

The reason the marks of the lower teeth do not match or imprint clearly is becasuse when the teeth are closed the lower incisors occlude with the lingual high up near the beginning of the hard palate(roof of the mouth) and leave only puncture marks of #26(the lower right lateral incisor) and possibly #24, the lower left central incisor.

Usually in a bite on a flat or slightly curved surface of more stable skin the lower teeth will leave a more distinct impression because the mandibular lower teeth are forcing the tissue to move upward against the lingual and incisal edges of the upper teeth with more firm tissue in between.

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Curtis A. Mertz, D. D. S.
Diplomate, American Board of Forensic Odontology
December 19, 1985

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NORTHERN DISTRICT OF OHIO
CLEVELAND

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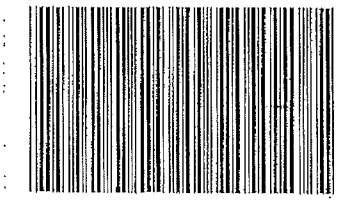
STATE OF OHIO

VS.

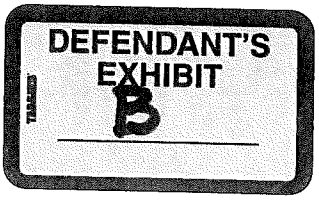
DANNY LEE HILL

CASE NO. 85-CR-317

TRIAL TRANSCRIPT
(VOLUME 3)



26



we're objecting to this document as well. Same basis.

JUDGE McLAIN: Overruled at this time. Go ahead.

A This was measuring the difference in the sizes of the flaccid penis and the erect penis in a hundred and seventy-seven healthy men aged 18 to 20 years of age. And in here -- if I can find the spot -- well, it ends up with the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state. Now, there's a lot of other things in here, but that is what I think is significant in this case.

Q (By Attorney Watkins) Why is it significant?

A Because based on this research; in my mind, valid research, this explains the difference in the measured size of approximately a third less than in the measurements when teeth mark sizes are compared.

Q Now, I notice that was studied for 18-year olds.

A Yeah.

Q Did you look for studies, if there are any known, as to young 12-year olds, 14-year olds --

A The -- our hospital librarian could not find any reference to size differentials in younger individuals. There may be in the literature.

Q From your own experiences, would you have an opinion as

PENGAD/INDY, MUNCIE, IN 47302
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IN THE COURT OF COMMON PLEAS
TRUMBALL COUNTY, OHIO

THE STATE OF OHIO,	:	
Plaintiff,	:	
v.	:	Case No.: 85-CR-317
DANNY LEE HILL,	:	
Defendant.	:	

AFFIDAVIT OF FRANKLIN D. WRIGHT, D.M.D.

I, Dr. Franklin D. Wright, hereby declare as follows:

BACKGROUND

1. I am a board-certified practicing forensic dentist with nearly three decades of experience as the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office. I have presented lectures and workshops in forensic odontology throughout the United States, Europe, Central America, and South America, including to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science.

2. I am a past president of the American Board of Forensic Odontology ("ABFO"), and currently chair of the ABFO Bitemark Proficiency Examination Development Committee.

3. I have reviewed, investigated, and consulted on hundreds of bite-mark cases.

DEFENDANT'S EXHIBIT C

4. I have been retained by the State of Ohio on numerous occasions to analyze bitemarks in criminal investigations and trials. I have also testified on behalf of the State of Ohio in criminal trials, including homicides.

5. A detailed curriculum vitae is attached as Exhibit A to this Affidavit.

6. On January 26, 2014, Counsel for Danny Lee Hill requested that I review certain case files and evidence relating to the prosecution of Mr. Hill for the murder of Raymond Fife. I understand that Mr. Hill was tried and convicted in the Trumbull County Court of Common Pleas in January 1986. At that trial, the court heard testimony relating to alleged bitemark evidence from two forensic dentists: Dr. Curtis Mertz and Dr. Lowell Levine. Such evidence is directly in my field of expertise.

7. After my review of the materials provided to me, I authored a letter to Mr. Hill's counsel, dated March 30, 2014, in which I reported my findings. This Affidavit confirms and supplements my findings as set forth in that letter, which is incorporated by reference and a copy of which is attached as Exhibit B to this Affidavit.

MATERIALS CONSIDERED

8. In reaching my opinions and as part of preparing this Affidavit, I have reviewed the following materials: Report of Dr. Curtis Mertz Report, Report of Dr. Lowell Levine, Trial Testimony of Dr. Mertz, Trial Testimony of Dr. Levine, and twenty-two black-and-white images that were photographs of the victim in the case of *State v. Danny Lee Hill*. I have been informed these were admitted as evidence during the trial of Danny Lee Hill.

9. In addition, I have relied on the experience and training acquired over my nearly three-decade career as a forensic dentist and consultant.

10. Finally, I have considered conversations that I had with Dr. Curtis Mertz, who is now deceased.

OPINION

11. It is my opinion, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim, Raymond Fife, is not a human bitemark.

12. Using the ABFO Bitemark Decision Tree first adopted by the ABFO in February 2013, when a patterned injury is defined by the ABFO Bitemark Terminology Guidelines as not representing a human bitemark, then analysis and comparison to any suspected biter is not sanctioned under any circumstances, and as a rule cannot be performed to a reasonable degree of medical/dental certainty.

13. Even if the patterned injury on the victim was a human bitemark, which it is not, its location on the penis of the victim makes the scientifically supportable identification of a particular biter impossible.

~~14.~~ It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that patterned injury on Raymond Fife's penis was created by a human teeth.

15. It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that the patterned injury on Raymond Fife's penis was created by Danny Lee Hill to the exclusion of millions of other individuals in the open universe of possible biters.

THE TESTIMONY AND OPINION OF DR. CURTIS MERTZ

16. Dr. Mertz erred when he conclusively identified Mr. Hill as the source of the patterned injury on the victim.

17. In my opinion, applying the current guidelines and standards of the ABFO, there is no scientific support for the conclusion that Mr. Hill left any portion of the patterned injury on the victim.

18. Furthermore, it is my opinion that the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question. Dr. Mertz's assertion that Mr. Hill caused the injury on the victim's penis required him to speculate that the victim's penis was erect when the bite occurred, that this erect penis would have been one and a third the size of a flaccid penis, and that therefore the dimensions of the bite-mark that were actually measured were approximately a third smaller than the dentition of the alleged biter. This speculation is nothing but a blind guess. Such blind guessing is not a reasonable or reliable scientific methodology, nor is it permitted under the ABFO Guidelines (or the ABFO-recommended "Decision Tree" based on those Guidelines). In my opinion, the extrapolations that Dr. Mertz made from his actual measurements (based on his speculation regarding the presence of erection and erect versus flaccid penis circumference) are not scientifically supportable, and suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias.

19. This bias is evidenced by the fact that Dr. Mertz chose to address only those aspects of the patterned injury that he felt that he could link to Mr. Hill's dentition, ignoring other aspects of the patterned injury that he could not link to Mr. Hill.

DR. MERTZ'S POST-TRIAL STATEMENTS

20. Dr. Mertz passed away in 2005. He was my mentor, as well as a respected teacher and scholar in the forensic odontology community. However, Dr. Mertz confided in me

that he regretted the testimony that he gave in this case, and that he did not believe that it was scientifically supportable.

21. These statements, or statements like them, were made to me by Dr. Mertz on two occasions. I discussed this case with Dr. Mertz at the time that I was preparing to take my ABFO certification examination in 1988 and then again in the 1990s. During both conversations, Dr. Mertz and I discussed the testimony that he gave in Mr. Hill's case.

22. On both occasions, in 1988 and again in the 1990s, Dr. Mertz confided to me that he no longer believed, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim in this case was a human bitemark. He also stated, on both occasions, that he no longer believed, to a reasonable degree of medical/dental certainty, that Mr. Hill's dentition was the source of that injury. Dr. Mertz clarified that if he had the opportunity to give further testimony in proceedings involving Mr. Hill, he would not have given the same opinion and testimony that the Court admitted as evidence.

THE TESTIMONY AND OPINION OF DR. LOWELL LEVINE

23. Dr. Lowell Levine erred when he opined that the injury on the victim represents a human bitemark.

24. Dr. Levine further erred when he stated (i) that either Mr. Hill, or his co-defendant, Tim Combs, could have been the biter, and (ii) that it is likely that one portion of the patterned injury was caused by Mr. Hill.

25. In my opinion, the only reasonable and reliable scientific conclusion that could be asserted given Dr. Levine's recorded observations about the patterned injury was either (i) that the patterned injury lacked specificity, and thus could not supply a basis for identifying either

Mr. Hill or Mr. Combs (or anyone else) as the biter, or (ii) that Mr. Hill's and Mr. Comb's dentitions were similar enough that a bitemark left by either of them would leave a pattern indiscernible from a bitemark pattern left by the other.

I declare under penalty of perjury that the foregoing is true and correct.

Franklin D. Wright, D.M.D.

Executed this 22 day of August, 2014.

Subscribed and sworn to me by the person known to me as Franklin D. Wright, D.M.D., this 2nd day of September, 2014.

Notary Public: Melanie Sauter

My commission number: 3/3/2018

My commission expires: 3/3/2018

NOTARY PUBLIC STATE OF OHIO

MELANIE A. SAUTER
Notary Public, State of Ohio
My Commission Expires
March 3, 2018

FRANKLIN D. WRIGHT, D.M.D.

FORENSIC DENTAL CONSULTANT

FRANKLIN D. WRIGHT, D.M.D

GENERAL INFORMATION

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PHONE (513) 231-5353
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EDUCATION:

University of Kentucky
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A.B. Chandler Medical Center
Lexington, Kentucky
GRADUATE: **1984**

University of Kentucky
College of Arts and Sciences
Lexington, Kentucky
GRADUATE: May 1980

Anderson Senior High School
Cincinnati, Ohio 45255

GRADUATE: 1976

PUBLICATIONS, LECTURES, AFFILIATIONS

Publications:

- Cincinnati Dental Society "Bulletin"
"Forensic Odontology", April 1988 Vol. 57 No. 4 Pg. 16

Manual of Forensic Odontology
(A publication of the Amer. Society of Forensic Odontology)

- "Postmortem Dental Radiography", Second Edition, 1991

- Chapter 2,"Dental Identification", Third Edition, 1995

- Dental Identification, Fourth Edition, 2007

-Chapter 7 Bitemark Analysis, Fifth Edition, 2012

- Forensic Dentistry, Chapter 6 "Forensic Photography"; first edition, 6/97, CRC Press, Boca Raton, FL

- Photography in Bite Mark and Patterned Injury Documentation, Part 1 and part 2- a case study, Journal of Forensic Sciences, vol.43; num.5; pgs 871-881; July 1998

- Dental Clinics of North America: Forensic Odontology, Bitemark Chapter, April, 2001, pgs 365-397

- Bitemark Evidence, edited by Dr. Robert B.J. Dorion, {photography- chapter 7}"Collection of Evidence: Non-invasive Analyses: Photography" First edition 2004;

- Forensic Dentistry, 2nd edition, edited by Drs. David Senn and Paul Stimson, Ch.11 Forensic Photography (January, 2010)

-The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology, Forensic Science International, vol. 201 Nos. 1-3, September, 2010; pgs 59-67

-Bitemark Evidence, edited by Dr. Robert B. J. Dorion, {photography- chapter 7}"Collection of Evidence: Non-invasive Analyses: Photography" Second Edition, January ,2011

- Forensic Science: Current Issues, Future Directions; Odontology- Dentistry's Contribution to Truth and Justice; (publication of the American Academy of Forensic Sciences) Pretty, I.; Barsley, R.; Bowers, C.M.; Bush, M.; Bush, P.; Clement, J.; Dorion, R.; Freeman, A.; Lewis, J.; Senn, D.; Wright, F. September 2012; pgs 179-210

-Manual of Forensic Odonotology 5th edition, edited by David R. Senn; Richard A. Weems; Chapter 9; CRC Press, Boca Raton, FL February, 2013

-"Patterned bruises on 2 infants"; Luyet, F.; Feldman, K.; Wright, F.; Knox, B.;

Contemporary Pediatrics; February 2013; pgs 21-22

Lectures:

- "Forensic Dentistry"- Cincinnati Dental Assistant's Society,
October 17, 1988 - March 20, 1991 - March 21, 1994 - April 21, 1997

- Hamilton County Dental Mass Disaster Team, "Dentistry's Role in a Mass Disaster in Cincinnati", January 6, 1990

- "Dental Identification" -Cincinnati Dental Society, March 12, 1990

- "Forensic Dentistry" - Lima Dental Study Club, January 14, 1992

- "Forensic Dentistry"- All Ohio Dental Career Day, The Ohio State University
March 1992; April 1993

- "Distortional Correction in Bitemark Photography - an Unusual Case" &
"Problems and Solutions to the Formation of a Statewide Dental Disaster Team"
American Academy of Forensic Sciences - Annual Meeting, Boston February 1993

- "Forensic Dentistry- A Look At Dentistry As You Have Never Seen It Before"
Radisson Hotel, Lexington Kentucky, Sponsored by the University of Kentucky, College of Dentistry - Commonwealth Continuing Education Dept., August 28, 1993 and December 16, 1994

-"Forensic Dentistry- A New Look at an Old Friend", Eastside Dental Study Club
May 1994

-"Forensic Dentistry- Course and Workshop", Republica de Colombia Instituto Nacional de Medicina Legal y Ciencias Forenses Bogotá, Colombia, South América,
December 12-17, 1994

-"Bitemark Case Workup" - A.S.F.O. Annual Meeting, Seattle, WA February 14, 1995

-"Forensic Dentistry: A Look at Dentistry as You've Never Seen It Before"
:Ohio Expanded Dental Function Assistants Association at the Annual Meeting of the Ohio Dental Association, September 1995
:Stark County (Canton, Ohio) Dental Society, November 1995
:Greater Cincinnati Oral Health Council, December 1995
:Raymond Walters College- Dental Hygiene Program University of Cincinnati,
January 1996
:Greater Cincinnati Dental Study Club, October 1996
:Cincinnati Dental Hygienists' Association, November 1997

-Death Investigation Seminar, Hamilton Co. Coroner's Office, Odontology Presentation-

"Forensic Dentistry, Pattern Injuries, Photography", 10/17/96, 9/9/97, 9/98; 9/99

- "Evidence Recovery with Dental Materials", FBI Evidence Recovery Team, Cincinnati Office, 10/18/96

- "Bitemark Evidence Recovery", Hamilton Co. Sexual Assault Team, 1991,1993, 1997

- "Computers in Dental Identification"; "Human Abuse"; "Bitemark Update: Computers, DNA and Digital Images" IX Congress de la Instituto de Medicina Legal y Ciencias Forenses, Bogotá, Colombia, S.A. Sept. 17-20, 1997

- George Furst Bitemark Seminar, AAFS meeting, 2/14/98 case presentation, San Francisco, CA

- "Forensic Dentistry: the basics and some nuggets for your office" Cincinnati Dental Society, 3/9/98

- "Forensic Evidence" keynote speaker, Domestic Violence Conference "Effective Investigation and Prosecution" workshop, Cincinnati, 4/2/98

- "Forensic Photography" California Attorney General's National Missing & Unidentified Persons Violent Crime Workshop, 7/21-7/25/98, Sacramento, California

- "Forensic Dentistry- It's All in How You Look at It!"
University of Kentucky- Commonwealth Continuing Dental Education
University of Kentucky, 8/28/98

- "Child Abuse" & "Forensic Dentistry" Division of Pediatric Dentistry, Children's Hospital Medical Center, Montgomery Inn, Cincinnati, Ohio 2/4/99

- 2nd George Furst Bitemark Seminar, AAFS Annual Meeting "Forensic Photography" and "Overlay Fabrication", Saturday, 2/20/1999, Orlando, FL

- "Forensic Dentistry" Northwest (Ohio) Dental Society, Lima, Ohio, 3/17/99

- "Forensic Photography" - Ohio State Coroners Association Annual Meeting Columbus, Ohio, 5/14/99

- "The ODA Mass Disaster Identification Team and Forensic Dentistry: an Introduction" Ohio Dental Association Annual Session, Columbus, Ohio, 9/23/99

- "Forensic Dentistry" T.I. Law Dental Study Club, Cincinnati, Ohio, 9/27/99

- 3rd George Furst Bitemark Seminar AAFS Annual Meeting Three part Course Review and Summary, Reno, NV, February 19,2000

- "Forensic Dentistry: Dental Identification Exercise and Bitemark Case Analysis" University of Kentucky College of Dentistry-Commonwealth Dental Continuing Education, Lexington, KY, 3/24/00

- "Forensic Dentistry: Bitemarks – Who did It?"
Ohio Dental Association Annual Session, Columbus, Ohio, 9/16/00

-" Human Abuse", teacher in-service: Lawrenceburg School System
Lawrenceburg, Indiana, January 10, 2001

-"The Trials and Tribulations of Bitemarks Analysis: Seeing What is Really There"
AAFS annual meeting Abstract presentation, Thursday February 22,2001
Seattle, Washington

-"Forensic Odontology 2001", Instituto de Medica Legal y Ciencias Forenses
June 3-9, 2001, Bogotá, Colombia, South América

- "Forensic Dental Identification Workshop" Annual Session, Ohio Dental Association, September 14, 2001 Columbus, Ohio

-Dental Identification Unit, Office of the Chief Medical Examiner, New York City, NY
World Trade Center Disaster (Dental Identification of WTC victims) 9/15-9/23/01; 12/5-12/10/01

-VI Jornada de Medican Legal, Ministerio Publico: Instituto de Medicina Legal
"Forensic Evaluation: Collection and Process of Identification at the Scene of the Crime"; "Identification by Human Bitemarks", "Identification by Forensic Dentistry", "DNA in Forensic Dentistry", Panama City, Republic of Panama, Central America
October 23-25, 2002

-"Forensic Dentistry: Crime Scene Incidents"
Northern Kentucky University Advanced Crime Scene Class
Friday 11/8/02 - Prof. Jill Shelley, Highland Heights, KY 41099

-"Forensic Dentistry", Cincinnati Dental Hygienists Association
Raymond Walters College, University of Cincinnati, 11/12/02, Cincinnati, Ohio

-"Advanced Forensic Photography" University of Texas, San Antonio
San Antonio, TX December 6-8, 2002, lecture & workshop; with Dr. Greg Golden, Upland, CA and Dr. James Lewis, Alabama

-ABFO Bitemark Workshop #5: Didactic Lecture: "ABFO Bitemark Terminology and Report Writing"; Moderator: oral presentations by candidates, AAFS Annual Meeting, Chicago, IL Sunday February 16, 2003

-"Dental Identification Workshop Using Computers", sponsored by the Ohio Dental Association at the Ohio State University College of Dentistry April 12, 2003 Columbus, Ohio

-"Mass Disaster Identification Workshop", Tennessee Dental Association Annual Meeting, Nashville, TN May 22, 2003

-"Introduction to Forensic Dentistry", Ohio Dental Association Annual Session, Columbus, Ohio September 13, 2003

"Ominous Signs of Abuse, including Bite Mark Analysis and Patterned Injuries", Ohio Sexual Assault Nurses Association/Forensic nurses, MedCentral Hospital, Mansfield, Ohio Nov. 5,2003

"Photography in documentation of bitemark and patterned injuries in child abuse and assault" Multi-disciplinary Child Abuse Team- Cincinnati Children's Hospital Medical Center, Mayerson Center for Child Abuse, Children's Hospital, Cincinnati, Ohio November 21, 2003

"Forensic Dentistry: A Look at Dentistry as You Have Never Seen It Before", Lorain County Dental Society, Holiday Inn, Ohio St. Rt. 57, Lorain, Ohio, January 21, 2004

"Forensic Dentistry" Northern Kentucky University Criminal Justice Seminar Farris Auditorium, NKU Campus 3/26/04

"Advanced Forensic Photography: Human Bitemarks: Detection, Photography and other Evidence Collection", NYU College of Dentistry/New York Society of Forensic Dentistry 345 E. 24th St. NY, NY 3/29/04

"Be Careful Who You Bite: An Introduction to Bitemark Analysis" Cincinnati Dental Society Scientific Meeting Monday 4/19/04 Gregory Conference Center Cincinnati, Ohio

"Forensic Dentistry: CSI" University of Kentucky College of Dentistry Continuing Education Network, Lexington, KY 12/3/04

"Forensic Dentistry: An Introduction for Dental Hygienists" Ohio Dental Hygiene Association Annual Meeting, Cincinnati, Ohio 1/22/05

"Forensic Dentistry: An Introduction" Ohio Dental Association Annual Session Saturday 9/17/05 Greater Columbus Convention Center Columbus, Ohio

"Forensic Dentistry CSI" North Central Hygiene Association October 7, 2005 Sandusky, Ohio

"Forensic Dentistry: A Look as Dentistry as You've Never Seen it Before Toledo Dental Society October 19, 2005 Toledo, Ohio

"Forensic Dentistry in Child Abuse: First Annual James Steiner Lecture Series Cincinnati Children's Hospital Medical Center, Oct. 31, 2005

"Photography in Forensic Dentistry to Document Bitemarks and Patterned Injuries Grand Rounds, Cincinnati Children's Hospital Medical Center November 1, 2005

"Photographic Documentation of Bitemarks and Patterned Injures in Child Abuse and Domestic Violence" Kentucky Association of Sexual Assault Programs annual Meeting Marriott Griffin Gate Resort, Lexington, KY 12/8/05

-"Patterned Injuries in Sexual Assault" Innovative Healthcare for Victims- Kentucky Association of Sexual Assault Programs; University of Kentucky Medical Center Lexington, KY 2/7/06

-"Forensic Dentistry CSI" Hocking Valley Dental Hygiene Association Lancaster, Ohio 2/06

-"Report Writing in Bitemark Analysis" American Board of Forensic Odontology Bitemark Workshop Seattle, Washington 2/19/06

-"Forensic Dentistry Introduction" and Ohio State Dental Board Update, Stark County

Dental Society, Akron, Ohio 4/4/06

-"Forensic Photography in the Documentation of Bitemarks and Other Patterned Injuries Pediatric Sexual Assault Nurse Examiners Annual Meeting, Columbus, Ohio Children's Hospital, Columbus 4/28/06

-"Introduction to Forensic Dentistry" part of forensic series in collegiate course titled "Introduction to Forensic Science", University of Cincinnati, Professor Gideon Labiner, 5/3/06; also 5/2009

-"Mass Disaster Training and Preparation" National Mass Fatalities Institute Seminar sponsored by the Hamilton County Coroner's Office, Cincinnati, OH Scarlet Oaks Joint Vocational School 5/25/06

-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry University of Texas-San Antonio, San Antonio, TX 6/8- 6/10/06

-"Bitemarks" US Public Health Service Annual Session, Dental Category, Cincinnati, Ohio June 5, 2007

-"Forensic Odontology and the Coroner/Medical Examiner"; International Association of Coroners and Medical Examiners, millennium Hotel, Cincinnati, Ohio June 10, 2008

-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry, University of Texas-San Antonio, San Antonio, TX 6/4-6/7/2008

-"Forensic Dentistry; CSI" Ohio Expanded Function Dental Auxiliaries, Columbus, Ohio; 6/27/2008

- "Effects of the National Academy of Science (NAS) Preliminary Report on the Practice of Forensic Odontology, American Academy of Forensic Science Annual Meeting, Denver, CO, 2/2009

-"Bitemark Workshop", Ohio Dental Association Forensic Dental Team; Annual Meeting of the Ohio Dental Association, Greater Columbus Convention Center, Columbus, Ohio, September, 2009

- "Forensic Dentistry" Santiago, Chile, South America, 10/3- 10/12/2009; Inaugural meeting of the Latin American Society of Forensic Dentistry, at the invitation of the Division of Medicina Legal, Attorney General's Office, Country of Chile

-"Summary of the Findings of the National Academy of Science" American Academy of Forensic Sciences Annual Meeting, Denver, Colorado 2/20/2009

-"Forensic Dentistry- Human Abuse and Dental-Legal Issues" Ohio Dental Hygienists Association Annual Meeting, 4/23/10, Mason, Ohio

-Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director 5/12/10 Cincinnati, Ohio

-"Introduction to Forensic Dentistry", Guest Lecturer, Advanced General Dentistry Program, Un. of Cincinnati, Dr. Jerome McMahon, Program Director

-Southwest Symposium on Forensic Dentistry, "Bitemark Analysis" and "Advanced Forensic Photography", Un of Texas- San Antonio, San Antonio, TX; June 9-12, 2010

-"The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology", International Organization of Forensic Odonto-Stomatology, Lueven, Belgium September 2010

-"Human Bitemarks, NAS Report and *Daubert"* Executive Office of the President of the United States National Science and Technology Council, Committee on

Science, Subcommittee on Forensic Science, Washington, DC; January 12,2011
-"Forensic Dentistry and the NAS Report: then and now, really?" American Society of Forensic Odontology Annual Meeting, Chicago, Ill February 22, 2011
-"Pitfalls of Bitemark Analysis: where does one end and the other begin?" American Academy of Forensic Sciences, Hyatt Regency Hotel, Chicago, Ill, February 24, 2011
-"Bitemark Management 2011" American Board of Forensic Odontology Bitemark Workshop, Hyatt Regency Hotel, Chicago, Ill February 25, 2011
-"Forensic Odonotology" Ohio Association of Pediatric Dentistry, Nationwide Children's Hospital, Columbus, Ohio March 4, 2011
-"Bitemark Analysis, Conclusions and Report Writing" American Society of Forensic Odontology Annual Meeting February 21, 2012 Atlanta, GA

-"Bitemark Analysis" University of Kentucky College of Dentistry- Senior Elective April, 2012, Lexington, KY
-"The Dental Record- Saving or Kicking your Butt", Cincinnati Dental Society May 7, 2012 Cincinnati, Ohio
- Introduction to Forensic Dentistry, University of Cincinnati, Advanced Dental Practice Residency May 10, 2012 Cincinnati, Ohio
-Southwest Symposium on Forensic Dentistry-Bitemark , University of Texas, San Antonio; San Antonio, TX June 6-9, 2012
-"The Use of Bitemark Evidence, Analysis and Comparison in Violent Crime; 43rd Annual Session of the American Society of Forensic Sciences, Feb. 19, 2013 Washington, DC
-"Bitemark Analysis: Foundation, lessons from the Past and the Paradigm Shift to the Present and the Future"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Does Bitemark Evidence Meet Modern Evidentiary Reliability Standards? A Subject Expert Panel Discussion"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Human Bitemark Analysis"; University of Kentucky, College of Dentistry; Lexington, KY 3/8/2013
-" Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director Cincinnati, Ohio 4/4/2013
-"Forensic Dentistry" University of Cincinnati, Advanced Dental Practice Residency May 9, 2013 Cincinnati, Ohio
-"Human Abuse in the Practice of Dentistry" Cincinnati Children's Hospital Medical Center Pediatric Residency Program, Montgomery Inn, Montgomery, Ohio October 8, 2013; Cincinnati, Ohio
-"Contemporary Forensic Dentistry: Bites, Burns, Slaps, Age and Dental Record- Where Modern Dentistry Meets the Law"; University of Kentucky College of Dentistry, October 25, 2013; Lexington, KY

Affiliations:

Diplomat, American Board of Forensic Odontology (1989-) (ABFO)
Member, American Society of Forensic Odontology (1986-) (ASFO)
Fellow, American Academy of Forensic Sciences (1992-) (AAFS)
Fellow, International College of Dentists (2000-2010)
Member, PANDA Coalition- Delta Dental of Ohio and the Ohio Dental Association (1994-) (PANDA =prevent abuse and neglect through dental

awareness)
National Dental Advisor, Parents of Murdered Children (1993-)
Hamilton Co. Coroner's Office, Forensic Dental Consultant (1986-)
Disaster Committee Member, Greater Cincinnati- Northern Kentucky International Airport, Dental Mass Disaster Team (1988-)
American Dental Association, Ohio Dental Association (ODA)
Cincinnati Dental Society (CDS) (1984-)
CDS Council Member (1997-2005) Delegate, ODA (1998-2005)
-Chairman, CDS Public Relations Committee (2004-08)
Forensic dental consulting provided in many states throughout the US, Central and South America, Europe

Offices Held:

Forensic Dental Consultant, Hamilton Co. Coroner's Office (1986-)
Chairman, Mass Disaster Identification Team, Ohio Dental Association (1990-1998)
Chairman, Forensic Dental Team, Ohio Dental Association (1998-2010)
Chief, Hamilton County, Ohio-Dental Disaster Team (1986-)
American Board of Forensic Odontology (ABFO):
- Board of Directors, A.B.F.O. (1994-1997) (1998-2001) (2004-2005)
-ABFO Bitemark Proficiency Examination Development Committee (2011-..)
-ABFO Ethics Committee (2013-2016)
-ABFO Immediate Past President (2011-2012)
-ABFO President (2010-2011)
-ABFO President-Elect (2009-2010)
-ABFO Vice President (2008-09)
-ABFO Secretary (2006-08)
-Member, ABFO Human Abuse, Bitemark and Mass Disaster Committees Certification and Examination Committee, Human Identification Committee, Executive Committee, Nominating Committee
-Chairman, ABFO Strategic Plan Committee (2003-2006)
-Cincinnati Center for Children's Dentistry, Board of Directors, Trustee (2006-)
Chairman, Cincinnati Dental Society Forensic Dental Team (2002-)
Chairman, Human Abuse Committee, A.B.F.O. (2000-2002)
Board of Governors- A.S.F.O. (1995- 1998)
Editorial Board, A.S.F.O. Newsletter (1999- 2006)
Odontology Section Program Chairman, A.A.F.S. (1997-1999)
Odontology Section Secretary, A.A.F.S. (1999-2001)
Odontology Section Chairman, A.A.F.S. (2001-2003)
AAFS: Local Arrangements, Cincinnati, 1990
Continuing Education Committee (1997-2003)
Nominating Committee (2000- 2002)
Ethics Committee (2000- 2002)
Council (1998-2002)
Journal of Forensic Sciences, Peer Review, scientific articles (2009-)

Ohio State Dental Board :
Term: 4/04 through 3/31/08
Committees: Policy Committee (2004 -08)
Laws & Rules Committee (2004 - 08)
Communication Committee (2004- 08)
Scope of Practice (2004- 08)

Recognized Meetings:

Symposium on Mass Disasters, A.D.A. Headquarters, Chicago, Illinois, March 1986
Airport Disaster Exercise, Greater Cincinnati International Airport
October 1988-December 1991, September 1993-September 1996
September 1997- present
American Academy of Forensic Sciences (AAFS)- Annual Meeting
Cincinnati, Ohio – February 1990
Anaheim, California – February 1991
New Orleans, LA – February 1992
Boston, MA – February 1993
San Antonio, TX – February 1994
Seattle, WA – February 1995
Nashville, TN - February 1996
New York, NY – February 1997
San Francisco, CA - February 1998
Orlando, FL - February 1999
Reno, NV - February 2000
Seattle, WA - February 2001
Atlanta, GA - February 2002
Chicago, IL - February 2003
Dallas, TX – February 2004
New Orleans, LA February, 2005
Seattle, WA February 2006
San Antonio, TX February, 2007
Washington DC February, 2008
Denver, CO February 2009
Seattle, WA February 2010
Chicago, IL February 2011
Atlanta, GA February 2012
Washington DC February 2013
American Society of Forensic Odontology Annual Meeting: 1986- present
American Board of Forensic Odontology Annual Diplomates Meeting 1989- present
Second Symposium on Mass Disaster, ADA Headquarters, Chicago, Illinois, 6/96
Mass Disaster Workshop, ADA Headquarters, April 1997
C.A.R.E. Symposium (Child Abuse Recognition Education),
ADA Headquarters, 7/31- 8/1/98

Continuing Education:

- "Forensic Odontology", Armed Forces Institute of Pathology Washington, D.C. September 1986
- "Forensic Odontology", University of Louisville, Louisville, KY
Mark Bernstein, D.D.S. 1985
- "Forensic Odontology", ADA Mid-Winter Meeting, Chicago, Illinois
John Kenney, D.D.S. 1987
-Mini- A.F.I.P Course, Indiana University- Purdue University, Indianapolis, IN
A.F.I.P. Faculty, 1988,
- Annual A.A.F.S meeting: 1990- 2013, Annual A.S.F.O. meeting: 1990- 2013; A.B.F.O. Annual meeting: 1989-2013

Research Interest:

- Photo-documentation of patterned injuries using non-visible light (Infra-red and ultra violet light)- research on-going

- Digital Imaging and Enhancement, on-going

I have been involved in litigation, both in civil and criminal cases, as well as the review of many cases that were not litigated Specifics available upon request.

Odontology Report

In the matter of Danny Hill v. Betty Mitchell, Warden

Report consists of 7 Pages, 2 Figures, 0 Appendices and 0 Attachments

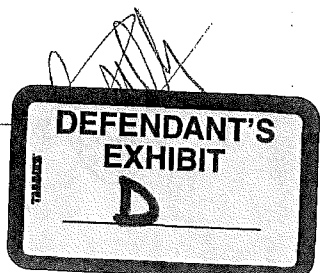
My name is Iain Alastair PRETTY and I am a qualified dental surgeon. I obtained my dental qualification, BDS(Hons), in 1998 from the University of Newcastle upon Tyne. I have obtained a further qualification in forensic dentistry, MSc, from the University of British Columbia, Vancouver, BC, Canada, a doctoral degree (PhD) from the University of Liverpool and a Masters of Public Health (MPH) from the University of Manchester. I am a member of the American Society of Forensic Odontology, a fellow of the American Academy of Forensic Sciences, a fellow of the Forensic Science Society, a member of the British Association of Forensic Odontology and the British Academy of Forensic Science. I am a Fellow of the Royal College of Surgeons of Edinburgh. I have published numerous articles and several book chapters on various aspects of forensic dentistry, in particular bitemark injuries and their analysis. A copy of my curriculum vitae has been previously provided.

I have been instructed by attorneys representing Mr. Danny Hill. In particular, I have been asked to examine a number of photographs documenting injuries to a child (Raymond Fife) - and to consider:

a) Is the injury to Raymond's penis consistent with a bitemark?
b) If so, are there sufficient details to enable a comparison with a suspect's dentition
c) The reports of Drs Mertz and Levine.

1. MATERIALS SUPPLIED

1.1 I have been supplied with the following materials:



a) Reports of Drs Mertz (November 4, 1985) and Levine (November 19, 1985)
b) Collection of black and white photographs (9)
c) Autopsy report of Dr Adelman (23rd October 1985)
d) Trial testimony
e) Defendant's dental records

2. INJURIES

2.1 When considering whether or not an injury is a bitemark there are a number of possible conclusion levels that can be drawn. These conclusion levels are those of the American Board of Forensic Odontology and have been recently adopted by the British Association of Forensic Odontology:

- Insufficient evidence
- Not a human bitemark
- Suggestive of a human bitemark
- A human bitemark

2.2 Bitemarks typically present as two semi-circular injuries that are separated at their open ends, and there may be an area of unaffected tissue in the centre. Bitemarks can present with a range of differing severities but a common feature is that focal points of bruising or laceration can be seen that relate to the class characteristics of teeth. Bitemarks vary in size but fall within an accepted range.

2.4 In preparing this report I have relied upon the photographs supplied to me in order to render my opinion.

3. SUSPECTED BITEMARK INJURY TO RAYMOND FIFE

3.1 I have studied the photographs supplied to me carefully. There is a single anatomical location that is of interest – the glans of the penis. Injuries to the penis are difficult to assess. The tissue is highly distortable and it is, of course, impossible to assess if the penis was flaccid, erect or semi-erect

during the infliction of the injury. The surface is curved, soft and the risk of postural distortion high. Indeed, looking at the photographs supplied the positioning of the metal scale and the holding of the penis by forceps demonstrates this. The injury in question is shown in Figures 1 and 2 attached to this report.

3.2 The injury appears to consist of a number of roughly circular injuries that may be lacerations. As I am basing my assessment purely from photographs (which is not unusual) I cannot be sure of the exact nature of the marks. I am not helped by the reports of either Levine of Mertz who do not describe the injuries in any detail other than stating that the injuries represent a bitemark. There are no measurements, descriptors or locators present in their written reports. One would normally expect a bitemark to be described in detail, with salient features supporting the conclusion that the injury was caused by human teeth.

3.3 Each of the individual circular injuries ranges from approximately 2 through 4mm. The appearance of these injuries is inconsistent with the appearance of human incisor teeth – but demonstrate *some* of the class characteristics of canine teeth. However, the arrangement, spacing, and overall morphological appearance of these marks is inconsistent with the normal arrangement of a dental arch.

3.4 The forensic significance of the injury is *extremely low.* This is largely due to the anatomical location, which, for reasons described in 3.1 is difficult to assess. It is impossible to identify a dental midline, maxillary or mandibular arches, or class characteristics of incisor teeth. It is my opinion that the identification of these gross characteristics are essential before the identification of a bitemark can be made.

3.5 The absence of these features, and the presence of the injury on a highly distortable anatomical location, mean that a conclusion of a definite human bitemark cannot be reached. Indeed it is my opinion that there is simply insufficient evidence presented to reach any conclusion regarding the

likely the nature of these wounds. I understand that the body was discovered with the genitals exposed – raising the suspicion that the injuries may be related to animal predation in the peri-mortem period.

3.6 It is therefore my conclusion that there is insufficient evidence to reach a conclusion at any level of certainty regarding the causation of the small, circular wounds to the glans penis of Raymond Fife. Given this conclusion, any further analysis of the injury is inappropriate. Even if the evidence had supported a conclusion of "suggestive of a bitemark" (which it does not) further analysis, according the ABFO decision model, would still be considered inappropriate.

4. LEVINE

4.1 Levine provides a one-page report in the form of a letter with three bullet points. I am not aware if a more comprehensive report was generated – with details of measurements undertaken, reasons for conclusions or the scientific processes underpinning those conclusions. Levine simply states that human teeth caused the patterned injury, that he cannot be sure if one or both defendants caused the injury but that he feels it is "likely" that "Hall" *sic* caused one portion of it. There is no information to support which element. There is no level of certainty provided to indicate what "likely" means – for example if it is at the level of medical certainty or below.

4.2 In his Court testimony, at 1143 – 4 he accepts that the condition of the penis is unknown in such cases and "could either be flaccid or erect....you really don't know.." Nothing else is provided in his testimony that enables us to understand how he reached his conclusion that this collection of injuries was a bitemark, nor was he asked in detail to support this conclusion. The majority of the testimony concerns his linkage of suspects to the alleged bite. Cross-examination is limited and is largely based on trying to get Levine to provide a level of certainty for his "Likely" conclusion. He concedes that the injury could have been produced by several bites and possibly from both defendants. This goes to support the lack of forensic significance of the

A-11 New Trial Motion

injury.

5. MERTZ

5.1 Mertz's report is again a single page of conclusions, although there are two pages of notes that accompany it. Again, these are focussed mainly on the comparative analysis and offer us no further insight into the reasons why the odontologist reached his conclusion that this collection of injuries should be considered a bitemark.

5.2 Testimony again is unhelpful and concentrates largely on the comparison of the injury to the dentition of the two suspects, without any real assessment of why Mertz felt that the injury was a bitemark. Mertz states that the measurements he took were inconsistent between the dentition of Hill and the injuries on the penis, to a "consistent" one-third. He states that, had the penis been erect during the time of biting, this would account for this difference. This is clearly unscientific, unsubstantiated and speculative.

5.3 In cross examination, we find that the injuries are described as "areas of ecchymosis" (970-10) rather than "indentations". The remainder of the testimony is a tortuous examination of the erect vs. flaccid argument in relation to the measurements of teeth and features such as diastemas.

6. CONCLUSIONS

6.1 Returning to my original instructions I can conclude that:

6.2 There is insufficient evidence within the photographs supplied to me to reach a conclusion regarding the causation of this injury.

6.3 It is impossible to identify crucial elements of a bitemark injury including the midline, the maxillary or mandibular teeth, or class characteristics of human incisors.

6.4 Current bitemark standards would indicate that no further analysis of the injuries would take place.

6.5 The reports of Levine and Mertz offer little in the way of scientific justification for their conclusions that the injuries are caused by human teeth.

6.6 It is my conclusion that this injury should not have been considered a bitemark and should not have been compared to the dentitions of the suspects.

6.7 The opinions rendered by Drs Levine and Mertz in this case are not based on scientific principles or processes – each odontologist agrees that bitemarks on the penis are difficult to assess and subject to distortion. These facts alone should suggest a cautious approach. Mertz utilised unrelated and spurious data to account for inconsistencies in his measurements compared to his favoured biter. I would hope that in a contemporary Court such evidence would not be allowed.

7. CONFLICTS OF INTEREST

7.1 I confirm that I have no conflict of interest of any kind in this case.

7.2 I will advise the party by whom I am instructed if, between the date of this report and the final hearing, there is any change in circumstances which affects my position in relation to conflicts of interest.

Overriding duty to the Court

'I understand my duty to the Court and I have complied with that duty.'

Statement of truth
'I confirm that insofar as the facts stated in my report are within my own knowledge I have made clear which they are and I believe them to be true, and that the opinions I have expressed represent my true and complete professional opinion.'

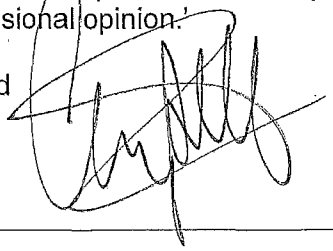
Signed  Date 29th September 2014

FIGURE 1 Injury to penis of Raymond Fife – view 1.

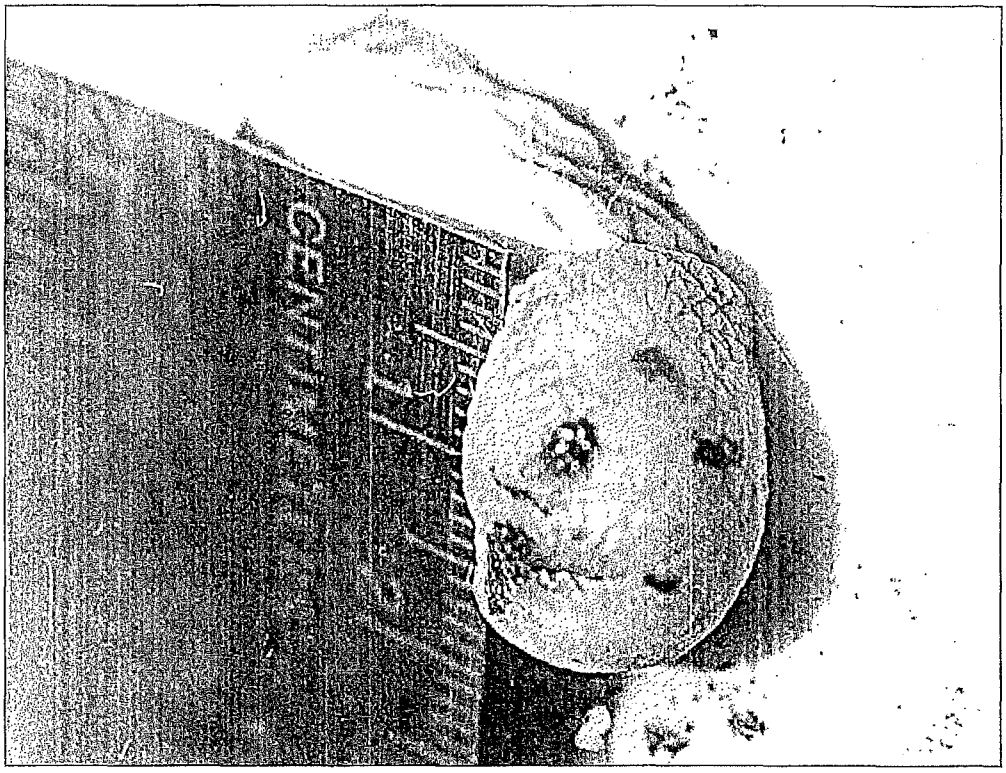


FIGURE 2 Injury to penis of Raymond Fife – view 2.





Forensic Curriculum Vitae

Dr. Iain A Pretty

BDS(Hons), MSc, MPH, MFSSoc, PhD, MFDS RCS(Ed)

DR. IAIN A PRETTY

Personal Details

Name	Iain Alastair Pretty
Date of Birth	30th December 1974
Nationality	British

Education

1998	Bachelor of Dental Surgery, (BDS) with Honours Faculty of Medicine, Sub-Faculty of Dentistry University of Newcastle upon Tyne Merit awarded in Restorative Dentistry Merit awarded in Child Dental Health
2000	Master of Science, Dental (MSc) Faculty of Dentistry University of British Columbia, Vancouver, Canada
2003	PhD Faculty of Medicine, Department of Clinical Dental Sciences University of Liverpool, Liverpool, England
2004	MFDS Royal College of Surgeons of England

Professional Credentials

1998 - Present	Licensed dental practitioner in Great Britain General Dental Council Registration number: - 74417
2004 – Present	Member of the Royal College of Surgeons of Edinburgh

Professional Associations

1996 - Present	British Dental Association
1997 - Present	Forensic Science Society of Great Britain
1997 - Present	American Society of Forensic Odontology
2000 - Present	International Association for Dental Research, (British Division)
2000 - Present	British Association of Forensic Odontology
2000 - Present	British Academy of Forensic Sciences
2000 - Present	American Academy of Forensic Sciences (Member)
2001 - Present	European Organisation for Caries Research

Honours & Awards

1998	Award for Excellence in Health Care University of British Columbia
1998	Dental Protection & Deans' Prize University of Newcastle Upon Tyne
1998	John Hopkins' Prize University of Newcastle Upon Tyne
1999	George S. Beagrie Scholarship University of British Columbia
1999	Part Time Faculty Teaching Award – Clinical Instructor University of British Columbia
1999	University Graduate Fellowship (Full) University of British Columbia
1999	Forensic Scholarship for Research Forensic Science Society, UK
2000	Full Studentship University of Liverpool
2001	Travel award British Society of Dental Research

Court Appearances

Recognised as an expert and provided testimony in Crown, Magistrate and Coroner's Courts throughout the UK. Extensive experience in child care proceedings.

Teaching Experience & Professional Presentations

1998 - 2000	Graduate teaching assistant, undergraduate medical and dental students University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Clinical supervision (Conservation, Periodontics, Oral Surgery) University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Didactic teaching and invited lecturer Simon Fraser University, Vancouver, B.C., Canada Kwantlen University College, Vancouver, B.C., Canada
2000 - Present	Invited Speaker, Police National Training Centre, Fire Investigators Course National Fire College, Moreton-in-Marsh, Oxford
2000 - Present	Invited Speaker, Police National Training Centre, Scene of Crime Officers Course NTC, Co. Durham
2000 - Present	Invited Speaker, Undergraduate Forensic Science Course John Moores University, Liverpool, England

Nov 2000	Research Seminar, "QLF – A New Light in Dentistry" The University of Liverpool - Dental School
Nov 2000	Presentation, "Effect of Ambient Light on QLF Analyses" Light in Dentistry – University of Gronigen
July 2000	Lecture, Forensic dentistry in the investigation of murder and rape Forensic Science Society, Summer Meeting, York
March 2001	Research Seminar, "Research Focus in Forensic Dentistry" The University of Liverpool - Dental School
August 2001	Lecturer, "The use of light in diagnostic dentistry" The University of British Columbia, Vancouver, Canada
November 2001	Presentation, "Molecular Biology and Forensic Odontology" Annual Meeting of the Liverpool Medical Inst.
2001 – Present	Invited Speaker, "Topics in Forensic Science" The University of Huddersfield
February 2002	Invited Speaker, "A new diagnostic tool in dentistry – QLF" The University of Newcastle Upon Tyne
April 2002	Invited Speaker, "Developments in forensic dentistry" North West Odontological Society

Service

June - August 1998	Clinical assistant in general dental practice, Jarrow, Tyneside
March 2000-Present	Forensic dentist serving North West Region
March 2000 - Present	Clinical assistant in general dental practice, Northwich, Cheshire
September 2002-Present	Senior Lecturer, The University of Manchester

Publications

Pretty IA, Anderson G, Sweet D. "Human bites and the risk of transmission of HIV and AIDS"; American Journal of Forensic Medicine & Pathology, 1999;36(3):56-62

Pretty IA, Sweet D. "The anatomical location of bitemarks. 101 cases from the United States"; Journal of Forensic Sciences, 2000; 45(4): 812-814

Kim JJ, Pretty IA. "Sensitive Issues – Management of dentinal hypersensitivity"; Dental Hygiene, December 2000, 34, 36-9, 54

Pretty IA, Webb DA, Sweet D. "The design and effectiveness of mock mass-disasters for dental personnel"; Journal of Forensic Sciences, 2001;46(1): 74-9

Pretty IA, Sweet D. "The scientific basis for human bitemark analyses – A Critical review"; Science and Justice, 2001; 41(2): 85-92

Pretty IA, Sweet D. "Teeth in the determination of human identity"; British Dental Journal, 2001; 190(7): 359-66

Sweet D, Pretty IA. "Teeth as weapons of violence – identification of bitemark perpetrators"; British Dental Journal, 2001; 190(8): 415-8

Pretty IA, Sweet D. "Adherence of forensic odontologists to the ABFO guidelines on evidence collection from suspects"; Journal of Forensic Sciences, 2001; 46(5): 1152-58

Pretty IA, Sweet D. "Digital bitemark overlays – An analysis of effectiveness"; Journal of Forensic Sciences, 2001; 46(6): 1385-1390

Pretty IA, Turnbull MD. "Lack of uniqueness between two bitemark suspects"; Journal of Forensic Sciences, 2001; 46(6): 1487-1491

Pretty IA, Higham SM, Edgar WM. "The use of QLF to monitor tooth whitening in a product testing model"; British Dental Journal, 2001; 191(10): 566-69

Arheart KL, Pretty IA. "Analysis of the results from the fourth ABFO Bitemark Workshop"; Forensic Science International, 2001; 124(2-3): 104-11

Webb DA, Sweet D, Hinman D, Pretty IA. "Forensic implications of biting behaviour: A conceptually underdeveloped area of investigation"; Journal of Forensic Sciences, 2002; 47(1): 103-6

Pretty IA, Webb DA, Sweet D. "Dental participants in mass disasters – A retrospective study with future implications'; Journal of Forensic Sciences, 2002; 47(1): 117-120

Pretty IA, Higham SM, Edgar WM. "The effect of ambient light on QLF analysis"; Journal of Oral Rehabilitation, 2002; 29(4), 369-373

Webb DA, Sweet D, Pretty IA. "The emotional and psychological impact of mass casualty incidents on forensic odontologists"; Journal of Forensic Sciences; 2002;47(3); 539-41

Gaytmenn R, Hildebrand DP, Sweet D, Pretty IA. "Determination of the sensitivity and specificity of sibship calculations using AmpF/STR Profiler"; International Journal of Legal Medicine, 2002; 116(3): 161-4

Pretty IA, Smith PW, Edgar WM, Higham SM. "The use of Quantitative Light-induced fluorescence (QLF) to identify composite restorations in forensic examinations". Journal of Forensic Sciences, 2002; 47(4): 831-6

Pretty IA, Edgar WM, Higham SM. "Quantitative light-induced fluorescence to detect early caries in primary teeth". International Journal of Paediatric Dentistry, 2002; 12(3): 158-167

Pretty IA., Hall RC. "Forensic Importance of Human Bitemarks". Hospital Medicine, 2002; 63(8): 476-82

Pretty IA, Higham SM, Edgar WM. "The Intra and Inter examiner reliability of QLF analyses"; British Dental Journal, 2002; 193(2): 105-9

Pretty IA, Addy LD. "Dental postmortem profiles – Additional findings of interest to investigators" Science and Justice; 2002; 42(2): 65-74

Pretty IA, Edgar WM, Higham SM. "A study to assess the effects of a new detergent free, olive oil formulation dentifrice *in vitro* and *in vivo*."; Journal of Dentistry, 2003; 31(5):327-332

Pretty IA, Edgar WM, Higham SM. "The erosive potential of commercially available mouthrinses as measured by QLF". Journal of Dentistry, 2003; 31(5):313-319

Pretty IA, Pender N, Edgar WM, Higham SM. "The in-vitro detection of early enamel de- and re-mineralisation adjacent to bonded orthodontic cleats using QLF." European Journal of Orthodontics, 2003; 25(3):217-223

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Pretty IA, Pretty RJ, Rothwell BR, Sweet D. "The Reliability of "digital" radiographic dental identifications. A web based study" Journal of Forensic Sciences, 2003; 48(6):1325-30.

Pretty IA. "The use of dental ageing techniques in forensic odontological practice. A review of five Coroner's Cases." Journal of Forensic Sciences, 2003; 48(5):1127-32

Pretty IA, Ingram G, Edgar WM, Higham SM. "The use of fluorescein enhanced QLF to monitor de- and re-mineralisation of *in vitro* root caries", Journal of Oral Rehabilitation, 2003; 30(12):1151-56

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Pretty IA, Maupome G. "The use of specificity, sensitivity, and predictive values in diagnostic/management procedures – Part 1 of 6". Journal of the Canadian Dental Association; 2004 Apr;70(4):251-255

Pretty IA, Maupome G. "The use of receiver operator characteristics in assessing diagnostic accuracy – Part 2 of 6". Journal of the Canadian Dental Association; 2004 May;70(5):313-316

Pretty IA, Maupome G. "The effectiveness of radiographic diagnostic/management procedures in dental practice – Part 3 of 6". Journal of the Canadian Dental Association; 2004 Jun;70(6):388-394

Pretty IA, Maupome G. "The effectiveness of non-radiographic diagnostic/management procedures in dental practice – Part 4 of 6". Journal of the Canadian Dental Association, 2004;70(7):470-4

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Ellwood RP, P Ellwood, RM Davies, IA Pretty. "The effect of illumination level and focal distance on in vitro light induced fluorescence imaging". Caries Research, 2006; 40(1):73-6

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Pretty IA. "Contemporary forensic odontological practice. Part 2: Bite injuries". Minerva Medicolegale; 2005; 125(3);139-152

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Other publications

MSc Thesis – 2000 – Diagnostic accuracy within forensic odontology

PhD Thesis – 2003 – Diagnostic applications of quantitative light-induced fluorescence

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IN THE COURT OF COMMON PLEAS
TRUMBULL COUNTY, OHIO

STATE OF OHIO,	)	
	)	
PLAINTIFF,	)	
	)	
v.	)	Case No. 85-CR-317
	)	
DANNY LEE HILL,	)	
	)	
DEFENDANT.	)	
	)	

AFFIDAVIT OF ZHONGXUE HUA, M.D., Ph.D.

I, Dr. Zhongxue Hua, being duly sworn under oath, hereby state to the best of my knowledge and belief as follows:

1. I am a forensic pathologist and neuropathological consultant; an assistant clinical professor of pathology at Albert Einstein College of Medicine, Bronx, New York; and an attending neuropathologist and assistant laboratory director at Jacobi Medical Center and North Central Bronx Hospital, New York. Previously, I served as Chief County Medical Examiner, Union County, New Jersey (9/2007 to 9/2012); Chief Regional Medical Examiner, counties of Essex, Hudson, Passaic and Somerset, New Jersey (7/2005 to 9/2007), and Assistant State Medical Examiner, State of New Jersey (2004-2007). I obtained my medical degree from Peking Union Medical College, Beijing, China (1989 M.D.), and a doctorate degree in biochemistry from the University of Rochester, Rochester, New York (1995 Ph.D.). I was a resident in pathology at the Albert Einstein College of Medicine, Bronx, New York (7/1995 to 6/1998), a fellow in neuropathology at Columbia Presbyterian Medical Center, Columbia University, New York, NY (7/1998 to 6/2000), and worked with the City Medical Examiner, Office of the Chief Medical

DEFENDANT'S EXHIBIT E

Examiner, New York, New York (7/2000 to 6/2001). A full list of my educational background, work history, publications, and professional credentials is contained in my annexed curriculum vitae.

2. I submit this Affidavit in support of the Motion for New Trial for Danny Lee Hill at the request of his attorneys. Mr. Hill was convicted and sentenced to death in 1986 for the murder of Raymond Fife, a 12 year old boy.

3. I have been asked to review the scientific and medical opinions, conclusions and testimony proffered by pathologist Dr. Howard Adelman and forensic odontologist Dr. Curtis Mertz concerning the cause and nature of Raymond Fife's injuries and death. I am qualified to comment on these matters because of my training and experience.

4. The victim Raymond Fife was attacked on September 10, 1985, and his death two days later was undisputedly caused by that attack. However, the testimony and opinions of Dr. Adelman and Dr. Mertz about the source, extent, cause and/or mechanism of Raymond Fife's injuries are not based on sound scientific principles. Indeed, the theories advanced by these experts at trial were based on unsupportable assumptions and gross inaccuracies. They do not constitute reliable, objective scientific testimony.

5. There was, and is, no scientific basis for three significant areas of the testimony and conclusions of Drs. Adelman and Mertz. First, there existed no scientific basis at the time of trial which would have supported the conclusions about the varying size of the child's penis in a flaccid or erect state. Second, there was no scientific basis at the time of trial that could have supported the conclusion that the child would have had an erect penis as a result of being strangled. Third, Dr. Adelman's testimony that a stick introduced into evidence fit the injuries to the child's rectum and bladder like a "key in a

lock" was entirely without scientific support. None of these conclusions have any more scientific support today than they did when originally given.

6. I have reviewed the following materials: 11/4/1985 Letter from Curtis Mertz to Dennis Watkins re: Bitemark; 12/19/1985 Curtis Mertz, Notes on Fife Bite Mark; Trial Testimony of Dr. Adelman; Trial Testimony of Dr. Mertz; Autopsy Report; Coroner's Verdict; St. Joseph Riverside Hospital Records on Victim; Photographs of the Victim Raymond Fife; Affidavit of Dr. Deborah Davis re: Hill; Affidavit of Dr. Franklin Wright; *Grandwohl's Legal Medicine; Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas.

THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN

7. At no point, including at the time the opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony regarding the nature of the wounds to Raymond Fife's rectum, or any object purportedly used to create those wounds.

8. There is no reliable scientific basis for Dr. Adelman's opinion and testimony that the piece of wood entered into evidence as Exhibit 47 at trial fit Raymond Fife's anus and/or wounds like a "key in a lock." Most importantly, it is not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Raymond Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock. The absence of blood or other biological material tying the object to Fife's injuries strongly indicates that it was not the object used to inflict the injuries. Dr.

Adelman's testimony on this point is unsupported speculation, and his comparison to a key and lock is unscientific and inflammatory pseudo-science.

9. At no point, including at the time Dr. Adelman's opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony that strangulation like that sustained by Raymond Fife causes penile erection to a specific degree.

10. As Dr. Adelmen testified, there have been historical observations that judicial hanging can cause erection and/or ejaculation in its victims. Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion is likewise inappropriate and renders his opinions in this specific case speculative and unreliable.

11. Although he claimed that there existed medical articles supporting his opinions, Dr. Adelman did not cite any of those articles. At trial, he conceded that he was "not exactly sure of the mechanism" through which asphyxiation caused penile erection. Dr. Adelman's admission of ignorance was the only part of his testimony regarding asphyxia and erection that was not unscientific or speculative.

12. Even setting aside the absence of a scientific foundation for his opinions, however, the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects of one to the others is baseless.

13. It is entirely speculative to conclude from such limited observations that the asphyxiation of a prone 12-year-old boy would result in an erection to a very specific degree or that it did so in this case. I am not aware of a single scientific study to support this theory, much less am I aware of any that include children the age of the victim in this

case. Put simply, there is no sound science to support the conclusion that asphyxia under these circumstances causes erection to a specific degree.

14. In sum, Dr. Adelman's testimony analogizing autoerotic asphyxiation and judicial hanging to Raymond Fife's strangulation is wholly without reliable, scientific basis.

OPINION AND TESTIMONY OF DR. CURTIS MERTZ

15. Dr. Curtis Mertz testified that the "probability that [Raymond Fife's] penis was in an erected state" was the basis for his opinion that the pattern injury on his penis matched the teeth of Danny Lee Hill.

16. At no point – including at the time Dr. Mertz proffered his opinions and testimony, in 1985-86, or today – has there been a scientifically reliable method of determining through post-mortem examination the probability that an erection may have occurred during an assault.

17. Dr. Mertz's review of the literature was cursory and inadequate, and the texts he relied upon were inapposite and outdated.

18. Dr. Mertz's reliance on *Grandwohl's Legal Medicine*, edited by Franci Camp, to support his opinion that it was probable Raymond Fife had an erection is misplaced and in error. Dr. Mertz selectively ignored the qualifications provided by his own authority, including the fact that there is "undoubtedly great variation" and there are "many factors [that] may interfere" with the symptoms listed, as well as the statement that "it is usually difficult or impossible to predict the physiological results" of asphyxia "with an accuracy at all." No reliable opinion that a penile erection was "probable" during strangulation could be based upon these limited findings.

19. Dr. Mertz testified that "the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state." He further testified that "this explains the difference in the measured size of approximately a third less" when comparing the purported bite marks on Raymond Fife's penis and the teeth of Danny Lee Hill.

20. Dr. Mertz's claim that there are scientific studies that supported his calculation that the erect penis of a 12-year-old boy is one-third larger than a flaccid penis is unfounded. As far as I am aware, there have never been any such studies, medical or forensic, to support such a theory.

21. The sole study that Dr. Mertz cited, *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas does not support his opinion. First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault. As a result, Dr. Mertz ignores both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed.

22. Dr. Mertz's opinions regarding Raymond Fife and the "probability" of his penile erection, as well as any resulting specific size differences between flaccid and erect states, are unsupported and speculative. They are post-hoc guesswork and do not constitute reliable scientific opinion.

Dr. Zhongxue Hua

Sworn to this 16th day of October, 2014

STEFANOPOULOS VITENTIA
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01ST6099670
Qualified in Queens County
Commission Expires 10/06/2015

Notary Public

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Diplomate, American Board of Pathology

- Forensic Pathology
- Neuropathology
- Anatomic Pathology

Current Employment

- Forensic Pathology & Neuropathology Consultant (since 2012)
- Forensic Pathologist (since 2008), Rockland County, New York
- Assistant Clinical Professor of Pathology (since 2001), Albert Einstein College of Medicine, Bronx, New York
- Attending Neuropathologist (since 2001), Jacobi Medical Center and North Central Bronx Hospital, Bronx, New York
- Assistant Laboratory Director (since 2001), Jacobi Medical Center and North Central Bronx Hospital, Bronx, New York

Prior Employment

- Chief, County Medical Examiner (2007 to 2012), Union County, NJ
- Chief, Regional Medical Examiner (2005 to 2007), Counties of Essex, Hudson, Passaic and Somerset, NJ
    - Interim Regional Medical Examiner (07/2004 to 12/2004)
    - Associate Medical Examiner (2003 to 2004)
    - Assistant Medical Examiner (2001 to 2003)
- Director of Forensic Neuropathology (2004 to 2007)
- Director of Forensic Fellowship Training Program (2005 to 2007)
- Toxicology/Medical Review Officer for Law Enforcement Drug Testing Program in the State of New Jersey (2004-2007)
- Assistant State Medical Examiner in the State of New Jersey (2004-2007)

Post-graduate Training

- City Medical Examiner (2000 to 2001), Office of the Chief Medical Examiner, New York, New York
- Fellowship in Neuropathology (1998 to 2000), Columbia Presbyterian Medical Center, Columbia University, New York, New York
- Resident in Pathology (1995 to 1998), Albert Einstein College of Medicine, Bronx, New York

Education

- M.D. in Medicine (1981 to 1989): Peking Union Medical College, Beijing, China
    - **Award**: Exchange Medical Student at Harvard Medical School (Boston, MA) during spring of 1989.
- Ph.D. in Biochemistry (1989 to 1995): University of Rochester, Rochester, New York

Medical Licensure

- State of New Jersey, since 2001, active
- State of New York, since 1999, active
- State of Rhode Island, since 2008, active

Publications & Presentations

Fuschino, ME., Hua, Z, et al., Detection of coxsackievirus A10 in multiple tissues of a fatal infant sepsis case. Journal of Clinical Virology. Epub ahead of print, 2011, December 30

Hua, Z., Overview of Forensic Medicine in China and Taiwan. 2010 Annual Meeting Presentation, American Academy of Forensic Science, Seattle, WA

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STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES

A PATH FORWARD

Committee on Identifying the Needs of the Forensic Science Community

Committee on Science, Technology, and Law
Policy and Global Affairs

Committee on Applied and Theoretical Statistics
Division on Engineering and Physical Sciences

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By contrast, much more research is needed on the natural variability of burn patterns and damage characteristics and how they are affected by the presence of various accelerants. Despite the paucity of research, some arson investigators continue to make determinations about whether or not a particular fire was set. However, according to testimony presented to the committee,[118] many of the rules of thumb that are typically assumed to indicate that an accelerant was used (e.g., "alligatoring" of wood, specific char patterns) have been shown not to be true.[119] Experiments should be designed to put arson investigations on a more solid scientific footing.

FORENSIC ODONTOLOGY

Forensic odontology, the application of the science of dentistry to the field of law, includes several distinct areas of focus: the identification of unknown remains, bite mark comparison, the interpretation of oral injury, and dental malpractice. Bite mark comparison is often used in criminal prosecutions and is the most controversial of the four areas just mentioned. Although the identification of human remains by their dental characteristics is well established in the forensic science disciplines, there is continuing dispute over the value and scientific validity of comparing and identifying bite marks.[120]

Many forensic odontologists providing criminal testimony concerning bite marks belong to the American Board of Forensic Odontology (ABFO), which was organized in 1976 and is recognized by the American Academy of Forensic Sciences as a forensic specialty. The ABFO offers board certification to its members.[121]

Sample Data and Collection

Bite marks are seen most often in cases of homicide, sexual assault, and child abuse. The ABFO has approved guidelines for the collection of evidence from bite mark victims and suspected biters.[122] The techniques for obtaining bite mark evidence from human skin—for example, various forms of photography, dental casts, clear overlays, computer enhancement, electron microscopy, and swabbing for serology or DNA—generally are

[118] J. Lentini. Scientific Fire Analysis, LLC. Presentation to the committee. April 23, 2007. Available at www7.nationalacademies.org/stl/April%20Forensic%20Lentini.pdf.

[119] NFPA 921 Guide for Explosion and Fire Investigations, 2008 Edition. Quincy, MA: National Fire Protection Association.

[120] E.g., J.A. Kieser. 2005. Weighing bitemark evidence: A postmodern perspective. *Journal of Forensic Science, Medicine, and Pathology* 1(2):75-80.

[121] American Board of Forensic Odontology at www.abfo.org.

[122] Ibid.

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well established and relatively noncontroversial. Unfortunately, bite marks on the skin will change over time and can be distorted by the elasticity of the skin, the unevenness of the surface bite, and swelling and healing. These features may severely limit the validity of forensic odontology. Also, some practical difficulties, such as distortions in photographs and changes over time in the dentition of suspects, may limit the accuracy of the results.[123]

Analyses

The guidelines of the ABFO for the analysis of bite marks list a large number of methods for analysis, including transillumination of tissue, computer enhancement and/or digitalization of the bite mark or teeth, stereomicroscopy, scanning electron microscopy, video superimposition, and histology.[124] The guidelines, however, do not indicate the criteria necessary for using each method to determine whether the bite mark can be related to a person's dentition and with what degree of probability. There is no science on the reproducibility of the different methods of analysis that lead to conclusions about the probability of a match. This includes reproducibility between experts and with the same expert over time. Even when using the guidelines, different experts provide widely differing results and a high percentage of false positive matches of bite marks using controlled comparison studies.[125]

No thorough study has been conducted of large populations to establish the uniqueness of bite marks; theoretical studies promoting the uniqueness theory include more teeth than are seen in most bite marks submitted for comparison. There is no central repository of bite marks and patterns. Most comparisons are made between the bite mark and dental casts of an individual or individuals of interest. Rarely are comparisons made between the bite mark and a number of models from other individuals in addition to those of the individual in question. If a bite mark is compared to a dental cast using the guidelines of the ABFO, and the suspect providing the dental cast cannot be eliminated as a person who could have made the bite, there is no established science indicating what percentage of the population or subgroup of the population could also have produced the bite. This follows from the basic problems inherent in bite mark analysis and interpretation.

As with other "experience-based" forensic methods, forensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which

[123] Rothwell, op. cit.
[124] American Board of Forensic Odontology, op. cit.
[125] Bowers, op. cit.

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to choose from in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect. Blind comparisons and the use of a second expert are not widely used.

Scientific Interpretation and Reporting of Results

The ABFO has issued guidelines for reporting bite mark comparisons, including the use of terminology for conclusion levels, but there is no incentive or requirement that these guidelines be used in the criminal justice system. Testimony of experts generally is based on their experience and their particular method of analysis of the bite mark. Some convictions based mainly on testimony by experts indicating the identification of an individual based on a bite mark have been overturned as a result of the provision of compelling evidence to the contrary (usually DNA evidence).[126]

More research is needed to confirm the fundamental basis for the science of bite mark comparison. Although forensic odontologists understand the anatomy of teeth and the mechanics of biting and can retrieve sufficient information from bite marks on skin to assist in criminal investigations and provide testimony at criminal trials, the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match. In fact, one of the standards of the ABFO for bite mark terminology is that, "Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion."[127]

Some of the basic problems inherent in bite mark analysis and interpretation are as follows:

(1) The uniqueness of the human dentition has not been scientifically established.[128]
(2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.[129]
    i. The ability to analyze and interpret the scope or extent of distortion of bite mark patterns on human skin has not been demonstrated.
    ii. The effect of distortion on different comparison techniques is not fully understood and therefore has not been quantified.

[126] Bowers, op. cit.
[127] American Board of Forensic Odontology, op. cit.
[128] Senn, op. cit.
[129] Ibid.

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(3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

Summary Assessment

Despite the inherent weaknesses involved in bite mark comparison, it is reasonable to assume that the process can sometimes reliably exclude suspects. Although the methods of collection of bite mark evidence are relatively noncontroversial, there is considerable dispute about the value and reliability of the collected data for interpretation. Some of the key areas of dispute include the accuracy of human skin as a reliable registration material for bite marks, the uniqueness of human dentition, the techniques used for analysis, and the role of examiner bias.[130] The ABFO has developed guidelines for the analysis of bite marks in an effort to standardize analysis,[131] but there is still no general agreement among practicing forensic odontologists about national or international standards for comparison.

Although the majority of forensic odontologists are satisfied that bite marks can demonstrate sufficient detail for positive identification,[132] no scientific studies support this assessment, and no large population studies have been conducted. In numerous instances, experts diverge widely in their evaluations of the same bite mark evidence,[133] which has led to questioning of the value and scientific objectivity of such evidence.

Bite mark testimony has been criticized basically on the same grounds as testimony by questioned document examiners and microscopic hair examiners. The committee received no evidence of an existing scientific basis for identifying an individual to the exclusion of all others. That same finding was reported in a 2001 review, which "revealed a lack of valid evidence to support many of the assumptions made by forensic dentists during bite mark comparisons."[134] Some research is warranted in order to identify the circumstances within which the methods of forensic odontology can provide probative value.

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[130] Ibid.

[131] American Board of Forensic Odontology, op. cit.

[132] I.A. Pretty. 2003. A Web-based survey of odontologists' opinions concerning bite mark analyses. *Journal of Forensic Sciences* 48(5):1-4.

[133] C.M. Bowers. 2006. Problem-based analysis of bite mark misidentifications: The role of DNA. *Forensic Science International* 159 Supplement 1:s104-s109.

[134] I.A. Pretty and D. Sweet. 2001. The scientific basis for human bitemark analyses—A critical review. *Science and Justice* 41(2):85-92. Quotation taken from the abstract.

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American Board of Forensic Odontology

Diplomates Reference Manual

January 2012 Edition

DEFENDANT'S EXHIBIT G

- Variation from normal, unusual, infrequent.
- Not one of a kind but serves to differentiate from most others.
- Highly specific, individualized.
- Lesser degree of specificity than unique.

Bitemark Definitions

Bitemark:

- A physical alteration in a medium caused by the contact of teeth.

- A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark

A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.

Variations:

1. Additional features:

    - Central Ecchymosis (central contusion).
    - Linear Abrasions, Contusions or Striations
    - Double Bite - (bite within a bite)
    - Weave Patterns of interposed clothing.
    - Peripheral Ecchymosis

2. Partial Bitemarks

3. Indistinct/Faded Patterned Injury (e.g., fused or closed arches, solid ring pattern)

4. Multiple Bites.

5. Avulsive Bites.

Terms Indicating Degree of Confidence That an Injury is a Bitemark:

Bitemark - Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: pattern conclusively illustrates a) classic features. b) all the characteristics, or c) typical class characteristics of dental arches and human teeth in proper arrangement so that it is recognizable as an impression of the human dentition.

Suggestive – The pattern is suggestive of a bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a bitemark – Teeth did not create the pattern.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

ABFO Standards for "Bitemark Terminology"

The following list of Bitemark Terminology Standards has been accepted by the American Board of Forensic Odontology.

1. Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion.

2. Terms used in a different manner from the recommended guidelines should be explained in the body of a report or in testimony.

3. All boarded forensic odontologists are responsible for being familiar with the standards set forth in this document.

2/2006

American Board of Forensic Odontology

Diplomates Reference Manual

August 2013 Edition

Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

Human Bitemark – Human Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: the injury pattern displays features that reflect the class and individual characteristics of human teeth.

Suggestive – The pattern is suggestive of a human bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as individual tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a human bitemark – Human teeth did not create the injury.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

The ABFO does not support a conclusion of "The Biter" in an open population case(s).

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

GRADWOHL'S
LEGAL MEDICINE

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SECOND EDITION, LARGELY REWRITTEN WITH MANY NEW ILLUSTRATIONS

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PLAINTIFF'S EXHIBIT 20

DEFENDANT'S EXHIBIT H

CHAPTER 18

UNNATURAL DEATH DUE TO ASPHYXIA

GENERAL CONSIDERATIONS

THE term 'asphyxia' is commonly applied to a variety of conditions in which interference with respiratory exchange plays a greater or lesser part. Many of these conditions vary so greatly in their physiological mechanisms and in the pathological appearances they present that the use of the term is best avoided whenever possible.

It is usual to divide the effects of 'asphyxia' into a number of stages, but it is probably only in deaths in which the predominant mechanism is one of respiratory obstruction with hypoxia and carbon-monoxide retention that these stages are seen. There is undoubtedly great variation in the time of appearance of these manifestations, and many factors may interfere with their production, which will be considered under the individual mechanisms causing the obstruction. The stages as usually described are:—

1. A stage of inspiratory dyspnoea, with deep and forceful respiration, and more or less cyanosis, lasting for a minute or so.
2. Spasmodic efforts at expiration: the stage of expiratory dyspnoea. Consciousness is lost and the pupils become dilated. The pulse slows and the blood-pressure rises.
3. The blood-pressure falls, pulse-rate increases, and it is in this stage that spontaneous defaecation, erection, and ejaculation may occur.
4. Respiratory movements cease except for terminal irregular occasional respirations, the heart often continuing to beat for 10–15 minutes.

These sequences have been arrived at in the past by observation on man and experimental animals.

Swann and Brucer (1949) produced anoxia in a variety of ways in unanaesthetized dogs. They found that when the dog's respiration was obstructed by a face mask the animals continued to make violent struggles or to have convulsions even up to the point of heart failure. Rhythmic breathing movements continued right through to circulatory failure. Within 90 seconds the pulse slowed and the slowing was accompanied by a great rise in systolic and a drop in diastolic pressure. Heart failure occurred very abruptly, although electrical activity continued in the heart for about 12 minutes after heart failure.

During the process of pure respiratory obstruction in these animals arterial oxygen-saturations fell progressively and the heart failed about 2 minutes after the oxygen-saturation had fallen below 10 per cent. The carbon-dioxide content at first rose rapidly then, as the blood lactate started to rise, the carbon-dioxide content fell until at death it was similar to the initial content. The carbon-dioxide tension rose throughout and reached very high levels terminally.

It seems probable that the classic description of the sequence of events in 'asphyxia' in man is a compilation of the effects of an obstructed airway, compression of the vessels in the neck, direct stimulation of the carotid sinuses, of the circulatory and biochemical effects of drowning, and possibly other phenomena, formerly all thought to cause death solely by anoxia.

In the sorts of assaults and injuries that result in interference with respiratory exchange in man it is usually difficult or impossible to predict the physiological results with any accuracy at all, and certainly the stages described above are not always followed.

THE INTERPRETATION OF POST-MORTEM APPEARANCES IN DEATH FROM RESPIRATORY OBSTRUCTION AND COMPRESSION OF THE NECK

It is doubtful if there are any constant post-mortem changes produced by the direct effect of anoxia upon the tissues, except the appearance of cyanosis. Most of the abnormal appearances in cases of respiratory obstruction are the result of the local effects of the obstructing or constricting agent, of raised intravascular pressure, and of the terminal heart failure.

Cyanosis

The significance of cyanosis in the cadaver must be evaluated very critically. If the body is examined within a few hours of death the presence of intense cyanosis is of some significance. The loss of oxygen by cadaveric blood is very variable, but certainly after 24 hours the appearance of cyanosis may be due entirely to post-mortem changes. Furthermore, the absence of cyanosis within a few hours of

burial by sand, earth, rock, or fallen masonry, in train crashes and similar accidents, and in crushing by other bodies in crowd accidents. The results are partly due to failure of respiratory exchange and partly to interference with the circulation. If severe crushing takes place cyanosis and congestive changes are very severe. The face is congested, swollen, and covered with petechial haemorrhages. The conjunctivae are oedematous and often there is confluent subconjunctival haemorrhage. The petechiae extend on to the neck and trunk and are often found on the limbs. They tend to form wide bands of congestion, cyanosis, and haemorrhage, and may in places follow the lines of folds in the clothing.

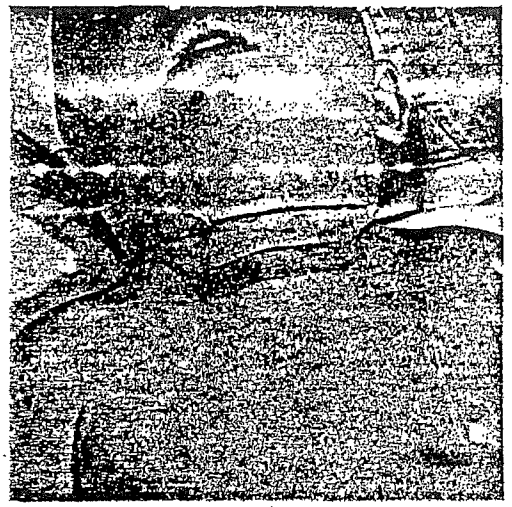


Fig. 229.—Mark caused by attempted strangulation by a nylon stocking 7 days previously. (There is strapping over a tracheostomy performed because of concomitant head injury).

THE LATE EFFECTS OF RESPIRATORY OBSTRUCTION AND TRAUMATIC ASPHYXIA

If the victim survives strangulation the congestive petechial haemorrhages persist for several days. A ligature mark will rapidly become red and swollen and a crust may form on the epidermis if it has been abraded (*Fig.* 229). The mark will gradually disappear over a period of one or two weeks. Bruising from manual strangulation will follow the course of bruising anywhere else in the body. If laryngeal injury has occurred there will be difficulty in swallowing, sore throat, and a hoarse voice for some days or weeks after. Fractures heal by bony and not fibrous union (Thomas and Kluyskens, 1962).

If the period of cerebral anoxia has been long enough, coma may be irreversible. In cases that have recovered from coma there may be changes in consciousness, amounting to a psychosis, sometimes with transient or permanent neurological damage, and retrograde amnesia is common (Gamper and Stiefler, 1937).

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PLAINTIFF'S EXHIBIT 19
PEHOAD-Bayonne, N.J.

Basic Morphological Data of External Genitals in 177 Healthy Central European Men

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ABSTRACT Five basic measurements were made of the penis, the scrotum and the testicles of 177 healthy Bohemian (Czechoslovakian) men, 18–20 years of age. The average length of the penis was 72.18 mm. The average circumference of the penis was 95.65 mm. The length of the right testicle was 47.37 mm, the length of the left was 45.17 mm.

In 16.2% of those examined slight deformations of the urethral opening and mild malformations of the prepuce and the frenum were found. These defects did not disturb function. The method of measurement used has been described.

As a continuation of some recent studies (Trosev, '69; Farkas et al., '68) on the postnatal development of the penis from birth until the age of six or seven years in members of two national populations, I measured the male genitals in normal adults. The information gained might be useful to the surgeon and other specialists dealing with congenital and acquired defects of the male genitalia.

MATERIAL

One hundred and seventy-seven healthy men 18 to 20 years of age, selected at random from among personnel of military units stationed in Prague (Czechoslovakia) were examined during the first half of 1968.

METHOD

Five objective basic measurements of the genitals obtained by anthropometry, and three qualitative signs related to the penis, assessed by anthroposcopy, were recorded in each case. The subject was recumbent during the examination. Measurements were made with the penis flaccid. The maximum-minimum measurements in millimeters were recorded on coded charts and the mean and standard deviations calculated. All measurements were performed by one person.

Measurements

1. The total length of the penis: measured by sliding calipers on the dorsal side of the penis between the root of the penis and the tip of the glans (fig. 1).
2. The circumference of the penis: measured by measuring tape in the mid portion of the penile shaft (fig. 1).
3. The circumference of the scrotum: measured by measuring tape from the right scrotal base along its circumference to the left scrotal base (fig. 1).
4. The size of each testicle: (a) the length: measured by sliding calipers between the two most distant points of its longitudinal axis (fig. 2), (b) the width: measured by sliding calipers in the mid portion of the testicle (fig. 2).

Qualitative signs

1. The site and the shape of the urethral orifice.
2. The shape and the state of development of the frenum.
3. The prepuce: its size, configuration, the size of the opening of the preputial pouch.

RESULTS

The results are shown in table 1 and table 2.

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DEFENDANT'S EXHIBIT I

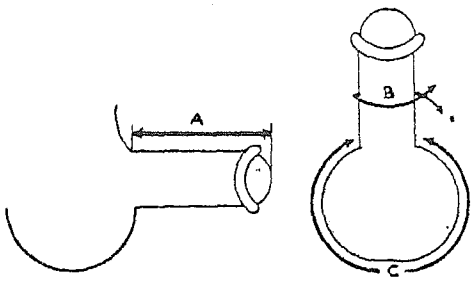


Fig. 1 Showing method of measuring penile length (A) and circumference (B) in flaccid state and circumference of the scrotum (C).

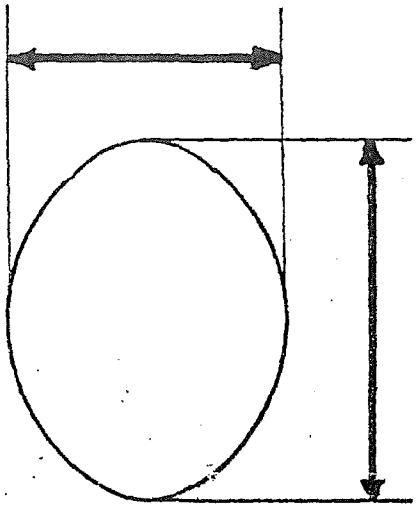


Fig. 2. Showing method of measuring testes.

DISCUSSION AND CONCLUSIONS

The findings in both age groups (18 to 19 years and 19 to 20 years) were analyzed in one group because in my experience the size of the genitalia does not change significantly between 18 and 20 years of age. Other authors' findings support this suggestion (Schonfeld, '43; Figalova et al., '68).

The men in this study group were healthy adults, found fit for military service by a military medical committee and were under constant medical supervision. None of them had pathological body configuration, abnormal body size, or manifested endocrine disturbances.

No measurements other than those of the genitalia were undertaken.

The surgeon repairing congenital or acquired defects of the genitalia prefers to use penile skin (or scrotal skin) for correction of the failure. The length and circumference of the penis in the flaccid state are of great value in the planning

TABLE 1

Metric data of external genitals in study group in millimeters

Region	Sign	N	Max-Min	Mean	SD
Penis	Length	177	110-45	72.18	11.24
	Circumference	176	120-77	95.65	8.31
Scrotum	Circumference	177	250-105	195.14	22.43
Right testicle	Length	176	65-34	47.37	4.71
	Width	176	42-17	28.02	3.44
Left testicle	Length	176	62-34	45.17	4.78
	Width	176	36-15	27.42	3.22

TABLE 2

Qualitative signs of external genitals in study group

Region	Sign	N	%
Urethral orifice	Markedly elongated ventrally	17	9.6
	Blind hole on the tip of glans and the separated urethral meatus situated ventrally	10	5.6
Frenum	Only one of its roots was developed and placed obliquely	1	0.5
Prepuce	Phimosis	1	0.5
Total		29	16.2

of corrective surgery. The circumference of the flaccid hypospadiac penis can be decisive in choosing the method of the urethroplasty (Farkas, '68). For these practical reasons the penis was measured in the flaccid state in all studies dealing with boys with hypospadias and also in controls (Farkas et al., '68; Farkas, '70).

The penis was measured between the same landmarks used by Schonfeld ('43). In only a few cases I found similar difficulties in the localization of the landmark at the penopubic junction as Schonfeld. I do not agree with Schonfeld that assessment of the length of the stretched penis is more precise than that of the flaccid penis. Both methods are open to inaccuracy. The error in measurement of length of the penis was estimated by me ± 1—2 mm, established by repeated measurement in cases where the landmark at the penopubic junction was not sufficiently visible.

The inaccuracies in measuring the scrotal circumference are even greater (± 2—3 mm) than in the length of the penis because it is difficult to determine the exact base of the scrotum.

The thickness of the scrotal skin makes the measured length and width of the testicles greater than they really are.

The average length of the penis (72.18 mm) in the study group is considerably less than the 100—120 mm recorded in some textbooks of anatomy (Borovansky, cited by Hromada), but the method of measuring is not known.

The length of the penis in this study group cannot be compared directly with the data in Schonfeld's paper because of the difference in measurement techniques. In my experience a flaccid penis 72 mm in length can be extended by approximately one-half of the original length when stretched. Thus the length of the penis of men in my study group would be markedly shorter (about 118 mm) in comparison with the findings given by Schonfeld (130 mm).

Hajnis and coworkers ('70) measuring the length of the penis between the tip of the glans and penoscrotal angle in normal Czech boys, from birth to six years of age, found the length of the erect penis almost double the length of the flaccid penis. However, the small number of the observations makes a valid conclusion impossible.

If Schonfeld's calculation is correct stating that on an average there is about 20—30 mm difference between the circumference of a flaccid and erect penis, then the circumference of the penis in males of this study group, recorded in flaccid state as 95.6 mm would be about 125 mm in state of erection which is markedly more than the medium measurement of Schonfeld (90 mm). The differences found between the Schonfeld norms and the study group are not surprising. There are similar differences between the size of the penis of normal Czech and Bulgarian boys from birth up to six years of age (Farkas et al., '68; Trosev, '69) using the same method of measurement.

The method of assessment of the size of testicles I used differed from that used by others (Albert, '53; Schonfeld, '43), which excludes a comparison of the findings. The right testicle in men studied was larger than the left, in accordance with the observation of Trosev ('69) in normal Bulgarian boys, and of Hajnis and coworkers ('70) in normal Czech boys. Schonfeld ('43) found a larger right testis in 23% of boys studied.

The relatively high frequency in my study of slight morphological changes of the urethral orifice and the shape of the frenum is unusual but similar to those found in slight degrees of hypospadias (Farkas, '70). The question remains: which anatomical changes of the urethral opening should be considered as variations of normal state, and which should be classified as microforms (forme frustes or minor defects), of hypospadias or epispadias? A larger sample of the general population would yield more reliable results.

Precise measurements of male genitals would be helpful for evaluating the effect of treatment on hypospadias, epispadias and for establishing the growth potential of the congenitally damaged penis (Figalova et al., '68).

The above mentioned findings in different populations and those observed during my long clinical practice in Central Europe, support our belief that there

exists differences between populations (of the same racial origin) in some anthropometric signs probably caused by different ethnic, social, alimentary, geographical and other factors.

However, a man's reticence to undergo this type of examination limits the number of subjects and makes it difficult to establish the reported or valid norms for each population.

Although the sample studied cannot be regarded as representative of the general population, it offers some valuable information about the size and configuration of the genitalia of adult males.

ACKNOWLEDGMENTS

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DECLARATION OF STEPHEN GREENSPAN, Ph.D.

I, Stephen Greenspan, declare and state as follows:

All of the facts contained in this declaration are known to me personally and if called as a witness, I could and would testify thereto.

BACKGOUND

1. Danny Lee Hill is a 44-year-old Ohio prison inmate who was condemned to death for his participation in the 1985 rape-murder in Warren, Ohio, of a 12-year-old child: Raymond Fife. Mr. Hill drew attention to himself by presenting himself two days later at the Warren police station, where he volunteered information about the crime in an attempt to collect a $5,000 reward. Following a state "Atkins" hearing held in 2004, Mr. Hill was found not to have mental retardation, and his petition for relief from the death penalty was, consequently, denied. That ruling was subsequently upheld by the Ohio Supreme Court. My understanding is that Mr. Hill's current *habeas* counsel is appealing that decision in Federal court, and that my declaration likely will be used in support of that appeal.

2. My role in this case is that of a teaching expert, informing the court about methodological and conceptual guidelines that should be followed in diagnosing mental retardation in criminal cases, and opining as to whether those guidelines were sufficiently understood or followed by various testifying experts, and as reflected in the 2004 court ruling. My opinions in this declaration are based on a review of various documents, including testimony transcripts. I have not interviewed the defendant, and I do not attempt to make a formal diagnosis. In the interest of full disclosure, I do know three (one now deceased) of the five experts who testified in this case, but I have never discussed the facts of this case with any of them.

DEFENDANT'S EXHIBIT J

3. The standard used by the Ohio court in the earlier Atkins proceeding was spelled out in the Ohio Supreme Court's 2002 *State v. Lott* ruling. As I understand it, the framework laid down in Lott is a clinical definition derived from the section on mental retardation contained in the 2000 Diagnostic and Statistical Manual, 4th edition—text revision (DSM4-TR) published by the American Psychiatric Association. The constitutive definition has three prongs: (a) significant impairments in intellectual functioning, (b) associated with impairments in adaptive functioning, and with (c) onset of the disorder within the developmental years (i.e., prior to the age of 18). That constitutive definition is identical to, and derived from, the definition first developed in 1961 by the American Association on Mental Retardation (now known as the American Association on Intellectual and Developmental Disabilities).

4. In the five decades since that constitutive definition was first propounded, it has remained essentially unchanged (except that initially prong three was set at onset prior to age 16). What has changed over the course of several decades is more in the operational definition: for example, IQ ceiling scores, and criteria for determining prong two (adaptive functioning) deficits. These operational criteria will be discussed in relevant following sections.

MY QUALIFICATIONS

5. Over the past several years, I have been qualified as an expert in psychology and mental retardation, now increasingly referred to as Intellectual Disabilities (ID) by 15 state or Federal judges, in so-called "Atkins" (death penalty exemption) proceedings, at various stages: pre-trial, penalty and habeas. In addition, I have been used as a consultant in numerous other cases. In a sizeable percentage of these cases, I have not supported a diagnosis of ID.

6. I am a Clinical Professor of Psychiatry at the University of Colorado Health Sciences Center, and Emeritus Professor of Educational Psychology at the University of Connecticut. I received a Ph.D. in Developmental Psychology from the University of Rochester, and was a Postdoctoral Fellow in MR and Developmental Disabilities at the UCLA's Neuropsychiatric Institute.

7. I have been elected "Fellow" (a designation given only to the most qualified members) by the MR/ ID division of the American Psychological Association and by the American Association on Intellectual and Developmental Disabilities. I was also elected to a term as President of the Academy on Mental Retardation (the most prestigious research organization in the field) and received a license to practice psychology in the states of Nebraska (expiration January 2013) and Tennessee (status: inactive). I also currently hold temporary visiting psychology licenses in the states of Oregon and Texas.

8. I have published extensively on ID, with particular emphasis on "adaptive behavior." I am a leading scholar in the ID field, as seen in the most recent diagnostic manual of the American Association on Intellectual and Developmental Disabilities MENTAL RETARDATION: DEFINITION, CLASSIFICATION AND SYSTEMS OF SUPPORTS (11th Edition, 2010). I was also the most-cited authority in its predecessor manual, published in 2002. My 2006 book WHAT IS MENTAL RETARDATION, co-edited with H. Switzky, is considered one of the standard reference works in the ID field, and has been described as "the best book ever published on the definition and diagnosis of mental retardation". In 2008, AAIDD granted me its highest honor, the Gunnar and Rosemary Dybwad Award for Humanitarianism. In August 2011, the Intellectual Disability division of the American Psychological Association will award me its highest honor: the John Jacobson Award for critical contributions to the field of ID theory and practice.

9. In the past year, I have testified as a defense expert in Atkins proceedings in three federal district courts (in Ohio, Idaho and Louisiana). In the Ohio case (*in re Antun Lewis*), the judge cited my testimony extensively in support of a positive ruling (the other two cases have not yet been decided). In addition my scholarly writings were cited in support of the ruling by a federal judge in a Maryland capital proceeding (*in re Earl Davis*) in which I did not testify, and an affidavit submitted by me was cited as the basis for a ruling by a federal judge in a Texas case (i*n re Yokoman Hearn*).

MATERIALS REVIEWED

10. The following materials were reviewed by me:

- Video Depositions of Annette Campbell and Debbie Flaherty
- Judge Curran Judgment Entry (Findings of Fact and Conclusions of Law)
- Declaration of Kevin Keith
- Declaration of Gary Johnson
- Declaration of Percy Hutton
- Declaration of Gerald "Bob" Hand
- Dr. Huntsman Atkins Evaluation Report of 6/15/2004
- Declaration of Joe D'Ambrosio
- Dr. Hammer Psychological Consultation Report of 6/5/2004
- Testimony of Dr. Olley
- Dr. Olley Psychological Report of 4/26/2004 through 4/28/2004
- Declarations of John H. Vermeulen, M.D. and his wife, Mary Louise Vermeulen
- Prison Records Review Prepared by Federal Public Defender Office
- Declaration of James Spindler
- Declaration of Annette Campbell
- Declaration of William "Bill" Baer
- Declaration of Karen Weiselberg-Ross
- Volume XI Transcripts of Mitigation Testimony
- Dr. Crush Neuropsychological Report of 2/25/1986
- Dr. Darnall Psychological Report of 1/10/1984
- Danny Hill School Records
- Declaration by Dr. Sara Sparrow
- Declaration by Dr. Timothy Hancock
- Video of police interview with Danny Hill
- Curriculum Vitae for all experts who testified in the Atkins proceeding
- Court transcript for the Atkins proceeding
- Declaration of Dr. J. Gregory Olley, September 2010
- Report by Dr. Hoi Suen on issues pertaining to the Vineland
- Transcript of deposition of Dr. J. Gregory Olley, April 11, 2011

QUESTIONS ADDRESSED IN THIS DECLARATION

11. The questions I address in this declaration are the following:

- Were appropriate methods used by the three psychological experts in conducting the evaluation of Mr. Hill?
- Did the experts who testified in this case have requisite qualifications needed to express an opinion about mental retardation or other matters relating to this case?
- Were the experts justified in their conclusions about prong one (intellectual impairment)?
- Were the experts justified in their conclusions about prong two (adaptive behavior)?
- Were the experts justified in their conclusions about prong three (developmental onset)?
- Were the experts justified in concluding that Mr. Hill was not putting forth an adequate effort?

WERE APPROPRIATE METHODS USED BY THE PANEL OF EXPERTS?

12. The court appointed three experts to participate in an evaluation of Mr. Hill. They were Dr. Hammer (retained by the defense), Dr. Olley (retained by the prosecution) and Dr. Huntsman (appointed by the court). They chose to evaluate Mr. Hill as a team, deciding on the tests to administer and then deciding who would administer which test. As noted by Dr. Olley in a recent declaration, this is a highly unusual approach. In fact, in 30 or more cases in which I testified or consulted, this is the first time I have heard of such an approach being used. In my opinion this group approach is problematic, for a number of reasons, to be discussed below.

13. Although appointed as a panel, the experts were expected to function independently, and to testify as to their individual opinions about Mr. Hill. Yet, human nature being what it is, a group dynamic tends to take over in such a collective approach, and it is possible, indeed likely, that individual perspectives and concerns became subsumed to this group dynamic. This is reflected in comments recently made by Dr. Olley, the expert retained by the prosecution. He now states that he had some reservations at the time about some of the things that were done, but these reservations were not sufficient to cause him to dissent from the group-affected decisions that were made.

14. The American Psychological Association (APA) ethics guidelines generally recommend against having third parties in the testing room, although this recommendation is aimed more at non-psychologists (such as attorneys and family members). There are two concerns stated for this recommendation: (a) protecting the copyright of test materials (not as much a relevant consideration in this instance), and (b) avoiding upsetting, disconcerting or affecting the performance of the subject. In fact, the only reason given by the APA (in a white paper by a special assessment committee) for when additional people should be in the testing room is if it would calm the subject (for example, when a child would be reassured by the presence of his mother) and facilitate better effort. In this case, there is evidence (the defendant struggling and breaking into tears twice) which suggest that the group format had a negative impact on Mr. Hill and was not, therefore, an appropriate testing climate.

15. Dr. Huntsman started off her evaluation by giving Mr. Hill a standard forensic statement warning him that the information obtained was not confidential and could be used against him in court. As Dr. Huntsman reported in a recent deposition, both Dr. Olley and Dr. Hammer "took her to task," because they felt she had delivered this warning in too strong a manner, that it appeared to upset Mr. Hill, and that it was not congruent with the friendly and supportive climate they believed was essential for psychological testing. This is another possible contributor to the performance which Dr. Huntsman used to support her diagnosis of malingering but which could have been an artifact of a far from optimal testing climate.

16. An even more serious deviation from recommended practice was the manner in which the videotaping of the session occurred. As with the presence of third parties, the APA's position is that this is not a generally recommended practice, but they stopped short of outlawing it. However, there is a clear instruction to conduct the taping in a way that is not intrusive and that does not affect the ability of the subject to concentrate and to give a maximum effort. Ideally, the videotaping should be done from a remote location or through an unmanned camera left running in the room. Allowing a prosecution investigator who had a negative history with Mr. Hill to be in the room, operating the camera, was a serious breach of assessment protocol. In a recent declaration, Dr. Olley states he was unaware of the identity of the camera operator and his history with Mr. Hill, and would have objected to the arrangement if he had possessed that knowledge. Dr. Huntsman has since stated that she was also unaware of the history between the defendant and the video camera operator as well.

DID THE EXPERTS POSSESS REQUISITE QUALIFICATIONS?

17. The court commented on the excellence of the five main psychologists who testified, almost terming them the "dream team of expert witnesses." At the risk of seeming overly critical, I think the characterization was only partially accurate, in that two, and possibly three, of the five witnesses, while highly qualified for tasks other than what was required of them in this case, lacked requisite qualifications for the testimony that they offered.

18. Two of the psychologists who assessed Mr. Hill--Dr. Hammer (appointed by the defense) and Dr. Olley (appointed by the prosecution)—possessed decades of deep and impressive training and experience in evaluating and working with people with MR. The third psychologist, Dr. Hunstsman (appointed by the court) was almost completely lacking in MR expertise. Looking at her CV, I saw only one item—an early article on which she was second author—that gave any indication that she had ever even been in the presence of someone with MR. That article described an experiment conducted with "retardates," (the title of the article), apparently in an institutional setting. Participating in one study, in the role of junior researcher, hardly qualifies Dr. Huntsman to evaluate individuals with mild MR who live outside of institutional settings.

19. In the past several years (after his testimony in the Hill case), the main prosecution expert, Dr. J. Gregory Olley, has written extensively on the credentials necessary to testify competently on the matter of MR in an Atkins case. He co-chaired a joint committee of the American Psychological Association divisions 33 (mental retardation) and 41 (law and psychology) which worked on the development of professional guidelines for psychologists involved in Atkins proceeding. Furthermore, he authored a frequently-cited article (in a special Atkins issue of APPLIED NEUROPSYCHOLOGY edited by me) which specifically addressed the qualifications needed for psychologists to diagnose MR in a forensic context.

20. In an Arizona case (*in re McGee*), Dr. Olley submitted a 2009 declaration in support of a defense effort to bar a psychologist with nonexistent MR experience comparable to Dr. Huntsman's from testifying. (I know about this, because he submitted the declaration in response to a request from me). In his declaration, Dr. Olley wrote: "Mental retardation is a specialty field within psychology, and, thus, an expert should have training in a doctoral program with specialization in developmental disabilities or should have participated in extensive continuing education in this area. The typical graduate program in clinical, counseling, or forensic psychology contains very little information on this topic, and a generic clinical, counseling, or forensic psychologist would not be expected to have the necessary background in this field. An expert in mental retardation would be expected to be a member of professional organizations that focus on developmental disabilities, …[and to] be familiar with this [Atkins-related] scholarly literature. The expert should be familiar with the publications on the diagnosis of mental retardation…"

21. Dr. Huntsman clearly met none of these requirements, as reflected in the fact that of all of the experts, she is the only one who did not mention the clinical definition criteria for defining and diagnosing MR. She also demonstrated some of the mistaken stereotypic notions about MR that are held by lay people and by psychologists who lack specialized MR training. In his article about psychologist qualifications needed to conduct competent Atkins evaluations, Dr. Olley pointed to the holding of these stereotypes as the main reason why testimony by clinical psychologists without specialized MR training should not be given much weight by courts.

22. In a landmark Virginia Atkins proceeding for Daryl Atkins (the man after whom these kind of proceedings was named), the trial judge ruled against the Atkins petition, relying heavily on a psychological expert, Dr. Stanton Samenow. He is a highly qualified forensic psychologist, as is Dr. Huntsman, but he testified that he lacked any familiarity with clinical guidelines for defining MR and also that he lacked any specialized training or experience in MR. The high court of Virginia later reversed the judge's decision, citing the excessive reliance on an unqualified expert as a major reason. Given that the courts in Ohio seemed to place great stock on testimony by an equally unqualified expert, Dr. Nancy Huntsman, it seems to me that this is a source of legitimate concern.

23. Two other experts testified in the rebuttal phase of the hearing: Dr. Sara Sparrow (who passed away recently) for the defense and Dr. Timothy Hancock for the prosecution. Their testimony focused on a relatively narrow question, but one to which the court apparently attached great importance. It had to do with the extent to which the Vineland Social Maturity Scale (VSMS) on which Mr. Hill was rated when of school age, predicted a standardized score on its successor test, the Vineland Adaptive Behavior Scale (VABS) that was significantly lower. Dr. Sparrow, a psychologist who was an eminent Yale professor and one of the leading scholars in the MR field, was the senior author of the VABS, and someone well-qualified to talk about the VABS and its predecessor measure, the VSMS. However, she admitted on the stand that she was neither a statistician nor a psychometrist, and she stated that one should be brought in to address technical statistical issues pertaining to the reliability of her concluding from the earlier VSMS that Mr. Hill now met the requirement for adaptive deficits prior to the age of 18.

24. Dr. Timothy Hancock, a psychologist brought in by the prosecution in sur-rebuttal to Dr. Sparrow, described himself as a psychometrics expert, but in my view he lacked qualifications necessary to speak to the specific matter he addressed in the hearing. Dr. Hancock is a clinical psychologist at a mental health clinic, who maintains a consulting practice helping attorneys understand assessment issues. I do not doubt that he is a fine clinician, that he knows something about test construction, or for that matter that he knows about how to diagnose MR (which was not his assigned role in this case).

25. However, Dr. Hancock's CV does not list any academic affiliation or a single refereed publication, in test statistics or psychometrics (or anything else, for that matter). He is second author on one conference presentation with a psychometrics focus, but it is a stretch to describe him as a recognized authority on psychometrics. That impression was certainly reinforced for me by his testimony in this case. The problem with Dr. Hancock's testimony is that he mistakenly assumed that the central question the court should address was whether the VSMS was *equivalent* to the VABS, whereas in fact the central question (which Dr. Sparrow initially raised but was unable to subsequently explain) is whether a score on the VSMS could reliably *predict* a score on the VABS.

26. Dr. Hancock was correct in testifying that a correlation coefficient of 0.55 was insufficient to establish that VSMS and the VABS are equivalent tests (although even there, he committed a fundamental arithmetic error in calculating the degree of that non-equivalence). However, a correlation coefficient of 0.55 is more than sufficient for devising a prediction formula; in fact, many quite reliable prediction formulas have been devised in spite of correlations that are smaller than 0.55. The statistic which Dr. Hancock should have been discussing is not the correlation coefficient but rather the "standard error of estimate", which could have been derived from a prediction equation which likely was contained in an appendix to the VABS manual, where the data linking the VSMS and VABS was supposedly provided. One could then apply those statistics to the VSMS score of Mr. Hill and determine if the range of predicted VABS scores is below the cutoff predicted by the standard error of estimate. This is a very fundamental procedure that a psychometrics expert should be expected to understand and use.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG ONE?

27. The first prong of the Ohio legal definition of MR is significant impairments in intellectual functioning, and it can be met through various indices of cognitive incompetence. The most widely used index is an IQ score on an individually-administered comprehensive full-scale measure of intelligence (such as the Wechsler scales or the Stanford-Binet) that is below approximately 70-75.

28. Mr. Hill has taken a great many IQ tests, dating back to the childhood years. Without exception, they all fall in the range of mental retardation. That includes a Wechsler Adult Intelligence Scale, 4th edition (WAIS-4) administered by Dr. Huntsman, on which he received a full-scale IQ score of 58, which falls within the MR range. Dr. Huntsman characterized this as an invalid score, arguing that Mr. Hill was malingering. However, it is not dramatically different from earlier scores in the 60's obtained by Mr. Hill, all of which were also squarely in the MR range.

29. In my view, Dr. Huntsman's characterization of Mr. Hill as malingering is debatable, a view which I discuss at greater length later in this declaration. The other two experts agreed that Mr. Hill clearly met prong one of the Ohio definition of MR, a conclusion which to me appears justified. The judge concurred, and ruled that prong one was met. Therefore, I shall devote most of my attention in the remainder of this declaration to the other two prongs.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG TWO?

30. The decision to deny Atkins relief to Mr. Hill was based on the judge's view that the petitioner failed to meet prong two: impairments in adaptive functioning (which is termed "adaptive behavior" in the AAMR/ AAIDD manuals and in most other state Atkins statutes). In my view, there were many irregularities in the methods and arguments that led two of the three experts to conclude that prong two was not met. I believe that better methods, in addition to new information that has recently come to light, would almost certainly have led Dr. Olley, and possibly Dr. Hunstman, to reach a different conclusion.

31. One of the more questionable aspects of the earlier proceeding was the weight attached to a score on a single administration of a rating instrument, the Vineland Social Maturity Scale (VSMS) in 1984, administered when Danny was 17 years old and evaluated by the Juvenile Court. The informant was Mr. Hill's mother. The report, by psychologist Dr. Douglas Darnall, gave Mr. Hill a "social quotient" of 82.9, in the borderline range. Dr. Darnall observed that the informant, Ms. Vaughn, was motivated to make her son look more competent than he actually was, and he considered the score to overestimate Danny's actual adaptive functioning, which Dr. Darnell estimated to be in the "mildly retarded range."

32. The VSMS was developed in the 1930's, did not have adequate norms or meet other requirements for current psychometric instruments, and is very different in terms of its content from more recent rating measures of adaptive behavior. To counter the impression that the VSMS score might be a disqualifying factor for prong two, the defense brought in Dr. Sara Sparrow, an eminent psychologist and MR expert from Yale University. Dr. Sparrow was the senior author of the Vineland Adaptive Behavior Scale (VABS), a successor instrument to the VSMS, and an instrument with excellent psychometric properties which is widely used today in schools and legal settings. Dr. Sparrow discussed the results of a "linkage" study, with nearly 400 subjects rated on both the VSMS and the VABS, and which she testified enabled one to reliably predict a VABS score from a score on the VSMS. Based on that study, Dr. Sparrow testified that Mr. Hill would have received a much lower score on the VABS, one that was well under the ceiling for diagnosing MR. That conclusion was challenged by Dr. Timothy Hancock, who argued that the correlation between the VSMS and the VABS was insufficient to make such a prediction The judge sided with Dr. Hancock, and cited the results of the Vineland disputation in his order.

33. Unfortunately, neither Dr. Hancock nor Dr. Sparrow possessed the qualifications, in my opinion, to address adequately the complicated statistical issues raised by that question. I recently recommended to Mr. Hill's defense attorney that she seek an opinion on this controversy from Dr. Hoi Suen, who is Distinguished Professor of Educational Psychology at Pennsylvania State University and one of this country's most eminent psychometrics experts. I have seen a report from Dr. Suen, and he concludes that Dr. Sparrow was more correct than Dr. Hanock, in that the correlation of 0.55 was more than high enough to make a reliable prediction, and that the VABS score predicted by the linkage study would definitely be lower than the VSMS obtained from the rating of Mr. Hill as an adolescent. However, insufficient data was available for him to say with confidence exactly what the predicted score would be.

34. Aside from questions about the VSMS-to-VABS prediction, there is a problem in the reliance on a single adaptive behavior rater, because she could be biased or have a skewed view. Parents will often overstate the competence of their child, as was noted by Dr. Darnell, both because of shame about having a deficient family member, but also because they may also be impaired. Dr. Olley has himself subsequently written that one should rely on multiple raters, whenever possible.

35. Regardless of who was correct on the VSMS/ VABS prediction issue (and I believe that Dr Suen is justified in siding more with Dr. Sparrow), I consider it a trivial controversy, not deserving of the importance attached to it by the court. There is no requirement, in Ohio or in any clinical manual, that incompetence on prong two has to be quantified through use of a standardized instrument. One can rely on qualitative and descriptive information alone to see if someone does or does not meet prong two; there is an abundance of such information, including during the developmental period, which supports the view that Mr. Hill was significantly impaired. To dismiss the importance of such information because of a questionable number on an ancient test with inadequate norms and obtained from an unreliable informant is to raise the importance of numbers to an absurd level.

36. That said, it can be useful to obtain standardized prong two rating information, and the evaluators might have done so had they been willing or able to move outside of the prison environment physically or through telephone contact. The current standard practice for rating of adaptive behavior is to ask current raters to fill out a Vineland or ABAS (Adaptive Behavior Assessment System, which is also widely used) retrospectively. This involves asking the rater to answer each rating question as the ratee was at some point in the past, typically before the age of 18. This does two things: (a) it places less emphasis on evaluating the person in a highly structured and restricted prison context, where there are few opportunities to engage in most of the behaviors on the rating instrument and where the most likely informants (i.e., correctional officers) typically do not know the individual well enough to rate him validly; and (b) it enables one to gather additional information about how the individual functioned within the developmental (pre-18) period. The fact that such a method was not used by any of the evaluators in this case is, to me, a significant problem. I have no doubt that if this evaluation was being done today, such a method would have been used by one or more of the evaluators. I know it would have been done today, because Dr. Olley has co-authored a book chapter on using the ABAS in Atkins proceedings, in which he endorsed such a retrospective method.

37. As mentioned, competence within the prison setting is not a reliable source of data about prong two, because: (a) people with MR do much better in a highly restricted and controlled setting such as prison, and have few opportunities to perform most of the community-oriented items on adaptive behavior rating measures; and (b) informants, such as prison guards, even if one overlooks their

possible bias as state employees, typically do not know the individual well enough to rate him. Yet, the panel did collect and rely upon such information, even if they did not use formal rating instruments. It now turns out, from interviews with some of the guards who testified, that their testimony was misunderstood and that Mr. Hill was not as competent as portrayed by them. Furthermore, declarations from other inmates (who are better able than guards to recognize mental retardation in a peer) now provide a picture of Mr. Hill as someone less well able to function adequately than was portrayed to the experts. To my knowledge, none of the experts were allowed access to interview other inmates about Mr. Hill.

38. Two "direct" methods were used to assess prong two. By direct, I am referring to an interview or test session with the petitioner himself. Dr. Olley administered the Street Survival Skills Questionnaire (SSSQ), a measure of Practical Adaptive Skills, one of the three components of adaptive behavior identified by the AAIDD 2010 diagnostic manual, and based on a tripartite model of prong two generally attributed to me. Mr. Hill obtained a standard score of 43, which is within the range of moderate MR, and which could in itself be cited in support of prong two qualifying. Dr. Olley questioned the veracity of the score, noting that Mr. Hill responded in a slow fashion (slow responding, in my experience, is common in people with MR, reflecting a lack of confidence or certainty). There is a literature which today questions the validity of the SSSQ, and its norms are of questionable quality. Dr. Olley would probably not use the SSSQ today but there is nothing in the obtained results which dispute a diagnosis of MR and much which confirms it.

39. The other direct measure was the administration of the ABAS-2 to Mr. Hill as the rater, rating himself. The obtained standardized scores were in the MR range, but it is not recommended practice today to use the petitioner as a self-rater. That is because people with mild MR will typically overstate what they can do, although that does not appear to have occurred here. Mental retardation is a status ascribed by others—laypeople as well as professionals—and self-perception is generally not an adequate basis for making the diagnosis.

40. One of the factors which apparently contributed to the conclusion that Mr. Hill failed to meet prong two was his performance on the stand during the court proceedings before his Akins hearing. Dr. Olley, in particular, stated that this was a consideration which pushed him from (apparently) being on the fence about

prong two, to deciding that prong two was not met. As Dr. Olley is well-aware, the oral language of people with mild MR is generally relatively normal, as one would expect of anyone with a mental age of ten or eleven. It can, therefore, be highly misleading to use evidence of language competence as a basis for ruling out MR.

41. People in prison have much time and many opportunities to talk with others (inmates as well as attorneys) about their cases, and individuals with mild MR can often go on and on at great length about various twists and turns of their case, the problems they have had with various attorneys, the motions that were made or not made, etc. Although superficially impressive, such verbalizations often have an obsessive repetitive quality, are often inaccurate in the particulars (apparently the case here) and are usually not fully responsive or pertinent to the question being asked. The communicative incompetence of people with mild MR is typically more in the area of sociolinguistics (interpersonal uses of language) than in the area of psycholinguistics (formal structure of language). I have not seen anything in the language used by Mr. Hill that is inconsistent with a diagnosis of mild MR.

42. A related consideration, mentioned by Dr. Olley in his April, 2011 deposition is his opinion that people with MR cannot make attributions about feelings. He found it diagnostically indicative of non-MR, therefore, that Mr. Hill accused the judge of taking a break in the proceedings because he feared that he (the judge) was about to start crying on the bench. Ms. Werneke pointed out that the judge denied having that motivation and, therefore, that Mr. Hill's attribution was incorrect. Dr. Olley replied that what mattered was not the correctness of the emotion judgment but, rather, the making of an emotion judgment at all. He asserted that this was unusual in people with MR, citing both his own clinical experience and the research literature. I cannot speak to Dr. Olley's experience but I can speak to the research literature, and it is my view that Dr. Olley's interpretation of the research on this topic is incorrect. It is true that people with mild MR are less likely to interpret others' emotions correctly, and that in fact was the case here (as Dr. Olley acknowledged). However, people with MR can speak the language of emotion, as reflected in the fact that they can correctly identify emotions when they are obvious (as for example say that someone is sad when she is crying). Their problem in identifying emotion comes in when emotions are ambiguous, as for example when someone feels something different than one might expect. Normal children of ten or eleven can talk about emotions, sometimes correctly, often incorrectly. Adults with MR (who may have a mental

age as high as ten or eleven) function in the same inconsistent manner with regard to emotion recognition.

43. I speak to this point as a scholar who has written extensively about "social intelligence," a construct that includes emotion recognition as a sub-topic. I have authored two widely-cited chapters on social intelligence in people with MR, in which I reviewed the literature on emotion recognition among other sub-topics: see S. Greenspan (1979). Social intelligence in the retarded. In N.R. Ellis (Ed.), Handbook of mental deficiency: Psychological theory and research. 2nd ed. Erlbaum, and S. Greenspan & P. F. Love (1997). Social intelligence and developmental disorder: Mental retardation, learning disabilities and autism. In W.F. MacLean, Jr. (Ed.) Ellis' handbook of mental deficiency, 3rd ed. Erlbaum. This research shows, as I stated above, that adults with MR are poor affective perspective-takers, especially in situations of ambiguity.

44. In my view, however, Dr. Olley went too far in asserting that people with MR cannot attend to or talk about emotions. As example, a study in a British MR journal [R.P. Hobson, J. Ouston & A. Lee (1989). Naming emotion in faces and voices: Abilities and disabilities in autism and mental retardation. British Journal of Developmental Psychology, Vol 7(3)] found that people with MR were better at identifying emotion-in-context than people with autism, and that some people with MR were able to accurately identify emotion under some circumstances. Certainly, there was no evidence that people with MR could not talk about others' emotions at all. Thus, to the extent that Dr. Olley's diagnostic conclusion was, as he said, heavily influenced by his (to my mind, mistaken) view of that research literature, his diagnostic conclusion should be reexamined.

45. As part of her attempt to convince the court that Mr. Hill did not meet prong two of the Ohio definition of mental retardation, Dr. Huntsman characterized the Vineland Adaptive Behavior Scale (VABS) as a poor measure of adaptive functioning, and compared it unfavorably to the Scales of Independent Behavior, revised edition (SIB-R). In my opinion, this is a distinctly minority opinion, as the VABS (now VABS-2) is one of the most widely-used and respected measures in the fields of mental retardation and school psychology while the SIB-R, which is a test with inadequate and outdated norms, is rarely used. In the Atkins cases on which I have consulted or testified, the two most widely-used measures of adaptive functioning are the VABS and the Adaptive Behavior Assessment

System (ABAS, now ABAS-2), while the SIB-R is almost never used. Unless I misunderstood her testimony, if Dr. Huntsman was saying that the Vineland lacks scientific or professional support, then that is an opinion with which I disagree.

46. In this case, because Ohio relies on DSM4-TR (based on the 1992 AAMR manual), the standard used for establishing prong two impairment is not the one-out-of-three deficits approach reflected in the 2002 and 2010 AAMR/ AAIDD manuals, but rather the two-out-of-eleven deficits approach reflected in DSM4-TR. In this approach, one can qualify if one has significant impairments in at least two adaptive skill areas. The eleven skill areas are as follows: communication, community use, functional academics, home living, health, safety, leisure, self-care, self-direction, social and work. Dr. Olley and, I believe, Dr. Huntsman, felt that Mr. Hill was significantly impaired only in functional academics. Based on new information from Ms. Campbell and also from prison inmate informants about serious hygiene problems, Dr. Olley in a recent deposition indicated that he now believes that Mr. Hill is significantly impaired in self-care as well. Thus, prong two now perhaps appears to be met in the opinion of at least two of the evaluators.

47. Dr. Huntsman indicated that Mr. Hill's diagnosis of antisocial personality disorder explains his impaired adaptive functioning, because of the presence of "maladaptive behaviors" which might explain or mask the presence of adaptive behaviors. However, both DSM4-TR and the AAIDD "green book" both state that adaptive behavior deficits should be evaluated according to whether or not an individual can perform certain tasks, without regard for any inferred cause or explanation. Furthermore, the manuals make clear that MR is not an exclusionary diagnosis, and someone with MR can have other diagnoses. The existence of another diagnosis, regardless of how reliable or unreliable it might be, should not be used to argue against meeting prong two. Lastly, the notion of maladaptive behavior as a diagnostic construct was specifically excluded from both DSM and AAMR in the 1990's. This was partly in response to a paper by me in which I pointed out that MR is a disorder marked by an inability to perform age-expected tasks and is not defined by how "nice" or 'well-adjusted" one might be.

48. In sum, I believe that there is little credible evidence to justify the view that Mr. Hill does not meet prong two. To the contrary, there is much evidence which suggests that Danny Lee Hill has significant impairments in adaptive functioning, and that these impairments became evident at an early age.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG THREE?

49. Prong three refers to the requirement that the disability (as defined by deficits in prongs one and two) first manifest itself during the "developmental period," which is usually interpreted as before the age of 18 (in at least two states it is before the age of 22). Another way of framing prong three is as a failure to ever develop adult competencies beyond what would be expected of someone aged eleven or twelve. This reflects a view of MR as a "developmental disability," i.e., a disorder rooted in brain abnormality or insufficient brain development, and which is traceable to factors—known or unknown—which manifest early in life.

50. Prong three does not mean that there was a formal diagnosis of MR made during the developmental period, as that could be affected by many factors, including: availability of services; school policies and practices; location (rural versus urban); family resources and persistence, etc. Obviously, when a diagnosis occurs in childhood, establishing prong three is made easier.

51. Mr. Hill was evaluated for special education by Warren City Schools psychologist Karen L. Weiselberg in 1973, when he was six years old. He was given a diagnosis of "EMR" (Educable Mental Retardation, roughly comparable to mild MR). To my mind, this fact alone establishes that prong three has been met.

52. Many concerns were expressed about the developmental delays of Danny Lee Hill when he was a young person. These have recently been confirmed by new declarations of teachers who knew Danny as a child. At the time of the hearing, Dr. Hammer detailed Danny's developmental problems, and indicated a conviction that, in spite of a relative absence of school information, he felt that Danny met prongs one and two within the pre-18 period and also (despite some indication of poor effort) within adulthood as well. Based on what I have seen, I believe that Dr. Hammer's conclusions were justified.

WERE THE EXPERTS JUSTIFIED IN POINTING OUT MALINGERING?

53. A picture of Mr. Hill that was presented during the hearing, particularly by Dr. Huntsman, was one of Mr. Hill faking "dumb," that is deliberately giving a poor effort and consciously attempting to be seen as having mental retardation. Dr.

Huntsman even went so far as to give Mr. Hill an Axis-1 DSM4-TR diagnosis of "malingering disorder." This testimony, by an expert witness who in my view lacked sufficient training and expertise in diagnosing mental retardation, was apparently very persuasive, as it was cited heavily by Judge Curran in his ruling. However, in my view, the basis for Dr. Huntsman's diagnosis of malingering rests on very shaky ground.

54. A major reason given by Dr. Huntsman for concluding Mr. Hill was malingering was his low score on the Test of Memory Malingering (TOMM). That is a widely-used measure of effort on cognitive tasks, which is based on the notion that on tasks which are very easy, poor performance must be an indication of poor effort rather than poor task-relevant ability. A problem with Dr. Huntsman's reliance on the TOMM results is that the measure was developed for use with people with relatively intact intelligence, and it has never been validated for use with subjects with seriously impaired intelligence. In fact, the author of the test has acknowledged that individuals with MR were not included in the test standardization sample, and he has cautioned against using the TOMM to infer lack of efforts in subjects who have MR. The reason for this caution is that the assumption of test easiness is unproven for a MR population, and thus poor performance may reflect poor ability rather than poor effort.

55. Dr. Karen Salekin, a professor of psychology at the University of Alabama, has co-authored a widely-cited article on the validity of efforts tests (in a special Atkins issue of the journal APPLIED NEUROPSYCHOLOGY that I edited). Her conclusion, after reviewing the research on a number of measures, including the TOMM, was that these measures are of questionable validity for diagnosing malingering in people with IQs in or near the MR range, and should not be used with that population. Furthermore, psychologists who participate in Atkins evaluations typically administer two or three (sometimes more) measures of effort. That practice was not followed in this case.

56. Dr. Huntsman relied heavily in her conclusion that Mr. Hill was malingering on her belief that Mr. Hill was lying when he stated that he could not read or write. That belief was based on a statement by a person who said she had observed Mr. Hill writing. That witness has now clarified her testimony, by admitting that she observed him one time from a distance and did not know what he was writing. Furthermore, there are now statements from inmates who support

Mr. Hill's claim that he could not read or write. Thus, a major basis for Dr. Huntsman's diagnosis of malingering now appears to be of questionable validity.

57. Dr. Huntsman stated that it was her belief that Mr. Hill was malingering not only adaptive functioning but also a low score on the WAIS-4 which she administered. In support of this view, she also noted that his performance was variable, with good performance on hard items and poor performance on easy items, but she provided no specific details to support that observation. One way of determining the validity of an IQ score is to see if it agrees with earlier scores, and there is strong consistency across these many IQ tests, some of which were given long before Mr. Hill had any reason to fake a low score.

58. The diagnosis of malingering in an Atkins context rests on the assumption that the defendant understands that being diagnosed with MR would be to his benefit. I have participated in many Atkins proceeding and I have yet to encounter more than one or two defendants who: (a) fully understood the nature of the evaluation, and (b) wanted to be labeled as having MR, regardless of that understanding. MR is a label which people with MR hate (that is the main reason for switching to a new term "Intellectual Disability"). Many spend a lifetime trying to dispute or cover up their limitations (there is an extensive literature on such "passing", pioneered by UCLA professor Robert Edgerton under the rubric of "cloak of competence"). Malingering requires some degree of sophistication, and it does not appear to me that Mr. Hill possesses that degree of sophistication. There is an extensive research literature (by Yale professor Edward Zigler among others) which explains why people with mild MR often give up in testing situations, and it has to do not with malingering but with the fact that they have always failed on academic (including testing) tasks, and they find such tasks very aversive, threatening and difficult. In my professional opinion, a diagnosis of cognitive malingering should be backed up by at least some evidence that Mr. Hill was aware of the purpose of the evaluation and was motivated to support a diagnosis of MR, and I have not seen any discussion of such evidence.

59. A recent declaration by retired psychiatrist Dr. John H. Vermeulen, states that he diagnosed Mr. Hill as having mental retardation when he was first admitted to the Ohio adult correctional system. This was long before the Atkins decision and long before Mr. Hill had any motive to feign cognitive incompetence. Mr. Hill was first labeled as possessing mental retardation in elementary school and he was

also given that label as an adolescent, when he was evaluated by the juvenile justice system. Throughout his whole life he has scored in the range of mental retardation on standardized tests of intelligence. If this were not such a serious matter, I would say that it is laughable to assert that Danny Lee Hill has feigned, and continues to feign, mental retardation, especially given the questionable methods and evidence that were relied upon to reach that conclusion.

SUMMARY AND CONCLUSIONS

60. The evaluation of Danny Lee Hill occurred early in the history of Atkins proceedings, in Ohio and the United States, and many of the methods, concepts and arguments used in this case would today be considered inappropriate. The chief state expert, Dr. J. Gregory Olley, has become one of the leading published authorities on how to conduct such evaluations, and he has come out strongly against some of the approaches used in this evaluation. For example, he has argued in a series of papers on prong two (adaptive functioning) assessment that it is inappropriate to administer an adaptive behavior rating instrument to the defendant himself, and also that one should not rely on a single adaptive behavior rater. Yet, both of these were done in this case.

61. Dr. Hammer, the defense expert, and a man with decades of experience in the mental retardation field, testified that Mr. Hill qualified for a diagnosis of mental retardation under clinical and Ohio guidelines. I believe, if he were conducting the evaluation today and the methods that are now standard, that Dr. Olley (a man with experience comparable to Dr. Hammer's) would possibly reach the same conclusion.

62. Dr. Huntsman lacked, in my view, the experience and training needed to rule in or out a diagnosis of MR in this case. However, she was given misleading information by prison guards, about Mr. Hill's abilities, and that information factored into her conclusion that he was malingering mental retardation. Furthermore, Dr. Huntsman relied on an instrument (the TOMM) which, as a qualified forensic psychologist, she likely now understands to be inappropriate for use with low IQ subjects. For these reasons, I believe that Dr. Huntsman (who as the court's expert, was especially heavily relied upon) would today possibly reach a different conclusion as well.

63. There were significant problems with the group approach used by the panel of three experts in conducting their evaluation of Mr. Hill. It was a highly unusual practice, which blurred the ability of the experts to arrive at independent conclusions, and it appeared to have the effect of upsetting the defendant and thus created a non-optimal evaluation climate. An especially egregious aspect of the approach followed was allowing a prosecution employee with a negative history with Mr. Hill to conduct the videotaping while in the same room with him and the experts. In my view, these deviations from standard or optimal practice make it difficult to consider the experts' results, or conclusions drawn from those results, to be valid.

64. As reflected in the court's ruling, the judge relied on misleading and inadequate testimony regarding the linkage between the earlier and later Vineland rating scales. The evidence actually supports a different conclusion than was reached, but at any rate, the matter is in my view trivial and irrelevant, as there is an abundance of qualitative evidence regarding Mr. Hill's meeting prong two. There is no requirement in Ohio or in clinical manuals, which require that prong two data be quantified in order to be considered, and the whole controversy, in my view, placed way too much emphasis on the importance of a qualifying number however questionable the number or the norms on which it was based.

65. Mr. Hill is a person who has been viewed all of his life as having mental retardation. Everything that I have read suggests to me that the label still applies. Based upon all of these factors enumerated by me in this declaration, it is my scientific, professional, and expert opinion, which I provide with a reasonable degree of scientific certainty, that the evidence pertaining to Danny Lee Hill is much more congruent with a diagnosis of Intellectual Disability than was the conclusion reached by two of the three experts in the original hearing.

I declare under penalty of perjury under the laws of the State of Ohio and the United States of America that the foregoing is true and correct.

Executed this 27th day of April, 2011, at Littleton, Colorado.



Stephen Greenspan, PhD

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Married (Helen Apthorp), two children (Alex, Eli)

Education: Bronx H.S. of Science
Johns Hopkins University, BA (Liberal Arts)
Northwestern University, MA (History)
Univ. of Rochester, MA, PhD (Developmental Psychology)
UCLA, Post-Doc (Developmental Disabilities)

Employment: U.S. Army, Private soldier (Artillery), 1965-66
Research Analyst, Rochester Center for Governmental Research, 1966-1970.
Pre-Doc Fellow, U of Rochester, 1970-76
Post-Doc Fellow, UCLA, 1976-77
Assistant Professor of Psychology, George Peabody College for Teachers of Vanderbilt University, 1977-1979.
Scientist, Boys Town Center for the Study of Youth Development, Omaha, NE, 1979-1985. Also Visiting Assistant Professor (Ed. Psychology and Psychiatry), University of Nebraska, 1979-1985
University of Connecticut, Department of Educ. Psychology. Assoc. Prof.,1985-1994.Tenure-1989. Professor, 1995-. Emeritus 1998-.
University of Colorado Health Sciences Center, Clinical Professor of Psychiatry (psychology), 1999-present.

Scholarly Interests:
Adaptive behavior, multiple intelligences and personal competence
Gullibility and foolish action in at-risk populations
Classification and criminal justice issues in human services
Parenting competence and child adjustment outcomes
Ethics and professionalism in education and human services

Professional Affiliations:
American Psychological Association (Fellow)
American Psychological Society (Fellow)
American Association on Mental Retardation (Fellow)
National Board member, 1997-1998. President of Region 10, 1997-1998.
Academy on Mental Retardation, Board Member ('90-'99) President (95-97)

Certifications:

Licensed Psychologist, State of Nebraska (#100295, exp. Jan. 2013).
Licensed Psychologist, State of Tennessee (#P-636) inactive status.

References: A list of references will be furnished upon request.

Administrative/ Grant Experience:

Scientist, John F. Kennedy Center for Research on Education and Human Development, Peabody College of Vanderbilt University, 1977-1979 (Project Director for part of NICHD Program Project Grant).

Research Scientist, Boys Town Center for the Study of Youth Development, Omaha, Nebraska, 1979-1985. (Project Director for "social competence research program" funded through Boys Town endowment).

Director of Special Services, Father Flanagan HS (Boys Town Urban Program, 1982-1985.

Principal Investigator, "A comprehensive school-based approach to adolescent pregnancy and parenthood". Grant awarded by US Office of Adolescent Pregnancy Programs (HHS) to the Boys Town Urban Program for period 1983-86. Total awarded: $382,906.

Acting Director, Connecticut's University Affiliated Program on Developmental Disabilities. 1987-1988. (Principal Investigator for several Federal and state grants and contracts).

Acting Director, A.J. Pappanikou Center on Special Education and Rehabilitation, University of Connecticut, 1988-1990 (oversaw several million dollars in outside funding).

Principal Investigator, contract to evaluate foster care transition projects, CT Dept. of Child and Youth Services, $35,000, 1990.

Principal Investigator, contract to conduct utilization review of community residential services, CT Department of Mental Retardation, $30,000, 1991.

Principal Investigator, contract with Washington Legisl. Budget Comm. to study deinstitutionalization in the State of Washington, $60,000, 1992.

Coordinator, Program in Special Education, UConn, 1996-1998.

Editorial Work:

Special Services in the Schools, Editorial Bd., 1985-1989.

Newsletter of the Academy on Mental Retardation, Editor. 1991-1993.

Exceptional Children, Associate Editor, 1981-1984.

American Journal on Mental Retardation, Consulting Editor, 1978-80; 1993-1995.
Occasional editorial reviewing for:
Developmental Psychology, Child Development, School Psychology Review, Research in Developmental Disabilities, Int'l. J of Disability, Development & Education, Mental Retardation.
International Review of Research in Mental Retardation Monograph Series of AAMR, Member Ed. Adv. Comm., 1995-1997.
Editor, Special issue on diagnosing mental retardation in death penalty cases. Applied Neuropsychology, June 2009.

Major Consultancies/ Volunteer Activities

Chairperson, Behavior Programming Review Committee, Eastern Neb. Community Office on Retardation, '79-'81
Chief Hearing Officer for Client Appeals, Eastern Nebraska Community Office on Retardation, 1981-82.
Member, Nebraska Foster Care Review Board, 1982-1985.
Member, Program Review Committee, Mansfield Training School, CT Dept. of Mental Retardation, 1986-1987.
Member of Board, Connecticut Association of Residential Facilities, 1988-1989.
Peer Reviewer, National Institute for Child Health and Human Development, 1990.
Peer Reviewer, National Institute for Disability and Rehabilitation Research, 1985-1989, 1993- .
Panel member for selecting exemplary secondary schools, U.S Department of Education, 1991.
Board member, Hartford ARC, 1994-1996.
Member of Science and Policy Advisory Committee, for 1995 Int'l Spec. Olympics Summer Games, 1993-1995.
Diss. Examiner, Sydney & Adelaide Universities, '92 & '94
Member, Connecticut Developmental Disabilities Planning Council (Gubernatorial appointment), 1994-1998.
Chair, Connecticut Office of Protection and Advocacy for Persons with Disabilities (Governor's Appointment) 1997-1998.
Expert consultant in numerous Atkins (death penalty exemption) cases.
Charter Member, The Friends of Richard Lapointe, 1992 to present.

Corporate Status

Managing partner, Ethical Service Systems, LLC (a consulting firm providing psychological services around disability, forensic and organizational issues).

Community Service

Former president and lay leader, Beth Ami-Colorado Congregation for Humanistic Judaism, Denver and Boulder, Colorado.

Service to Own Institution

Member, Human Subjects Comm., Peabody College, 1978-1979.
Member,Boys Town Human Rights Review Committee (Institutional Review Board), 1980-85.
Member, Curriculum & Courses Committee of the UConn School of Education, 1986-1989, (Secretary in 1986-87), 1995- present.
Member, Promotion, Tenure & Reappointment Committee, Dept. of Educ. Psych., Univ. of Conn., '86-87.
Member, Graduate Faculty Council, University of Connecticut, 1988-1993.
Member, Executive Committee of the Graduate School, University of Connecticut, 1989-1993.
Chair, Committee on Faculty Standards, University of Connecticut Graduate Faculty Council, 1989-1993.
Chair, Blue Ribbon Panel on the Future of Doctoral Studies, University of Connecticut School of Education, 1989-1990.
Member, Ad-Hoc Review Panel on Visiting Lectureships, University of Connecticut Research Foundation, 1990.
Chair, Area Review Committee (Dissertation Prospectus Review Committee) in Education, 1990-1993.
Member, University Senate, University of Connecticut, Fall semester, 1990.
Chair, Harris Kahn Memorial Scholarship Committee, Department of Educational Psychology, 1991-1998.
Member, Committee on Research Misconduct, U Conn, 1994-1996.

Theoretical Contributions

Comprehensive model of personal competence and adaptive behavior (incorporating the tripartite model of intelligence)
Model of parenting competence (incorporating the nine-principle model of caregiver discipline)
Action model of gullibility, foolishness, common sense and wisdom

Honors

New York State Regents' Scholarship (declined to attend college out-of-state)
Woodrow Wilson Fellowship (Honorable Mention)
U.S. Public Health Service Predoctoral Fellow
National Institutes of Health Postdoctoral Fellow
Government Research Association, Prize for Best Research
Eric Denhof Memorial Lecturer, Brown University
Elected Fellow, American Psychological Association
Elected Fellow, American Psychological Society
Elected Fellow, American Assn. on Mental Retardation
Willowbrook Memorial Lecturer, CUNY-Staten Island
Dybwad Award for Humanitarianism, Amer. Assn. on Int. and Dev. Dis

Doctoral Advisees (Completed Only)

Gwyn Brown, EdD (Human Development), Vanderbilt, 1982
Mary Ellen Javel, PhD (Ed. Psych.), U. of Nebraska, 1983
Susan Gregory, PhD (Special Education), U Conn, 1988
James Granfield, PhD (Special Education), U Conn, 1990
Tom Callahan, PhD (Special Education), U Conn, I993
Diane Twachtman, PhD (Special Education), U Conn, 1994
Sally Swanson, PhD (School Psychology), U Conn, 1995
Elsy Negron, PhD (Special Education), U Conn, 1996
Timothy Shriver, PhD (Special Education), U Conn, 1997
Deborah Fritz, PhD (Special Education), U Conn, 1997.
Jean Gillen, PhD (School Psychology), U Conn, 1997.
Timothy Musheno, PhD (Special Education), U Conn, 1998.
Shira Yalom-Chamovitz, Phd (Special Education), UConn, 1999
John Driscoll, PhD (Ed Psych), U Conn, 2000
Peter Love, PhD (Special Ed), U Conn, 2002

PUBLICATIONS

Books, Monographs, Dissertation

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Budd, K.S. and Greenspan, S. (1984). Mentally retarded mothers. In E.A. Blechman (Ed.), Behavior modification with women. New York: Guilford.

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Columns

Monthly contributor of a column titled "Incompetence" to the on-line edition of Psychology Today. (http://www.psychologytoday.com/blog/incompetence)

Tests

Greenspan, S. (1976). Matrix test of referential communication. In O.G. Johnson (Ed.), Tests and measures in child development: A handbook II. San Francisco: Jossey-Bass.

Greenspan, S. and Barenboim, C. (1976). A matrix test of referenctial Rochester, N.Y. (ERIC Doc. ED 125784)

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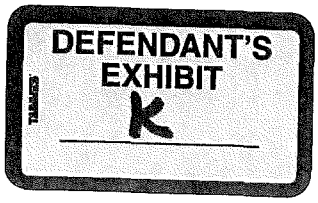
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STATE OF OHIO)
) ss:
COUNTY OF TRUMBULL)

AFFIDAVIT OF ROGER R. BAUER

1. I have been a licensed attorney in the State of Ohio since 1973.
2. My practice has been in Warren, Trumbull County, Ohio.
3. In 1985, I was on contract with the Ohio Public Defender to provide legal representation to indigent people charged with crimes in Trumbull County.
4. I recall very clearly in September 1985, the case involving the brutal attack on Raymond Fife, a 12 year old boy from Warren, Ohio, who died a few days after the attack.
5. After the boy died, I learned from George Kalafaut, the head of the Ohio Public Defender office, that a suspect was at the Warren Police Station and probably about to be questioned. He directed me to go the Warren Police Department.
6. I recall that it was daylight when I was at the police station.
7. When I got there, I saw Danny Hill. I knew Morris Hill, Danny's uncle, who was a police detective. I believe I saw him there that day as well.
8. I spoke with Danny at the police station. I recall very clearly telling Danny to not talk to the police.
9. The detectives would not let me to talk to him anymore though, since I had not been appointed yet. I had to leave the police station then.
10. After the incident, a grievance was filed against me with the Trumbull County Bar Association. I believe it was filed by the Warren Police Department who said I did not represent Danny Hill and therefore could not advise him. I responded to the grievance at



the time with the details. The grievance was dismissed as unfounded. Unfortunately, I do not have the documents associated with the grievance in my possession.

11. When Danny Hill's case was returned to Trumbull County to litigate the *Atkins* claim, Danny contacted me requesting my assistance with his case. For a short time, I was involved in the litigation, but had to withdraw.

12. In 2004, Danny filed a grievance against me with the Disciplinary Counsel of the Ohio Supreme Court. I filed a response to that grievance on August 13, 2004. A copy of that response is attached to this affidavit.

13. None of Danny's attorneys over the years have ever asked me about my involvement with Danny's case at the beginning, or the grievance filed against me by the Warren Police Department. I would have provided this same information back then had anyone inquired.

FURTHER AFFIANT SAYETH NAUGHT.

Date

Roger R. Bauer

SWORN TO BEFORE ME, and subscribed in my presence, this 8 day of September, 2014.

NOTARY PUBLIC

MELANIE GADLEY
NOTARY PUBLIC
STATE OF OHIO
TRUMBULL COUNTY
My Comm. Exp.
October 16, 2017

ROGER R. BAUER
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RECEIVED
BES
AUG 19 2004
DISCIPLINARY COUNSEL
SUPREME COURT OF OHIO

August 13, 2004

Disciplinary Counsel
The Supreme Court of Ohio
Attn: Brian Shinn
250 Civic Centre Drive, Suite 325
Columbus, Ohio 43215-7411

RE: File No. A4-1779
Letter of Inquiry

Dear Mr. Shinn:

This letter is addressed as a response to the grievance filed by Mr. Danny Lee Hill. He has also filed a grievance against Attorney Greg Meyers and Attorney Maridee Costanzo.

Approximately in February of 2004, I was contacted by Mr. Hill via telephone. Mr. Hill told me that he trusted me and wanted my representation in his capital murder case. Attorney Costanzo, who practices in the same building, has also been contacted but I am not aware of the specifics.

Mr. Hill trusted me because I represented him when he was first arrested on the case for which he now sits on death row. I spoke to him early about not giving a statement and the Warren Police Department filed a grievance against me for consulting him. I was cleared on any wrong doing.

After I spoke with Attorney Costanzo, I called Attorney Meyers. It was my understanding that Attorney Meyers represented Mr. Hill in an effort to stop his execution for the reason that Mr. Hill was mentally retarded at the time of the act and still is retarded. It seemed to me that Attorney Meyers desired my assistance because Mr. Hill trusted me. I told Attorney Meyers, Attorney Costanzo and Mr. Hill that I would only work on the case only if Attorney Meyers

DANNY HILL:

(NOTE: INTERVIEW)

INTERVIEW:

By the Warren Police Department.

Q Dan, would you raise your right hand. Do you swear that the statement you are about to give is the truth, the whole truth, and nothing but the truth.

A I do.

Q Okay. Danny, for the record, state your name and your address and your age.

A I am 18. I stay at 1394 Fifth Street, Aparment 8, Hampshire House.

Q And, your full name is?

A Danny Lee Hill.

Q Okay, Danny, you have been advised of your Constitutional Rights?

A Yes.

Q You are aware of what your rights are?

A Yes.

Q They have been read to you several times; is that not true?

A Yes. Okay. We are going to question you in regards to the facts about the death of Raymond Fife, which was September 10, 1985. That was a Tuesday. Okay. You do understand that when Seargent and Detective Hill came to your residence, you were not under arrest. And, we told you that you weren't under arrest. We told you and your mother to come down to the Police Station, that we wanted to talk to you. Am I correct?

A Yes.

Q Okay. Danny, let's start on that particular day. Briefly, just what time did you get up in the morning, and what did you do the first part

DEFENDANT'S EXHIBIT
L

of that morning and that afternoon --

INVESTIGATOR OLIVA: This initial Interview is September 10, 1985.

A 12:00. Around 12:00 in the afternoon, and I walked up to Southwest Park -- I had walked up there, and I seen these people that always be up there at the park that I know.

Q What are their names?

A Lewis -- I don't know his wife's name. And, I was up there talking to him.

Q What did you wear that day?

A A white jersey, No. 77, grey pants, and these tennis shoes.

Q The same shoes you have on now?

A Yes.

Q Okay.

A And, when they had left, I had left. And I went walking over towards Westlawn, and I had went over this girl's house, and I had came, I had came --

Q Who was at the girl's house when you got there?

A Maurice Lowery's cousin.

Q Virgil Lowery -- they call him Virgil?

A Yes.

Q And, you went in the girl's apartment?

A Yes.

Q Did you have anything to eat?

A No.

Q Did you have anything to drink?

A No.

Q No weed?

A No.

Q How long did you stay there?

A About three hours. At the most, three hours.

Q And, then, where did you go from there?

A I went back to the park.

Q Back to Southwest Park?

A Yes.

Q That's the park behind the fire station on Palmyra Road?

A Right.

Q Who was there the second time you went there on Tuesday?

B. Caldwell?

A Yes. B. Caldwell come and -- the first time, when I had walked back over to Southwest Park, there was this one dude that was sitting up there, and he said, "Have you seen B. Caldwell." I said, "No. They might be up there at -- (inaudible) -- Park. Then, about that time, B. Caldwell came up there and we had -- he said he only had two dollars on a 40, and he asked us did we have any change, because he was going to get two 40's. So, didn't nobody have no change, and he said he was going to walk to the store. And, we had walked to the store, and he had went and got one 40, and then we had went over B. Caldwell's house. And we had went there for about an hour and a half, and we had left.

Q So, you went from Thomas to -- (inaudible) -- and you went to B. Caldwell's house?

A Yes.

Q And you stayed there for about an hour and a half?

A Right.

Q And where did you go from B. Caldwell's house?

A I went back up towards the Southwest Park and walked down towards Valu-King. I went out by Colt Court.

Q Did you go to Colt Court?

A Yes. I had took the pathway that leads to Colt Court.

Q From Southwest Park?

A Yes. And, I was walking through there, and I had came out at Colt Court because I went over my cousin's house, Tysons, and they was looking for me anyways. So, when I had went over there, they said that they was gone looking for me. So, I had walked back towards Westlaw, and, then, that's when I seen Tim Combs.

Q What's Tim Comb's nickname?

A "Shmoo".

Q Okay. Have you known "Shmoo" for a long time?

A Yes.

Q Okay. He just got out of the pen, right?

A Right.

Q How many times have you talked to him since he's been out of the pen?

A Since he been out?

Q Yes.

A Two times.

Q You had seen him a couple of times before Tuesday, right?

A No. He had got out about a week.

Q When you were coming out of Colt Court and walking towards Westlawn, you run into Tim Combs?

A Right.

Q Is that the first time you seen him since he's been back from the penitentiary?

A Yes.

Q When you walked out from Colt Court, that road -- you were on that road. Am I right; is that the road you call Orlean?

A Right.

Q Right across from Valu-King?

A Right.

Q Were you walking with "Shmoo" then?

A Yes, because he was coming through the pathway. He was coming behind when I had went through there, because I didn't see him at first. And, he was walking up, and he had hollered my name, and I had turned around and looked and it was him. And we started walking out toward the path.

Q What did "Shmoo" have on that Tuesday?

A He had on a pair of blue jean baggies, and some Nike tennis shoes, but I don't know what color his shirt was. And, he had on a black hat.

Q Anything else on him -- have on?

A No.

Q Did you walk across Palmyra Road again?

A Yes.

Q And, you walked through the Valu-King parking lot?

A Right.

Q And, did you have conversation? Did you talk back and forth while you were walking?

A Yes. I asked him, "How did you do when you was up there?" And, he said he had went to this -- what's -- this mental institution, because he was in Columbus, I think J.C.Y. And, I guess, they had sent him from there to the mental institution.

Q And you were talking about his time he did when he was in?

A Yes.

Q Did you ever go inside and buy anything in Valu-King or at the Right Aid?

A No.

Q Okay. You walked around the back of Valu-King together?

A Yes.

Q Is that the first time you saw the white boy?

A Yes. The way he was coming up the path.

Q Did you know him, the white boy, from before?

A No.

Q You mean you never saw him before?

A I seen him, because Juni -- Juni Dukes stay right across the street from him, from the boy.

Q From the Fife boy?

A Yes.

Q Did you know the boy by name or anything about him?

A No.

Q So, you and "Shmoo" were behind Valu-King?

A Right.

Q And up comes the white boy on a bike?

A Right.

Q And, did you say anything to "Shmoo" about the white boy?

A No.

Q Did he say anything to you about the white boy?

A Yes. He said -- before, when we had went around there -- he said that he needed a bike because he was living by Austin Village Plaza. He said he needed a bike for -- you know -- coming back and forth from there to either the East Side or the West Side, by Highland Homes. So, then, he said that, "There goes somebody on a bike, right there." He said, "You want to help me get it?" I said, "No, because I don't steal no more."

So, then, I seen him go back there on the pathway. So I circled around. And, around about that time, that's when I seen him knock the boy off the bike. He dragged him with a head lock and knocked him off the bike. So, then --

Q Wait a minute. Slow down now. "Shmoo" asked you if you wanted to help him steal that bike, and you told him no?

A Right.

Q So, did you stay with "Shmoo" then?

A No.

Q Where did the white boy go?

A He was still coming up the pathway.

Q In the weeds?

A Yes.

Q Toward the Valu-King?

A Yes.

Q And, you were real close to the Valu-King?

A Yes.

Q So, did "Shmoo" walk into the weeds then?

A Yes.

Q And, where did you walk to?

A I walked to the other side. Like, there is this side street that you can go down.

Q So, you walked close to the laundromat end of the building is?

A Yes. I walked straight on down.

Q Why did you stop walking? What made you stop?

A Because I know how Tim Combs is.

Q And, what did you think was going on?

A Either -- if he didn't go. When he knocked him off the bike --

A person that knocks somebody off the bike would take the bike and leave. You know, they will take the bike and leave and either strip it or paint it or something. But, he stayed back there for about ten or fifteen minutes. And, then, I had circled around and looked, and he had the little boy on the ground.

Q So, you went back in the weeds?

A Yes.

Q And, "Shmoo" had the boy?

A On the ground.

Q Did you see him knock him off the bike?

A Yes. He hit him on the head -- about --

Q Show me what you mean.

A Like you get somebody in a head lock, like, right here, and you be choking them like this. And, they can't do nothing, because if they're standing up, you've got them up in the air. And, all that you do is just bang on their head. And, he was just someone about this tall, something like this. And, you see, he kind of short; and he just had him up in the air, and he was losing his breath.

Q What did the white boy have on when he was riding that bike?

A Some shorts and --

Q What color?

A I don't know, because I didn't see him, because he just had on his underwear when he had -- when Tim had him up in the air.

Q Well, how did his shorts get off?

A I guess he pulled them off of him.

Q You guess who pulled them off of him?

A Tim Combs.

Q Well, when did he have time to do that?

A When he grabbed him from off the bike, and when he was wrestling around with him, he just -- you know -- pulled them off of him.

Q And, then he put him in a choke hold?

A Yes.

Q So, when you saw the boy dangling, all he had on was his underwear?

A Yes.

Q And a shirt?

A Yes.

Q What color was the shirt?

A I couldn't see, because when I had made it up there that close, the boy had got away from him because "Shmoo" had him up in the air, and the boy hit him like right here -- he had hit him. And, then, he had let go, and the boy had started running. So, Tim Combs couldn't catch up with him. So, he dived at him, and when he hit him, he hit him from the back of the neck, like with his arm. So the boy had fell, and then he had got him back up. And, then, he had dragged him. And, then he had picked him up and slammed him on top of the bike. And, his head had hit -- like the --

Q (Inaudible)

A Yes.

Q "Shmoo" chased the boy, right?

A Yes.

Q And, he picked him up and slammed him?

A Yes.

Q He had to bring him back to where the bike was?

A No. Because the bike -- from where he had ran -- the bike was right like from here to here to about right up there to the end of the table.

Q So the boy didn't get too far?

A No. So he just picked him up and slammed him. And, then, the boy was knocked out for a minute. And, then, you know -- he just pulled off his drawers and -- you know -- started to -- having sex with him.

Q What did he do to the boy?

A Started to --

Q I want you to say it all out.

A Butt-fucked him.

Q What time of day was this?

A It had to be, like, in the evening.

Q Was it daylight?

A Yes. It was daylight out.

Q Do you know what time it was?

A About 6:30 or 7:00.

Q So, he slammed the boy on the ground?

A Right.

Q Put the boy on his stomach?

A Yes.

Q And, he started -- he pulled his underwear down -- did "Shmoo" just pull his zipper down, or what did he do?

A He pulled out his -- he pulled down his zipper and pulled out his privates, and the little boy was knocked out at the time. And, you know, he just pulled down his underwear and you know -- started to have -- you know --

Q Butt-fucked him?

A Yes. And, I guess, you know, he had came, you know back out of the --

Q Came to?

A Yes. And, he had looked up, and Tim Combs know that he had come to, and he picked him up and slammed him again. But, the second time he slammed him, he hit him on his head, right here. And, then, the boy was still moving because he wasn't knocked out all the way. So, Tim Combs ran up there and kicked him right on the side of his head. And, then, I had turned around and looked again and he had his -- like his hand -- had tore the little boys privates, and he had like his foot on top of his stomach pulling it.

Q Okay. The first time he stuck his dick in the little boy's butt, he pulled his underwear down?

A Yes.

Q Did he pull them all the way off of him?

A Yes.

Q And, what did he do with them?

A I don't know. He pulled them all the way off because the boy was running naked. He didn't have a stitch of clothes on.

Q How close were you when this was taking place?

A About from here to him.

Q About ten feet?

A Yes.

Q You were that close to Tim?

A Yes.

Q Did the boy cry?

A Yes, he was crying, but Tim Combs had his mouth covered so he couldn't holler or nothing.

Q Was he making moaning noises or what?

A Yes.

Q Did you pull Tim Combs off of him?

A No.

Q What other things did Tim Combs do to the boy while he had him down?

A He had him suck his privates and he -- after he had him suck his privates, he turned around and flipped him back on his stomach and started to -- you know -- butt-fuck him again.

Q Let me ask you this, Danny: At any given time, did you see Tim Combs suck this boy's penis?

A No.

Q Did you see him have his mouth anywhere close to this kid's privates.

A Yes. Yes.

Q What time? What did you see?

A I didn't see his head. I didn't see Tim Comb's head. All I seen was his legs and his back. I didn't see his head.

Q You saw whose back?

A Tim Combs.

Q But you seen him down in the grass?

A Yes. He was down on his knees. All I could see was his back. I couldn't see his head.

Q You couldn't see the white boy?

A No. All I seen was Tim Combs bending over him.

Q Now, you told us you were only ten feet away. Now, you are pretty close. You can see what is going on the whole time.

A Yes.

Q Why couldn't you see what was going on this time?

A Because he was over him. You see Tim Combs is bigger than him. He was over him like.

Q On the boy's back?

A He was on his back.

Q He was laying like this?

A Yes.

Q Was he awake?

A No. He was knocked out.

Q What was "Shmoo" doing to the boy's privates?

A He had his foot on top of his stomach holding him.

Q But what about when he had his mouth down there. Did you see his mouth down there any time?

A I only seen his back. I guess, you know -- he was probably sucking his thing.

Q Now, yes or no; did you see "Shmoo" suck the boy?

A No.

Q Did you see "Shmoo" bite the boy?

A No.

Q Did "Shmoo" put his teeth on that boy anywhere; on his chest, on his back?

A I didn't see it.

Q You didn't see none of that?

A No.

Q Did anyone around there put their teeth on that boy?

A No.

Q But, you stated to me that you seen Tim Combs down on top of this boy. Could it have been possible that he was doing something oral to him?

A Yes. Because I didn't see his head. All I seen was, like, his back and his knees. And, he was in the grass.

Q Now, Danny, when we first started this interview this morning; we told you to be honest, number one. We don't want you to come in here and be bullshiting anyone. Now, number one, he wanted the bike off the boy, right?

A Right.

Q Now, you say you had no part in that? You didn't go along?

A Right.

Q And, he goes and grabs this boy and knocks this boy off the bike?

A Right.

Q And, you saw that? You saw that?

A Right.

Q By this time, you go around the landromat?

A Right.

Q And, that's a pretty good ways from where they was at, right?

A Yes.

Q Well, how do you know the boy took off and ran from him?

A Because when I had came around there, I seen like a white, you know, like a white parking light. And, he was running. I seen Tim Combs running. And, I seen him like jump. And, when he hit him, he hit him right back here. And, his face had hit -- like hit the ground.

Q You say he picked him up?

A Yes, and slammed him on the bike.

Q To get the bike?

A Yes.

Q He would have to throw him to get that bike.

A Yes. He just picked him up and tossed him you might -- just like this. Just like this. He had him up. He didn't have him, like, you know, where he could just slam him. He had him up in the air. He

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was dropping.

Q That's when he probably hit the bike. Did you see his head hit the bike?

A Yes. Because when his head hit the bike, the back tire started rolling. Like when his head hit the bike, the pedal turned, like.

Q This all occurred behind the Valu-King. Did "Shmoo" get any blood on him?

A He was wiping something off of his shirt.

Q Okay. Did you see anything on the young Fife kid at all; around his face or anything?

A Yes.

Q What did you see around his face?

A His mouth was bleeding like right here.

Q What else did you see?

A It looked like he had a scar right here, like he was cut right here, right up in here.

Q Nothing else on that boy. You stated earlier this morning that after he was done butt-fucking him, he wiped his privates off with something?

A Yes, with like a sponge.

Q Was that before he tried to force him to suck him, or what?

A No, it was after.

Q Was the boy awake when he tried to get him to suck him?

A No. He was still knocked out.

Q Well, how did he get his mouth open?

A He stuck his hand -- like -- his fingers in his mouth and pryed it open.

Q And then tried to stick his dick in?

A Yes.

Q Why did you stay around all of this time? Why didn't you leave? Why didn't you go tell the Police?

A Because, at the time, when I was standing there, he had already seen me. So, if I would have ran and tried to find my uncle or you or one of you all, tell one of you all -- his mother don't like me anyway. She would have found him down here, he would have went home and told his mother that I was the one that did it, and she would have followed him down here and said that she probably know that I would do something like that.

Q You said, at one point -- after this -- I don't know, was this after he had fucked the boy -- or, let's say rape -- after he tried to get the boy to suck him, you said "Shmoo" then left. You went out there by Valu-King? You stayed there and watched him. The boy was laying down -- (inaudible)

A He was on his back. He was still moving.

Q And, you are standing there watching the boy?

A Yes.

Q What are you doing, just standing there looking at him?

A Yes, because the way I was looking at it, it had dazed me because I thought that he wouldn't do nothing like that. I thought he was just going to go up there and take the bike.

Q Now, this is before he pulled on his penis?

A Yes.

Q This is before he ripped -- now, "Shmoo" went over by the Valu-King. Did you see where he went?

A No. He just went around the corner. And, when he came back --

Q Wait a minute. How long was he gone?

A About fifteen minutes.

Q He went by Valu-King and was gone about fifteen minutes?

A Five to ten minutes.

Q I think -- five ain't too cool is it? How much did you drink prior to this?

A Huh?

Q How much beer did you drink prior to this incident?

A I only had a 40.

Q You had a 40. Now, here comes "Shmoo". He comes back. You are still watching the boy. What's he going to do now?

A He had something, and he was squirting it on him like.

Q What do you mean he had something?

A It was something in, like, a plastic container.

Q What color was the container?

A It was white.

Q Any other color on it?

A I think it was just white.

Q What did he do with it?

A He squirted it on him?

Q Was it an aerosol can, was it like a paint can?

A It was squeezable, like. It was like a plastic canister that you could squeeze.

Q What color stuff came out of it?

A I don't know. I didn't see what color stuff. Like up here by his head and down lower a little bit.

Q Lower, where?

A Around by his privates and stuff like that.

Q Okay. Did he catch on fire? Did you throw a match on him?

A No.

Q What did you do when he did that?

A Huh?

Q What did you do when he did that?

A When he was squirting him with the stuff, I was still standing there. I didn't go nowhere.

Q Did you say, "Shmoo, don't do that"?

A Well, when I had looked down there, he had already seen me. And, I said, "Look what you done did."

Q Did he light it?

A Yes.

Q What did he light it with?

A He had a lighter. He had a piece of cloth, and he just threw it and it started smoking. And, then, when I had came down there, I was trying to sneak up on him. And, he was with the boy, and he said, "Get your ass back up the hill."

Q Why did he do this? Like you said earlier, back by the Valu-King you got a board, and you brought it down, and you were going to do something to Tim with it, right?

A But he seen me.

Q And, what did he say to you?

A He told me to get my ass back up the hill.

Q What did you do with the board?

A I threw it back over there by the machine thing. The machines that are back there behind the store.

Q Now, did the young boy -- the little boy, did he cry, moan or say anything to you at all?

A He was just looking at me.

Q He was looking at you?

A Yes. Like he wanted me to come over there. That's the reason I grabbed the board. That's the way he was looking at me, like he wanted me to come over there and get him.

Q It's hard for us to -- I don't know about these other officers, but it is hard for me to comprehend all of this, you know, what's going on. And, even if you are not participating -- tell us the God's Truth. You are under oath now. You are swearing unto God that you didn't do anything to this boy. You just stood there and watched this whole damned ordeal and you didn't do a damn thing. Are you scared of Tim?

A No. He could beat me running, though.

Q I mean, that doesn't mean anything. Were you afraid he could hurt you, physically?

A Yes, if he get ahold of anything, like a gun or something, he would probably try to shoot me.

Q That's the reason why you didn't try to stop him?

A Yes.

Q You said earlier this morning when we were taking a statement from you that you had seen some vomit or something on the Fife kid --

A Like on his arm, like right here. Like by his stomach. He had -- like -- like somebody had threw up. Like he had threw up. Like he was laying down and it just landed right on his stomach.

Q Did you see the Fife boy throw up?

A Yes.

Q You saw it? What was making him throw up?

A When he had -- when Tim Combs was pulling his privates.

Q That made the boy throw up?

A Yes.

Q When Tim Combs walked away from the boy to go up to the Valu-King to get that can, what was the Fife boy doing? You stayed there with the Fife boy, right. Did Tim say, "I want you to stay here with him?"

A No.

Q But, Tim knew you were there?

A He knew I was there.

Q You just stayed on your own?

A Yes.

Q What was the Fife boy doing while Tim was getting that can?

A He was moving like -- moving.

Q Was he on his back or his stomach?

A He was on his back.

Q Danny, what if Timmy says that you stuck somthing up that boy's ass?

A No, I didn't.

Q Well, somebody did it. Did someone stick something up his ass?

A Tim Combs.

Q What did he stick up his ass other than his penis?

A A stick. Like a broom, you know like a broom handle thing, but it was kind of bigger like.

Q Why didn't you tell us that before? Timmy's telling us things. Where did he get it at?

A From up there by the corner of the store. It was right up there by the Valu-King. They've got like -- they had all kinds of sticks up there. Like, by the garbage, when they be throwing those crates and stuff in there.

Q Isn't it true that you got that -- that he didn't really get a stick? You got a stick to stick up the boy's ass?

A No.

Q You didn't?

A No.

Q Are you sure that this board that you were supposed to have gotten wasn't this stick that was used to stick up the boy's rectum?

A No.

Q Now, we ain't saying that you stuck it up the boy. We are telling you what we hear. Do you understand. But, we think maybe you went and picked it up for Tim.

A No.

Q Did Timmy stick it up him?

A Probably so. I didn't see it.

Q You just stated, just a few seconds ago, that Timmy took this thing a little bigger than a broomstick and stuck it up the boy's rectum.

A Yes. He had a stick, and he, you know, he just did like this. And, I thought, you know, he just did like this.

Q With both hands?

A Yes.

Q Where was the stick laying when he found it? When Tim found that stick; did he have to walk to go get it, or was it laying --

A Up the hill.

Q What did the stick look like?

A It was like a broom -- like some of them be orange, and some of them be like yellow.

Q A broom handle?

A Yes.

Q How long was it?

A It was long. It was like a broom, but some of it was broke. It had ridged ends like. And, the other end that wasn't ridged, it had like a round -- it was like a round head, and he just did like this with it.

Q How many times?

A About three.

Q He asked you to hold the boy while he did that?

A No, because I wouldn't hold him.

Q Did he stick it in the boy's butt; kind of do this with it -- I mean was fucking him with that stick?

A No, he just did like this.

Q In the boy's butt, though?

A Yes.

Q Was the boy on his stomach when he did this?

A Yes, after he had flipped him over.

Q So, you and Tim and the Fife boy were in the weeds for quite a while weren't you?

A About two hours.

Q Was it raining?

A No.

Q You are only guessing right now of approximately how much time that you all spent back there in the woods with the boy. Am I right?

A Right.

Q What happened to the stick after "Shmoo" poked him with it three times?

A I don't know. I guess he threw it.

Q You didn't see him throw it?

A After he did it, I didn't see the stick. See, because, when he did it, he had pulled it out, and I didn't see the stick no more; like he must of just threw it.

Q Was this before or after he burned the boy?

A After.

Q Okay. In your own words, you tell us everything that he did

to that boy. We'll start out with he butt-fucked him; right?

A Right.

Q And, then, what else did he do to the boy?

A He had the boy to suck his thing, you know -- while he was knocked out. He just pryed his mouth open.

Q Okay. That's two things. What else?

A And, he got a stick, and he grind it in his butt. And, when he poured that stuff on him and he had had that cloth and he had lit it with the lighter --

Q That cloth, was that the boy's underwear?

A Yes, I think.

Q What color was it?

A Like, light colored. I couldn't get the color of it. It was kind of light.

Q Did Tim Combs take his hands and stangle the boy?

A Yes. Because he had him up in the air, because he had something wrapped around his neck, and when he had him, he had him like this. He had him like this, like he had something in his hands that he had wrapped around his neck, and he had him like this.

Q Okay. Did this happen before he fucked him in the butt?

A Yes.

Q Why didn't you leave at any given time? You had all the opportunity in the world to leave there? Why didn't you do it?

A Because, if I would have left, like I said, he would have known that I would go in the store to call the Police and tell them that I seen him back there in the field with that little boy.

Q At no time did he tell you that you better stay there? Did he threaten you at any time to make you stay there? Danny, listen, we

have experts -- (WHEREUPON END OF TAPE, SIDE ONE)

Q -- that boy's penis?

A No.

Q Would you remember if he bit on it?

A Yes.

Q You wouldn't forget that, would you?

A No.

Q At no time did you ever touch that boy's penis with your mouth or anything?

A No.

Q You are sure?

A Yes.

Q Where did you go then?

A I went home.

Q Which way did you go out of there?

A I mean, I had followed him out of the field.

Q Which way did you go out of the field?

A Like out there by Jackson and turned down and went straight on out --

Q You say you followed him out of the field?

A Yes.

Q You followed who out of the field?

A Tim Combs, because he had turned over this way --

Q When you said which way, you meant where?

A Left. He had turned.

Q This is a map. See that map there. This is Valu-King right here. Okay. This is going back in the weeds. Go over there and point where he went out. This is Jackson Street back here, Danny; okay. Now, this is where everything happened, where the boy got beat up. Okay. Now,

you followed "Shmoo" where? Where did you follow "Shmoo"?

A There is like a pathway that you take out of Valu-King. You have got to go like this. And, Jackson Street is up -- either Jackson Street is down. Down. See, that should be down.

Q He was going the other way, then?

A He went down, and he turned and he came right out in front of the house that we used to stay in.

Q That's on Jackson Street?

A Yes. The white house. He came down and turned down Jackson, and cut over by Oak.

Q You didn't go out towards Willow?

A No.

Q Do you see where Willow is? This is Palmyra Road down here, right?

A Right.

Q You and "Shmoo" walked across, came up the front of Valu-King here, and then you walked together around the back of Valu-King; right?

A Right.

Q Where is the laundromat at?

A Laundromat?

Q This is Valu-King, right here.

A Over here?

Q No. This is the front of the store, here. You are looking at Valu-King now. Valu-King is on the left side. And, the laundromat is on this side; right.

A Valu-King is right here. Right Aid is right here, and the laundromat is on the end.

Q Stand this way and do that, then. Tell us if this store is

Valu-King, and you are standing in the parking lot. This end is Valu-King; right.

A Right.

Q And, this end is the laundromat?

A Right.

Q So, you and "Shmoo" walked around this end?

A Yes.

Q Closer to -- (inaudible)?

A Right.

Q And, where did you first see the white boy at?

A He was up here, by the --

Q By the path?

A Yes, the pathway goes all the way up.

Q And, this is where the man had his coat at up here?

A Yes.

Q Okay. Now, the boy got raped and messed up right in here, in this field, right here. Right?

A Right.

Q When you was all done with him, where did Tim Combs go? Did he go out this way, towards Jackson, or out towards --

A No. The pathway that I'm talking about, it ain't over on this end. It comes straight on down.

Q Does it go down to Willow? Do you know where Willow is?

A No. It comes straight out by Jackson, because my house is like -- where we used to stay is right here, and where you are talking about is way down here, by the corner.

Q You can take us out there and show us exactly how you walked.

A Yes.

Q Did you see any football players walking when you came out?

A No, because they was coming from Colt Court.

Q I'm not talking about when you came out of Valu-King. When you came out of there, out of that field, you didn't see any football players walking around?

A No.

Q Was Tim Combs carrying that can with him when he was walking out of the weeds?

A No.

Q Where is that can at?

A I don't know. He threw all the stuff in the field.

Q Right after he got done with the boy?

A Yes. It was all left in the field; the stick, the can, everything.

Q Do you know Daren Ball?

A Daren Ball? No. I know Kirk Ball.

Q Do you know where Willow Drive is? Somebody told me that they saw you and "Shmoo" coming out of the field that day after the boy got beat up. And, someone told me that "Shmoo" was carrying the can that he sprayed on that boy. Is that true?

A Yes.

Q What?

A Yes.

Q We don't want to put nothing in your mouth, Danny. The only thing we want to know is did he happen to have that can or whatever he had in his hand that he sprayed on that boy?

A Yes. He had the plastic right in his hand, right here; because he was walking, and the way he was walking, you couldn't see it unless you was walking on his side. There's all them houses right there. They could see if he's walking, because the houses on this side. Because the field

that I am talking about, you come straight out. And, there is the house where we stayed at, right there, where we hang out.

Q Do you know where Sissy Willie lives?

A Yes.

Q Is it close to Sissy Willie's house?

A Yes. Her house is like -- one -- two houses -- one house down.

Q It's an old house, isn't it Danny. Isn't there Lowery's in there?

A No. This is across the street. The Lowery's live in there on Jackson Street.

Q Did you tell us earlier in a statement that the boy -- Timmy picked the bike up and threw it?

A Yes; he threw it. No. He had stuck it in some bushes. He was putting stuff on it, like branches and all kinds of stuff.

Q Trying to hide it?

A Yes.

Q Did you help him hide it?

A No.

Q Did you touch the bike?

A No.

Q Are you sure?

A The only thing I touched was the boy, right here. That's it.

Q That was the most contact you had with that boy, was touching him on the face? You didn't have no sexual contact with this boy, whatsoever?

A No.

Q What did he do with the cigarette lighter?

A He's still got it.

Q He's still got it. Did "Shmoo" smoke while he was doing this

A Nope.

Q Did you tell her that Tuesday night?

A No.

Q Right after I heard it on the news and I was over there at Westlawn, I had came home and I heard that the boy had died.

Q How close did you babysit for her Tuesday. You said you didn't.

A I babysat for her Monday. I don't remember Tuesday.

Q The Tuesday, you remember this Tuesday, don't you?

A This Tuesday?

Q You remember that same Tuesday; you remember -- (inaudible). But, I don't remember --

Q Are you protecting anybody?

A No.

Q You're not going to say "Shmoo" was involved because you don't like "Shmoo" or something, are you?

A No.

Q Danny, how many of you young men were in that back field back there?

A Just me and him.

Q Are you sure?

A Yes.

Q Are you sure there wasn't four of you?

A No.

Q You're proud of it. You were back there an awful long time not to have somebody come across you. Did somebody come walking through there?

A Not that I know of.

Q The whole time that he was butt-fucking this boy, nobody came

through there?

A No.

Q Nobody went walking out with you at the same time, out of those weeds?

A No.

Q When you got to Jackson Street, nobody caught up with you and walked out with you?

A No.

Q I didn't say they was with you, just walked with you; they happened to come through about the same time as you?

A No.

Q Did you get any of that boy's blood on you anywhere at all?

A No.

Q You had to get it on your hands when you turned him over?

A No. I didn't get nothing on me. I didn't get nothing on me.

Q The boy have shoes and socks on?

A Yes, he still had on his shoes and his socks; yes.

Q But, aside from that, he was completely naked?

A No. He still had on his shoes and stuff.

Q Other than his shoes, though, he had no pants, no gym trunks, no underwear, no shirt?

A Didn't have nothing.

Q Didn't have none?

A No.

Q You said you seen Lowery on the bike. Was that the next day?

A Yes.

Q That was also Wednesday. You had a busy Wednesday, didn't you? You had a very busy Wednesday. You went back to the scene --

A But, that was earlier, though.

Q Did you look for the bike when you went back?

A No.

Q That lighter --

A Tim went back there and looked for the lighter. I seen him when he picked it up.

Q Describe that lighter for us?

A It probably had like a yellowish color in it. You know, like those brown lighters got different colors and stuff in it.

Q Like a swirl?

A Yes.

Q Did it have a name on it anywhere?

A No.

Q Was it an expensive one, or one of those bic ones or what?

A Bic.

Q What kind of cigarettes do you smoke?

A Newport.

Q How about -- (inaudible)?

A Yes.

Q How about "Shmoo"?

A He only smoke Newports.

Q Did you smoke when this was going on? Did you light up one?

A No.

Q Did "Shmoo" drink a beer?

A No.

Q Did he have a beer that night? When you were watching all of this going on back there, when "Shmoo" was supposed to be poking the kid's behind; did you pull your penis out at any time and jack off?

A No.

Q Are you sure?

A Yes.

Q When you and "Shmoo" came walking across the street, was "Shmoo" carrying anything before you got to the Valu-King?

A No.

Q Was he carrying a 40-ounce?

A No.

Q He had his own cigarettes with him, though; right?

A Yes.

Q When was the first time he lit up a cigarette, though, when you were with him?

A When he was coming out of Colt Court he was smoking one.

Q No, after -- after the kid got beat on.

A After he went on the pathway to go where he was going?

Q Yes.

A He had turned down Jackson Street, and he lit up one, because he had some matches, like I was telling you. He had some matches.

Q Was there anything that you and "Shmoo" were carrying that got left when the boy got beat up?

A No.

Q No clothing, none of "Shmoo's" clothes -- he wasn't carrying a pack of cigarettes that he smoked the last three and threw the pack down.

A Newports?

Q I am asking you. I am not saying. I don't know if it happened or not. You were there.

A I didn't see him throw down no pack.

Q Remember in the interview earlier I told you how serious this was, and remember because of the fact that you are 18, and you will be 19 pretty soon. Now, "Shmoo" has been down there and telling other stories.

We told you, we want the truth from you, right? And, it doesn't appear that you are giving us all the truth. "Shmoo" knows too many more details than you do. I mean, he's got the whole thing down pretty good. He said a lot more. You are going to have to tell us the truth.

A That is the truth. See, he's just telling y'all a lot of stories. See, I'm telling y'all the straight facts of what happened. He's just telling you stories; that's all.

Q He's lieing? Is that what you're saying?

A Yes.

Q Are you sure?

A All you got to do is give him a lie detector test, and I'll take one.

Q Are you sure you didn't kick him down? Didn't you kick that Fife boy?

A No.

Q Did you try to get the bike out of there?

A No. I didn't touch nothing; except right here. That was it.

Q You didn't bite him on the penis?

A No.

Q Not at all?

A No.

Q When he was pulling on his penis, did he snap that real hard?

A He had his stomach -- he had his --

Q On his -- (inaudible) --

A Yes.

Q And, he was pulling at it?

A Yes.

Q He tried to pull his penis off of him? Somebody tell you it

was off of him?

A No. I thought it was.

Q Why?

A Because, if you pulling on something like that kind of hard --

Q How close were you to "Shmoo" when he was pulling on that boy's penis?

A About from here to here.

Q You were that close?

A Yes. Up in the bushes is high up.

Q Was he bleeding down there?

A It looked like it.

Q Did you go over and look at the boy?

A No. I just touched him. I didn't want to look at him, because I knowed he was bleeding, because I saw that blood when it was coming out of his mouth. I didn't want to look at him.

Q Why did you go over and turn the boy over?

A Huh?

Q Why did you go over and turn the boy over?

A To see if he was still living. I thought that -- you know -- that he just got beat up real bad -- that he could get up and crawl or something. You know. That's why -- I didn't think he beat him up that bad.

Q So, you walked over and the boy was laying on his stomach; right? What did you do?

A Just turned him over and reached up under here.

Q So he's laying on his back. Did you move his hand anywhere?

A No.

Q Did you see a lot of blood coming out of the boy's butt?

A Yes.

Q How could you see that?

A Because it was all over the ground. Because when I had flipped him over and flipped him back, there was blood on the ground.

Q So, you put him on his back, and then you put him back over on his stomach?

A Yes.

Q So, when you got there, he was laying on his stomach?

A No. He was laying on his back. No. He was laying on his stomach; right. He was laying on his stomach, because I flipped him over.

Q And, you looked at him and checked him. And, then, you flipped him back over on his stomach. Could you tell if he was still living then?

A Yes. Because he was still breathing, like, but he was breathing hard, like.

Q Well, why did you turn him back over on his stomach, again?

A Huh?

Q Well, why did you flip him back over on his stomach, again?

A Flipped him back the same way, because if I was a lucky man like that, he probably would have died even more quicker -- because the way he was pulling on him -- because when I was moving him, it was like his eyes was moving like. They was closed, but they was moving when I was moving him.

Q What did that have to do with why you turned him back over on his belly?

A Because, if he was in that much pain, if you're trying to move him -- move him back over -- you get (?inaudible--sounds like "jailed"). Because, this guy's eyes was moving.

Q Did you move his body at all, other than rolling him over?

A No.

Q Other than for the bike, where the brain was found?

A No.

Q Was he raped right on the path or off the path?

A Off the path. Right. Right. It was close to it, but it was off of it.

Q The grass was -- you said the grass was there?

A It was pretty high. The grass was pretty high and bushes and trees.

Q Did you see "Shmoo's" -- (inaudible)?

A No.

Q When you found out the boy was dead, did "Shmoo" then get ahold of you and tell you to keep your mouth shut or anything?

A No. I ain't seen him.

Q He ain't called you at any time? How about when he came over the house?

A No. He didn't say nothing. I ain't even seen him.

Q Did you tell anybody that "Shmoo" did it?

A Yes.

Q Who did you tell?

A I told this dude that stay out there in Westlawn.

Q White dude?

A No black.

Q Who is it?

A His last name is Kitchen; Phillip Kitchen.

Q Where do you know this Phillip Kitchen from?

A Huh?

Q Where do you know this Phillip Kitchen from?

A Because when we stayed on Jackson Street, his cousin used to stay nextdoor.

Q Is he an older guy?

A About my age; 18.

Q What made you see this Kitchen dude?

A The next day, when I had came down here and told him that I seen Reesey on the bike.

Q The same day that you talked to Seargent Stuart, you came down to the Police Station, right. And, that's the same day that you saw Kitchen, and where did you see him?

A At Westlawn, because he was out there talking to him.

Q And, what were you talking about?

A He just asked me why we didn't see him. He said, "I ain't seen you around."

Q And what did you say?

A Huh?

Q What did you say?

A I said, "I be out."

Q Wasn't Phillip in the woods with you all?

A No.

Q What if I told you "Shmoo" said he seen -- there was a guy in the woods with you all, but he didn't know his name. You would know -- you might know him? "Shmoo" lied about that, too; right?

A Yes.

Q This Kitchen; what kind of a conversation did you guys have, at all, that following day?

A Because when we was sitting over there --

Q Sitting over where?

A Sitting over this girl's house -- I don't know --

Q Where was this at?

A Westlawn. We was sitting over there, and it came over the news that he had just died.

Q And, then, what happened?

A Then I had walked outside.

Q And then what?

A I was just walking around because I was scared. And, I asked Sadie and then Kitchen was asking me what -- you know?

Q What did Kitchen say?

A He say, "What's the matter?" I said, "I know who did that to that boy." He said, "Who?" I said, "Tim Combs." And then that's when he told me to come down here and tell.

Q Who told you to come down here and tell?

A Phillip Kitchen.

Q He told you to come down here and tell the Police?

A Yes.

Q So, why didn't you come down here and tell the Police?

A Because when I came down here, he had told me that Tim Combs had said that I was with him when he did it, or something like that. And, then that just turned me off.

Q Did Kitchen say that he already talked to Timmy Combs?

A No. When I had came down here and you was talking to me, you said --

Q No. No. No. Detective Hill asked you, "Did you talk to Kitchen?" And, you told him that you knew that Tim Combs did it. And, he said, "Why don't you go tell the Police?"

A Right.

Q So, you did it. You called down that night and you talked to Seargent Stuart. But, you didn't tell Seargent Stuart that this boy was the one that did this to the kid. You lied.

A I was just ready to tell him, but they started to question me and stuff, and when he said that Tim Combs was with me, that's what

turned me off.

Q He wasn't even there. Seargent Stuart was by himself.

A You are talking about Friday?

Q I am talking about Thursday night. Thursday night when I asked you, what did you tell me?

A That I seen Reese Lowery on the bike.

Q And what did we do?

A You all -- we went looking for him.

Q So, you didn't mention nothing to me about Combs -- you showed me where Timmy Combs lived; is that right, and his grandmother?

A And, I kept on telling you that you that (inaudible -- possibly "they's who did it").

Q You said he could have done it.

A No.

Q You didn't say he did it. He's crazy, too. You said -- (inaudible) -- could have done it, too. Was Andre with you that day for a while?

A No.

Q When was the last time you seen Andre?

A When he was coming from over his aunt's house?

Q When was that?

A Tuesday.

Q That's the same day.

A I said I seen him, but it was when I was in the house.

Q That's all after everything was over with?

A Yes. When I was in the house.

Q Danny, you came down to the Police Station and you blamed everybody but yourself; right? You tried to tell us Tim Combs, Reesey Lowery did it; right?

A Because he was riding the bike.

Q But, you knew he didn't do it. You were there; right? Weren't you there? So you know Reesey Lowery didn't have nothing to do with it, right? Or, did you? Was Reesey Lowery there?

A No.

Q Are you scared of Reese? Are you scared of Lowerys?

A No.

Q How about Greg Lowery?

A No.

Q Dan, you know the way I was talking to you this morning, I tried to explain to you -- I tried to explain to you, in a matter whereas, I don't want you to be afraid of anything. If there was anyone else involved in what took place behind that Valu-King, I want to know who it is. If there was somebody else back there other than you and Tim Combs, I want to know who that other one was? "Shmoo's" only 17. I keep telling you that. It's up to you. Where do you think "Shmoo's" at right now?

A Probably out in the homes somewhere.

Q You're probably wrong. Do you know where he's at? He's in the room you just left. All right. Now, you've got to tell us the straight truth, because they've got him in there now, and he is telling on his mom. He is telling about everybody and everything. And, we better hear it from you first. Tim Combs is here.

A Well, I didn't have nothing to do with -- you know -- raping him. I didn't have nothing to do with that. I just was there and I seen it.

Q You know, it is so hard for me to sit here and continue to think that you were back there -- no one was back there -- along with Tim Combs, and you did not do anything. Now, what is that? If you come down here and told me that, what would you think? Seriously; what would you think?

A I'd think you were telling a story.

Q You're damn right you would think I was telling a lie; right? So this is what I am trying to get you to understand. We're sitting here. We want you to sit right here and tell us the truth about everything. If you had anything to do with it, we want to know that, too. But, if there was someone else back there in the woods with you guys, we want to know that, also. Don't protect nobody, because I am going to tell you something: If there was somebody else back there, I can tell you, when it comes down, them guys will be looking out for No. 1. That's what you've got to do. So we don't want you to hide anything. If you've got anything to say, tell us. We want to know the entire truth about what took place behind Valu-King. Can't tell us now, because we're going to -- I don't want you to hide anything.

A I didn't hide nothing.

Q You are going to wait to get to trial and the Judge and the Prosecutor says, "He cooperated with me." And, we are going to say, "He cooperated with us, but he misled us." It doesn't mean it is going to help you, but you have got to be truthful.

A I know.

You've got to be truthful from this point on, all the way down. This boy is dead. This boy no longer here. That is murder, so you have got to be truthful. Do you understand? When they got -- not that you are truthful -- you've got to be truthful. They ain't got us over here to try and bullshit none of us. Because it is all going to come back at once. Believe me, it is going to get you; with God as my Judge. If you keep lieing -- ain't no doubt about it -- and, you are going to look back and say, "God Damn I sure wish I had told them guys the truth." We don't want half of the truth. We want all of it.

A I told you all of it. I told you.

Q Danny, I don't think you had a thing to do with killing that boy. All right. I don't think you had one part in that murder. Okay. You are not guilty of murder. But, I am not thinking that way at all. But, I think you did something to that boy. I think you put your dick in him.

A No.

Q Just once. Or, maybe -- let's put it this way: When Tim Combs was butt-fucking him, maybe you were the one that was having him to such your dick? Huh?

A No.

Q Was that how it happened?

A No.

Q It is possible isn't it?

A No.

Q You know, people do wierd things like that?

A Not me; no. No.

Q Who is the white girl you were at the house with? What's her name; Kim?

A No.

Q What's her name; the white girl?

A I don't know.

Q Is -- (inaudible) -- lay out in there? He went to some white girl's house after this. What was her name? Do you know where she lives? On Westlawn? Who does she live with?

A Herself and her two kids.

Q Who is her boyfriend?

A I don't know his name.

Q Is he a black guy?

A Yes.

Q Danny, who do you get your sex with?

A Huh?

Q Who do you get your sex with?

A Nobody.

Q What you mean?

A Nobody.

Q You are 18-years-old. You've got to have something somewhere?

A Nobody.

Q Well, what do you do to get your nut off?

A Nothing. Just sit down and don't worry about. I don't let that press me.

Q Bad boys are always pressed. You never worry about no pussy?

A No.

Q You never went in the back room and jacked off?

A No. No.

Q When was the last time you had a piece of ass?

A Before I got sent away.

Q That's a long time. You ain't had no pussy since then?

A I don't need none.

Q The only time you got some pussy was when you took it and got arrested for rape?

A No.

Q Did you ever have a girlfriend?

A Yes.

Q Who was it?

A She live in Alabama now.

Q What was her name?

A A friend of Boot Hill's.

Q Did she give you pussy?

A Yes.

A Yes.

Q Is that the only one?

A A lot of them. I don't know their names, though.

Q How come you don't get pussy from other women?

A Because I don't be talking to nobody.

Q Now wait a minute, you told you got a lot of pussy. You got a lot of them.

A I did, but now --

Q You -- (inaudible) -- right?

A Huh?

Q You don't need it?

A No. I don't even think about it.

Q Danny, you haven't turned AC/DC have you?

A No. I don't even think about it. No.

Q Do you know any boys that like to do that?

A Yes. Tim Combs.

Q Anybody ever ask you if they could blow you?

A No.

Q Tim Combs ain't never asked to do it?

A No. He would get punched in the mouth.

Q Tim Combs ain't never asked you to give him one in the butt?

A No. Not something like that.

Q Tim Combs asked you if you wanted to help him steal that bike? Did he say, "Let's fuck him in the butt, too."?

A No. He didn't say nothing like that.

Q He didn't say we're going to steal the bike?

A No.

Q The next thing you know, you seen "Shmoo" what?

A Gettin' him in his butt.

Q Everything that you told us so far -- this morning when we had you in that interview room in there was the truth? And everything that you told us so far when we are sitting here, sitting in front of this camera here, you are telling us the truth?

A Yes.

Q You haven't left anything out? You haven't left nobody else's name out of this all?

A No.

Q You didn't play no part in doing anything to this young man?

A No.

Q But, you watched it. You watched everything that took place? If we took you in the woods, could you find that can for us?

A (No verbal response recorded)

Q How come?

A He might have come back and got it.

Q If we took you there, could you show us the travel; where did you travel along with Tim Combs? How about the stick?

A You can see right there were the garbage was is where those sticks was at.

Q No. He used the stick on the boy, right? What did you call it a stick? What would you call it, a handle, or what?

A A stick.

Q A stick or a handle off of a broom or something like that?

A A handle off of a broom.

Q But it was larger than a handle off of a broom?

A Yes.

Q Do you think that's still back there?

A If the garbage man ain't came.

Q Why would the garbage man be in the woods?

A Because all that stuff -- they be putting garbage right there, and sometimes people be kicking it back there, and they go back there and pick it up.

Q Danny, wait a minute, Man.

A That's why you don't see too much trash back there.

Q Right where -- you know where you turned the boy over -- you touched the boy and turned the boy over; right? Isn't that the same spot that "Shmoo" used the stick on the boy's butt? So, the stick should be right there back in the weeds, right?

A Right.

Q Right?

A But it was -- they come back there to pick up the garbage.

Q No they don't. They wouldn't go way back in the woods to pick up --

A Right at the hill. Right at the top of the hill.

Q Do you know something about that stick?

A No.

Q Did you use the stick on that boy? Is that why you don't want to talk about it?

A No.

Q I didn't use no stick on nobody. I am telling you -- I ain't like that.

Q Timmy Combs stab him with the stick?

A He did. Just like that.

Q And, then, what did he do with the stick?

A He threw it.

Q How?

A Back. He threw it back, like this.

Q So the stick should still be there?

A Unless he came and got it?

Q He did come and get it, right?

A I guess.

Q And, you were with him.

A No. I wasn't with him.

Q All right. When he came back there, and you say he picked up his lighter or whatever he picked up back there, did he pick up the stick, also?

A No. He couldn't find it. I told you he was looking for it.

Q What about the can that had that stuff that he sprayed on the kid?

A He had it when he came out of the field. He had it in his hand.

(WHEREUPON, END OF TAPE.)

A All kinds of stuff.

Q He went in the garbage can to get that?

A Yes. It's right there. There's all kinds of stuff; lighter fluid --

Q What did "Shmoo" say to you? Did he say, "I'm going to go up to the Valu-King and get something?"

A No. He didn't say that. He just walked up there.

Q He didn't say nothing to you?

A He just walked up there. He just looked at me. That was it, and walked right around there.

Q He didn't say one word about it to you? He didn't say one word to you?

A No.

Q He didn't say, "God Damn it; you better stay right here, and you better not leave here?" He didn't say nothing like that?

A He just looked at me and smiled.

Q In other words, you had all the opportunity to --

A To leave.

Q -- to haul ass; right. But, you stayed right there.

A Because -- I was stunned. I was just looking. I wasn't just standing there, like, watching. I was --

Q Were you interested in what was going on?

A No. I was just like stunned like, he's doing that.

Q So, how close did you stand to the boy when "Shmoo" went to the Valu-King?

A I didn't move. I couldn't move.

Q How close were you to the boy?

A About from right here to there. He was still laying there.

Q Then, you see "Shmoo" walking back, right?

A (No verbal response recorded)

Q Was the boy bleeding? Was he dead?

A No. He was still moving.

Q Did you say "Shmoo" -- (inaudible) -- the boy?

A I was just there. I was just standing there.

Q Okay. Do you think you would be able to find the stick that you were supposed to have had in your hand?

A Yes. It was right there by the side of the building. Right there by the back. Right there at the back, it was sitting.

Q How big of a stick was this?

A It was like a crate. You know -- like a crate. Like those crates them boys would be on there -- them little boys about this big.

Q Yes.

A It was one of them.

Q "Shmoo" came back with the can; right? Did you ask him what he was going to do with that?

A No. I couldn't say nothing. I was just looking.

Q When he came back with the can, did he have that stick in his hand, too?

A It was laying right there on the ground. It was laying right there, on the ground.

Q Back there by the wall? How did this stick get back there?

A Not my stick. The one that he had.

Q Now, wait. The stick that "Shmoo" had; how did it get back there by the wall?

A That's where -- it was left right there. That's what he did. He throwed it right there. He ditched it.

Q Where did he go get the stick at? That's what I don't know.

A Right up there by the garbage can. He don't even try to go get the can, when he had went up -- before we had went up there in the field, he had went over there and grabbed a stick, like he had -- was going to hit him off the bike with it. He was going to use it, I guess, to just knock him off the bike; but he just grabbed him.

Q When you two came behind the place, behind the Valu-King; this is when he picked up the stick?

A Yes.

Q When he picked up the boy, did he hit him with it?

A No. Not at that time.

Q So, the first time he made contact with that boy, he had the stick in his hand?

A It was laying down. The stick was laying down while he was having sex with him and stuff. It was laying right there. And, then, he just got it, I guess.

Q And, he picked it up out of the building, and he carried it back in there with him?

A Huh?

Q When you two came around the building --

A When we came around the building, yes. He grabbed the stick, and he pointed it down there, like he was going to hit him and knock him off the bike with it. He layed it down. And, he just grabbed him off the bike.

Q That can he brought back; was it as big as this can (indicating)? The can he used to burn that boy -- like a spray can --

A It was like -- it wasn't no spray can. It was like a plastic

container.

Q Like toothpaste?

A No.

Q Like a glue container?

A Like lighter fluid, like. One of them kind of containers. Like them plastic lighter fluid.

Q Like maybe you would start the charcoal in your barbeque with?

A Yes.

Q Now, did it have a -- (inaudible) -- that you push?

A No. It just had one of those flip-up things.

Q Timmy -- (inaudible) -- Shut it off. (reference made to video tape recording)

(WHEREUPON, THE TAPE RECORDING ENDED)

XXXXXXXXXXXXXXX

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MR. STEINBECK: Today's date is September 16, 1985. The time is 11:30 a.m. We are at the Warren Police Department, Warren, Ohio, Trumbull County, State of Ohio. Present in the interrogation room is Sergeant Stewart of the Narcotics Division and Sergeant Steinbeck of the Juvenile Division. Also present is Danny Hill.

INTERVIEW:

By Sgt. Steinbeck.

Q Danny, for the record, state your name and your address and your age, would you, please.

A Danny Hill. I am 18. I stay at 1394 Fifth Street, Apartment 8.

Q Okay. Danny, you know why you are down here. You have been advised of your rights by Sgt. Steinbeck, and you know what your rights are. Is that true?

A Yes.

Q Did Detective Hill advise you of your rights this morning before we started talking, also?

A Yes.

Q Okay. Now Danny, we want to ask you some pertinent questions in regard to the Raymond Fife murder. Are you aware of that?

A Yes.

Q All right. Now, I want you to tell us in detail everything that you know or your part of the Raymond Fife incident; will you please. You go ahead. It would be 3:00.

A I was walking through the field going to the Westlawn. And --

Q About what time of day was it?

A About 5:00; 3:00, somewhere around there. And, I had seen Tim Combs

DEFENDANT'S EXHIBIT M

up there at the store. So, he came up there by me and said that he had just got out about a week ago. And, he started talking about when we was going to hook up and get high and stuff like that. So, then he had asked me do I get in any trouble. I said no, because I just got out about three months ago. So, then I had told him I was going to go over this girl's house out here in Westlawn. So, then, I had looked at him go back there through the field.

Q Was he by himself when he went in the field? He walked into the field by himself? Did you follow him?

A I circled around. But, then, I had turned around and looked, and I seen this little boy riding this bike. So, Tim Combs was looking around to see if anybody was looking. And, I had ducked behind these bushes, and I was looking at him. He grabbed the boy with a head -- a head lock and picked him up and slammed him on top of this bike. So, then I didn't see the little boy moving no more. And, so "Shmoo" thought he had -- I mean Tim Combs thought he had knocked him out. And he had turned away and looked to see if anybody was looking. And, the little boy got up and started running, and he just grabbed him and lifted him up in the air. He grabbed him by his shorts and yanked him down. So, then I was looking around to see if anybody see if I was back there. So, then I had seen him just pick the boy up with one hand and started, you know, choking him. And, he just started slamming him on the bike, slamming him. So, then he had pulled his shorts -- drawers down and started --

Q Say what he did.

A -- started doing it to his butt.

Q Did he fuck him in the ass? Is that what you are trying to say?

A Yeah.

Q Butt fucked him? Is that the term?

A Yeah.

Q You mean he stuck his penis into his rectum?

A Yeah.

Q Right? Okay.

A Yeah.

Q Go ahead.

A And, then the little boy wasn't moving. And, then I seen him when he got up and walked over there by the bushes and grabbed a piece of paper and whiped off his penis, and I didn't see the little boy moving. And, then I had turned around and looked and, like, the little boy was getting up, and Tim Combs ran over there and kicked him in his head. And, then he just grabbed him and started choking him. And, then he just started to beat -- he was hitting him hard.

Q Okay. Now, you remember what Sergeant Steinbeck -- Morris Hill, who is your uncle, and myself told you prior to us taking the statment, right? We want to know the truth about everything. Okay?

A Okay.

Q Now, what was the boy wearing, Danny? What kind of clothes did he have on?

A Some grey shorts, and his bike was maroon with some gum wall, like tires that was kind of light brown. And, it looked like he was coming up out of the field -- like he was coming up out of the field, and Tim Combs was going down in there, and he just grabbed him and yanked him off his bike.

Q What was your thoughts at this time?

A To run like I didn't see nothing.

Q You didn't do anything to the boy at all? Nothing?

A I was on the other side of the field.

Q You didn't grab his penis? You didn't fuck him in the ass? Did you hit him at all? What color shirt did the boy have on?

A He had grabbed his shirt. He didn't have no shirt on. After when I had -- about the time I had went down there and circled around he didn't have no clothes on.

Q The first time you seen the boy, was he laying down or sitting up?

A He was running.

Q And, "Shmoo" grabbed him and he ripped his pants off of him. And, you said "Shmoo" put his dick in his butt?

A Yeah.

Q Was the boy standing up or laying down when that happened?

A Laying down.

Q "Shmoo" was on top of him fucking him. He don't have no shirt on. And, then, "Shmoo" gets up and go wipes off?

A Yeah.

Q Wasn't the boy screaming?

A No, because he had his mouth -- he had his hand over the boy's mouth, like this. And, when he slammed him, he hit his head on the bike pedal thing. He had hit his head on the bike pedal. And, he wasn't moving. And, then, he just got up and started running, and "Shmoo" just yanked him up in the air with a head lock and started doing like this. He had him up in the air. He was doing like this; yanking him. And, then the boy still wouldn't -- he was moving. And, then "Shmoo" just started hitting him dead in his face and stuff.

Q Was he hitting him with his hands?

A And, he kicked him. He kicked him a lot of times.

Q How far away were you?

A About up there by the hill in the back of Valu King. Up there by the hill.

Q Is there any way "Shmoo" could have seen you watching? Did he know you was watching? He saw you watching?

A Yeah. Because he looked up there at me. And, then he started running.

Q So, he saw you?

A Because he had threw the bike in the woods.

Q Did he say anything to you?

A No, because when he started running, I didn't see him no more. He cut down by Jackson Street.

Q I want to get back to one part, now. Okay. He wipes his dick off with something. What did he whipe it off with?

A A piece of foam. Like a chair cover thing.

Q Vinyl?

A A piece of like a cushion.

Q A seat cover, you mean? Like a car seat type thing?

A It was brown. It was like spongy like.

Q Like the inside of a car seat?

A Yeah. Like, if you ripped it you could see it.

Q Foam type? What color was it?

A Like a brownish color.

Q What time of the day was this, Danny?

A Early. It was still daylight.

Q Like how early? Do you remember?

A All the kids was out of school. About that time.

Q When Timmy gets done wiping his dick off, he goes back over and grabs the boy again, and what did he do?

A Started -- he had grabbed him --

Q By the balls? What did he do when he grabbed him by the balls?

A Started pulling him.

Q Pulled him by his dick?

A Because he had his foot down on his stomach and started pulling him.

Q Was he trying -- like -- trying to pull his dick off his body? Did he do anything else? I want you to think hard. What did he do with the boy's underwear?

A Set them on fire.

Q How?

A With a brown lighter.

Q He had a brown lighter. One of those bic lighters? Where was the underwear when he lit them up?

A By the side of him.

Q He took the boy's underwear off and lit them up. Now, how did the underwear get around the boy's neck?

A That's when -- he lifted him up in the air like this with them. He had him up in the air like this.

Q Didn't he tie them around his neck with a knot?

A He had him just like this with them. At first, he had him just like this.

Q Okay. How many times did he fuck him in the ass?

A Until he nutted, I guess.

Q Did you one see him put it in one time? Did he set the boy on fire? How did he do that, Danny?

A He had a -- like -- there was this -- some kind of stuff he poured on him. He had got it in the back of the store.

Q Now is this true?

A He had got it from in the back of the store.

Q You mean he left the boy and walked up and got some stuff? What did you do when he left?

A That's when I ran. I thought he was coming around where I was at, because it looked like he was coming up out of the hill and coming where I was at. And, then I had just dived down in the bushes. And, then after that, I just seen some smoke. And, then I just ran.

Q Now, wait a minute. He already knew you were watching him, right? And, he plunked that boy in the butt and ripped his stuff off of him, and then he lit his underwear on fire, and then he left the boy and went up to the Valu King?

A Went right back around there.

Q And, he grabbed some stuff. What did it look like?

A It was something, and he just started emptying it.

Q What did he carry it in?

A It was in a plastic container like a -- it looked like some stuff that you pour on like grills and stuff.

Q And then he came back and set the boy on fire? Where at?

A The same place. He didn't move.

Q Where on the boy's body did he light him up?

A Right here.

Q How do you know?

A Because I seen it. I was sitting right -- it was right there, I was looking dead at him when everything he was doing.

Q Were you as close as me? You're three feet away?

A About five.

Q Were you holding him for him? Did he tell you to hold him for him?

A Yeah. I had him.

Q Did he say any words to you at all? What was the words "Shmoo" said to you?

A He just said he was going to leave. He just said -- when we was up there by the store, he said he was getting ready to leave, and he circled around and went down in the field.

Q When he was beating on him, did he say anything to you about, "Come help me hold him."

A He didn't say nothing. He was just looking at me, and he was smiling.

Q So, he grabbed something at that store, and he came back and lit the boy on fire? Did you say he picked up the bike and threw it?

A And threw it.

Q How far did he throw it?

A Like the boy was laying over there. He just threw it.

Q Did you touch the bike at all? You didn't touch the bike? Now, you think hard.

A I didn't touch nothing.

Q You tell us the truth now, because we want you to continue to to tell the truth about what's happened, okay.

MR. STEINBECK: Let the record show that Detective Morris Hill is now present in the room.

Q What if Timmy tells us that you handled the bike; you threw the bike? Had you been drinking a lot before that?

A No, because I had just came out the house. I didn't have nothing to drink.

Q Was the boy covered with puke? Was he? Don't shake your head. Answer yes or no.

A Yes.

Q How did the puke come out? When did that happen? When did the boy start puking?

A When he hit his head on that thing.

Q On the handlebars?

A On the pedal. Hit his head on the pedal.

Q Anybody get puke on them besides the little boy?

A Tim Combs.

Q On what?

A On his pants, right here.

Q What did he have on?

A Some baggies.

Q Blue jeans?

A Baggie blue jeans.

Q What color shirt?

A I couldn't see his shirt.

Q Did he get any blood on him? Wasn't the boy bleeding? Was the little boy bleeding bad?

A It looked like his head was busted.

Q How about some blood on Tim Combs? Didn't Tim get some blood on him?

A He was whiping off something off of his shirt.

Q Did any blood splatter on you?

A No.

Q No blood got onto your clothes nowhere? Did anything get on your clothes?

A No.

Q Are you sure? Any vomit get on you? You were close enough that it could have splashed up on you, right? I mean if the little boy is the door right there, and I am you; that's how close you was when this was happening, right? About three or four feet? You were that close when he was plunking the little boy in the butt, right? Did you see the boy vomit? Did you try to pull Tim off of him? Did you ever say, "Stop. Don't do that"?

A He was just looking at me -- just looking at me like if I came over there he was going to hit me. And, see, I was scared to go over there and try to fight him, because he looked like he was going crazy.

Q Danny, did the boy vomit after he was fucked in the ass or before?

A It was after --

Q Okay. He fucked him in the ass --

A -- becuase when he hit his head, he just started throwing up like he had messed up something up in here. And, then that's when Tim Combs was kicking him in his head.

Q -- and then he grabbed him by the balls?

A That's probably what made him throw up.

Q Did he pull his dick off? Did he pull the boy's dick off? Answer yes or no, Danny?

A Yeah.

Q He grabbed the boy's dick and pulled it all the way off?

A He was yanking it. It might have came off, because the way he was pulling on it, he had his foot on his stomach, and he was just pulling.

Q What kind of shoes did Tim have on?

A Some -- like -- some high tops. They was high tops.

Q Tennis shoes?

A Yes.

Q What color?

A White.

Q What make were they?

A Leather.

Q Were they Converse, Puma, Nikes?

A Nikes; I think.

Q Are you sure?

A Yeah.

Q Did he have a hat on that day? Tim Combs had a hat on?

A Yeah.

Q What color?

A Black, I think.

Q Okay. When he got done with the boy -- the boy is laying how; on his stomach, or on his back?

A On his stomach.

Q Okay. When the boy was found, he was laying on his back. Did somebody turn him over? Did you turn the boy over on his back? Did you touch the boy at all? Tell the truth. Tell the truth. Don't lie about anything. You are telling the truth as it is, already. Tell the truth. Just what you seen and what you know. Don't hold nothing back, Danny.

A I flipped him over.

Q You touched the boy?

A I flipped him over and looked at him.

Q Where was Tim when you did that?

A He was running.

Q He was gone. Did you check to see if the boy was hurt real bad? What did he look like to you when you turned him over?

A He was messed up.

Q How?

A His face, and his -- it didn't look like he had nothing down there.

Q When you say he didn't have nothing down there; what are you talking about?

A His privates. It looked like he didn't have nothing.

Q His penis was gone? Did you see any blood and stuff?

A It was all over the ground.

Q How about -- was his balls still there? You could see the balls, but you couldn't find his penis? Danny, I have got to ask you this. This is very important; all right? I have got a feeling you moved the bike; okay? Am I right? Did you hide the bike? Are you sure you didn't cover up the bike and hide it?

A He threw it.

Q He threw the bike.

A While the boy was laying on the ground, he just picked up the bike and threw it.

Q You didn't touch the bike? The boy had on grey shorts. Did he leave with the grey shorts? Did Tim Combs walk with the grey shorts?

A Yeah. He had them up under his shirt. He had them up under his shirt. And, I had seen him the next day. He was heading right back there, and that's when I was looking, and he had hid the bike up under some weeds, like, and threw the shorts up under there.

Q So, you saw Tim Combs come back to this field the very next day carrying the boy's shorts, and he hid the shorts and he hid the bike; yes?

A Yeah.

Q Have you talked to Tim Combs about this after this happened? None at all?

A I didn't even see him.

Q Danny, you said the next day you saw him bring the shorts back. How did it happen that you and he would be at the same place at the same time the very next day?

A Because he came through the Hampshire Houses. And, like, where my house is at, you can, you know, look right down there by the field when the door is open. And, I saw him walk past the door.

Q You saw him walking?

A Past my door.

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Q So, you walked with him?

A No. I waited until he went down the hill, and I circled -- I took this other path when he came down, and walked down towards there. He was going across the street. Around about the time he went down across the street towards that pathway where that little boy was laying, I was coming straight down, and I turned up in Valu King field, and that's when I see him sticking the bike up in some bushes, and he threw them shorts on top of the bike.

Q That ain't true, now. We have got to find exactly what he did with them shorts. That ain't true, Danny. That part is not true.

A He threw them shorts on top of that bike.

Q The shorts were not found by that bike. Tell us the truth about this. You have told the truth so far. What we want you to do is put the other part together and tell the truth about the shorts. Did you have the shorts? Tell the truth. Did you carry them off? Tell us what you know, Danny. Tell us what happened that day. Did you put something in the boy's butt, too? Danny, you have gone this far. Tell us the truth. I know it is hard to live with this thing. It has got to be for all of us, but we have got to know the truth, Danny. As we told you before, don't leave nothing out; not a thing. If you had sex with the boy, if you raped the boy, we want to know. If you touched the boy in any other area than the Sergeant asked you about, we want to know. We want to know everything. If you took the shorts out of the field, if you whiped your hand on the shorts -- you didn't get no vomit on you or nothing?

A No.

Q Nothing at all. If you did any other thing than turn that young man over, we want to know about it.

A I just turned him over.

Q What did you do when you turned him over?

A I was looking to see if he was breathing or not.

Q How did you go about looking to see if he was breathing or not? Come on.

A His neck, right here.

Q You put your hand on his neck to see if he was breathing, am I right?

A You're right.

Q Now, Danny, getting back to these shorts; when you first seen the boy, he was on the bike; right?

A Right.

Q He gets knocked off the bike. Did you knock him off?

A Tim Combs knocked him off.

Q Are you sure?

A Yeah; he knocked him off the bike.

Q Now the boy is laying on the ground?

A Yep.

Q Is he hurt?

A Yeah.

Q But, he gets up; right?

A And he runs, and then he grabbed him with a head lock and lifted him up in the air.

Q Who grabbed him with the head lock?

A Tim Combs.

Q How close were you then?

A Right by the hill -- right by the hill where you can look down over in the field.

Q Not real close to him then, huh? You walked over close to him when he was fucking him in the butt? Why did you do that?

A Huh?

Q Why did you walk close to him?

A I was going to hit him.

Q Hit who?

A Hit Tim Combs, behind his back. And, then he had turned around and looked at me, because I was sneaking up on him -- I can show you the board out in the woods. I had a board, and I was sneaking up on him.

Q Now, wait a minute. Is that the truth now? You never said nothing about no board before. Don't start making things up, because you like to do that. You seen a board? Did you pick the board up?

A Yeah.

Q Where did you pick the board up at?

A Right up there at the store. They've got some crates back there, and some of them boards are loose. And, I just grabbed one, and I was going to hit him.

Q You were going to hit Timmy? You weren't going to hit the Fife boy?

A No.

Q Go ahead. So, you walk up on him, and then what happened?

A He just turned around and looked at me.

Q He didn't say anything when he turned around and looked at you, when he seen you with the board in your hand; he didn't say anything? He didn't say, "Get the fuck out the way" or anything?

A No.

Q If he said something to you, try to remember exactly what he said to you.

A He said, "Take your ass back up the hill." Because he said, "If you tell on me, I am going to come down here and put it on you because you seen it."

Q This is what we told you in the beginning. All three of us

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told you in the beginning. All three of us tried to tell you. What did I tell you in the beginning? He is going to come down here and say that you raped that boy. So, if you raped that boy, we want to know now. Do you understand? Because if he comes down here, we ain't going to know who to believe. Do you understand?

A I didn't touch him.

Q How did he get the shirt off the boy?

A He just ripped it off.

Q This is after he knocked him off the bike.

A He just ripped it off, just like that.

Q You said the boy got up and run?

A Yeah; he just got up and ran, and he just grabbed him with a head lock.

Q How far did he run before he grabbed him with a head lock; 5 feet, 10 feet, 20 feet?

A He was halfway by these two trees like; these bushes that cuts over to the other path.

Q There's two pathways there?

A Yeah.

Q The boy is almost free away from you all?

A Away from Tim.

Q How far was he away from the bike when he caught him?

A The bike was left way -- about -- the bike was threw like over there by the hill.

Q So, the bike was a considerable ways away. Was it more than two feet?

A Yeah.

Q Was it more than three feet?

A It had to be. Because if he would have --

Q Do you know how long a football field is?

A Yeah.

Q How long is a football field?

A 90 yards.

Q 90 yards. A football field is only 90 yards?

A I think.

Q Think hard. How long is a football field? You don't know? Okay. How far would you say the bike was away from the boy, then, when you caught him? Did you ever run with a football? Did you ever see it on television? You have seen guys on television. Was he 5, 10, 15, 25 yards away from the bike when he caught up to him?

A Yeah. He was far away from the bike, because he had burnt him, and running he couldn't catch him, until he just dived at him and hooked him right here. The boy fell back.

Q The boy was faster than him. Now he's got him by the head.

A Just picked him up and slammed him.

Q Slammed him down on what?

A On the ground. He just picked him up and slammed him head first, right up here.

Q Body slam; like they do in wrestling. How many times did he body slam this young boy?

A A lot.

Q What's a lot?

A Five or six times.

Q Okay. Does the boy have any pants on then?

A No, when he was running, he didn't have nothing on.

Q How did he get the pants off of him?

A He just grabbed him. When he grabbed him around by his neck, he just took them off.

Q Did he rip his shorts down.

A And, then he just threw him down, and started to --

Q Say it -- started to what? Say the word. That don't work on me.

A Fucking him in his butt.

Q Now, when he pulled his shorts off, they were blue shorts -- yellow -- what color? They were yellow?

A Yeah. They was something -- they was yellow.

Q The shorts were yellow? Are you sure?

A Yeah. Because they looked like some Reserve colors, like -- like they was gym shorts.

Q Now, Danny, that's not right. You told us earlier that they were grey.

A He had on some drawers that looked like they was grey. Like the back of them -- like they was like fruit of the loom or something.

Q I am not talking about his underwear. I am talking about the gym shorts that he had on. Not his underwear; the gym shorts he is supposed to have had on. Did he have gym shorts on?

A Not when I had seen him. He just had on his drawers.

Q His underwear? That's all you seen?

A Yep.

(WHEREUPON, there was a discussion off the record.)

(Sgt. Steinbeck no longer present)

Q Do you realize -- you know your rights. You don't have to talk to us if you don't want to. You have the right to remain silent. You know that, Danny?

A Yes.

Q Danny, I will tell you what I am going to do. I am going to read you your Constitutional Rights. I gave you your rights once. Do you understand that I gave you your rights once. Since I gave you your rights; I gave them to you verbally; okay? Now, what I want you to do; I want you to sign your rights. Tell us exactly what took place out there. I want to make sure we get this on paper, and get your signature on here that you know your rights and you understand your rights all the way, just the way I told them to you earlier, okay? Warren Police Department, Constitutional Rights, Place, the Warren Police Department. Date: 9-16-85. Time: 11:55. Further, I have been advised of my -- I have been advised I am not under arrest. I am free to leave at any time. I have given this voluntary statement to the police officers of the Warren Police Department. Before we ask you any questions, you must understand your rights. You have the right to remain silent. Anything you say can be used against you in Court. You have the right to talk to a lawyer for advise before we ask you any questions and to have him with you during questioning. If you cannot afford a lawyer, one will be appointed before any questions, if you wish. If you decide to answer any questions now, without a lawyer present, you still have the right to stop answering at any time, until you talk to an attorney. Do you understand that?

A Yeah.

Q Now, this part down here is the waiver of rights. I have read the statement of the Constitutional Rights. I understand what my rights are. I am willing to make a statement and answer questions. I do not want a lawyer present at this time. I understand and I know what I am doing. No promises or threats have been made to me, and no pressures or coersion of any kind have been used against me. I therefore waive my rights and give this statement freely. Okay. I want you to sign your signature right there. Okay?

INTERVIEWER: Let the record indicate that Danny Hill has signed his rights sheet. It was witnessed by Sergeant Stewart, Sergeant Steinbeck and Detective Hill.

Q That's the second time we have read your rights to you; right?

A Right.

Q We read your rights to you when you first came in the room and just now, right?

A Right.

Q Now, when you came down to the Warren Police Department, we asked you to come down, you were not arrested. You came down here, and you talked to Detective Hill and Sergeant Steinbeck.

A Right. Yes, Sir.

Q When you got to the Valu King that day, did you walk across the road with Tim Combs like these people told me you did?

A Yes.

Q Tell the truth. Do you remember walking across the road?

A Yes.

Q What was the first time you saw Tim Combs that day?

A Coming out of Colt Court. He was going out of Colt Court. He said he was going over his aunt's house and stay out there behind -- (inaudible).

Q So, you walked from Colt Court across Valu King or Palmyra Road straight up to Valu King?

A Yes.

Q Did you go in Valu King?

A No.

Q Was Jimmy Dukes out there? Is that true, or is that a lie?

A No.

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Q What?

A He wasn't there.

Q That was a lie?

A Yes.

Q So you walked up to the front of Valu King. Did you go in Rite Aid?

A No.

Q Did you go in any store, at all?

A No.

Q So you just walked up to the front of the Valu King, and then you walked behind it. Did you walk behind it together?

A No. He went around the other side.

Q So he went around the side by the RGB Music Store; right?

A Yes.

Q And, you went by the side that would take you over by the man's house that has the boat on Jackson Street?

A Yes.

Q What made you stop to see what Tim Combs was going to do?

A Because I had already seen the little boy when he was coming from around there.

Q Where was the first time you saw the little white boy that got killed?

A He was riding through the field, because you could see them when they come over there by that street. You can see them when they be riding through there. And, I seen him when he was riding through there, and then I had turned around and looked, and it looked like he had just stopped riding.

Q Well, didn't Combs make a suggestion, let's get this boy about something? Didn't Tim say something to you about let's get that boy's

bike or let's fuck that boy up? Did he say something to you like that?

A Yeah.

Q Sure he did. What did you say? Be truthful now, Danny.

A I said no. I said, "I don't get in trouble no more."

Q Where were you and Tim standing when Tim said that to you?

A Around the back, because he said, "There is a bike right there." He said, "I need a bike, Hill."

Q Now wait a minute. You guys had to be together behind the store then; right?

A Yeah.

Q Then, did you walk behind the store together?

A Yeah.

Q Okay. So, that's a lie. You told me a lie; right?

A Yeah.

Q Don't lie anymore, Danny. If you walked around the back of that store together, tell the truth. Think before you answer, son. If you can't think of the question right away, give yourself some time. I know it is confusing. It was a hectic day. There is a lot on your mind; right?

A Right.

Q You think about this, now. You walked around the store together, right?

A Right.

Q You were standing right behind Valu King?

A Right.

Q Are you in the weeds yet, or are you still in the gravel?

A Still right there on the gravel.

Q And you see the little white boy come up on the bike?

A Right.

Q How close did he get to you?

A About halfway up the hill, and, then, that's when Tim Combs had grabbed him.

Q Now, wait a minute. You have got to walk back into the field a little further, don't you?

A You've got to walk down --

Q Okay.

A You've got to walk down the hill.

Q Where were you standing when Tim said, 'Let's grab that white boy'?

A About halfway to the pathway.

Q In the weeds?

A Yeah.

Q Okay. And, what did you say?

A I said, "No. I don't get in trouble no more." Because, I had just got out of Columbus.

Q Well, all you was going to do was steal that boy's bike, right?

A Yeah.

Q That ain't very much trouble.

A But, I didn't feel like stealing nobody's bike, because I ride my brother's bike all the time. He has a ten-speed.

Q What words did Combs say when he said, 'Let's get this white boy' or 'Let's get this bike'? I want to hear it in your own words. What did he say?

A He said that he needed a bike. And, we was walking around at the same time that he said he was going to look for a bike, because he got tired of walking from behind Austin Village Plaza all the way over here to the homes. Then, around about that time, he seen the little boy riding this bike up through the pathway. And, he said, "Hill, let's go over here and get this bike." I said, "No, because I don't go around here

stealing nobody's bike." And, he said, "Well, I'm going ahead and take it." Then, I had watched when he went down the hill. And, then, I didn't see the little boy riding his bike no more. He just got knocked off his bike. And, around about that time, I had walked down the hill and looked and he had him on the ground.

Q Continue to tell.

A And, then, I had walked down there and I had looked, and he told me to get my ass back up that hill.

Q True?

A Right. And, he had told me to get my ass right back up that hill. So, then, I said, "Why are you doing that to that little boy?" He said, "It ain't none of your business." So, then, I said all right.

Q Was the boy's eyes open?

A Yeah.

Q Did you ever hear any words at all out of that little boy; any words any screams, at all. Did he yell for help? Did he yell for help?

A Yeah. He had looked at me, and the way he was looking at me like he wanted me to come down there and, you know, knock Tim off of him.

Q Did the boy say 'help me'?

A No, he was just looking, because he had his mouth way he couldn't say nothing.

Q Which hand did he have over his mouth? His right hand or his left hand?

A His right. And, I had went up there and grabbed a board. Around about that time, he was knocked out cold. And, I had turned him over, and Tim Combs was running through the field.

Q Wait a minute. You left out a whole lot now. You say that he got his shorts off. Now, first of all, his bike was about 25 yards -- the boy got away about 25 or 30 yards away from his bike, and he caught up

to him, right? And he got him by the neck; right?

A Right.

Q Threw him down?

A Right.

Q Now, was his shirt off at this time?

A Yeah, his shirt was off of him. He didn't have nothing on except his drawers, and he was running. And, Tim Combs couldn't catch him unless he just jumped at him and dived, because the boy was like from here to there, running, and he couldn't catch him, so he dived at him.

Q Did he put his dick in his mouth?

A Yeah. A couple of times.

Q When the boy was dead or when the boy was alive?

A I think he was knocked out.

Q Did you put your dick in his mouth?

A No.

Q Are you sure?

A Yeah. I didn't have nothing to do with raping him or nothing like that. I was just there.

Q How many times did you touch the boy?

A I just turned him over to see if he was still breathing, and he wasn't breathing.

Q Where was the boy's black shirt, when you turned him over? Now, this is very important. Think hard.

A I didn't see it.

Q Danny, when the boy was found, his shirt was right underneath him. Now, you would have to see that shirt.

A I didn't see it, unless Tim Combs had it up under his clothes or something, because I didn't see his shirt.

Q You said Timmy was pulling at his dick. Was he pulling hard?

A Yeah.

Q How was he pulling?

A He had hit foot on him, and he had it like this, and he was --

Q Stand up and show us how he was doing it.

A He had his foot down like this, and he had to bend over because the boy was short. And, he had it like this, and he was pulling up, and, like, if he couldn't pull it no farther, he was doing like this -- like his shoulder was moving like he was ripping.

Q Did the boy have puke all over him at that time?

A Yeah.

Q How close were you standing, a couple of feet?

A Yeah, because I had the stick, and I was standing up there, and, then around about the time I had came down there with the stick he got up and ran.

Q Well, what did he do with the dick when he had it in his hand. Did he have the dick in his hand? Part of it, all of it?

A It looked like he had it in his hand.

Q What did he do then?

A He just started running.

Q What did he do with the dick?

A He just started running, and I couldn't chase him, because I am kind of slow, and he's faster than me. I couldn't have chased him down.

Q Okay. So, the first thing he did is he got the boy and he slammed him down?

A Yep.

Q And, he pulled his underwear off of him and he fucked him in the butt?

A Yep.

Q How many times did he fuck him in the butt?

A It was a lot of times.

Q What I mean is he fucked him in the butt, and then he would pull it out and do it again?

A Yeah. Off and on.

Q Okay. What was the next thing he did to him that had sex to do with it.

Q He just had his thing in his mouth.

Q How did he do that?

A He had his hand in his teeth like this, and he had -- he was doing like that.

Q Are you sure?

A He had his hand in his mouth.

Q Timmy had his hand in his --

A In his mouth.

Q And, then he put his dick in the boy's mouth?

A Yep. Because the boy wasn't breathing.

Q Is this after he wiped his --

A Yeah.

Q -- or before?

A It was after.

Q How long was he back there with this boy?

A About three hours. About three.

Q He was in that field for three fucking hours with that boy?

A Yes.

Q And, nobody came through there?

A Nobody. Wasn't nobody looking out there in the back. Wasn't nobody looking out there.

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Q You didn't do anything to the boy at all?

A No.

Q And all this period of time that you two boy spent back there with the boy, you didn't do anything?

A No.

Q Except just turn the boy over, and feel alongside of his neck to see if he was living? Did you touch his dick at all?

A No.

Q Maybe touch yours?

A No.

Q Did you make him touch yours?

A No.

Q Did you have your zipper down?

A No.

Q Not once?

A No.

Q Now, if we go to your apartment, at your mother's house, and get those clothes, there will be nothing on them?

A No.

Q Nothing?

A No.

Q Did you wash them?

A I washed them pants last night.

Q Why?

A So they still be dry. Because I was going to wear them, because I had worn these yesterday.

Q The pants you had on here Friday when I talked to you; were they the same pants you had on that day?

A Yep.

Q What shirt did you have on?

A That red shirt. When I came down here?

Q What shirt did you have on the day that Tim did that to the boy?

A A white jersey. I had on that white jersey with the 77.

Q After Timmy stuck his dick in the boy's mouth, okay -- do you remember that? You told us.

A Yes.

Q What next did Timmy do?

A Started to get him back in his butt, when he did.

Q Did he get him in the butt again, then?

A Yes.

Q So, he fucked him in the butt, and then he put his dick in his mouth, and then he fucked him in the but again?

A Yes.

Q Did he ever once say, "Come on, Danny, do this with me"?

A No.

Q He never said none of that?

A No.

Q And, he fucked him in the butt again, right?

A Right.

Q Then, what did he do to him.

A Started pulling on his thing.

Q That's the next thing he did, was pull on the boy's dick?

A Yes.

Q Did it look to you like what? What was he trying to do?

A Just looked at me, because he was scared. He thought I was gone through the pathway. He just looked at me like I was the Police or something. He just looked at me like he was scared; like it stunned him.

Q How did he have time to burn him, if he lost all this time -- are you sure you didn't have the cigarette lighter?

A No.

Q Does he smoke?

A Yes.

Q Do you smoke?

A Yes.

Q Do you have a cigarette lighter?

A No.

Q How do you light your cigarettes?

A I have matches.

Q You use matches?

A Yes.

Q Where do you set him on fire; at his feet?

A No. It started right up in here, because he had burnt them, and then he just threw them on him.

Q Burnt what?

A A piece of cloth. He lit it and threw it on him, and it just started to smoking, like the woods was on fire.

Q Three hours you were there?

A Yes.

Q It seemed like three hours maybe. But, maybe it wasn't three hours. After he got done with all this shit. After all this shit was over with, you say he ran down toward Jackson Street?

A Yes.

Q And, you ran out towards where?

A I ran out the same way.

Q Where did you guys go from there?

A He ran out toward --

Q Make sure you tell us the truth now. Where did you go after you left the boy?

A After, when I had left, I had ran out the same way he had ran out.

Q Where does that come out on?

A Right there in front of the house that we used to stay in; right out in front of the house.

Q On Jackson Street.

A Yeah; came right out --

Q Timmy ran out that way, too?

A Yeah.

Q Was there two other dudes came out of the field about the same time?

A I think so.

Q Who was it?

A I don't know.

Q Did they look like they might have been walking with you?

A No.

Q They were walking the other way?

A Yes.

Q So, you got out onto Jackson Street. Then where did you go?

A I went over this girl's house and started to sit down, that's the reason I got -- that's the reason my mother was cracking on me, because I was high.

Q What girl was it? What girl?

A She stay out there at Westlawn.

Q White girl?

A Yeah.

Q What's her name?

A I don't know.

Q Where did Timmy go?

A Up under the bridge over his aunt's house. He was running.

Q What bridge?

A Over there, by Reserve.

Q He was going to Austin Village on Commerce?

A Yep.

Q Over Barbara's house?

A Yep.

Q Did he run by you, or did you run with him, or did you guys just, "I'll see you later. Keep your fucking mouth shut." What was said?

A He told me -- He said, "I will be down there before you go down there." He said, "I'll be down there before you go down there."

Q What did he mean he would be down there before you go down there?

A Like, if I come down here -- like if I come down here to tell, he was going to beat me down here so he could tell you all that I did something to him.

Q What day was that you came down to see me? Was that Wednesday night?

A Yeah.

Q That was Thursday night.

A Thursday. Thursday.

Q Why didn't you tell Sergeant Stewart about that then?

A Because I was trying to -- I was telling a story.

Q You trying to tell us shit?

A Because he was looking -- people was telling me he was looking for me. They said he was looking for me out there in the Hampshire Houses.

Q Didn't you go with him the next day?

A He had walked out here from -- they said -- I mean, he was coming from over his mother's house, because his mother stay on Fourth Street. And, he came up to the Hampshire Houses, and went out the back way by the field.

Q Did he stop at your apartment and get you?

A No.

Q He didn't stop and say hello and get you?

A No.

Q Come on, now, I told you; if he stopped to get you, tell us he stopped there to get you. But, if he -- you know -- first you said you were looking out the window and you seen him come by. So, then, he went down the one side of the hill, and you went down another way. Now, did he stop at the house and get you to come and go with him? If he did, just let me know this. Okay?

A He had knocked on the door. He had knocked on the door.

Q And, then, what?

A I had looked out the peep hole, and then I acted like nobody was there, because my mother and them was gone. So, then, when I seen him go down in the field, because I was looking out the upstairs window, and I was looking at him going down the hill. That's when I opened up the door and went down the hill. I gave him enough time to get down there -- you know, where that little boy was laying.

Q Okay. Nobody is going to believe -- listen to me. Ain't no persons going to believe that you didn't hold that boy and try to get them shorts off of him, and then he started running.

A I ain't had nothing to do with that part right there.

Q I am talking about his gym shorts or his jeans or whatever he had on. I am not talking about his underwear. That boy broke loose, right?

And, you didn't hold him or do nothing?

A No.

Q How big is Tim?

A He bigger than me.

Q Is he bigger than you?

A Yep.

Q Now, if we run you on the polygraph, will it show that you are telling the truth about the part that you didn't have nothing to do with it, except for the fact that you turned him over and felt him to see if he was still living?

A Right.

Q Have you ever taken a polygraph before?

A Yes.

Q For what?

A I don't remember.

Q How old were you?

A I was 15.

Q You followed him down the hill the next day, right?

A Yeah.

Q He didn't know you were with him?

A No.

Q Where did he go?

A He went out there in the field.

Q What field?

A Like he was looking for something.

Q Out in the field behind the Valu King?

A Yep; like he dropped something back there.

Q What did he do?

A He was just looking around.

Q How long did he look around?

A About 5 or 10 minutes.

Q Where were you? Where were you when he was looking around?

A At the back of the store.

Q Where was the cigarette lighter at?

A It was laying in the grass and he had picked it up. I guess that's what he was looking for, because he --

Q He found the cigarette lighter he was looking for?

A Yeah.

Q Is that what he was looking for?

A Yep.

Q How do you know?

A Because he had dropped it, because I didn't see him put it back in his pocket. And, I guess, it was still laying there, and he came back and he was looking for it, and he found it.

Q And, then what did he do with it?

A Put it back in his pocket and then he left like it wasn't nothing.

Q And, then where did he go?

A Back over there by the -- behind Austing Village where his aunt stay at. That's where he living at. He not staying with his mother.

Q He's staying with Barbara? He's not staying with his mother?

A No.

Q You know, Danny, it seems like everything we suggest to you, you agree with us; right? Isn't that the way it seems to you?

A What?

Q Now, if we suggest something, it seems that you agree with us. In other words, about the cigarette lighter; I suggested he was looking for it, and you agreed with it. Now, if I was to just suggest and say that

the boy sucked your pee-pee, would you agree to that?

A No.

Q You won't?

A Because I didn't have nothing to do with that.

Q Did you such the boy's pee-pee?

A No.

Q You didn't?

A No.

Q Did Timmy suck the boy's pee-pee?

A I don't know. I didn't see him.

Q You said Timmy was carrying something under his shirt when he went back.

A He had something up under his shirt when he was walking from Colt Court. He had something up under his shirt.

Q The day after they did that to the boy?

A Yeah.

Q When he came knocking on your door, he had something under his shirt?

A Yeah.

Q If he had something, he was going to tell you what he had.

A Huh?

Q What did he have?

A Huh?

Q Did he tell you what he had?

A No. He just knocked on the door.

Q And, what did he say?

A He ain't said nothing. He just knocked on the door, because nobody answered, because I was upstairs asleep. Like, you came over to the

house and you had to knock real loud. That's how he had to knock. And, I still didn't go downstairs. I just looked out the window, like I looked out the window at you.

Q How could you tell he had something under his shirt?

A Because when he came and knocked on the door, I was already downstairs. Because, I had just got out of the shower, I was already downstairs. I looked out the big picture window to see who was knocking, and I seen him walking -- you know, he had just turned around and looked toward the window, and he had a big bulge in his shirt. So, then, I just went back upstairs and looked at him when he went through the field. He went down in the field. The hill drops when you go down.

Q Did you see him take anything out of his shirt?

A No.

Q The whole time he was looking for his lighter, he didn't take nothing out of his shirt?

A No.

Q So, you don't know what was under his shirt?

A No.

Q Well, why did you say it was his grey shorts?

A Huh?

Q You said one time in here today that you thought he had his grey shorts underneath that shirt?

A He had on some grey shorts, Tim did. Because, I could see it when he was pulling off his pants, he had on some grey shorts.

Q Tim did?

A Tim did; yeah.

Q Timmy get any blood on his underwear?

A I don't know.

Q You were close enough to tell, weren't you?

A It didn't look like nothing was on there.

Q Did he have any blood on his hands when he pulled that boy's dick off?

A Yeah; he had some on his hands. Yeah.

Q Did he have that boy's dick in his hand?

A I think; yeah.

Q Where did the boy's dick end up at?

A I don't know.

Q Did he run out of the woods with it?

A Yeah; that's what I said. When he seen me come down, he ran.

Q You don't know if he had the dick in his hand or not, though?

A No.

Q You say he went over to Barbara's. How long has he been staying at Barbara's house?

A Since he been out.

Q How come he don't stay with his momma?

A I guess because he had raped that other boy behind Perkins Park, I think.

Q You were there that day, too; huh?

A No.

Q I thought you told me the other day you was at the park with -- you know -- watching the baseball game.

A Yeah. I didn't know he was up there.

Q And, he was fucking some boy then?

A Yeah; that's what they had told me.

Q Does he like to do that to boys?

A Yeah.

Q Does he brag about it?

A He used to when he was in the -- (inaudible -- sounds like D.H.) -- he used to be in there, because, when I was in Dorm No. 2, it was at night, they had a nail, they had some nails they had pulled off the board, and it was two black dudes that was in this same cell with this white dude, and everybody was quiet. They told everybody to be quiet -- the people that was working there, like Biz and them that was working there, they told everybody to be quiet. And, so, then we was sitting down low, and him and Anthony Cursey picked this nail, I guess up to his neck, and said if you didn't do it that they was going to stab him with that nail. And, so he did it, and then all the staff and stuff came back in. That boy was crying and stuff. And, they had took him out, and then he told on Tim. He told on Tim and that dude, and I guess they ain't never done nothing about it. They just wrote up a report, an incident report.

Q You didn't touch the boy at all?

A Nope.

Q Not at all?

A No.

Q Just except to turn him over?

A Yeah.

Q And, feel alongside of his neck and see if he was still living?

A Yep.

Q Sergeant Steinbeck said they boy had -- he vomited on himself. I can't understand why he vomited on himself. I am lost with that one. Are you sure he vomited on himself?

A It looked like something was on him like throw up. It looked like something was on him.

Q It did?

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Q You didn't get sick, did you?

A No.

Q All that blood and all that -- you didn't throw up on him?

A No.

Q You didn't get sick about seeing all that stuff? About that board; you said you had a board, right? You went back to the store and you got a board?

A Yeah.

Q You walked up behind Tim, and you thought about hitting him. What did you do with the board when Tim told you to get he fuck out of the way?

A Huh?

Q What did you do with the board? Did you throw it back out there?

A Because I was at the top of the hill, and he had looked up and he said, "Get the fuck back up there".

Q Wait a minute. Wait a minute. You are way up at the top of the hill? I thought you were sneaking up on him?

A Yeah. That's what I was doing, I was sneaking up on him, and he told me, "Get the fuck back up there", and I just threw it back.

Q Threw it back where?

A Up on the road, like.

Q By the building or on the road?

A Right back there by the building; yeah. I just threw it back up there.

Q And, the boy's bike was about 25 yards away from where you chased him; right?

A Yep.

Q Danny, the very next thing I am going to do is I am going to go to Tim Combs, and I am going to bring him in the same room. You ain't going

to be here now; right. And, I know that he is going to tell me that you did more than you are telling us three. Wait a minute. I ain't done yet. He is going to tell us that you did more than what you are telling us you did. Okay? You got to tell us what you did.

A I ain't done nothing. I took the lie detector test.

Q Listen. You got to remember one thing: when this case goes to Court -- okay. Understand? When this case goes to Court, Timmy Combs is going to get up there, if he gets up there at all, he is going to give a statement to one thing. He is going to try and implicate you in a manner that you might have done this.

A I know.

Q So, this is the thing we want to make sure that you understand this; that you are telling us each and every detail and the truth about the whole thing.

A I know. I know. I ain't had nothing to do with raping him or nothing.

Q Danny, did you have your dick out?

A No.

Q Did you jack off?

A No. I ain't pull out nothing. I ain't like that. No.

Q You can't tell me that you were that close and you were watching Timmy fuck him in the ass, and you didn't think about doing it.

A No; because I ain't like that. If I even see somebody -- just like when I was in the G.A. school, they try to do something like that to me, and I was fighting in the cell.

Q You was close enough -- did you kick the boy once?

A No.

Q Did you touch him anywhere?

A Just on his neck when I was seeing if he was breathing or not.

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Q Didn't Timmy tell you to get away from him when you turned him over? Timmy say, "Get off of him"?

A Yeah. He said, "Leave him alone." Just like that. "Leave him alone. Let him lay there."

Q And, you and Tim walked out of the woods together?

A No. He had -- when I came off the hill I had went down and looked, and he was running. And, he said, "Leave him alone". Just like that. That's the way he talk. He said, "Leave him alone". And, then, I just started chasing him, and he was flying. I couldn't even catch him. So, I just slowed up and started walking up out of there. And, he was still running. Some people should have seen him when he came out of the field, the way he was running.

Q When you knew that this boy wasn't moving or anything, and you felt in your mind that this boy might have been dead, why didn't you go to your mother, or come to your uncle or go to someone that -- so they would know that that kid was behind that building back there, in that field?

A Because, if I would have did that, he would have came down here -- If I would have been looking for you -- about the same time he would have thought I'd been looking for you, he would have came down here and said that I had something to do with it.

Q Was you there when the police came up there?

A No.

Q You was afraid if you told us where the boy was we might think you did it?

A Yeah.

Q Why would you think that we would think you were guilty?

A Because I have a record. I have that record for that rape

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charge. That would have started -- you know -- you all would have started to ask me all kinds of questions.

Q So, that's why you came down and talked to me Thursday, to try and get your alibi and blame it on Lowery. Lowery didn't have nothing to do with this?

A He had the bike. He was riding the bike. I got witnesses to that. He was riding the bike, because he tried to sell it to my cousin.

Q The bike with the reflectors on it?

A No, the bike that was laying back there in the field. He tried to sell it to my cousin.

Q How did Maurice Lowery get that bike?

A It was laying back there in the field. When you all had went back there to get that body, they went looking for the bike. So, the bike was still back there. He went back there and found the bike and tried to sell it to my cousin out in the Homes. And, he can come in here and tell you the same thing like I said.

Q The same bike?

A Same bike.

Q Well, how did the bike get back out in the field?

A He put it back out there when the police came to the school to pick him up, they asked him where the bike was at, and he had it hid over his cousin's house. And, no sooner at the school, I guess he threw it right back there, in the field. He threw it right back there, in the field.

Q Did Reesey Lowery have anything to do with the boy's death?

A No. He wasn't back there. It was just Tim Combs.

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Exhibit 1 New Trial Motion
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Q Straight up?

A Yep. Tim Combs.

Q There was nobody else back there?

A No.

Q You are not protecting anybody, right?

A No. It was just him. But, he did have the boy's bike.

Q Who had the boy's bike?

A Reesey Lowery.

Q Did you see Maurice Lowery on the boy's bike?

A Out there at Westlawn he was riding it. I seen him. I seen him on a bike similar to that.

Q When?

(WHEREUPON, this tape ended, and reference was made to rewinding -- (I presume another tape to follow).)

END

CASE NO. _____

CAPITAL CASE

IN THE UNITED STATES SUPREME COURT

DANNY LEE HILL,

Petitioner,

v.

TIM SHOOP, WARDEN,

Respondent.

APPENDIX TO PETITION FOR WRIT OF CERTIORARI

VOLUME 3 of 3

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TO: Ms. Vicki Werneke
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Northern District of Ohio

FROM: Deborah Davis, Ph.D.
Professor of Psychology
University of Nevada, Reno

RE: Affidavit Ohio v. Danny Lee Hill: #85-CR-317

DATE: 9 2 2014

I, Deborah Davis declare as follows:

1. You have asked me to provide an analysis of the case of Danny Lee Hill to assess the potential that he falsely confessed.

2. This affidavit contains my qualifications as an expert on false confessions, the records I have reviewed regarding this case, and a general description of my opinions.

3. The attached report provides the specific basis of the opinions herein and details regarding what science has shown about the causes of false confession, sources of suspect vulnerability to influence/coercion, and difficulties of evaluating the validity of confessions.

DEFENDANT'S EXHIBIT N

4. **Education and Experience** (see Attached CV)

5. I am currently Professor of Psychology at the University of Nevada, Reno, where I have worked since 1978. I am also a member of the faculty of the National Judicial College.

6. I received a B. A. in Psychology from the University of Texas (Austin) in 1970, and a Ph. D. in Psychology from Ohio State University in 1973. After spending two years as a Post-Doctoral Fellow at Ohio State, I taught at Southern Illinois University for two years and Georgia State University for one year before moving to the University of Nevada, Reno.

7. I have published approximately 20 articles and chapters on the topic of police interrogation and confessions, and presented approximately 16 times on this topic at conferences of scientific organizations and 14 times at Continuing Legal Education events for legal organizations and the National Judicial College. In addition, I have published a number of other articles and chapters that include discussion of interrogations and confession, and many others that address the broader topic of social influence. Finally, I have published many other articles in other areas of psychology.

8. I was awarded a grant from the Department of Justice/Federal Bureau of Investigation to perform research on interrogation techniques in 2012.

9. I have completed the basic and advanced interrogation training seminars offered by John Reid, Assoc. and Wicklander-Zulawski (the primary interrogation training organizations in America), on criminal and corporate interrogation.

10. I have testified as an expert witness on interrogation and confessions in Alaska, Colorado, California, Illinois, Louisiana, Michigan, Missouri, Mississippi, New Mexico, New York, Oregon, South Carolina, Pennsylvania, Utah, and Washington State.

11. Records Reviewed

12. (SH1): Motion to Suppress Hearing Vol. 1 273 pp
13. (SH2): Motion to Suppress Hearing Vol. 2 259 pp
14. Adaptive functioning narrative (16 pp)
15. Trial Transcript Vol. 1 (321 pp)
16. Trial Transcript Vol. 2 (312 pp)
17. Trial Transcript Vol. 3 (346 pp)
18. Trial Transcript Vol. 4 (313 pp)
19. Tim Combs Statements to Police
20. Timeline for Danny Hill Case (7 pp)
21. Probation Report (22 pp)
22. Mitigation Report (408 pp)

23. Hill Video Interview Transcript (54 pp)
24. Hill Audio Interview Transcript (44 pp)
25. Coroner's Verdict (1 p)
26. Autopsy Report (11 pp)
27. Voluntary Statement of Timothy Combs Written (4 pp)
28. Interrogation Timothy Combs (78 pp)

29. **OVERVIEW OF OPINIONS**

30. Danny Lee Hill was a retarded teenage African American at the time of the murder in question. He became a suspect in the violent abuse and murder of a young 12 yr old boy because he went to police himself, saying he had relevant information about the crime. A reward of $5,000 had been posted for such information. Danny asserts that he went to police to try to tell them a false story that would get him the reward. Police quite correctly suspected him of lying (as he admits he did). But this led them to suspect he was involved in the crime himself. These suspicions led police to interrogate Danny on two subsequent occasions, during the second of which he eventually admitted involvement in the crime.

31. Danny Hill did not believe he could refuse to talk to police, though he was given Miranda warnings during each interrogation. Danny demonstrably did not understand many of the words entailed in the warnings, nor did he understand the implications of waiver. He could barely read, and could not read (or understand verbally) most of the content. Moreover, his interrogators essentially instructed him to talk to them and presented the warnings as a formality rather than a choice to be made. Thus, his waiver could not be considered voluntary, knowing or intelligent.

32. Danny Hill was an individual who was highly susceptible to influence, given his low IQ and difficult life history. He was interrogated by officers he had known most of his life, including his Uncle Morris Hill. He was explicitly told that nothing was going to happen to him, that he was not under arrest, and that he would be going home. At the same time, he was accused of involvement in the crime and interrogated in a very suggestive manner. That is, officers fed Danny Hill almost every fact that was incorporated into his final confession. The officers noted this pattern themselves:

> "You know, Danny, it seems like everything we suggest to you, you agree with us; right? Isn't that the way it seems to you? .. Now, if we suggest something, it seems that you agree with us. In other words, about the cigarette lighter; I suggested he was looking for it, and you agreed with it. Now, if I was to just suggest and say that the boy sucked your pee-pee, would you agree to that?" (Audio Interview Transcript, p. 37).

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33. It is my opinion that this statement by the interrogator sums up very accurately where the content of Danny Lee Hill's confession came from. He was told he was involved and instructed to tell the officers exactly what happened. His denials were not believed, and they repeatedly told him he was lying and needed to admit his involvement. It was only after his own Uncle Morris Hill met with him alone and instructed him to start admitting that he was involved that Danny agreed, and the taped interrogations followed.

34. It is clear from the interrogation transcripts (which begin well after the questioning that day began) that Danny gets his answers from the interrogators' suggestions. They asked questions suggesting an answer (such as "Did he put anything in the victim's mouth."). Thus, Danny gave answers essentially agreeing with what he was asked. When he gave an answer inconsistent with what interrogators knew (or thought they knew), they corrected him and told him what they believe happened instead. He would then change his answers. When they asked him leading questions they knew to be false, Danny agreed with those too. This pattern is what led the interrogator to say that it seemed that everything they suggested Danny would agree with.

35. In addition to the interrogators suggestions, information about the case and details were widely available in the community. Countless members of the community were around the crime scene when police arrived. The victim had been found by his father. Thus, many details of how the victim was found and in what condition could have been conveyed through the community by the victim's family or directly observed by others at the crime scene.

36. I do not have access to all of the evidence in the case, and cannot offer an ultimate opinion of guilt or innocence. However, it is my opinion, based on the evidence surrounding the interrogations themselves and Danny's personal characteristics, that Danny Hill's confession was highly unreliable. It is very possible that he was simply a young teenager of low intelligence living in relative poverty who saw an opportunity to get what must have seemed a fortune to him ($5,000). He decided to concoct some lies that would seem like valuable evidence to police. But he didn't really know what he was talking about, in that he knew only publicly available facts about the crime.

37. His lies were not plausible, in part, because he didn't know the real facts. It is very difficult for liars to construct a plausible story that will fit facts others know but they don't. It is also difficult for them to keep straight in memory what they have told (keep track of their own stories and who they have told them to, etc.). Danny Hill started constructing a story he thought would be plausible, but he had to keep making up more stuff as police questioned him about details or challenged his first accounts—and then keep all that straight in memory. This is something that is essentially impossible for a retarded young man such as Danny.

38. Therefore, whether guilty or innocent, it is no surprise that he gave multiple inconsistent accounts in his initial two interrogations and stories to his interrogators: with the result that he became a serious suspect. Danny Hill had gotten himself in a situation where his initial efforts to claim a reward led him into a series of interrogations in which he first tried to maintain his original position as a witness with valuable information, but was so clearly caught in lies that his interrogators transitioned into trying to elicit admissions of guilt. By his third interrogation Danny was already stuck with his previous statements, could not see his way out of the interrogation itself or any way to successfully deny involvement (given the interrogators' insistence that he was involved and must tell them how) and was finally led to change his story in the direction his interrogators had become convinced was true.

39. Given Danny Hill's personal characteristics and vulnerability to influence, his personal history with his interrogators, the demands placed on him to confess, and the way in which the content of his confession was fed to him, little weight should be given to his confession as evidence of guilt. Moreover, whether he is actually innocent or guilty, the details of his confession were fed to him by his interrogators and should not be regarded as reliable.

Executed this 3rd day of September 2014 in Reno, Nevada.

Deborah Davis, Ph.D.

State of Nevada
County of Washoe

Signed and sworn before me on 3 Sept 2014
by Deborah Davis

Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Washoe
AMBER MILLER
No: 04-91829-2
My Appointment Expires July 11, 2016

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INTERROGATION-RELATED REGULATORY DECLINE: Ego Depletion, Failures of Self-Regulation, and the Decision to Confess

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As reflected in rulings ranging from trial courts to the U.S. Supreme Court, our judiciary commonly views as "voluntary," and admits into evidence, interrogation-induced confessions obtained under conditions entailing stressors sufficient to severely compromise or eliminate the rational decision making capacities and self-regulation abilities necessary to justify such a view. Such decisions reflect, and sometimes explicitly state, assumptions soundly contradicted by science regarding the capacity of normal suspects lacking mental defect to withstand such stressors as severe fatigue, sleep deprivation, emotional distress—and aversive interrogation length, tactics and circumstances—and nevertheless resist the powerful pressures of the interrogation to self-incriminate. Notwithstanding excessive length and other severe interrogation-related stressors and tactics demonstrably associated with elicitation of false confessions, judges overwhelmingly admit confessions into evidence and juries overwhelmingly convict. In this review, we introduce the concept of "interrogation-related regulatory decline" (IRRD)—or decline in the self-regulation abilities necessary to resist the forces of influence inherent to interrogation. We review scientific evidence of the unexpected ease with which self-regulation abilities can be significantly compromised, with the hope that this evidence can (a) encourage more evidence-based objectivity, realism, clarity and specificity in the criteria for assessing voluntariness underlying admissibility decisions, (b) promote reforms aimed at prevention of interrogation practices entailing substantial risk of severe IRRD, and (c) encourage more scholarly research on acute sources of interrogative suggestibility.

Keywords: interrogation, false confession, acute suggestibility, self-regulation, voluntariness

Juan Rivera, a mentally handicapped 20-year-old, was arrested for the murder of 11-year-old Holly Staker in Waukegan, Illinois, 1992. Rivera underwent approximately 33 hours of unrecorded interrogation by at least 10 different officers over four days, and ultimately signed two confession statements written by police admitting that he had raped, stabbed, and murdered Staker. Prior to signing the two police-written confessions, during this extraordinarily long and intense set of interrogations, Rivera began to hyperventilate and bang his head against the cell wall so violently that he was medicated, and his arms and legs were shackled. He had suffered an acute (interrogation-induced) psychotic break-

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down, later stating that he had lost consciousness during the interrogation ordeal and didn't remember signing the police-written statements.

Despite the great amount of physical evidence left at the crime scene (including hair, semen, and fingerprints), none of more than 350 pieces of physical evidence linked Rivera to the crime. Moreover, Rivera was wearing an electronic leg monitor showing him at home the night of the crime, not at the crime scene. Nevertheless, he was convicted of the murder and rape of Staker three times! His 1992 conviction was reversed, as was his second conviction in 1998. After his second conviction was also reversed—and although Rivera was excluded in 2005 by DNA tested from sperm taken from the victim at autopsy—he was convicted for the third time in 2009. At each of his three trials, defense counsel tried—but ultimately failed—to suppress the police-written statements as the involuntary product of psychologically coercive interrogations (Leo & Ofshe, 1998; Marshall, 2010; Raley, 2011). Three trial judges did not believe the that totality of the circumstances surrounding Rivera's interrogation sufficiently overrode his will to render the confession involuntary—nor did three juries view them as sufficiently coercive as to render his confession false, despite the wealth of exculpatory evidence supporting his innocence.

Rivera's third conviction was also reversed in December of 2011 (*People v. Rivera*, 2011). The appellate court relied heavily on the exonerating DNA evidence, the unreliability of witnesses, and contamination of the confession (evidence that seemingly incriminating crime knowledge contained in Rivera's signed confessions had been communicated to him by his interrogators and other sources). The appellate court rejected the prosecution's argument that the specialized knowledge in the confession confirmed Rivera's guilt. However, the stated bases of the reversal addressed only implications of the content of the confession, and did not include the coerciveness of the interrogation or the involuntariness of the confession.

Cases like Rivera's are more commonplace than one would hope. Although most confessions obtained through police interrogation are arguably true, Rivera's false confession is only one among several hundred confessions that have been proven false to near or absolute certainty (Leo & Ofshe, 1998), and have been documented by scholars, independent researchers, and journalists over the last two decades (Drizin & Leo, 2004; Gudjonsson, 2003; Leo, 2008). Moreover, 20–25% of cases of postconviction exoneration, of which there are now close to 300 in the United States (*http://www.innocenceproject.*org), have implicated police-induced false confessions as a primary cause. Though elicited through interrogations entailing many coercive tactics that were also deployed upon Rivera, and though sometimes elicited from suspects already impaired by mental handicap or severe preexisting stressors, these confessions were admitted at trial by judges who viewed them as voluntary, and were later viewed as definitive evidence of guilt by juries who believed them valid. Such stories reflect a disturbing pattern in the American justice system. While the law prohibits the use of physical violence, or explicit threats and promises contingent on confession, police are largely free to interrogate using deceptive, exhausting, and aversive tactics, and to continue as long as the suspect fails to invoke his *Miranda* rights and demand that it stop—with virtually no risk that any confession obtained will be ruled involuntary and excluded from trial.

Admissibility rulings for contested confessions often reflect poor understanding of the power of the weapons of influence inherent in American interrogation. They further reflect assumptions soundly contradicted by science regarding the capacity of normal suspects lacking mental defect to withstand such stressors as severe fatigue, sleep deprivation, emotional distress—and aversive interrogation length, tactics, and circumstances—and nevertheless resist the powerful pressures to self-incriminate. Herein, we review evidence of factors that induce "acute situational suggestibility" in police interrogation, namely, acute situational forces preceding and during interrogation that compromise the ability to resist police pressures toward self-incrimination. Specifically, we focus on interrogation-related factors that impair self-regulation: that is, causes of "interrogation-related regulatory decline" (IRRD) underlying impairments of rational decision making and exertion of one's will. We argue that these abilities are more easily compromised than commonly assumed. Finally, we argue for reforms in judicial standards used to guide judgments of voluntariness, for reforms in police interrogation practices likely to severely compromise rational decision making and the exertion of one's free will, and for the conduct of additional research addressing such acute sources of vulnerability.

Interrogation, Confession and the Fundamental Attribution Error

Police interrogation is a powerful social situation in which detectives with apparent authority to affect the suspect's long-term legal outcomes subject him or her to an often lengthy and relentless process, employing a full armament of the most powerful weapons of social influence, to convince the suspect to provide a complete and incriminating account of his involvement in the crime at hand. The interrogation may begin when the suspect is already fatigued or distressed, may last many hours, or even days, and will typically entail a variety of tactics or procedures experienced as stressful or aversive. The latter may include forensic assessments such as polygraph tests, DNA, fingernails and other swabs, blood testing, and others; and interrogation tactics such as stringent and unrelenting accusations, refusal to attend to or believe suspect accounts of the events in question, extreme duration, multiple interrogators, invasion of personal space, physical deprivation or discomfort, and others.

Given the power of the forces of influence during interrogation, it is no surprise that interrogations are effective at eliciting confessions—both true and false. Because no registry or database exists from which to take a statistically meaningful random sample, we do not know the incidence of interrogation-induced confessions. But reviews of English and American field studies suggest a rate ranging from 42%–76% (Gudjonsson, 2003; Thomas, 1996). The incidence of false confessions likewise cannot be established absent reliable truth criteria, but is likely to be higher than commonly assumed. Police investigators estimate from their own experience that roughly 5% of the confessions they obtain are false (Kassin et al., 2007), suggesting that they elicit thousands of false confessions every year. But those who falsely confess in response to such tactics represent a small portion of those who offer true confessions against self-interest. This very power of interrogation gives rise to the three-pronged "confession problem" of voluntariness, validity, and prejudicial impact (Davis & Leo, 2011).

Once given, a confession may be retracted and disputed at trial as invalid, involuntary, or both. If the trial judge agrees that the interrogation overrode the defendant's will and coerced the confession, it will not be admitted. If the judge disagrees, and admits the confession, the defendant may claim it was false; given as the result of an extremely stressful, deceptive, and coercive interrogation. He or she may also claim enhanced vulnerability due to factors such as mental illness or defect, or others (Follette, Davis, & Leo, 2007). But a confession carries enormous prejudicial impact at all levels of the justice system. Except in the most egregious circumstances of suspect vulnerability and physical coercion (often even then), it will likely be presumed true and voluntary by police, (even defense) attorneys, judges, juries and appellate courts (see Leo & Davis, 2010 for review). When claims of invalidity or involuntariness arise, judgments tend to focus on issues of extreme physical coercion, or what could be wrong with the confessor. If no mental defect is identified, in the absence of clear physical coercion, the tendency is to believe the confession to be voluntary and true (Leo, 2008; Wrightsman, 2010).

In part, this tendency to default to considering issues of physical coercion and mental defect is due to the complexity of the issue. To adequately assess voluntariness or validity, the judge or jurors must understand the nature and impact of the influences to which the suspect is subjected during the interrogation, as well as what factors would enhance the vulnerability of the suspect to these influences—and *how much* they are likely to do so. And finally, they must apply this knowledge to determine the likelihood that the suspect's will was sufficiently overborne to cross the legal threshold of involuntariness (the vague and ill-defined "totality-of-the-circumstances" standard lacking specific guidelines), or the threshold of influence necessary to induce a false confession—thresholds that are not clearly defined in the law and not readily estimable. When the issue is validity, evidence of guilt must also be weighed. In many cases, the confession is the only evidence against the suspect, rendering the ability to accurately judge the coerciveness of the interrogation the only pathway to accurate charging, plea, admissibility decisions, and verdicts. But these judgments are extremely difficult, and in practice, tend to reflect incomplete and inaccurate knowledge of the nature and impact of both interrogation forces and individual vulnerability (see Davis & Leo, 2010).

The power of the situational forces acting upon police suspects is routinely underestimated by those at all levels of the legal system and by clinical interrogation scholars. We have reviewed the powerful, but often subtle and unrecognized, interrogation forces elsewhere (Davis, 2008; Davis & Leo, 2010; Davis & O'Donohue, 2004; Leo, 2008). Here, we focus on the issue of individual vulnerability to interrogation-related influences. Further, we do not review sources of *chronic* individual vulnerability such as personality, mental abilities or illness, or life-event histories that have been extensively reviewed by ourselves (Follette et al., 2007) and others (Gudjonsson, 2010; Kassin et al., 2010). We focus instead on what we refer to as acute situational suggestibility, namely, acute situational forces preceding and during interrogation that compromise the target's ability to resist police pressures toward self-incrimination, up to and including full confession.

Substantial evidence has demonstrated that the power of acute situational forces to undermine suspects' willpower and cognitive capacities is much greater

than commonly reflected in judicial rulings and jury verdicts (Davis & O'Donohue, 2004), and that these forces are sufficient to undermine the will and abilities of "normal" suspects possessing no defects of personality, mental health or abilities, or character. Here, we present a model of acute situational suggestibility. We first review the personal resources needed to resist interrogative influence. Then, drawing largely from literature on ego-depletion and self-regulation, (Vohs & Baumeister, 2011), we review evidence that these resources are more easily depleted and impaired by interrogation-related influences than commonly assumed—a process we refer to as "Interrogation-related regulatory decline" (henceforth IRRD). Finally, we offer policy recommendations designed to minimize IRRD and the resulting acute situational suggestibility, as well as to aid observers who must render judgments of coercion, voluntariness, and validity.

A Model of Interrogation-Related Acute Situational Suggestibility

Generally, theories of resistance to persuasion suggest that resistance requires at least two intact resources, the *ability* and the *motivation* to resist influence (Petty, Cacioppo, Strathman, & Priester, 2005). If one or both are compromised, susceptibility to influence will increase.

Ability to Resist

The ability to resist influence consists of two components: (a) the ability to effectively assess relevant information to arrive at the best judgment or choice of behavior to achieve one's goals under the circumstances, and (b) the ability to exert one's will and act on what one considers to be the best course of action. While chronic cognitive resources and willpower are clearly central to these abilities, situational forces crucially affect the capacity to marshal and use them effectively.

The ability to arrive at the best choice of behavior entails the intact functioning of a number of cognitive resources. First and foremost, one must be able to maintain focus on the goal at hand—in interrogation, to achieve the best legal outcomes, in part by avoiding incrimination—and avoid diversion toward goals such as pleasing the interrogator, escaping the interrogation immediately through compliance, and so forth. One must continually recognize, remember, and give priority to long-term best interests over immediate, and often overwhelming, impulses, and control what is said and done in the service of these long-term interests. Second, one must control attention, such that goal-relevant incoming information is attended to and irrelevant distracting information is unattended or quickly dismissed. Third, one must be able to access relevant information from long-term memory and evaluate and integrate incoming information in that context. Fourth, one must have the working memory resources to hold all relevant information in mind and use it appropriately as options are evaluated. Fifth, one must be able to control one's emotions sufficiently to make use of these abilities. Finally, one must possess the willpower to engage and persist in resisting influence, notwithstanding fatigue, the persistence of the interrogators' influence attempts, or the ineffectiveness of one's own initial attempts to resist.

Motivation to Resist

Motivation to resist influence can also arise from a number of sources. Incompatibility with other important goals or beliefs may promote resistance to the targeted belief or course of action. Resistance can also arise from perceptions that confession will lead to aversive legal, social, or other personal consequences—or by awareness of innocence and the conviction that one can successfully defend it. Goal-based motivation to resist will also depend heavily upon the ability to maintain focus on such goals and protect their priority, rather than to be diverted toward those promoted by the interrogator (such as pleasing the interrogator, or minimizing consequences of guilt rather than avoiding incrimination entirely) or prompted by the situation (such as escaping the interrogation through compliance rather than enduring it to protect long-term legal interests). One may also be resistant to the source of the influence attempt, due to dislike, distrust, low-perceived credibility, reactance, or other reasons: such as when the interrogator is perceived as hostile, coercive or deceptive. Moreover, motivation to resist can derive from the perceived availability and feasibility of other alternatives, for example, from knowledge of one's legal rights to stop the interrogation, demand an attorney, and avoid self-incrimination; or from the very fact of one's innocence, or perceptions that one can successfully establish innocence or avoid incrimination. Finally, it can derive from a sense of self-efficacy, or perceptions that one possesses and can successfully marshal the necessary abilities to resist.

Such sources of resistance can be undermined by personal or situationally induced impairments in self-confidence, general motivational deficits, awareness of relevant negative consequences of resistance, priority given to short rather than long-term goals, or inappropriate liking, and belief in the helpful motives of the interrogators. Further, interrogation tactics themselves are designed to impair motivation to resist, largely by convincing the suspect that resistance is futile and that it will only hurt the suspect's long-term legal interests, and by impairing general motivation through distress or fatigue. The skills and motivations necessary to avoid interrogation-induced self-incrimination are clearly many and vital, as are the many interrogation-related forces against which they must be deployed. Yet, the many interrogation-related assaults on these abilities and motivations are likewise surprisingly powerful. But what are these assaults? How powerful are they? And, by what mechanisms do they work?

What Must Be Resisted? The Nature of Influence in Interrogation

At all stages of police interrogation, several primary sets of strategies are operative, though specific manifestations differ. The first of these may be broadly termed "choice architecture" (Thaler & Sunstein, 2008), in which the interrogator attempts to promote confession by defining and limiting suspects' perceptions of the set of available choices. Toward this end, he or she attempts to establish the purpose and agenda of the interrogation, and to define and restrict the choices available to the suspect, primarily to exclude the possibility of establishing innocence. The interrogator attempts to undermine resistance to him- or herself by establishing "beneficence" and "authority" (Davis, 2010; Davis, Leo, & Follette, 2010), and casting him- or herself as a trustworthy ally whose goals are to help

the suspect and as someone with the authority to affect whether and what charges will be filed, based on the results of the interrogation.

The second choice architecture strategy is to redefine the nature of the interrogation. Rather than acknowledging the real purpose, which is to facilitate the suspect's ultimate conviction—or even the apparent purpose, which is to investigate guilt—the interrogator redefines the interrogation as a situation in which guilt is already clearly established. Instead, the goal is represented as allowing the suspect to "explain" him- or herself and therefore "help" him- or herself, with the implication that this explanation will affect (in a positive way) whether and what charges will be filed, with what consequences, and so forth. Thereby, what would naturally be the suspect's primary goal of exoneration is removed from the suspect's apparent choices, such that his or her attention and efforts will shift to the goal of minimizing consequences of guilt.

Choice architecture is also important during administration of *Miranda* warnings. Resistance is most effective if the suspect refuses interrogation without an attorney. Recognizing this, interrogators have adopted strategies designed to promote the illusion that the person actually doesn't have, the "right to invoke his rights." Interrogator may say something like: "Listen, we need to get this thing straightened out, but before we can do that we need to get this *formality* out of the way." This and similar statements clearly convey that the detective *will* be talking to the suspect, and that he or she is clearly not expected to refuse.

The interrogator next turns to the second general set of strategies, which is to alter the perceived costs of denial versus confession. During this phase, referred to as "theme development," the interrogator will suggest that the crime was probably committed under circumstances and for reasons that appear to minimize its seriousness and apparent legal consequences, such as for self-defense, to help others rather than out of greed, toward a "victim" who probably provoked or deserved it, and so on. These minimizing suggestions or scenarios can be complemented by arguments concerning how the judge or jury will react to a person who won't take responsibility for what she or he has done, or who lies about any involvement (see Davis, 2008, 2010; Davis & Leo, in press-a for examples).

The final set of strategies is overarching, in that it is enacted from the beginning to the end of the interrogation. Some strategies are designed to control the interaction completely. In part, this occurs through the earlier efforts to define the purpose and agenda of the interrogation. In addition, the interrogator attempts to control the focus of the suspect's attention, such that the suspect has difficulty diverting attention from the interrogator's push toward confession. This diversion renders the suspect less likely to remember his rights and why he or she should exert them, or failing this, less likely to focus instead on the possibility of innocence, any arguments or evidence favoring innocence or highlighting the negative long-term legal or social consequences of confession, or even simply away from the interrogator or toward ties with others who might discourage confession. The focus of attention tends to narrow under stress (Christianson, 1992; Easterbrook, 1959). Thus, the stressful circumstances of the interrogation are likely to enhance the effectiveness of the strong pull of the interrogators' efforts to control attention, and undermine the influence of other considerations that might otherwise effectively deter confession. Multiple strategies are enacted in service of this general purpose, including speaking quickly (so that the suspect

can't think of anything else), interrupting the suspect if he or she tries to offer denials, invading his or her personal space to prevent withdrawal, and others.

The second overarching set of strategies is those of emotion manipulation. The prominent Inbau and colleagues interrogation manual (Inbau, Reid, Jayne & Buckley, 2011), for example, argues for the effectiveness of emotions such as anxiety, pride, and guilt in promoting confession. Anxiety about one's fate, for example, can render one susceptible to solutions presented as a mechanism to minimize legal consequences. Raising guilt regarding the morality of the crime might render confession attractive as a means of atonement. Raising pride in the cleverness of the crime can raise the motivation to take credit for it. All promote confession, and most effective of all is to maintain a state of strong anxiety or fear that will have the additional effects of impairing cognition and promoting the need to escape. Vulnerability will increase among those experiencing powerful negative emotions, intolerance of distress, and difficulty controlling the emotions or associated distress (Follette et al., 2007).

To recap, a suspect may enter the interrogation deeply impaired by the physical and emotional stresses of the crime and its aftermath, only to face a potentially lengthy and aversive interrogation in which the suspect may be subject to aversive physical tests, and in which he or she is likely to be deceived throughout (Davis, 2010). If the suspect tries to defend her- or himself, he or she might be interrupted, called a liar, argued with and presented with apparently incriminating evidence to contradict arguments for innocence, and any efforts to defend innocence will be generally discounted. If the suspect fails to exert his or her rights to avoid or terminate the interrogation, this may go on for many hours, or days. Even if the suspect is offered food or rest, he or she may be too anxious to take advantage of those opportunities. There may be physical discomforts due to temperature, unsatisfied needs, or uncomfortable seating, and fatigue and stress are likely to increase as time goes on. The accused might feel greater and greater need to terminate the interrogation and get away. Without enormous strength of will and self-control, the suspect may do or say whatever is necessary to make it stop.

In this context, to avoid confessing against self-interest, the suspect would be best served by avoiding interrogation. Police interrogation may take place in two broad phases. During the first, the preinterrogation interview, the suspect may be interviewed in a nonaccusatory fashion designed to inquire about background issues, and establish rapport between suspect and interrogator. A significant purpose of this stage is to evaluate the person for deception, but interrogators are trained to interpret, inappropriately, reflections of suspect anxiety as indicating deception and guilt (Inbau et al., 2011; Vrij, 2008). Accordingly, the suspect's ability to control emotions is crucial, in that apparent anxiety can lead the interrogator to presume guilt, and proceed to interrogation.

If this happens, suspects can exert their *Miranda* rights and refuse questioning without legal counsel. But to do so, they must remember everything they know about their rights, and understand what those rights are, why they are important, and the damaging things that can happen if questioning continues without an attorney present. They must resist interrogators' efforts to imply that their rights aren't real, and understand that detectives' insinuations of their guilt if they refuse to talk are less important than the long-term damage that can occur if they do. If

they do agree to the interrogation, they must control powerful emotions deriving from the events in question and the interrogation itself, control distress, and suppress impulses to do anything to get away. They must control attention and focus on the goal of exoneration, despite powerful forces pulling attention toward the lesser goal of minimizing consequences. They must be able to remember relevant knowledge and use it to critically evaluate the information and arguments presented by interrogators, and recognize when they are being deceived.

Moreover, suspects must resist intense pressures to confess from one or more authorities, who presumably have much greater relevant knowledge of evidence against suspects, and other issues, and significant apparent control over their fates. Suspects must resist tactics designed to distract attention away from what they know about their rights, recognize the foibles of evidence presented against them and the prospects for eventual acquittal, and focus on what is important. They must remember what really happened, and not become confused by what they are now being told. And most of all, suspects must have the willpower to continue resistance despite the unremitting interrogation, and the possible frustration of failure to convince their interrogators of their innocence. Suspects must not let motivation to resist fail by falling prey to the apparent beneficence of the interrogator or to feelings of hopelessness and ineffectiveness. A tall order indeed! But how effectively can individuals mount such defenses, in the face of the many influences they may face in interrogation, with so much potential to compromise needed resources of resistance?

The Depletion and Impairment of Resistance: What Is Self-Regulation? Why Does it Matter? And How Easily Is it Impaired?

Self-regulation refers to processes by which individuals control their thoughts, emotions, and behaviors in service of the pursuit of one or more goals. One of the most rapidly burgeoning and vibrant areas of research in psychology, the study of self-regulation has implicated chronic or acute self-regulation capacities and strategies as playing crucial roles in most areas of human life or endeavor: from clinical psychopathology, to thinking, memory and creativity; school and work performance; successful interpersonal relationships; problem behaviors such as risk taking, criminality, or drug abuse; efforts toward self-improvement such as dieting, and others (see Vohs & Baumeister, 2011 for reviews).

Baumeister and his colleagues proposed a "limited-resource" view of self-regulation resources (Baumeister, Bratslavsky, Muraven, & Tice, 1998), suggesting that prior exertion of self-control depletes these resources (termed ego depletion), leading to greater likelihood of self-regulation failure on subsequent self-regulation efforts. Studies in the limited resource paradigm use dual-task procedures in which participants are first subjected to an ego-depleting task presumed to consume self-regulatory resources, and subsequently perform a second unrelated task, one presumed to also demand such resources. The general finding of such studies is that prior use of self-regulatory resources impairs performance on subsequent resource demanding tasks, but does so less or not at all for less demanding tasks (see Hagger, Wood, Stiff, & Chatzisarantis, 2010 for a review of moderators of these effects).

Studies in this tradition have used a variety of tasks to serve as both manipulations of ego-depletion and measures of its effects, including tasks requiring control of cognitive resources such as attention, working memory, and others; effort and persistence in the face of difficulty or failure; emotion regulation, physical effort, control of impulses, tolerance of distress, active choice or exertion of will, and others. Qualifying tasks must entail overriding acute impulses, or inhibition of automatic, habitual or dominant responses, and include tasks of difficulty or tedium sufficient to require effort to override impulses to quit. Depletion through any such task can impact subsequent self-regulatory control in any others. Poor regulatory resources may also result from fatigue, illness, or chronic regulatory weakness.

Of particular relevance to interrogation are the self-regulatory functions of control of short-term impulses in favor of long-term best interests, control of cognition to facilitate optimal decision-making and control of behavior, and control of emotion to facilitate each of these. In the following sections, we review evidence of (a) the importance of intact self-regulatory resources for each area of control, (b) the surprising ease with which self-regulatory function can be impaired, and (c) the impact of ego-depletion on suggestibility and the ultimate decision to confess. We then consider common, yet unrecognized or underappreciated, sources of interrogation-related ego-depletion and self-regulatory failure.

Impulse Control: Maintaining Priority of Long-Term Goal Pursuit Over Short-Term Impulse

A prerequisite for successful self-regulation is having a clearly defined behavioral goal. At the beginning of interrogation, a suspect may have the goal of establishing his or her innocence. As the interrogation persists, the suspect may become increasingly fatigued or distressed. If the suspect gives priority to his or her immediate needs to escape the aversive situation over long-term best legal interests, he or she may confess simply to terminate the interrogation. This can happen through two mechanisms involving (a) simple lack of interest in long-term goals and/or (b) an inability to override the impact of immediate needs and demands, sometimes despite strong concern with long-term goals (e.g., due to distress intolerance).

As it proceeds, interrogation is likely to substantially shift the balance between the strength of impulses to escape the interrogation versus cognitive and emotion control functions that might otherwise override them. As this balance shifts, attention will likewise shift to cues relevant to escape over those relevant to the initial goal of exoneration. As the increasingly impaired suspect becomes more stimulus-driven and less responsive to internal goals and beliefs, the interrogator's push toward confession will become more persuasive. The interrogator will thwart efforts to establish innocence but strongly encourage other goals, such as being seen as cooperative, explaining how one might have been caught up in the moment, avoiding a bad legal outcome if one cooperates, or, where alleged coperpetrators are also being interrogated, "telling your side of the story" and assigning blame to them before they assign it to you. Interrogation is designed to increase anxiety, guilt, and other negative emotions to increase the impulse to escape; and to misrepresent what are the most desirable and attainable goals. If

either occurs, self-regulation toward preventing incrimination is inevitably weakened.

Metcalfe and Mischel (1999) proposed a dual-process system for regulation of impulsive responses to situational stimuli. They summarized the two systems as follows:

> A cool, cognitive "know" system and a hot, emotional "go" system. . . .The cool system is cognitive, emotionally neutral, contemplative, flexible, integrated, coherent, spatiotemporal, slow, episodic, and strategic. It is the seat of self-regulation and self-control. The hot system is the basis of emotionality, fears as well as passions—impulsive and reflexive—initially controlled by innate releasing stimuli (and, thus, literally under "stimulus control"); it is fundamental for emotional (classical) conditioning and undermines efforts at self-control. The balance between the hot and cool systems is determined by stress, developmental level, and the individual's self-regulatory dynamics (p. 3).

Self-regulation studies often apply the conflict between these "hot" and "cold"" systems to the issue of rational restraint of emotional impulses. However, restraint may also derive solely from the hot system, as when anxiety prevents response to either cool cognitive evaluations and plans, or to situational stimuli provoking contrary emotional responses (such as when desire says "go" and anxiety says "stop;" Carver, 2005). A wealth of evidence has accumulated to support the role of self-regulatory strength in suppression of impulse-driven behavior in favor of functional, carefully considered behavior, and to illustrate the roles of both major and minor forms of ego-depletion on impulse-driven behavior (see reviews in Vohs & Baumeister, 2011). Much such literature concerns resistance to dysfunctional behaviors, such as overeating, substance abuse, risk-taking, inappropriate sexual actions, and so on. However, other literature has concerned the issue of choices maximizing long- versus short-term gain.

Metcalfe and Mischel (1999) reviewed a host of studies concerning delay of gratification (i.e., resisting the impulse to accept an immediate smaller award in favor of a delayed, but larger one), showing that interference with the "cool, cognitive, 'know' system" resulted in greater reaction to the "hot 'go' system;" that is, choosing the immediate smaller reward (for more recent review, see Tobin & Graziano, 2010). This situation is particularly pertinent to the interrogation-related choice of whether to comply and confess to achieve the short-term goal of escape from the stresses of the interrogation, but with the price of facing the long-term consequences of incrimination, prosecution, and probable incarceration. A second, particularly relevant issue of impulse control—that of controlling the impulse to quit a prolonged, demanding or frustrating task (such as interrogation)—has likewise been shown to depend upon intact self-regulatory resources (Hagger et al., 2010; Vohs & Baumeister, 2011).

Current views suggest that impulse control depends upon at least three self-regulatory functions (e.g., Hofmann, Friese, & Roefs, 2009). The first, "inhibitory control," refers to the capacity to choose how to react to the impulse, and potentially willfully override it. The second and third affect the strength of the impulse, thereby modulating the difficulty of inhibitory control. One relies on the cognitive functions of executive control of attention; that is, the ability to divert attention from triggers of the impulse, and redirect it to stimuli and thoughts that

would inhibit the impulse. This can include Metcalf and Mischel's rational cool, cognitive "stop" analysis of consequences and reasons the impulse should be inhibited. The other entails down-regulation of the hedonic affect (emotion) triggering the impulse—in effect, to weaken the impulse itself. Thus, we turn in the next two sections to the general self-regulatory functions of control of cognition and regulation of emotion. In the process, we illustrate the ease with which self-regulatory resources, and thus performance in each of these areas, can be compromised.

Control of Cognition

The cognitive system is responsible for deliberative judgments, strategic planning for goal pursuit, and inhibition, or overriding of prepotent impulses or habits. Central to these functions are memory and control of attention. Rational analysis requires one to selectively attend to, comprehend, and remember relevant incoming information; access other relevant information from memory; hold all relevant information in working memory; and use it to assess the desirability and feasibility of goals and strategies to achieve them; and then select plans for their execution. Then, the person must have the strength of will to execute those plans, notwithstanding strong stimulus draws toward other goals and behaviors.

A number of studies have specifically examined the effects of depletion of cognitive resources on tasks demanding self-regulatory resources, many using the dual-task depletion paradigm described earlier. Others have used manipulations of cognitive load, placing heavy demands on working memory in order to decrease capacity for the target task—often by requiring the person to engage simultaneously in a distracting secondary task while completing the primary task. Impairment of cognitive resources through either experimental strategy has been shown to result in poorer self-regulation—with respect to impulse control and rational analysis (see Hofmann, Friese, Schmeichel, & Baddeley, 2011 for review).

Impulse control and the pursuit of conscious or long-term goals are weakened by impairment of important cognitive functions. Effective goal pursuit entails the ability to maintain current goals and relevant supportive information and plans in mind over time, and to engage in the executive attentional control to screen out distraction and maintain their priority over other situationally prompted goals (i.e., goal shielding). These functions entail intact working memory and attentional control—for inhibition of interfering thoughts and emotions. Attention must also be controlled to update relevant information and the status of goal pursuit, and flexibly adjust—potentially to switch goals when one goal becomes infeasible or inadvisable, or to switch strategies in pursuit of the same goal. Finally, one must exert the will to override conflicting impulses in favor of the preferred goal. Effective decision-making is likewise undermined by cognitive deficits. Again, incoming information must be screened for relevance, understood, and evaluated in light of relevant information accessed from long-term memory. Distracting thoughts' content and emotions must be suppressed in order to process and integrate relevant information to form a decision—which may require updating as more information is added. And, again, the person must exert the will to act on the decision (now a goal), and pursue it despite countervailing influences.

Hoffman and colleagues (2011) presented evidence that both chronic and acute working memory capacities (WMC) are crucial to all of these cognitive

functions. Further, both chronic and acute WMC impairment has been empirically linked to the end results of impairments in impulse control, long-term goal pursuit, decision-making, and emotion regulation. In other words, cognitive control is necessary for all additional areas of self-regulation, just as it also depends upon them. Strong impulses and emotions deplete cognitive resources through attempts to either control or pursue them.

Unfortunately, depletion of cognitive resources and other self-regulation failures have been proven to occur in response to tasks that are much less resource-consuming than those facing suspects in police interrogation. Thus, it is important to note specific examples of apparently minor manipulations of depletion, and their surprising power to affect crucial underlying cognitive processes and the resulting self-regulatory failures (for a vast array of additional examples, see Vohs & Baumeister, 2011).

Schmeichel (2007) illustrated the ease with which prior exertion of cognitive executive control can impair subsequent executive control functions, obtaining impairment on subsequent tasks due to prior attentional control (e.g., watching a video while ignoring distracting information at the bottom of the screen), response inhibition (e.g., writing a story while instructed not to use an "a" or an "n"), memory updating, including the operation span (e.g., performing mathematical calculations while performing a recall task), sentence span (e.g., combining a recall task with verbal or spatial distractors), reverse digit span (e.g., attempting to recall a series of numbers backward rather than forward), and response exaggeration (e.g., exaggerating facial expression of emotion during an emotion-provoking film).

In another set of studies, Schmeichel and colleagues (Schmeichel, Vohs, & Baumeister, 2003) used the dual-task method to examine the effects of executive depletion on verbal comprehension and reasoning. Participants who first performed the depleting attention-control task whereby they watched a video while suppressing attention to distractor stimuli, compared to those who had no distractor stimuli, subsequently persisted less in attempting to answer GRE analytical questions and answered fewer correctly, and also performed more poorly on a reading comprehension section of the GRE. In a second study, participants who watched a distressing film while instructed to suppress their emotional reactions subsequently performed more poorly on demanding cognitive tasks than those not given suppression instructions.

The ego-depleting impact of the simple act of making a choice among alternatives was investigated by Vohs and colleagues (Vohs et al., 2008), who showed that making choices among college courses or consumer goods (compared to just thinking about the options) led to less tolerance of physical distress (persistence in the cold-pressor task of holding one's arm submerged in ice water), reduced persistence in the face of failure, and poorer performance and persistence in completing math calculations. The depleting effects of choice are greater, however, when under circumstances characteristic of police interrogation, where the decision is more difficult, or the person feels pressured, coerced, or seduced into action, compared with circumstances in which the person more easily or freely chooses among naturally interesting or desirable alternatives (Baumeister, Sparks, Stillman, & Vohs, 2008; Moller, Deci, & Ryan, 2006). Those asked to

make more controlled, versus autonomous, choices persisted less in attempts to solve unsolvable puzzles, as well as solvable, but tedious puzzles.

A number of studies examined the end-product of such processes, showing that the choices of ego-depleted participants were guided more by simple heuristics and irrelevant context effects rather than by deliberate, effortful trade-off comparisons (see Baumeister et al., 2008 for review). In addition, choices appear to become more passive, in that the already powerful tendency to choose the "default" option—one engaged automatically unless one actively chooses otherwise—is greater when individuals are depleted. Choices are also more likely to be guided by the affective feelings generated by the various alternatives rather than their objective rational advisability. And, when all is said and done, memory for what was chosen is poorer among depleted choosers (Baumeister et al., 1998).

While these and many other studies have implicated ego-depletion in subsequent failures of cognitive performance, substantial research has also implicated impairment of cognitive executive functions, and specifically working memory (WMC), in failures of impulse control, such as restraint of eating or substance use, risk taking, aggression, inappropriate sexual behavior, and others; and in failures of emotion-regulation, including both enactment of specific emotional control strategies such as reappraisal or diversion of attention, and the end product of dampening undesired emotions (see Gross, 2007; Hofmann et al., 2011; Vohs & Baumeister, 2011). In sum, ego-depletion renders a person more stimulus-driven and responsive to immediate impulses, less rational and reflective in decision-making, and more vulnerable to suggestion and persuasion, as we discuss below.

Affect Regulation and the Management of Distress

A central problem of self-regulation for a suspect under interrogation is the need to control his emotions, or at least his reaction to them. The suspect may need to suppress affective states such as distress, anxiety, and fear that might otherwise disable cognition, interfere with rational decision-making, increase susceptibility to interrogation tactics playing on emotion, and lead to greater impulsivity or confession to terminate the interrogation. Emotions selectively drive attention toward emotion-related, goal-relevant stimuli and information (see Levine & Edelstein, 2009). This can exert powerfully distracting effects, diverting attention from the goal of exoneration, and rendering the suspect more responsive to suggested mechanisms to minimize legal consequences, or to mechanisms of escape from the aversive interrogation. In contrast, successful emotion regulation facilitates pursuit of preferred goals, and yet increases needed flexibility in thinking and behavior in pursuit of those goals.

Self-regulation of emotion is dependent upon several processes potentially impaired by ego-depletion. Among them is regulation of attention to divert thinking from emotion-provoking information or stimuli. One may also self-regulate emotion through cognitive reappraisals of the source of emotion, rendering it less threatening (see Koole, 2009 for review). Each mechanism can be dysfunctional in the interrogation room, where effective decision-making requires the suspect to attend to relevant information and to realistically appraise and evaluate the situation. The suspect may also self-regulate emotions by avoiding physical expressions of emotion such as facial expressions, physiological re-

sponses, or gestures; or may engage in relaxing exercises such as yoga-like controlled breathing or progressive muscle relaxation techniques, and so on (see Gross, 2007; Koole, 2009 for reviews).

Unfortunately, all such mechanisms require self-regulation to override automatic responses with more controlled, effortful responses—the very processes compromised by ego-depletion. Moreover, such efforts to control emotion are themselves depleting—and lead to self-regulation failures such as aggression, overeating, inappropriately simplified or poor decision making, unfocused attention, impaired memory and other decrements in cognitive performance (DeWall, Baumeister, Stillman, & Gailliot, 2007; Dillon, Ritchey, Johnson, & LaBar, 2007; Johns, Inzlicht, & Schmader, 2008; McRae et al., 2011; Richards & Gross, 2000; Tice, Baumeister, & Zhang, 2004). Efforts to cope with stress, specifically, lead to self-regulatory failures directly relevant to the ability to resist pressures toward confession, such as impaired attentional control or persistence in the face of frustration. Intense emotions are more difficult to regulate, and efforts to control them more depleting. Moreover, emotional control itself becomes more difficult as the person suffers greater depletion, thereby exacerbating such effects (Schmeichel & Demaree, 2010).

Efforts to control the overt expression of emotion can boost arousal while failing to reduce negative emotions, and paradoxically reducing positive emotions (Butler et al., 2003; Gross, 1998; Gross & Levenson, 1997), creating a cycle of greater and greater difficulty in self-regulation of emotion. Expressive suppression can also impair social functioning (Srivastava, Tamir, McGonigal, John, & Gross, 2009), disrupt communication, and magnify negative emotions. Emotion suppression has additional negative effects, including impairing memory for ongoing interactions or events (Dillon et al., 2007; Egloff, Schmukle, Burns, & Schwerdtfeger, 2006; Richards & Gross, 2000), and can be particularly detrimental when a suspect or interrogator must later recount the events of an interrogation.

The Role of Fear

Among the many emotions likely to arise in the interrogation room, perhaps the most common is fear. Among the most powerful sources of such fears is the specter of prison or death. The former entails a number of specific fears such as isolation, separation from friends and family, boredom, physical threats of violence, deprivations of liberty and material resources, and many others. Some such fears have been specifically shown to impair self-regulation. Effects of thoughts of death, for example, were investigated in nine studies by Gailliot and colleagues (Gailliot, Schmeichel, & Baumeister, 2006). Participants lower in either chronic or acute measures of self-control, or those experimentally depleted through prior resource-consuming tasks, were less able to keep thoughts of death at bay. In turn, when participants were led to confront and cope with thoughts of death, this led to self-regulation failures of attentional control, logical reasoning, and persistence. Lesser fears of social isolation, exclusion, separation from loved ones, or rejection—highly relevant for those facing possible incarceration—have also been shown to impair self-regulation, including impairments of impulse control, such as aggression, unhealthy behaviors, or foolish risk taking; distorted time perception and emphasis on the present over the future; and an assortment of impair-

ments in cognitive functions (Baumeister, Brewer, Tice, & Twenge, 2007; Baumeister & DeWall, 2005; Blackhart, Baumeister, & Twenge, 2006).

The Costly Pursuit and Maintenance of Self-Esteem

Among the pervasively present self-regulation goals are those directed toward maintenance of self-esteem and specific desired self-images (see Crocker, Moeller, & Burson, 2010; Morf & Horvath, 2010). Both unconscious and conscious processes operate, whereby the person becomes especially attentive and responsive to opportunities for threats to the pursuit of preferred self-images (Morf & Horvath, 2010). Such selective attention can render the suspect more responsive to theme development, for example, where the interrogator flatters the suspect and offers seemingly more acceptable scenarios for how and why the crime was committed (e.g., self-defense). Interrogation manuals instruct that such scenarios will facilitate confession by offering mechanisms through which the suspect can confess and nevertheless save face (e.g., Inbau et al., 2011).

Whereas goals of ego maintenance can facilitate receptiveness to the interrogator's tactics directly, it may also do so through ego-depletion. The pursuit and defense of self-esteem has been shown to be effortful (Crocker et al., 2010; Morf & Horvath, 2010), and to lead to self-regulatory failures manifest in a variety of behavioral and cognitive arenas. This represents one of a number of interrogation-related sources of distress—and ultimately suggestibility—that tend to go unrecognized or underestimated. As with many classes of threats, those to the ego engage the "hot" emotional system (Crocker et al., 2010), that is, provoking negative emotions such as shame, fear, embarrassment, feelings of failure, and others; increasing stress and arousal; and provoking voluntary coping strategies designed to deflect the threat and restore the ego. Efforts to manage emotions and address the threat trigger thoughts that divert attention, consume cognitive capacity, and undermine pursuit of other long-term goals. Perceived threats to one's self-image can function like threats to physical well-being or survival, thereby activating the fight-or-flight system and provoking the release of stress hormones such as cortisol (Crocker et al., 2010), which themselves undermine cognitive performance (see later sections on stress).

The Role of Stereotype Threat

Many of these processes have been reflected in the literature on "stereotype threat." When negative stereotypes applying to one's social group are salient, thereby also threatening one's own ego, performance in stereotype-relevant areas is impaired. Such decrements result in part from the increased cognitive load caused by worry about potentially confirming the undesirable stereotypes. This work has recently been extended to show a broader range of self-regulation failures under stereotype threat, such as increased aggression, unhealthy eating, more risky decision making, reduced physical stamina, failures of attentional control and working memory, and increased loss-aversion in decision making (the tendency to overweight the potential for loss). Stereotype threat impairs performance, in part due to depletion of executive resources resulting from (a) physiological stress responses directly impairing prefrontal processing, (b) active monitoring of threat-related performance, and (c) the person's attempts to regulate

the negative emotions raised by the threat (Beilock, Rydell, & McConnell, 2007; Carr & Steele, 2010; Inzlicht & Kang, 2010; Inzlicht, McKay, & Aronson, 2006; Johns et al., 2008; Schmader, 2010; Schmader & Johns, 2003; Schmader, Johns, & Forbes, 2008).

It is noteworthy that substantial potential for the operation of stereotype threat exists in the interrogation room. Minorities such as Hispanics and African Americans, for example, may be aware of stereotypes associating their groups with criminal behavior. Similar processes may affect other defendants—for example, step-fathers accused of sexual assault of step-children, and others accused of crimes viewed as likely committed by a person of their category (husbands accused of spouse murder). Awareness that others may assume they are personally criminal as the result of such stereotypes can promote the sense of hopelessness regarding establishing innocence that interrogators encourage and rely on, and through the processes mentioned above, directly impair thinking and self-regulation. Further, the anxiety associated with awareness of and attempts to manage stereotype threat may give rise to the appearance of deception and guilt, as cues of anxiety tend to be interpreted by interrogators and others as indicators of deception (Vrij, 2008; Najdowski, 2011). Finally, as with other classes of ego threat, stereotype threat may render the person more susceptible to interrogation tactics of flattery or face-saving themes.

The Related Issue Of Impression Management

An overriding task of the suspect in police interrogation is to attempt to manage the impressions he or she conveys to his interrogators—all the while keeping in mind the ultimate audiences of prosecutors, judges, and juries. Vohs and colleagues (Vohs, Baumeister, & Ciarocco, 2005) provided evidence that such impression-management goals and activities are depleting and lead to self-regulatory failures on subsequent tasks, particularly when one must override natural behavioral tendencies in order to convey desired impressions. Depletion effects have included failures of persistence on difficult math tasks or acts of physical endurance, and failures of emotional control. Likewise, Vrij and colleagues (Vrij, 2008) have provided evidence that lying is cognitively demanding compared with truth telling, along with the related activities of keeping track of the lies one has told and the lie-relevant information that might betray them as such, and the need to monitor carefully other information one might disclose in light of the lies. Vohs and colleagues (Vohs et al., 2005) also documented the reverse: that resource-demanding activities impair successful impression management. Ego-depletion through emotion regulation or attention control has led to more uncontrolled talking, inappropriate self-disclosure and negative self presentations.

Of particular interest for the context of interrogation, Crocker and colleagues (Crocker et al., 2010) pointed out that self-regulation in the "'hot' system" can lead to failures to discriminate when one should persist versus quit. That is, hot emotions triggered in response to ego threat may provoke such strong needs to restore one's self-esteem or to manage others' impressions of oneself that one may persist in such efforts even when they are dysfunctional or failing, such as continuing to talk to police hoping to convince them of one's innocence rather

than more wisely invoking *Miranda* rights. The degree to which the ego is at stake can vary between situations and people (Crocker et al., 2010; Morf & Horvath, 2010). This offers an avenue of attack for the interrogator to use such ego-related threats to increase the suspect's level of distress (and need to escape), and his or her susceptibility to tactics such as flattery or theme development. It also indicates an unrecognized source of individual vulnerability, both to interrogation-related regulatory decline (IRRD) and to specific interrogation tactics; see, e.g., Morf and Horvath's (2010) discussion of reactions of narcissists to self-threats.

The Bottom Line: Ego Depletion, Decision Making, and Persuasion

Together, the stresses of the interrogation and emotional responses to them can be extreme and debilitating. Substantial evidence has implicated stress in poor decision making, and therefore much research has addressed mechanisms to override such negative effects and protect decision-making faculties in extremely stressful and demanding environments (Hammond, 2000; Kennedy & Moore, 2010; McNeil & Morgan, 2010; Orasanu & Lieberman, 2011). Impairments result in more impulse-driven emotional decisions, in part reflecting less reflective processes such as active analysis of incoming information—a crucial liability when faced with unrelenting attempts to persuade.

Interrogation tactics may persuade suspects (whether guilty or not) that confession will serve their long-term best interests. Effects of ego-depletion on the effectiveness of persuasive attempts can be understood in the context of the "elaboration-likelihood" (Petty, Barden, & Wheeler, 2009; Petty et al., 2005) and related dual-process models of persuasion. According to such models, persuasion may take place via a more effortful form of "central-route" processing, whereby the person carefully attends to and thinks actively about incoming messages, and critically analyzes them in light of existing knowledge. Persuasion via this route depends upon the quality of the arguments presented, and the recipient's ability and motivation to critically appraise them. If the person does not possess the ability or motivation to process a message on the central route, he or she will be shunted to the "peripheral route," where processing is much less reflective and effortful, and the content of the message is not as carefully scrutinized for quality. Instead, persuasion depends on peripheral or heuristic cues serving as proxies for quality—such as source credibility or trustworthiness, the number (vs. quality) of arguments presented, and so on. Message quality impacts persuasion more when processing resources and message importance are high; whereas, if one or both are low, persuasion is affected less by message quality and more by peripheral cues such, as source characteristics (e.g., expertise, likability, trustworthiness, or authority) or the simple number of arguments (see Petty et al., 2005 for review).

Illustrating the effects of ego depletion on reaction to argument quality, for example, Wheeler and colleagues (Wheeler, Briñol, & Hermann, 2007) found that nondepleted participants were more persuaded by the high- than the low-quality arguments, whereas depleted participants were equally persuaded by both. Further, depleted participants generated significantly less counterarguments against the couterattitudinal message—that is, they responded less thoughtfully and critically to the message. Even as resource depletion reduces responsiveness to argument quality and enhances persuasion based on source credibility, it ironi-

cally renders targets of persuasion less likely to respond to cues of manipulative intent on the part of the communicator that would otherwise lead them to discount the message (Wentzel, Tomczak, & Herrmann, 2010). Such a process can increase susceptibility to tactics designed to increase trust of an actually malevolent interrogator and shunt the suspect to peripheral-route processing, where he or she would likely fail to critically evaluate the content of the interrogator's persuasive efforts and simply rely on his or her apparent trustworthiness as an heuristic cue to truth and accuracy.

Findings from the dual-process tradition of persuasion research fit well with a second line of research conducted by Daniel Gilbert and his colleagues (Gilbert, Tafarodi, & Malone, 1993), indicating that people tend, as a default, to first believe information they encounter as part and parcel of the process of understanding it. In a second, less automatic process, they may or may not carefully think about that information and deliberately decide to believe it or not. But the second stage may not occur, and if not, the person may yet believe what "should not" be believed (e.g., Gilbert et al., 1993). Typical resource depleting circumstances can enhance cognitive load and reduce the likelihood of, or prevent, this second stage.

In a particularly relevant set of three studies, Gilbert et al. (1993) found that, under enhanced cognitive load or increased time pressure, participants exposed to false information about either a criminal defendant or a college were more likely to use the false information in making consequential decisions about the target. In effect, they were less likely to "unbelieve" the false information. Likewise, distraction decreases the effects of argument quality on persuasion and increases effects of peripheral heuristic cues (see Petty et al., 2005 for review).

Common but Underappreciated Sources of Self-Regulation Failure in Interrogation

A central point of our review of the importance and impact of self-regulation has been the ease with which the underpinnings of successful decision making and resistance to influence can be undermined. This stands in stark contrast to the (in our view) amazing insensitivity among those in the legal system to the effects of far more exhausting and depleting circumstances faced by criminal defendants. Interrogations that clearly pass reasonable limits of suspects' abilities to actively exert their wills, to "knowingly and intelligently" waive their rights, or to decide to confess (allegedly voluntarily and rationally), are routinely ruled voluntary and admitted into evidence (Wrightsman, 2010). Among the circumstances posing what should be the most obvious of interrogation-related factors undermining these capabilities are extreme preexisting stress, fatigue or sleep-deprivation, or extremely lengthy and/or stressful interrogations. Self-regulatory resources can be depleted through use, and through efforts to cope with distress, as described in preceding sections, but may also be compromised through simple physical deprivations associated with long and aversive interrogations, including glucose depletion, fatigue, and sleep deprivation. In the following sections, we consider the effects of these physical deprivations. We also cover in more detail the effects of severe stress, and evidence from studies of military personnel in extreme circumstances of the combined effects of these factors.

Glucose Depletion

Gailliot and Baumeister (2007) reviewed substantial evidence that self-regulatory resources rely on glucose, which itself is depleted by the many self-control activities studied in the self-regulation literature. They presented evidence of reciprocal influence between the two, such that acts of self-control reduce blood glucose levels and depleted glucose levels impair the many acts of self-control reviewed earlier. Further, replacement of glucose between acts of self-control reduces or eliminates depletion effects. Other evidence indicates that eating, per se, may be important for emotion regulation, and that, via its impact on emotion regulation, eating may aid in other acts of self-control. Eating has neuroendocrine effects such as the release of opioids that can relieve stress (Koole, 2009).

Severe glucose depletion is not uncommon in police interrogation. Suspects may be deprived of replenishing resources for hours, and, if offered food or sugary drinks, may decline due to dampening effects of psychological or physiological distress on appetite. Even if glucose is consumed sporadically, it may be insufficiently frequent relative to the demands imposed by the situation for replenishment, thereby exacerbating the already depleting effects of fatigue and other forces of the interrogation.

Fatigue/Sleep Deprivation

Fatigue and sleep deprivation may be extreme when an interrogation begins, and increase as the interrogation lasts as long as one or more days. Decrements in performance due to sleep deprivation of as little as 24–36 hrs have been reported for cognitive tasks entailing attention, working memory, long-term memory, visuomotor performance, decision making, verbal fluency, logical reasoning, creative thinking, response inhibition, error detection and correction, updating decisions in light of new information, planning, prioritization, and emotion regulation, though effects can vary among the specific tasks assessed (see Alhola & Polo-Kantola, 2007; Harrison & Horne, 2000; Walker & van der Helm, 2009; Wesensten & Balkin, 2010 for reviews). Illustrating extreme impairments of judgment under sleep deprivation, Banderet and colleagues (Banderet, Stokes, Francesconi, Kowal, & Naitoh, 1981) examined the effects of sleep deprivation on artillery training teams in sustained simulated combat. Decisions to fire on simulated enemy versus noncombatant targets revealed that after 24 hrs of sleep deprivation, teams inadequately kept track of the difference—firing without hesitation regardless of the nature of the target. In contrast, without sleep deprivation, the teams refused inappropriate requests.

Particularly relevant effects of sleep-deprivation on suspects concern resistance to influence, rational decision making, emotion regulation, impulse control, and memory for the interrogation and events in question. Several studies found enhanced suggestibility under sleep deprivation. Many others have focused on sleep-deprivation effects on the quality of decision making, indicating that sleep deprivation generates greater deficits in decision making when tasks involve novel judgments, requirements for greater integration, creativity, and flexibility in thinking, the presence of competing distractions, or the need for effective communication—all characteristic factors affecting the suspect's decision making in interrogation. Decisions also tend to become less sensitive to potential loss and

more risky and reward driven (Venkatraman, Huettel, Chuah, Payne, & Chee, 2011; Venkatraman, Chuah, Huettel, & Chee, 2007), and confidence in one's decisions and actual accuracy become more dissociated with increased sleep deprivation (see Alhola & Polo-Kantola, 2007 for reviews). Substantial research also indicates that fundamental processes of perception, encoding, consolidation, and maintenance of memory over time, and memory's susceptibility to alteration through various processes are strongly affected.

At extreme levels, sleep deprivation can sufficiently impair encoding, such that the unreal is perceived as real and vice versa (Larsen, 2001). If the event is encoded successfully, memory-consolidation processes are subject to disruption through sleep deprivation (see Diekelmann & Born, 2010 for review). A further level of consolidation occurs predominantly during REM sleep (Walker & Stickgold, 2010; Walker & van der Helm, 2009), supporting integration of new with old memories within associative networks, and facilitating schematic understanding and planning. The very process of integration of new memories with existing information, as well as with additional new, incoming information, can produce memory distortion, as illustrated by a significant body of research on distortion of memory toward supportive beliefs (Davis & Loftus, 2009). Suggestion occurring during informal or formal discussions of the events in question can alter memory upon retrieval, and, as noted earlier, has more impact upon the sleep deprived (Walker & van der Helm, 2009). Such findings suggest that sleep deprivation may render a suspect more vulnerable to distorted descriptions of the events in question (including the possibilities of false confession and false memories of committing the crime; Kassin, 2007), and yet less able to remember the interrogation that prompted the false memories.

Emotion regulation. The sleep-deprived brain is significantly less able to self-regulate emotions and produce controlled appropriate responses (Van der Helm & Walker, 2010; Walker & van der Helm, 2009). A large variety of dysfunctional behaviors become more disinhibited when an individual is sleep deprived, ranging from overeating and other forms of indulgence, to various forms of risk taking and aggression (Walker & van der Helm, 2009; Wesensten & Balkin, 2010).

Sleep deprivation and recovery. Although most studies of sleep deprivation have examined total sleep deprivation of varying degrees, studies of inadequate sleep across one or more nights have also shown similar deficits in self-regulatory functions resulting from one or more deficit hours per night. Moreover, whereas recovery from an acute, total sleep loss can occur in 1–2 nights of 8-hr sleep, recovery from chronic sleep restriction occurs less rapidly, and deficits may persist for days after normal sleep hours are resumed. Acute efforts to restore function in the sleep deprived are not effective substitutes for sleep. Activities such as bouts of physical activity, for example, are not effective in improving performance for more than several minutes, though agents such as caffeine in sufficient dose can help (Wesensten & Balkin, 2010). Thus, it is unrealistic to presume that a suspect will resume normal functioning if given a few hours of sleep, or even a full night's sleep, or if given opportunities to walk around or drink a caffeinated soda between repeated interrogation sessions, particularly if sleep loss has occurred for several days prior. Further, it is better to

rely on objective indices of deprivation rather than subjective reports of fatigue, as the two are inconsistently related (Wesensten & Balkin, 2010).

The Perfect Storm: A Cocktail of Glucose-Depleting Stress, Fatigue, and Sleep Deprivation

While glucose depletion, stress, fatigue, and sleep deprivation separately impair executive functions of cognition and control, together they pose the specter of much more profound impairment. Such a cocktail of forces is difficult to investigate in the typical research lab, but has been the subject of routine study in the military. Sometimes referred to as the "fog of war," military researchers have examined deficits of performance under stress commonly experienced in extreme combat-related circumstances. Lieberman and colleagues (Lieberman et al., 2005) described "combat stress-induced cognitive decline" as pervasive decrements in simple and complex cognition under combat conditions. McNeil and Morgan (2010) coined the term "operational demand-related cognitive decline" (ODRCD) to refer to "decrements in cognitive performance or decision-making resulting from the manifold pressures or acute stressors characteristic of dangerous or extreme environments."

Military training activities offer the opportunity to study such a constellation of stressors. For example, SERE (survive, evade, resist, escape) training subjects cadets to intense physical activity and discomfort, sleep deprivation over several days, and intense acute stress via mock POW capture and interrogation.

Charles Morgan and colleagues have conducted a series of studies to identify the degree and manifestations of the cadets' stress responses to SERE and other stressful military training exercises, as well as potential moderators of these responses. These and related studies have revealed an important role of stress in impairment of indices of executive control and cognitive performance, and various specific aspects of military performance, including performance in interrogation and memory for the interrogator (see McNeil & Morgan, 2010; Lupien, Maheu, Tu, Fiocco, & Schramek, 2007 for reviews). Dissociative symptoms such as a sense of unreality, feeling as if watching things from outside one's body, feeling disconnected from one's body, distorted sense of time or motion, "spacing out," and so on were common during training— and experienced among more than 90% of the general population of cadets.

Stress prompts the release of stress hormones in the brain related to impairment in executive functions, including, cortisol and norepinephrine . This is countered by the release of other agents that moderate the negative effects of C and NE, such as neuropeptide-Y (NPY) and sulfated and unsulfated forms of dehydroepiandrosterone (DHEA and DHEA-S). The relative balance of these substances is linked to the amount of impairment of executive functions under stress. Trainees develop higher levels of these substances during training—and cortisol is greatest after exposure to the interrogation segment of training. However, those with higher relative levels of the protective NPY and/or DHEA/DHEA-S suffered lesser impairments in cognitive functions, such as alertness during stress, memory, experiences of dissociative symptoms, and others; less psychological distress; and better performance in the interrogation segment of training (see McNeil & Morgan, 2010).

Suspects in police interrogation are subject to multiple stressors, whose effects we earlier dubbed IRRD to include all aspects of impaired self-regulation. We suggest that neuroendocrine assessments such as those employed by Morgan and his colleagues and other indices of physiological stress-responsivity might be valuable additions to evaluations routinely performed by psychologists/psychiatrists as evidence of enhanced vulnerability to coerced confession.

It's Not Just the Suspects: Ego Depletion and Police Cognition

Police can also suffer depletion due to preexisting stressors and fatigue, and the length and stresses of the interrogation to which they are uniquely subjected. Among the many implications of ego depletion in interrogators are the following: More simplistic analysis of evidence and suspect behavior, enhanced tunnel vision and confirmatory biases; and reduced abilities to objectively assess the suspect and evidence, to correct initial judgments of the suspect or evidence, to recall evidence and construct arguments favoring confession, to manage emotions and impressions of himself, to lie effectively, and to manage other necessary tasks (see Davis & Leo, in press b).

Conclusions and Policy Recommendations

Our review and analysis of the import of literature on self-regulation and the process of interrogation-related regulatory decline (IRRD) suggest three policy implications regarding: (a) standards for admissibility of police-induced confessions, (b) limits on interrogation practices, and (c) future directions for interrogation research.

Standards for Admissibility Rulings

Police interrogation can be a perfect storm of forces undermining the capacity to exert one's will, restrain dysfunctional impulses, and engage in optimal decision making—for suspect and interrogator alike. With impaired self-regulatory resources, both become susceptible to stimulus control, more reactive to situationally induced emotions and impulses, less reflective, more likely to think reflexively and heuristically, and more likely to be influenced by the pressures and arguments of others.

Though many of these forces act on the interrogator, given the difference in power and roles, they are primarily brought to bear on the suspect. Indeed, research has demonstrated that lower relative social status or power—as is characteristic of a suspect being interrogated by the relatively powerful detective—is associated with poorer control of basic cognitive processes such as attention, and poorer decision-making (e.g., Fast, Gruenfeld, Sivanathan, & Galinsky, 2009; Guinote, 2007, 2010; Smith, Dijksterhuis & Wigboldus, 2008; Willis, Rodriguez-Ballon, & Lupianez, 2011). And it is the suspect's vulnerability that is eventually litigated. In this context, understanding bases of enhanced vulnerability to influence is complex, requiring appreciation of the diverse forces of influence inherent to interrogation, the personal resources necessary for resistance, as well as both chronic and acute underpinnings of these sources of resistance. Further, understanding bases of enhanced vulnerability to influence entails understanding of the magnitude of the persuasive power of the interroga-

tion forces, as well as the degree to which various chronic and acute factors compromise a person's capacity to resist.

Added to these problems is the difficulty of anticipating or judging the power of hot emotional or visceral impulses when not currently in such a state oneself. Even if one did understand how interrogation-related forces *can* affect a suspect, this gap makes it more difficult to appreciate the magnitude of such forces *actually* facing any given suspect. Given the necessity and difficulty of this multilevel analysis, in the context of widespread misunderstanding of the magnitude of acute effects on self-regulation and ability to resist, it is not surprising that the courts have yet to recognize the majority of relevant vulnerabilities as sufficient grounds for suppression (Wrightsman, 2010; see Davis & Leo, in press-c for more extensive review of sources of difficulty in judging the voluntariness or validity of interrogation-induced confessions).

These problems are made greater by the ambiguity and lack of specificity in standards for assessing voluntariness when confessions are challenged in suppression motions. The current "totality-of-circumstances" test allows for consideration of many factors, but almost none are absolute (Leo, 2008), allowing judges substantial leeway to weigh factors they consider important, and to subjectively interpret their severity and import. There is no guidance regarding what degree of acute impairment, or aversiveness of interrogation tactics might be sufficient to render the confession involuntary, or how such factors might interact with chronic personal vulnerabilities. This allows significant variability in judgments across cases, and permits findings of voluntariness (soundly contradicted by science) for confessions obtained from severely compromised suspects. Moreover, absent adequate understanding of the importance of situational forces, judges tend to suppress confessions almost exclusively based on chronic suspect vulnerabilities (Watson, Weiss, & Pouncey, 2010). We suggest that justice would be better served by the adoption of more specific guidelines regarding thresholds for these judgments, grounded in available science.

It is our hope that expanding interrogation science will inspire the courts to provide more evidence-based standards in the future. For the foreseeable future, this is most likely to occur via the presentations of defense attorneys arguing for suppression or for innocence, and through the expert testimony they offer in support of these arguments. Currently, the courts are most receptive to expert testimony on chronic mental disabilities that increase suggestibility, and tend to exclude or disregard testimony on acute suggestibility or the forces of the interrogation. Interrogation experts must argue more extensively and persistently for the relevance of broader psychological science to interrogation, as we have exemplified here, rather than defer to the tendencies of the courts to regard research not explicitly conducted with interrogation as irrelevant.

Interrogation Reform

Our review further suggests that interrogation practices should be reformed to avoid those likely to induce severe IRRD in interrogators and suspects, as they compromise the quality of information obtained from suspects as well as the quality of the detective's performance. Notwithstanding excessive interrogation length or other questionable tactics and circumstances, judges rarely suppress

confessions if a valid waiver is obtained and prohibitions against physical coercion or explicit use of threats and promises are observed. Thus, police can successfully conduct interrogations that severely compromise the self-regulatory resources of suspects largely without restraint.

Although impairments of self-regulation resulting from interrogation cannot be fully prevented without a complete overhaul of interrogation techniques, practices such as excessive length and deprivation of basic comforts and nourishment are unnecessary and can produce a level of self-regulation failure in which the risk of false confession is significantly raised. We hope that our review can provide empirical support for widely suggested (e.g., Kassin et al., 2010) interrogation reforms, such as limits on length and specific per se rules against any physical or psychological deprivations during interrogation that would be easy to implement.

Perhaps the easiest reform is limitation on length. More than a decade ago, Welsh White (1997) suggested a maximum of six hours for any interrogation; and prominent interrogation manuals suggest even fewer (e.g., 4 hrs; Inbau et al., 2011). A legislature or the Supreme Court could adopt limits of 3–4 hrs, and then create a rebuttable presumption that if the time limit is exceeded, any resulting confession, absent a compelling explanation by the prosecution, will be regarded involuntary. Length restrictions could be followed by evidence-based guidelines regarding acceptable limits on the acute physical and mental condition of the suspect. To support such an effort, however, additional evidence of the direct impact of IRRD on interrogation performance would be helpful to the courts.

A Call to Arms

Accordingly, we hope to encourage interrogation scholars to address the acute impairments in volition provoked by interrogation-related stressors. Although scientific literature currently exists to document the impact of such influences, we as scientists and experts will more successfully influence public policy through the accumulation of additional evidence specifically addressing their influence in interrogation. Two recent studies have shown a decrement in comprehension of *Miranda* rights under stress due to either participation in a mock crime or false accusations of cheating (Rogers, Gillard, Wooley & Fiduccia, 2011; Scherr & Madon, in press). We are currently extending this work to examine effects of stereotype threat on *Miranda* comprehension, and are further conducting laboratory studies to examine the impact of several sources of ego depletion on reactions to interrogation tactics. However, much remains to be done, particularly with respect to the addition of field studies of actual police interrogations, documenting forces with potential to impair self-regulation, and examining their abilities to predict confessions.

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New Editors Appointed, 2013–2018

The Publications and Communications Board of the American Psychological Association announces the appointment of 5 new editors for 6-year terms beginning in 2012. As of January 1, 2012, manuscripts should be directed as follows:

- *Journal of Experimental Psychology: Learning, Memory, and Cognition* (http://www.apa.org/pubs/journals/xlm/), **Robert L. Greene, PhD,** Department of Psychology, Case Western Reserve University
- *Professional Psychology: Research and Practice* (http://www.apa.org/pubs/journals/pro/), **Ronald T. Brown, PhD, ABPP**, Wayne State University
- *Psychology and Aging* (http://www.apa.org/pubs/journals/pag), **Ulrich Mayr, PhD,** Department of Psychology, University of Oregon
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Current editors Randi C. Martin, PhD, Michael C. Roberts, PhD, Paul Duberstein, PhD, Ronald Roesch, PhD, and Randy W. Kamphaus, PhD, will receive and consider new manuscripts through December 31, 2011.

MENTAL HEALTH STATUS AND VULNERABILITY TO POLICE INTERROGATION TACTICS

By William C. Follette, Deborah Davis, and Richard A. Leo

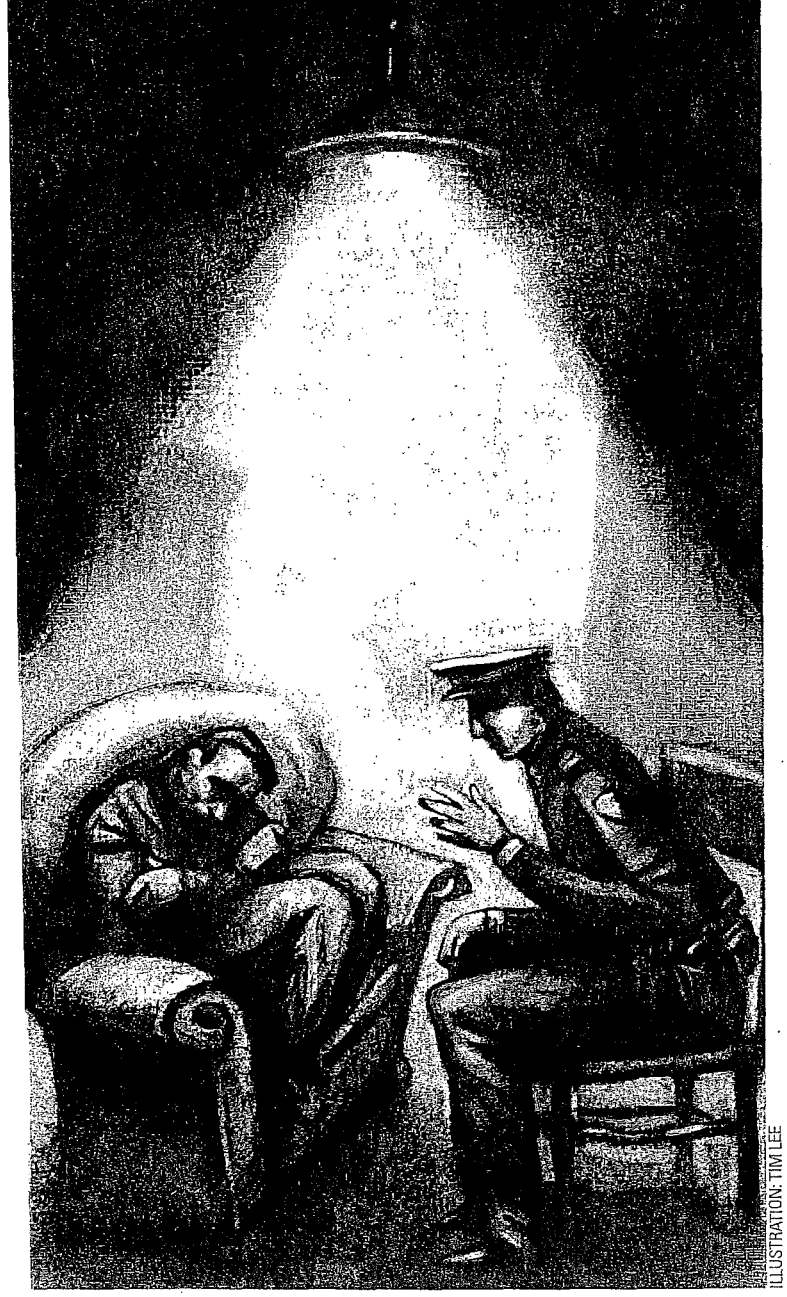


ILLUSTRATION: TIM LEE

When Francis Connelly walked up to a police officer and said he murdered a woman, the officer advised Connelly of his rights to remain silent and have a lawyer representing him. Connelly said he understood, but still wanted to talk about the murder. The officer ascertained Connelly was neither drunk nor on drugs, but had been in several mental institutions. The officer again told Connelly he did not have to speak, but Connelly insisted he wanted to get it off his conscience. After being formally read his *Miranda* rights, Connelly confessed and led officers to the murder site.

During an interview with the public defender while in custody, Connelly became disoriented and said he confessed in response to hearing voices. At the state hospital, a psychiatrist determined Connelly was a chronic schizophrenic, suffering a psychotic episode. Connelly described his confession as reluctant and the psychiatrist concluded the confession was made in response to a "command" hallucination in which Connelly said he heard the "voice of God" instructing him to admit to the crime or commit suicide. The psychiatrist later testified that Connelly's volitional abilities, though not his cognitive abilities, were compromised and concluded his psychosis was his motivation to confess. The state supreme court ruled the confession be suppressed because it was "involuntary," though the police had done nothing wrong or coercive. The U.S. Supreme Court reversed, focusing on the lack of police misconduct. The American Psychological Association filed an amicus brief arguing, in part, that the confession was not necessarily involuntary just because it might have been the result of a command hallucination. (*Colorado v. Connelly*, 479 U.S. 157 (1986); *see* http://www.apa.org/psyclaw/colorado.html). Did Connelly have the ability to understand his rights or the implications of confession?

Now consider the case of Henry Lee Lucas, arrested on a firearms charge in Texas and suspected of murdering a girlfriend and an elderly acquaintance. Lee had been convicted of murdering his mother 23 years earlier, but was paroled. After the latest arrest, Lucas was held incommunicado for four days. At some point he confessed to the two murders; then he confessed to 60 additional murders. A special task force was established and police from around the country converged to ask Lucas to shed light on unsolved homicides. Henry Lee Lucas was not psychotic. He had an IQ of 89, which is in the normal range. He eventually confessed to the murder of Jimmy Hoffa and plotting to kill President Carter. Ultimately, he confessed to murdering 600 to 3,000 individuals. One of these resulted in a death sentence later commuted to life in prison. (Gisli H. Gudjonsson, *The Making of a Serial False Confessor: The Confessions of Henry Lee Lucas*, 10 (No. 2) J. FORENSIC PSYCHIATRY, 416-26 (1999).) Although

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Lucas was well acquainted with the legal process, he confessed to an incredible number of murders as a result of interrogation tactics that were as simple as an officer saying, "I'm not too bright and could use your help solving this murder."

While the *Connelly* case raises the issue of whether someone has the ability to resist an interrogation, the *Lucas* case raises the issue of the degree to which one is motivated to resist or cooperate with interrogations. In this article, we first describe a model of individual susceptibility to interrogative influence. Then we suggest which features of individuals diagnosed with particular mental disorders might render them prone to succumbing to either false or coerced confessions.

A model of susceptibility to interrogative influence

To understand how an individual characteristic will affect behavior in the interrogation room, we have to consider the chronic and acute states and abilities necessary for suspects to recognize and act on the wisest choices available. What helps individuals understand their rights, recognize when to talk and when not to talk, and know what questions to answer and how to answer them? What helps individuals recognize when they are being told the truth and when they are being misled and manipulated? What makes them able to resist intense pressure to confess and focus on what is legally in their best interests? What makes them *want* to resist? How are these abilities and motivations affected by mental status?

The skills needed to accomplish these goals boil down to two broad categories: (1) those affecting the person's *ability* to resist influence and (2) those affecting the person's *motivation* to resist influence. Each is determined by several other characteristics of the suspect, as well as aspects of the interrogation itself. For example, *ability* to resist interrogative influence is derived from three broad sources: relevant knowledge, intact cognitive resources, and self-regulatory capacity—or the ability to control emotions, thinking, and behavior. In turn, *motivation* to resist interrogative influence can be enhanced or undermined by a variety of chronic or acute individual characteristics.

Resisting interrogative influence

Resistance to interrogative influence is most effective when suspects invoke their *Miranda* rights and refuse to be interrogated without a lawyer. However, a great deal of relevant knowledge is needed to realize the importance of invoking *Miranda*. Suspects must understand what those rights are, as well as why they are important, and the damaging things that can happen if they agree to be questioned without a lawyer. Suspects must understand that insinuations made by police that the suspects must be guilty if they refuse to talk are less important than the long-term damage that can occur if they do talk. If they do agree to talk, then the relevant knowledge needed to understand and evaluate claims and arguments made by interrogators is almost endless.

Interrogation tactics are designed to mislead. Detectives present themselves as sympathetic individuals who imply that suspects are good people in bad situations. They imply that they want to help the suspects achieve the best outcome. Interrogators often deceive suspects about the nature and extent of evidence against them, the nature of the suspects' rights, the short- and long-term consequences of confession versus denial, and much more. All the while, interrogators will dominate the conversation, interrupt attempts by suspects to deny involvement, distract them from thinking of facts and information inconsistent with the interrogators' claims, accuse suspects of lying, and explicitly and implicitly threaten suspects with dire consequences for denying wrongdoing and promise leniency for a confession.

Suspects—even those who are innocent—must ask themselves: What evidence exists? Might it be inaccurate—as with polygraphs, eyewitnesses, and many forms of forensic evidence? Are police allowed to lie? Is the evidence really overwhelming? Is conviction guaranteed? Is it true that admitting guilt to the detective will more likely result in a better deal—or even release—than continuing to deny involvement? Is it wise to wait for the help of a lawyer or is it true that the detective can provide more help now? Although these are difficult questions for any suspect who lacks knowledge of the legal system to answer, the difficulties are enhanced for those with impaired relevant knowledge, with poor cognitive abilities, and with poor chronic or acute self-regulation abilities, including control of cognitive processes.

Generally, a person must be able to exert considerable self-control—or self-regulation—in order to resist the pressures of interrogation. This includes the control of attention and cognitive processes necessary to evaluate incoming information, and to think of relevant information available from one's own knowledge and experience. It also entails the ability to control behavior. One must be able to withstand the relentless pressures to confess posed by one or more interrogators, possibly over a period of many hours, or even days. Moreover, they must control the need to confess simply as a way to end the interrogation, or satisfy the need for sleep, or to get the interrogators "out of my face." The suspect must recognize and

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give priority to long-term best interests over immediate, and often overwhelming, impulses. This entails being able to recognize what will or will not serve those interests and act accordingly.

Even for those individuals able to control their thoughts and behavior, the *motivation* to resist interrogative pressures may be undermined by their own learning history. Resistance is fueled by (1) a history of accurately predicting successful outcomes under adverse circumstances and possessing an effective repertoire under duress, (2) an awareness of the interrogators' true motives and the devastating consequences of confession, (3) the priority given these consequences over immediate impulses, and, (4) innocence. All of these can be undermined by personal impairments in self-confidence, general motivational deficits, impaired awareness of relevant consequences, priority given to short- rather than long-term goals, an inappropriate liking, trust, and belief in the helpful motives of the interrogators, and by the sense of futility brought about by interrogation tactics.

Although both the ability and motivation to resist interrogative influences can be impaired by preinterrogation stressors, as well as by interrogation practices themselves, mental health issues may directly affect many of the relevant abilities and motivations. In the sections below, we summarize some of the ways in which specific mental health disabilities might affect susceptibility to interrogative influence at the sequential stages of the process.

The primary risk: targeting for interrogation

The risk of coercion begins when police first select suspects. It is at this stage that persons with mental disabilities first suffer enhanced risk. In fact, one researcher found that the probability of arrest was 67 times greater for persons demonstrating symptoms of mental illness than those without such symptoms. (Linda A. Teplin, *Keeping the Peace: Police Discretion and Mentally Ill Persons*, 244 NAT'L INST. JUST. J. 8-15 (2000).) Because common stereotypes associate mental retardation and mental illness (particularly the latter) with criminality and violence, any mentally ill individual with the reasonable opportunity to commit the crime—let alone an identifiable motive—may be unfairly targeted as a suspect. Moreover, many of the seriously mentally ill live in circumstances where they have no access to more knowledgeable adults who could advise them and explain the importance of refusing interrogation without an attorney or to ensure that an attorney is present during all interactions with authorities. The most seriously dysfunctional live disproportionately on the street where reasonable advice or personal or financial help is not available. Moreover, the mentally ill may engage in behaviors that appear consistent with deception during the preinterrogation interview, showing signs of anxiety, lack of eye contact, and other apparent indicators of evasiveness that can be mistakenly interpreted as reflecting guilt, encouraging detectives to proceed to interrogation.

Understanding and exerting *Miranda* rights

Although police often do not arrest and Mirandize suspects until *after* they've confessed, suspects have the right to refuse to be interrogated. The choice to avoid interrogation when not under arrest and to invoke *Miranda* when arrested is facilitated by understanding the potential dangers of the situation—an understanding that is compromised in those with impaired functioning in one or more psychological domains.

In *Moran v. Burbine*, 475 U.S. 412 (1986), the U.S. Supreme Court outlined the criteria to be used in determining the voluntariness of a *Miranda* waiver:

> First, the relinquishment of the right must have been voluntary in the sense that it was the product of a free and deliberate choice rather than intimidation, coercion, or deception. Second, the waiver must have been made with a full awareness of both the nature of the right being abandoned and the consequences of the decision to abandon it. Once it is determined that a suspect's decision not to rely on his rights was uncoerced, that he at all times knew he could stand mute and request a lawyer, and that he was aware of the State's intention to use his statements to secure a conviction, the analysis is complete and the waiver is valid as a matter of law.

(*Moran*, 475 U.S. 412, at 421.)

Individuals with psychological difficulties can suffer enhanced risk with regard to both susceptibility to coercion and failures of understanding. These problems have been most extensively investigated with respect to their impact on comprehension and invoking of *Miranda* rights as they apply to mental retardation. The definition of mental retardation is "a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills" (American Association of Mental Retardation). The *Diagnostic and Statistical Manual* (DSM-IV-TR, 1999, American Psychiatric Association) uses a similar definition. Mental retardation is present at birth or occurs during a development period and must have an onset before age 18. A diagnosis of mental retardation describes long-standing, generally maladaptive behaviors that have an onset in early life or adolescence. Individual IQ and adaptive functioning may be affected in other ways (e.g., traumatic head injury, medical condition, severe substance abuse) after a particular development

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period has been successfully passed, but it is not called mental retardation and is described as the consequence of a medical, social, or behavioral event. The courts and many social agencies that determine benefits tend to rely on an IQ score of 70 or less. This cutoff does not adequately reflect the impairment in functional abilities of individuals with low IQ when moved into a more demanding situation such as a police interrogation.

The limited cognitive abilities, vocabularies, and general knowledge of those with mental retardation result in poorer understanding of the linguistic meaning of the rights as commonly administered, as well as of the risks of self-incrimination and other consequences of waiving these rights. For example, in two studies, 90 percent and 68 percent of adults with mental retardation received scores of zero on one or more tests of relevant vocabulary, understanding of the *Miranda* warnings, and understanding of the function of rights in interrogation (which was most poorly understood of all). Another study involving mentally retarded adult offenders found similar results, indicating that even experience with the criminal justice system did not enhance comprehension. (Saul M. Fulero and Caroline Everington, *Mental Retardation, Competency to Waive* Miranda *Rights, and False Confessions* in INTERROGATIONS, CONFESSIONS, AND ENTRAPMENT at 163-79 (Daniel Lassiter ed., 2004).)

> *Miranda* wording ranges from 50 to 500 words.

The impact of mental retardation on understanding *Miranda* rights is likely to vary by jurisdiction, as the exact wording of *Miranda* warnings and waivers has not been specified in the courts. As a result, warnings range from fewer than 50 to more than 500 words, and the required reading comprehension levels range from that of a third grader to a postcollege education. (Richard Rogers, Kimberly S. Harrison, Lisa L. Hazelwood & Kenneth W. Sewell, *An Analysis of* Miranda *Warning and Waivers: Comprehension and Coverage*, L. & HUM. BEHAV. (forthcoming 2007).)

Mental retardation is also likely to have enhanced negative impact on comprehension of *Miranda* warnings given in the context of real-life encounters with police. The poor comprehension scores above were obtained in the absence of any police behavior that might affect how the actual statements are interpreted. Imagine the detective who begins, for example, by saying something like "Well, John, we need to talk to you and get what happened tonight straightened out. We need you to explain some things we need cleared up. But before we can do this we need to read you some rights. . . ." The mentally retarded individual is often overly compliant and more likely to respond to detectives expressing a *need* rather than to *Miranda* rights read in a very formal manner. Mentally retarded individuals can be particularly attuned to the desires of those around them, and particularly motivated to please them, and therefore more susceptible to influence and coercion. They are generally more likely to rely on others for indications of what is appropriate or correct, more motivated to please others, more susceptible to influence, and more highly suggestible to leading questions, false information, and selective reinforcement of compliant responses. The desire to please and dependence on others can be sufficiently strong such that many mentally retarded persons will tell interviewers whatever they appear to want to hear, regardless of the actual facts. They also have a bias toward acquiescence that leads them to say "yes" regardless of the blatant untruth or the absurdity of the question, for example, "Are you an alien?" "Yes." These tendencies can be enhanced by problems with "social intelligence" and the ability to understand the true motives and intentions of those to whom they are responding, rendering them more susceptible to deception. These problems, combined with those of comprehension, are sufficiently profound as to lead some scholars to argue that, of the personal factors relevant to the "totality of circumstances test"—such as IQ, age, education, experience with the justice system or with entering a waiver of rights or a confession—the disability of mental retardation can be so great as to trump all other factors. (*See* GISLI H. GUDJONSSON, THE PSYCHOLOGY OF INTERROGATIONS AND CONFESSIONS: A HANDBOOK (Wiley, 2003); Michael J. O'Connell, William Garmoe & Naomi E. Goldstein, Miranda *Comprehension in Adults with Mental Retardation and the Effects of Feedback Style on Suggestibility*, 29 (No. 3) L. & HUM. BEHAV., 359-69 (2005).)

Although research on the relationship of mental status to comprehension has focused primarily on the young and the retarded, other mental disorders place the person at enhanced risk for failures of comprehension and/or coercion. Research has just begun to study mentally disordered defendants. Ethical concerns make it inappropriate to create the high-stress environment of an interrogation, but in interview-like situations with mentally ill defendants, the ability to understand *Miranda* rights was highly compromised, as were the quality of their reasons for

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waiving or invoking those rights. The DSM-IV-TR's Global Assessment of Functioning Scale (utilized to consider psychological, social, and occupational functioning) was another predictor of mentally ill defendants' reasons for waiving or invoking their rights, with lower functioning levels correlating with fewer numbers of reasons behind their *Miranda* decisions. (Richard Rogers, Kimberly S. Harrison, Lisa L. Hazelwood & Kenneth W. Sewell, *Knowing and Intelligent: A Study of* Miranda *Warnings in Mentally Disordered Defendants*, L. & HUM. BEHAV. (forthcoming 2007).)

In the *Connelly* case, discussed earlier, the suspect confessed his crime before and after being Mirandized. On the day of primary investigation, he did not appear psychotic to the police. There are other cases in which the person being interrogated is clearly not functioning normally but can be cooperative if approached in a comforting way. As an example, author Follette once had a patient with a history of paranoid schizophrenia who was delusional and in need of hospitalization. His delusions were fairly circumscribed around being hunted by "the mafia." The significance of his cognitive impairment became evident when asked to sign a consent form to be admitted to the hospital. He believed the form contained invisible text that was his death warrant. After nearly an hour of conversation, the patient finally relented and signed the consent form saying he did so because "you [Follette] seem like a nice young man, so I'll sign my 'death warrant.'" The point is that persons with severe mental illness can be extremely compliant even if they believe the consequences for doing so can be life threatening, calling into question the meaning of voluntary waiver in such circumstances.

> Interrogation tactics are intended to mislead.

The above case represents an obvious deficit associated with a mental disorder that can affect the outcome of an interrogation. In schizophrenia in general, there are a significant number of cognitive deficits that are not part of the hallucinations or delusions seen in the florid cases of schizophrenia. These cognitive deficits are common and affect broad domains of cognitive functioning. Recently the National Institute of Mental Health began an initiative to develop measures of cognitive functioning in schizophrenia (Stephen R. Marder & Wayne Fenton, *Measurement and Treatment Research to Improve Cognition in Schizophrenia: NIMH MATRICS initiative to support development of agents for improving cognition in schizophrenia*, 72 (No. 1) SCHIZOPHRENIA RESEARCH 5-9 (2004).) The purpose of the initiative was to develop a core battery of cognitive tests so that drug therapies could be assessed for how they might improve these deficits. Although a wide variety of deficits have been described in the literature, the test battery established by the MATRICS initiative assesses seven domains: speed of processing, attention/vigilance, working memory, verbal learning, visual learning, reasoning and problem solving, and social cognition. Even in the absence of active psychosis, individuals with schizophrenia still may not necessarily exhibit adequate cognitive skills to understand the implications of questions and answers, to understand the motives of the interrogator, or to weigh alternatives and evaluate how they serve their best interests.

It cannot be assumed that mental impairment seen in the mentally ill is the same as similarly appearing deficits in the mentally retarded. Much study remains to be done in order to understand how these processes affect each population when subjected to interrogation.

Susceptibility to interrogation tactics

Once arrested and subject to interrogation, issues of comprehension and susceptibility to coercion are magnified many times over. Although police may do or say things while reading suspects their rights in order to impair comprehension of *Miranda*, interrogation tactics are far more misleading. They are intended to mislead, impair thought processes, and relentlessly push a suspect, against his or her best interests, in the direction of confession. Though *Miranda* is limited to a few statements, interrogations can last for hours, with detectives presenting multiple classes of "evidence" and arguments. Topics are extraordinarily wide-ranging. They may include forms of evidence ranging from DNA to the mechanisms of polygraph or other "lie detection" devices. Reasons to confess range from the religious or familial to the ultimate reactions of judge and jury and how those reactions depend on whether and how suspects "explain" their role in the crime during the interrogation. Interrogators will provide various scenarios for how the crime was committed, designed to convince suspects it was not so serious. They will make counterarguments against claims of innocence, and provide alleged reports of coperpetrators, statements of the detective's feelings and motives toward the suspects, and many other tactics. Faced with this overwhelming amount of information to process and relentless demands from powerful authorities, the ability to understand and accurately judge the information and read the motives and credibility of the

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police become ever more crucial. Thus, anything that compromises their mental faculties makes suspects more susceptible to being led into unintended confessions. Certainly mental retardation and/or mental illness place interviewees at increased risk.

Although these cognitive limitations and tendencies toward compliance are crucial in determining an individual's reaction to interrogation, additional vulnerabilities become relevant as well. There are many, but we focus on three that are likely to be affected by mental health status: (1) the tendency to respond to immediate impulses and demands rather than long-term goals; (2) self-regulation abilities, or the ability to control thinking, emotions and behavior, and (3) suggestibility (the tendency to actually change one's mind about what happened as opposed to simply comply with demands to recount it in a particular way).

Immediate versus long-term goals

Police interrogation is a very powerful social situation, with demands pushing suspects toward confession. Coincident with these external demands are internal states, some pushing suspects toward obtaining immediate relief from the aversive qualities of the situation, others toward the goal of protecting long-term interests and freedom. If, as is true of many suspects, the interviewees fail to understand that they can stop the interrogation at any time, they may believe that the only way to terminate questioning is to comply with the interrogator's demands to "explain" what happened, making or agreeing to incriminating statements or a full confession in the process. If suspects give priority to immediate needs over long-term best legal interests, they may confess simply to terminate the interrogation. This can happen through two mechanisms, one involving simple lack of interest in long-term goals, the other involving an inability to override the impact of immediate needs and demands despite extreme concern with long-term goals.

Several mental disorders entail dysfunctional levels of responsiveness to immediate stimuli and motivations at the expense of long-term well-being. Substance abusing patients are the clearest clinical example of impulsivity. Impulsivity is valuing a short-term, smaller reward over a delayed, larger reward. Considerable research exists studying this phenomenon, termed delayed discounting, in substance abusing participants. (*See* Gregory J. Madden, Warren K. Bickel & Eric A. Jacobs, *Discounting of Delayed Rewards in Opioid-Dependent Outpatients: Exponential or Hyperbolic Discounting Functions?* 7 (No. 3) EXPERIMENTAL & CLINICAL PSYCHOPHARMACOLOGY 284-93 (1999).)

Although it is not clear whether the preference for immediate, smaller rewards versus delayed, larger rewards is the cause of or an effect from substance abuse, it is clearly present, and it is clearly relevant for substance abusing individuals who face interrogation. In experimental settings, the tendency in heroin addicts to discount delayed rewards is almost identical to that exhibited by 12-year-olds. The point is that the interrogation situation presents to a drug abusing interviewee many opportunities to take the short-term way out of the interrogation—that is, to confess, over the delayed reward of possibly being released. This tendency to be under the control of immediate consequences may be greatly exacerbated by a substance abuser going into withdrawal during the course of being detained and interrogated.

Self-regulation

Self-regulation refers to the ability to control one's thoughts, emotions, and behavior. As noted earlier, control of mental processes is crucial for the ability to understand and evaluate information and arguments, as well as to evaluate the motives and truthfulness of others. Although individuals may have the required knowledge and abilities, they may be unable to use them in the situation at hand, as, for example, when test-taking anxiety interferes with focusing attention on the test, remembering known information, or being able to think clearly during the test.

Control of emotions is also crucial. Uncontrolled, powerful emotions can both interfere with rational thought and provide a strong impetus to emit dysfunctional behaviors. In fact, interrogation manuals such as the popular *Criminal Interrogation and Confessions* by Fred E. Inbau, John E. Reid and Joseph P. Buckley, (3d ed., Williams & Wilkins (1986)), instruct interrogators that emotions such as fear, guilt, and anxiety render the target much more susceptible to interrogation tactics and confession. Indeed, studies of social influence have long demonstrated that one need only arouse a negative emotion, such as fear or anxiety, and then present the desired behavior as the way to reduce it in order to facilitate persuasion. The more intense the negative emotion, the more powerfully attractive the apparent solution will seem. Thus, those prone to experience powerful negative emotions, to be intolerant of the distress, and unable to control it will be more susceptible to confession as an escape mechanism—a vulnerability characteristic of several mental disorders.

Self-regulation is also important, entailing the ability to override impulses toward dysfunctional or undesirable behavior. The person must avoid temptations to act in favor of immediate needs by eschewing such dysfunctional behaviors as procrastination, overeating, overspending, or making incriminating statements against long-term self-interest in order to achieve immediate relief from the interrogation.

A prerequisite for successful self-regulation is having a behavioral goal clearly defined. If a person engages in a particular strategy to reach a goal, the behavioral strategy

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can change if the goal is not attained. The strategy is reinforced if the goal is attained. At the beginning of an interrogation, an interviewee may have the goal of establishing his or her innocence. As the interrogation progresses, many alternative goals are presented and made attractive by the interrogator. Interrogators thwart self-regulation strategies directed at establishing innocence, but strongly encourage other goals such as being seen as cooperative, explaining how one might have been caught up in the moment, avoiding a bad legal outcome through cooperation, or, in the case of the prisoner's dilemma, assigning blame before it is assigned to you. Assuming one consents to being interrogated, already a self-regulation failure, the interrogation is designed to confuse one with respect to what is the most salient goal. If that occurs, behavioral strategies at self-regulation are inevitably weakened. As is the case for emotion regulation, impaired self-regulation of behavior is characteristic of some mental disorders.

Cluster B of the personality disorders listed in DSM-IV-TR are characterized by some degree of dramatic, emotional, or erratic behavior. Cluster B includes antisocial personality disorder, borderline personality disorder, histrionic personality disorder, and narcissistic personality disorder. The clinical reliability of the specific labels for these and other personality disorders is generally poor. Thus, these labels have often been subsumed as being one of a cluster of similar symptom presentations. In part, the common definition of a mental disorder requires meeting some specified criteria and experiencing significant psychological distress that impairs desired role functioning. In the case of personality disorders, these patterns of behavior begin in adolescence or early adulthood and are persistent and maladaptive. Patients rarely present for treatment of a personality disorder but rather for the treatment of the short-term consequences of these behavior patterns. Common presentations are depression, anxiety, or job or relationship failures. There is reason to believe that stressful situations, such as a police interrogation, will increase the likelihood that regulation of thought, emotion, and behavior will fail in persons characterized by some Cluster B disorders.

One would expect that persons with anxiety disorders would find the additional stress of an interrogation extremely aversive and seek a quick end to the proceedings, even if it meant a poor distal consequence. Generalized anxiety disorder, social phobia, panic disorder or specific phobias related to confinement or health-related concerns could hasten a false confession. One feature of anxious individuals is a tendency to overestimate how aversive an event is and to make risk averse decisions. Interrogators implicitly and often explicitly threaten that if individuals do not explain how they were caught up in a bad situation, the district attorney, the judge, and a jury will surely infer that there is no "good" story and, unless the suspects explain what happened (i.e., confess), the worst story will have to be believed and acted upon—risks anxious persons, in particular, will be more motivated to avoid. The interrogator offers an apparent way out through suggestions of how and why the crime was committed that give suspects the impression it would not be a legally serious offense to confess to (commonly referred to as "minimization"). (Saul M. Kassin & Karlyn McNall, *Police Interrogations and Confessions: Communicating Promises and Threats by Pragmatic Implication*, 15 L. & HUM. BEHAV. 233-51 (1991).) We have seen many interrogations where the interrogator induces a signed confession that is inferred or construed by the suspect as a simple formality before being allowed to go home. Of course, the suspect is then arrested, much to his or her chagrin.

Clinical depression also presents increased risks of self-regulation failures. Clinical depression is associated with a host of deficits in cognitive processing. (*See* Susan Mineka, Eshkol Rafaeli & Iftah Yovel. *Cognitive Biases in Emotional Disorders: Information Processing and Social-Cognitive Perspectives*, HANDBOOK OF AFFECTIVE SCIENCES, 976–1009 (R.J. Davidson, K.R. Scherer & H. H. Goldsmith eds., Oxford University Press (2003).) In particular, dysphoric mood and depression tend to be associated with distortions of self-worth as well as inaccurate estimates of performance in a variety of social situations. Several experimental studies could lead one to predict that depressed persons would be less inclined to assert their rights, be less resistant to challenge by an interrogator, and less able to accurately judge how well they were meeting their goals in an interrogation.

Suggestibility

Among the most disturbing effects of interrogation is its ability to alter a suspect's beliefs about the reality of what occurred. Rather than simply inducing suspects to comply with demands to admit involvement, whether or not they believe what they are saying, interrogators may be so persuasive as to change the suspects' internal beliefs—in some cases causing them to believe they committed a crime of which they are innocent and to report false beliefs or "memories" of having committed it.

This is most likely to occur when suspects (a) are uncertain what happened or what is true—for example, due to lack of knowledge, intoxication, or poor comprehension; (b) lack confidence in their own memories or ability to understand—for example, due to long-standing subjectively known cognitive impairments; or (c) suffer impaired "reality monitoring" or the ability to discriminate between what is real and what is not, such as the difference between imagination and reality, or something one was told and something that happened. Impairments in

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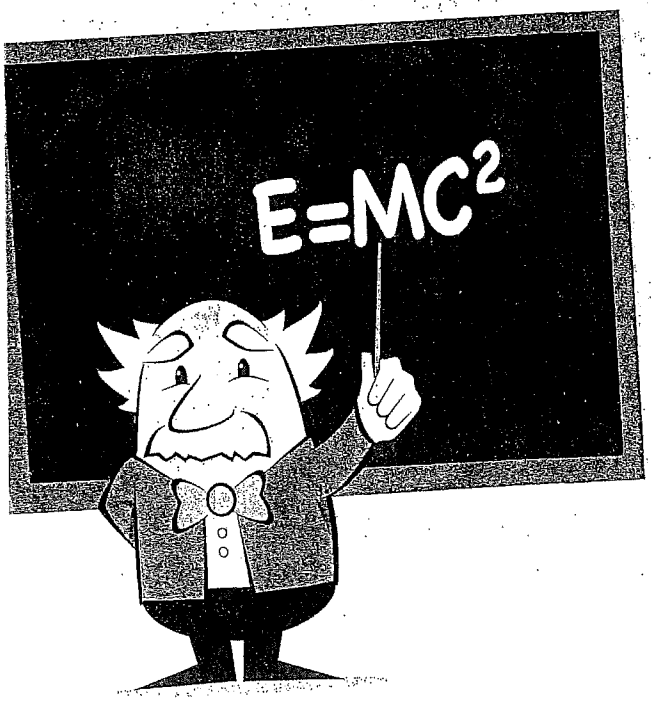
reality monitoring may result from the side effects of medication, drug or alcohol use, or tendencies toward hallucinations or delusions. A number of disorders render individuals more susceptible to suggestion through one or more of these mechanisms.

Gisli Gudjonsson and his colleagues have extensively tested the enhanced susceptibility of mentally retarded persons to interrogative suggestion; that is, their tendency to change accounts in response to suggestive questioning, showing that the mentally retarded are substantially more likely to change their accounts when told they are wrong or when subject to disapproving responses. (*See* Gudjonsson, HANDBOOK, *supra*.) Due to poor comprehension and reduced general knowledge, such persons are less likely to know what is actually true; and due to a history of failures and awareness of personal deficits in understanding, they possess less confidence in their own memories and beliefs.

Persons with schizotypal personality disorders, schizophrenia, delusional disorder or the manic phase of bipolar disorder, can be prone to suggestibility through all three mechanisms of failure of knowledge, confidence, and reality monitoring. Moreover, they are prone to simply produce imagined memories or confabulation. If the interrogator asks particularly leading questions or continually reinforces the interviewee for adding details or helping the interrogator make sense out of the situation, a tendency to confabulate can lead both parties to believe in the reality of a false confession.

Conclusions

The model for understanding the sources of individual vulnerability to coercive interrogation we have outlined offers a framework for understanding how both chronic and acute individual characteristics can enhance susceptibility to coercion. Here we have focused on chronic mental disabilities. However, many mentally healthy individuals are susceptible to enhanced risk of coercion under certain circumstances. Acute states such as sleep deprivation, intense distress, drug use, and other factors can enhance susceptibility directly through their effects on such factors as cognitive processing or self-regulation, or indirectly, such as when impaired self-regulation can decrease tolerance for distress and enhance the need to terminate the interrogation. Understanding the basis of enhanced susceptibility to coercion is complex, requiring appreciation of the diverse coercive processes inherent in interrogation, as well as the way in which they act on the basic underpinnings of resistance to coercion and the processes through which susceptibility to these effects are affected by both chronic and acute vulnerabilities. Given the necessity for this multilevel analysis and understanding, it is not surprising that the courts have yet to recognize the majority of relevant vulnerabilities as sufficient grounds for suppression. ■



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ORIGINAL ARTICLE

Police-Induced Confessions: Risk Factors and Recommendations

Saul M. Kassin · Steven A. Drizin · Thomas Grisso · Gisli H. Gudjonsson · Richard A. Leo · Allison D. Redlich

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Abstract Recent DNA exonerations have shed light on the problem that people sometimes confess to crimes they did not commit. Drawing on police practices, laws concerning the admissibility of confession evidence, core principles of psychology, and forensic studies involving multiple methodologies, this White Paper summarizes what is known about police-induced confessions. In this review, we identify suspect characteristics (e.g., adolescence; intellectual disability; mental illness; and certain personality traits), interrogation tactics (e.g., excessive interrogation time; presentations of false evidence; and minimization), and the phenomenology of innocence (e.g., the tendency to waive *Miranda* rights) that influence confessions as well as their effects on judges and juries. This article concludes with a strong recommendation for the mandatory electronic recording of interrogations and considers other possibilities for the reform of interrogation practices and the protection of vulnerable suspect populations.

Keywords Police interviews · Interrogations · Confessions

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In recent years, a disturbing number of high-profile cases, such as the Central Park jogger case, have surfaced involving innocent people who had confessed and were convicted at trial, only later to be exonerated (Drizin & Leo, 2004; Gudjonsson, 1992, 2003; Kassin, 1997; Kassin & Gudjonsson, 2004; Lassiter, 2004; Leo & Ofshe, 1998). Although the precise incidence rate is not known, research suggests that false confessions and admissions are present in 15–20% of all DNA exonerations (Garrett, 2008; Scheck, Neufeld, & Dwyer, 2000; http://www.innocenceproject.org/). Moreover, because this sample does not include those false confessions that are disproved before trial, many that result in guilty pleas, those in which DNA evidence is not available, those given to minor crimes that receive no post-conviction scrutiny, and those in juvenile proceedings that contain confidentiality provisions, the cases that are discovered most surely represent the tip of an iceberg.

In this new era of DNA exonerations, researchers and policy makers have come to realize the enormous role that psychological science can play in the study and prevention of wrongful convictions. In cases involving wrongfully convicted defendants, the most common reason (found in three-quarters of the cases) has been eyewitness misidentification. Eyewitness researchers have thus succeeded at identifying the problems and proposing concrete reforms. Indeed, following upon an AP-LS White Paper on the subject (Wells et al., 1998), the U.S. Department of Justice assembled a working group of research

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psychologists, prosecutors, police officers, and lawyers, ultimately publishing guidelines for law enforcement on how to minimize eyewitness identification error (Technical Working Group for Eyewitness Evidence, 1999; see Doyle, 2005; Wells et al., 2000). While other problems have been revealed—for example, involving flaws in various forensic sciences (see Faigman, Kaye, Saks, & Sanders, 2002), the number of cases involving confessions—long considered the "gold standard" in evidence—has proved surprising (http://www.innocenceproject.org/).

Wrongful convictions based on false confessions raise serious questions concerning a chain of events by which innocent citizens are judged deceptive in interviews and misidentified for interrogation; waive their rights to silence and to counsel; and are induced into making false narrative confessions that form a sufficient basis for subsequent conviction. This White Paper summarizes much of what we know about this phenomenon. It draws on core psychological principles of influence as well as relevant forensic psychology studies involving an array of methodologies. It identifies various risk factors for false confessions, especially in police interviewing, interrogation, and the elicitation of confessions. It also offers recommendations for reform.

Citing the impact on policy and practice of the eyewitness White Paper, Wiggins and Wheaton (2004) called for a similar consensus-based statement on confessions. Fulfilling this call, the objectives of this White Paper are threefold. The first is to review the state of the science on interviewing and interrogation by bringing together a multidisciplinary group of scholars from three perspectives: (1) clinical psychology (focused on individual differences in personality and psychopathology); (2) experimental psychology (focused on the influence of social, cognitive, and developmental processes); and (3) criminology (focused on the empirical study of criminal justice as well as criminal law, procedure, and legal practice). Our second objective is to identify the dispositional characteristics (e.g., traits associated with *Miranda* waivers, compliance, and suggestibility; adolescence; mental retardation; and psychopathology) and situational-interrogation factors (e.g., prolonged detention and isolation; confrontation; presentations of false evidence; and minimization) that influence the voluntariness and reliability of confessions. Our third objective is to make policy recommendations designed to reduce both the likelihood of police-induced false confessions and the number of wrongful convictions based on these confessions.

BACKGROUND

The pages of American legal history are rich in stories about false confessions. These stories date back to the Salem witch trials of 1692, during which about 50 women confessed to witchcraft, some, in the words of one observer, after being "tyed... Neck and Heels till the Blood was ready to come out of their Noses" (Karlsen, 1989, p. 101). Psychologists' interest as well can be traced to its early days as a science. One hundred years ago, in *On the Witness Stand*, Hugo Munsterberg (1908) devoted an entire chapter to the topic of "Untrue Confessions." In this chapter, he discussed the Salem witch trials, reported on a contemporary Chicago confession that he believed to be false, and sought to explain the causes of this phenomenon (e.g., he used such words as "hope," "fear," "promises," "threats," "suggestion," "calculations," "passive yielding," "shock," "fatigue," "emotional excitement," "melancholia," "auto-hypnosis," "dissociation," and "self-destructive despair").

DNA Exonerations and Discoveries in the U.S.

In 1989, Gary Dotson was the first wrongfully convicted individual to be proven innocent through the then-new science of DNA testing. Almost two decades later, more than 200 individuals have been exonerated by post-conviction DNA testing and released from prison, some from death row. In 15–20% of these cases, police-induced false confessions were involved (Garrett, 2008; www.innocence project.org). A disturbing number of these have occurred in high-profile cases, such as New York City's Central Park Jogger case, where five false confessions were taken within a single investigation. In that case, five teenagers confessed during lengthy interrogations to the 1989 brutal assault and rape of a young woman in Central Park. Each boy retracted his statement immediately upon arrest, saying he had confessed because he expected to go home afterward. All the boys were convicted and sent to prison, only to be exonerated in 2002 when the real rapist gave a confession, accurately detailed, that was confirmed by DNA evidence (*People of the State of New York v. Kharey Wise et al.*, 2002).

Post-conviction DNA tests and exonerations have offered a window into the causes of wrongful conviction. Researchers and legal scholars have long documented the problem and its sources of error (Borchard, 1932; Frank & Frank, 1957; see Leo, 2005 for a review). Yet criminal justice officials, commentators, and the public have tended until recently to be highly skeptical of its occurrence, especially in death penalty cases (Bedau & Radelet, 1987). The steady stream of post-conviction DNA exonerations in the last two decades has begun to transform this perception. Indeed, these cases have established the leading causes of error in the criminal justice system to be eyewitness misidentification, faulty forensic science, false informant testimony, and false confessions (Garrett, 2008).

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The Problem of False Confessions

A false confession is an admission to a criminal act—usually accompanied by a narrative of how and why the crime occurred—that the confessor did not commit. False confessions are difficult to discover because neither the state nor any organization keeps records of them, and they are not usually publicized. Even if they are discovered, false confessions are hard to establish because of the difficulty of proving the confessor's innocence. The literature on wrongful convictions, however, shows that there are several ways to determine whether a confession is false. Confessions may be deemed false when: (1) it is later discovered that no crime was committed (e.g., the presumed murder victim is found alive, the autopsy on a "shaken baby" reveals a natural cause of death); (2) additional evidence shows it was physically impossible for the confessor to have committed the crime (e.g., he or she was demonstrably elsewhere at the time or too young to have produced the semen found on the victim); (3) the real perpetrator, having no connection to the defendant, is apprehended and linked to the crime (e.g., by intimate knowledge of nonpublic crime details, ballistics, or physical evidence); or (4) scientific evidence affirmatively establishes the confessor's innocence (e.g., he or she is excluded by DNA test results on semen, blood, hair, or saliva).

Drizin and Leo (2004) analyzed 125 cases of proven false confession in the U.S. between 1971 and 2002, the largest sample ever studied. Ninety-three percent of the false confessors were men. Overall, 81% of the confessions occurred in murder cases, followed by rape (8%) and arson (3%). The most common bases for exoneration were the real perpetrator was identified (74%) or that new scientific evidence was discovered (46%). With respect to personal vulnerabilities, the sample was younger than the total population of murderers and rapists: A total of 63% of false confessors were under the age of 25, and 32% were under 18; yet of all persons arrested for murder and rape, only 8 and 16%, respectively, are juveniles (Snyder, 2006). In addition, 22% were mentally retarded, and 10% had a diagnosed mental illness. Surprisingly, multiple false confessions to the same crime were obtained in 30% of the cases, wherein one false confession was used to prompt others. In total, 81% of false confessors in this sample whose cases went to trial were wrongfully convicted.

Although other researchers have also documented false confessions in recent years, there is no known incidence rate, and to our knowledge empirically based estimates have never been published. There are several reasons why an incidence rate cannot be determined. First, researchers cannot identify the universe of false confessions because no governmental or private organization keeps track of this information. As noted earlier, the sample of discovered cases is thus incomplete. Second, even if one could identify a nonrandom set of hotly contested and possibly false confessions, it is often difficult if not impossible as a practical matter to obtain the primary case materials (e.g., police reports; pretrial and trial transcripts; and electronic recordings of the interrogations) needed to determine "ground truth" with sufficient certainty to prove that the confessor is innocent. Also, it is important to note that although most case studies are based in the U.S. and England, proven false confessions have been documented in countries all over the world—including Canada (CBC News, August 10, 2005), Norway (Gudjonsson, 2003), Finland (Santtila, Alkiora, Ekholm, & Niemi, 1999), Germany (Otto, 2006), Iceland (Sigurdsson & Gudjonsson, 2004), Ireland (Inglis, 2004), The Netherlands (Wagenaar, 2002), Australia (Egan, 2006), New Zealand (Sherrer, 2005), China (Kahn, 2005), and Japan (Onishi, 2007).

For estimating the extent of the problem, self-report methods have also been used. Sigurdsson and Gudjonsson (2001) conducted two self-report studies of prison inmates in Iceland and found that 12% claimed to have made a false confession to police at some time in their lives, a pattern that the authors saw as part of the criminal lifestyle. In a more recent study of Icelandic inmates, the rate of self-reported false confessions had increased (Gudjonsson, Sigurdsson, Einarsson, Bragason, & Newton, 2008). Similar studies have been conducted in student samples within Iceland and Denmark. Among those interrogated by police, the self-reported false confession rates ranged from 3.7 to 7% among college and older university students (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006; Gudjonsson, Sigurdsson, & Einarsson, 2004; Steingrimsdottir, Hreinsdottir, Gudjonsson, Sigurdsson, & Nielsen, 2007; Gudjonsson, Sigurdsson, Bragason, Einarsson, & Valdimarsdottir, 2004). In a North American survey of 631 police investigators, respondents estimated from their own experience that 4.78% of innocent suspects confess during interrogation (Kassin et al., 2007). Retrospective self-reports and observer estimates are subject to various cognitive and motivational biases and should be treated with caution as measures of a false confession rate. In general, however, they reinforce the wrongful conviction data indicating that a small but significant minority of innocent people confess under interrogation.

POLICE INTERROGATIONS IN CONTEXT

The practices of interrogation and the elicitation of confessions are subject to historical, cultural, political, legal, and other contextual influences. Indeed, although this article is focused on confessions to police within in a

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criminal justice framework, it is important to note that similar processes occur, involving varying degrees of pressure, within the disparate frameworks of military intelligence gathering and corporate loss-prevention investigations. Focused on criminal justice, we examine American interrogation practices of the past and present; the role played by *Miranda* rights; the admissibility and use of confession evidence in the courts; and current practices not only in the U.S. but in other countries as well.

"Third-Degree" Practices of the Past

From the late nineteenth century through the 1930s, American police occasionally employed "third-degree" methods of interrogation—inflicting physical or mental pain and suffering to extract confessions and other types of information from crime suspects. These techniques ranged from the direct and explicit use of physical assaults to tactics that were both physically and psychologically coercive to lesser forms of duress. Among the most commonly used "third-degree" techniques were physical violence (e.g., beating, kicking, or mauling suspects); torture (e.g., simulating suffocation by holding a suspect's head in water, putting lighted cigars or pokers against a suspect's body); hitting suspects with a rubber hose (which seldom left marks); prolonged incommunicado confinement; deprivations of sleep, food, and other needs; extreme sensory discomfort (e.g., forcing a suspect to stand for hours on end, shining a bright, blinding light on the suspect); and explicit threats of physical harm (for a review, see Leo, 2004). These methods were varied and commonplace (Hopkins, 1931), resulting in large numbers of coerced false confessions (Wickersham Commission Report, 1931).

The use of third-degree methods declined precipitously from the 1930s through the 1960s. They have long since become the exception rather than the rule in American police work, having been replaced by interrogation techniques that are more professional and psychologically oriented. The twin pillars of modern interrogation are behavioral lie-detection methods and psychological interrogation techniques, both of which have been developed and memorialized in interrogation training manuals. By the middle of the 1960s, police interrogation practices had become entirely psychological in nature (Wald, Ayres, Hess, Schantz, & Whitebread, 1967). The President's Commission on Criminal Justice and the Administration of Justice declared in 1967: "Today the third degree is virtually non-existent" (Zimring & Hawkins, 1986, p. 132). Still, as the United States Supreme Court recognized in *Miranda v. Arizona* (1966), psychological interrogation is inherently compelling, if not coercive, to the extent that it relies on sustained pressure, manipulation, trickery, and deceit.

Current Law Enforcement Objectives and Practices in the U.S.

American police typically receive brief instruction on interrogation in the academy and then more sustained and specialized training when promoted from patrol to detective. Interrogation is an evidence-gathering activity that is supposed to occur after detectives have conducted an initial investigation and determined, to a reasonable degree of certainty, that the suspect to be questioned committed the crime.

Sometimes this determination is reasonably based on witnesses, informants, or tangible evidence. Often, however, it is based on a clinical hunch formed during a pre-interrogation interview in which special "behavior-provoking" questions are asked (e.g., "What do you think should happen to the person who committed this crime?") and changes are observed in aspects of the suspect's behavior that allegedly betray lying (e.g., gaze aversion, frozen posture, and fidgety movements). Yet in laboratories all over the world, research has consistently shown that most commonsense behavioral cues are not diagnostic of truth and deception (DePaulo et al., 2003). Hence, it is not surprising as an empirical matter that laypeople on average are only 54% accurate at distinguishing truth and deception; that training does not produce reliable improvement; and that police investigators, judges, customs inspectors, and other professionals perform only slightly better, if at all—albeit with high levels of confidence (for reviews, see Bond & DePaulo, 2006; Meissner & Kassin, 2002; Vrij, 2008).

The purpose of interrogation is therefore not to discern the truth, determine if the suspect committed the crime, or evaluate his or her denials. Rather, police are trained to interrogate only those suspects whose culpability they "establish" on the basis of their initial investigation (Gordon & Fleisher, 2006; Inbau, Reid, Buckley, & Jayne, 2001). For a person under suspicion, this initial impression is critical because it determines whether police proceed to interrogation with a strong presumption of guilt which, in turn, predisposes an inclination to ask confirmatory questions, use persuasive tactics, and seek confessions (Hill, Memon, & McGeorge, 2008; Kassin, Goldstein, & Savitsky, 2003). In short, the single-minded purpose of interrogation is to elicit incriminating statements, admissions, and perhaps a full confession in an effort to secure the conviction of offenders (Leo, 2008).

Designed to overcome the anticipated resistance of individual suspects who are presumed guilty, police interrogation is said to be stress-inducing by design—structured to promote a sense of isolation and increase the anxiety and despair associated with denial relative to confession. To achieve these goals, police employ a number of tactics. As

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described in Inbau et al.'s (2001) *Criminal Interrogation and Confessions*, the most influential approach is the so-called Reid technique (named after John E. Reid who, along with Fred Inbau, developed this approach in the 1940s and published the first edition of their manual in 1962). First, investigators are advised to isolate the suspect in a small private room, which increases his or her anxiety and incentive to escape. A nine-step process then ensues in which an interrogator employs both negative and positive incentives. On one hand, the interrogator confronts the suspect with accusations of guilt, assertions that may be bolstered by evidence, real or manufactured, and refuses to accept alibis and denials. On the other hand, the interrogator offers sympathy and moral justification, introducing "themes" that minimize the crime and lead suspects to see confession as an expedient means of escape. The use of this technique has been documented in naturalistic observational studies (Feld, 2006b; Leo, 1996b; Simon, 1991; Wald et al., 1967) and in recent surveys of North American investigators (Kassin et al., 2007; Meyer & Reppucci, 2007).

Miranda Warnings, Rights, and Waivers

One of the U.S. legal system's greatest efforts to protect suspects from conditions that might produce involuntary and unreliable confessions is found in the U.S. Supreme Court decision in *Miranda v. Arizona* (1966). The Court was chiefly concerned with cases in which the powers of the state, represented by law enforcement, threatened to overbear the will of citizen suspects, thus threatening their Constitutional right to avoid self-incrimination.

In *Miranda*, the Court offered a remedy, requiring that police officers had to inform suspects of their rights to remain silent and to the availability of legal counsel prior to confessions. This requirement aimed to strike a balance against the inherently threatening power of the police in relation to the disadvantaged position of the suspect, thus reducing coercion of confessions. In cases involving challenges to the validity of the waiver of rights, courts were to apply a test regarding the admissibility of the confession at trial. Statements made by defendants would be inadmissible if a waiver of the rights to silence and counsel was not made "voluntarily, knowingly, and intelligently." One year after the *Miranda* decision, *In re Gault* (1967) extended these rights and procedures to youth when they faced delinquency allegations in juvenile court.

Forty years later, there is no research evidence that *Miranda* and *Gault* achieved their ultimate objective. Police officers routinely offer the familiar warnings to suspects prior to taking their statements. But research has not unequivocally determined whether confessions became more or less likely, are any more or less reliable, or are occurring in ways that are more or less "voluntary, knowing, and intelligent" than in the years prior to *Miranda*. Several years ago, Paul Cassell, an outspoken critic of *Miranda*, had maintained (based on pre–post studies as well as international comparisons) that the confession and conviction rates have dropped significantly as a direct result of the warning and waiver requirements, thus triggering the release of dangerous criminals (Cassell, 1996a, 1996b; Cassell & Hayman, 1996). Yet others countered that his analysis was based on selective data gathering methods and unwarranted inferences (Donahue, 1998; Feeney, 2000; Thomas & Leo, 2002); that these declines, if real, were insubstantial (Schulhofer, 1996); that four out of five suspects waive their rights and submit to questioning (Leo, 1996a, 1996b); and that the costs to law enforcement were outweighed by social benefits—for example, that *Miranda* has had a civilizing effect on police practices and has increased public awareness of constitutional rights (Leo, 1996c; Thomas, 1996).

In recent years, the U.S. Supreme Court has upheld the basic warning-and-waiver requirement (*Dickerson v. United States*, 2000)—for example, refusing to accept confessions given after a warning that was tactically delayed to produce an earlier inadmissible statement (*Missouri v. Seibert*, 2004). Practically speaking, however, research has suggested that the Court's presumption concerning the protections afforded by *Miranda* warnings is questionable. At minimum, a valid waiver of rights requires that police officers provide suspects an understandable description of their rights and that suspects must understand these warnings to waive them validly. What empirical evidence do we have that *Miranda's* procedural safeguards produce these conditions?

First, the *rights* of which suspects must be informed were clearly defined in Miranda, but the *warnings* were not. The *Miranda* decision included an appendix wherein the Court offered an example of the warnings that were suggested, but police departments were free to devise their own warnings. A recent study examined 560 *Miranda* warning forms used by police throughout the U.S. (Rogers, Harrison, Shuman, Sewell, & Hazelwood, 2007). A host of variations in content and format were identified, and metric analysis of their wording revealed reading-level requirements ranging from third-grade level to the verbal complexity of postgraduate textbooks (see Kahn, Zapf, & Cooper, 2006, for similar results; also see Rogers, Hazelwood, Sewell, Harrison, & Shuman, 2008). Moreover, *Miranda* warning forms varied considerably in what they conveyed. For example, only 32% of the forms told suspects that legal counsel could be obtained without charge. Thus, many warning forms raise serious doubts about the knowing and intelligent waiver of rights by almost any suspect who is "informed" by them.

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Second, studies have repeatedly shown that a substantial proportion of adults with mental disabilities, and "average" adolescents below age 16 have impaired understanding of *Miranda* warnings when they are exposed to them. Even adults and youth who understand them sometimes do not grasp their basic implications. Many of these studies have examined actual adult or juvenile defendants, using reliable procedures that allow the quality of an individual's understanding to be scored according to specified criteria. For example, do people after warnings factually understand that "I don't have to talk" and that "I can get an attorney to be here now and during any questioning by police?" To answer this question, respondents have been examined in the relatively benign circumstance of a testing session with a researcher rather than in the context of an accusatory, highly stressful interrogation using standardized *Miranda* warnings that have about an average sixth- to seventh-grade reading level. Thus, the results obtained in these studies represent people's grasp of the *Miranda* warnings under relatively favorable circumstances. Under these conditions, average adults exhibit a reasonably good understanding of their rights (Grisso, 1980, 1981). But studies of adults with serious psychological disorders (Cooper & Zapf, 2008; Rogers, Harrison, Hazelwood, & Sewell, 2007) or with mental retardation (Clare & Gudjonsson, 1991; Everington & Fulero, 1999; Fulero & Everington, 1995; O'Connell, Garmoe, & Goldstein, 2005) have found substantial impairments in understanding of *Miranda* warnings compared to nonimpaired adult defendants.

Many studies have examined adolescents' understanding of *Miranda* warnings, and the results have been very consistent (Abramovitch, Higgins-Biss, & Biss, 1993; Abramovitch, Peterson-Badali, & Rohan, 1995: Colwell et al., 2005; Goldstein, Condie, Kalbeitzer, Osman, & Geier, 2003; Grisso, 1980, 1981; Redlich, Silverman, & Steiner, 2003; Viljoen, Klaver, & Roesch, 2005; Viljoen & Roesch, 2005; Wall & Furlong, 1985). In one comprehensive study, 55% of 430 youth of ages 10–16 misunderstood one or more of the *Miranda* warnings (for example, "That means I can't talk until they tell me to"). Across these studies, the understanding of adolescents ages 15–17 with near-average levels of verbal intelligence tends not to have been inferior to that of adults. But youth of that age with IQ scores below 85, and average youth below age 14, performed much poorer, often misunderstanding two or more of the warnings.

Some studies have shown that many defendants, especially adolescents, who seem to have an adequate factual understanding of *Miranda* warnings, do not grasp their relevance to the situation they are in (e.g., Grisso, 1980, 1981; Viljoen, Zapf, & Roesch, 2007). For example, one may factually understand that "I can have an attorney before and during questioning" yet not know what an attorney is or what role an attorney would play. Others may understand the attorney's role but disbelieve that it would apply in their own situation—as when youth cannot imagine that an adult would take their side against other adults, or when a person with paranoid tendencies believes that any attorney, even his own, would oppose him.

The ability to grasp the relevance of the warnings beyond having a mere factual understanding of what they say is sometimes referred to as having a "rational understanding" or "appreciation" of the warnings. Many states, however, require only a factual understanding of *Miranda* rights for a "knowing and intelligent" waiver (e.g., *People v. Daoud*, 2000). In those states that apply a strict factual understanding standard, youth who technically understand the warnings (e.g., "I can have an attorney to talk to" or "I can stay silent") but harbor faulty beliefs that may distort the significance of these warnings ("An attorney will tell the court whatever I say" or "You have to tell the truth in court, so eventually I'll have to talk if they want me to") are considered capable of having made a valid waiver, even if they have no recognition of the meanings of the words or a distorted view of their implications.

Even among those with adequate understanding, suspects will vary in their capacities to "think" and "decide" about waiving their rights. Whether decision-making capacities are deemed relevant for a "voluntary, knowing, and intelligent" waiver will depend on courts' interpretations of "intelligent" or "voluntary." Several studies have thus examined the decision-making process of persons faced with hypothetical *Miranda* waiver decisions.

Studies of adolescents indicate that youth under age 15 on average perform differently from older adolescents and adults. They are more likely to believe that they should waive their rights and tell what they have done, partly because they are still young enough to believe that they should never disobey authority. Studies have also shown that they are more likely to decide about waiver on the basis of the potential for immediate negative consequences—for example, whether they will be permitted to go home if they waive their rights—rather than considering the longer-range consequences associated with penalties for a delinquency adjudication (Grisso, 1981; Grisso et al., 2003). Young adolescents presented with hypothetical waiver decisions are less likely than older adolescents to engage in reasoning that involves adjustment of their decisions based on the amount of evidence against them or the seriousness of the allegations (Abramovitch, Peterson-Badali, & Rohan, 1995). These results regarding the likelihood of immature decision-making processes are consistent with research on the development of psychosocial abilities of young adolescents in everyday circumstances (Steinberg & Cauffman, 1996) and other

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legal contexts (Grisso & Schwartz, 2000; Owen-Kostelnik, Reppucci, & Meyer, 2006).

Other *Miranda* decision-making studies have examined the suggestibility of persons with disabilities (Clare & Gudjonsson, 1995: Everington & Fulero, 1999; O'Connell, Garmoe, & Goldstein, 2005) and adolescents (Goldstein et al., 2003; Redlich et al., 2003; Singh & Gudjonsson, 1992). Suggestibility refers to a predisposition to accept information communicated by others and to incorporate that information into one's beliefs and memories. In general, these studies indicate that persons with mental retardation and adolescents in general are more susceptible to suggestion in the context of making hypothetical waiver decisions, and that greater suggestibility is related to poorer comprehension of the warnings. These results take on special significance in light of observational studies of police behavior when obtaining *Miranda* waiver decisions from adolescents (Feld, 2006a, 2006b) and adults (Leo, 1996b). As described elsewhere in this article, police officers often approach suspects with "friendly" suggestions regarding both the significance of the *Miranda* waiver procedure and their decision. In either case, results indicate that adults with disabilities and adolescents in general are prone to adjust their behaviors and decisions accordingly.

In a formal sense, whether one waives his or her rights voluntarily, knowingly, and intelligently does not have a direct bearing on the likelihood of false confessions (Kassin, 2005; White, 2001). The decision to waive one's rights in a police interrogation does not necessarily lead to a confession, much less a false confession. Nevertheless, research cited earlier regarding the lack of attentiveness of persons with disabilities and adolescents to long-range consequences suggests an increased risk that they would also comply with requests for a confession—whether true of false—to obtain the presumed short-term reward (e.g., release to go home). In addition, some studies have found that poor comprehension of *Miranda* warnings is itself predictive of a propensity to give false confessions (Clare & Gudjonsson, 1995; Goldstein et al., 2003). Sometimes this stems from low intelligence or a desire to comply; at other times it appears to be related to a naïve belief that one's actual innocence will eventually prevail—a belief that is not confined to adolescents or persons with disabilities (Kassin & Norwick, 2004).

Finally, many states require the presence of a parent or other interested adult when youth make decisions about their *Miranda* rights (Oberlander, Goldstein, & Goldstein, 2003). These rules are intended to offer youth assistance in thinking through the decision while recognizing that caretakers cannot themselves waive their children's rights in delinquency or criminal investigations. Studies have shown, however, that the presence of parents at *Miranda* waiver events typically does not result in any advice at all or, when it does, provides added pressure for the youth to waive rights and make a statement (Grisso & Ring, 1979). The presence of parents may be advisable, but it does not offer a remedy for the difficulties youth face in comprehending or responding to requests for a waiver of their rights.

In summary, research suggests that adults with mental disabilities, as well as adolescents, are particularly at risk when it comes to understanding the meaning of *Miranda* warnings. In addition, they often lack the capacity to weigh the consequences of rights waiver, and are more susceptible to waiving their rights as a matter of mere compliance with authority.

Overview of Confession Evidence in the Courts

American courts have long treated confession evidence with both respect and skepticism. Judicial respect for confessions emanates from the power of confession evidence and the critical role that confessions play in solving crimes. The U.S. Supreme Court has recognized that confession evidence is perhaps the most powerful evidence of guilt admissible in court (*Miranda v. Arizona*, 1966)—so powerful, in fact, that "the introduction of a confession makes the other aspects of a trial in court superfluous, and the real trial, for all practical purposes, occurs when the confession is obtained" (*Colorado v. Connelly*, 1986, p. 182 citing McCormick, 1972, p. 316).

Judicial skepticism of confession evidence stems from the historical fact that some law enforcement officers, aware that confession evidence can assure conviction, have abused their power in the interrogation room. As the U.S. Supreme Court stated in *Escobedo v. Illinois* (1964): "We have learned the lesson of history, ancient and modern, that a system of criminal law enforcement which comes to depend on the 'confession' will, in the long run, be less reliable and more subject to abuses than a system which depends on extrinsic evidence independently secured through skillful investigation" (pp. 488–489).

Judicial concern with juror over-reliance on confession evidence gave rise to a series of evolving rules designed to curb possible abuses in the interrogation room, exclude unreliable confessions from trial, and prevent wrongful convictions. These doctrines, which developed both in the common law of evidence and under the Constitution as interpreted by the U.S. Supreme Court, fell into two distinct sets of legal rules: corroboration rules and the voluntariness rules (Ayling, 1984; Leo, Drizin, Neufeld, Hal, & Vatner, 2006).

Corroboration Rules

The corroboration rule, which requires that confessions be corroborated by independent evidence, was the

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American take on the English rule known as the *corpus delicti* rule. *Corpus delicti* literally means "body of the crime"—that is, the material substance upon which a crime has been committed" (Garner, 2004, p. 310). The rule was founded at common law in England in the wake of *Perry's Case*, a seventeenth-century case in which a mother and two brothers were convicted and executed based upon a confession to a murder that was later discovered to be false when the supposed murder victim turned up alive (Leo et al., 2006). America's version of *Perry's Case* is the infamous 1819 case of Stephen and Jesse Boorn, two brothers who were convicted and sentenced to death in Manchester, Vermont for the murder of their brother-in-law Russell Colvin. Fortunately for the two men, both of whom had confessed to the killing under intense pressure from authorities, their lawyers located Colvin alive before their hangings took place (Warden, 2005).

In American homicide cases, in response to *Boorn*, the rule came to mean that no individual can be convicted of a murder without proof that a death occurred, namely the existence of a "dead body." As the rule evolved in the courts over time, it was applied to all crimes and required that before a confession could be admitted to a jury, prosecutors had to prove: (1) that a death, injury, or loss had occurred and (2) that criminal agency was responsible for that death, injury, or loss (Leo et al., 2006). The rule was designed to serve three purposes: to prevent false confessions, to provide incentives to police to continue to investigate after obtaining a confession, and to safeguard against the tendency of juries to view confessions as dispositive of guilt regardless of the circumstances under which they were obtained (Ayling, 1984).

The *corpus delicti* rule does not require corroboration that the defendant committed the crime, nor does it demand any proof of the requisite mental state or any other elements of the crime. Moreover, the rule only requires corroboration of the fact that a crime occurred; it does not require that the facts contained in the confession be corroborated. Given the relative ease of establishing the *corpus delicti* in most criminal cases (e.g., producing a dead body in a homicide case and showing that death was not self-inflicted or the result of an accident), and the weight that most jurors attach to confession evidence, prosecutors can still obtain many convictions from unreliable confessions. The rule thus makes it easier in some cases for prosecutors to convict both the guilty and the innocent (Leo et al., 2006).

At the same time, in a certain class of cases, the *corpus delicti* rule may bar the admission of reliable confessions. Because the rule requires that prosecutors prove that there be death or injury resulting from a criminal act, prosecutors may have a hard time getting confessions admitted when the evidence is unclear as to whether any injury had occurred (e.g., child molestation without physical evidence) or whether it resulted from an accident or natural causes as opposed to a criminal act (e.g., child death by smothering or Sudden Infant Death Syndrome; see Taylor, 2005).

For these reasons and others, the rule has been severely criticized. In *Smith v. United States* (1954), the U.S. Supreme Court criticized the *corpus delicti* rule for "serv[ing] an extremely limited function" (p. 153). The Court noted that the rule was originally designed to protect individuals who had confessed to crimes that never occurred but that it does little to protect against the far more frequent problem wherein a suspect confesses to a crime committed by someone else. In short, the rule did "nothing to ensure that a particular defendant was the perpetrator of a crime" (*State v. Mauchley*, 2003, p. 483).

In place of the *corpus delicti* rule, the Supreme Court, in two decisions released on the same day—*Smith* and *Opper v. United States* (1954)—announced a new rule, dubbed the trustworthiness rule, which requires corroboration of the confession itself rather than the fact that a crime occurred. Under the trustworthiness rule, which was adopted by several states, the government may not introduce a confession unless it provides "substantial independent evidence which would tend to establish the trustworthiness of the confession" (*State v. Mauchley*, 2003, p. 48; citing Opper).

In theory, the trustworthiness standard is a marked improvement on the *corpus delicti* rule in its ability to prevent false confessions from entering the stream of evidence at trial. In practice, however, the rule has not worked to screen out false confessions. Because investigators sometimes suggest and incorporate crime details into a suspect's confession, whether deliberately or inadvertently, many false confessions appear highly credible to the secondhand observer. Without an electronic recording of the entire interrogation process, courts are thus left to decide a swearing contest between the suspect and the detective over the source of the details contained within the confession. Moreover, the quantum of corroboration in most jurisdictions that apply the trustworthiness doctrine is very low, allowing many unreliable confessions to go before the jury (Leo et al., 2006).

Rules Prohibiting Involuntary Confession

Until the late eighteenth century, out-of-court confessions were admissible as evidence even if they were the involuntary product of police coercion. In 1783, however, in *The King v. Warrickshall*, an English Court recognized the inherent lack of reliability of involuntary confessions and established the first exclusionary rule:

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> Confessions are received in evidence, or rejected as inadmissible, under a consideration whether they are or are not intitled [sic] to credit. A free and voluntary confession is deserving of the highest credit, because it is presumed to flow from the strongest sense of guilt ...but a confession forced from the mind by the flattery of hope, or by the torture of fear, comes in so questionable a shape...that no credit ought to be given it; and therefore it should be rejected (*King v. Warrickshall*, 1783, pp. 234–235).

The basis for excluding involuntary confessions in *Warrickshall* was a concern that confessions procured by torture or other forms of coercion must be prohibited because of the risk that such tactics could cause an innocent person to confess. In other words, involuntary confessions were to be prohibited because they were unreliable. Following *Warrickshall*, in the late 1800s, the U.S. Supreme Court adopted this reliability rationale for excluding involuntary confessions in a series of decisions (*Hopt v. Utah*, 1884; *Pierce v. United States*, 1896; *Sparf v. United States*, 1895; *Wilson v. United States*, 1896).

The Supreme Court adopted a second rationale for excluding involuntary confessions in 1897, in *Bram v. United States*. In *Bram*, the Court for the first time linked the voluntariness doctrine to the Fifth Amendment's provision that "no person shall be compelled in any criminal case to be a witness against himself." This privilege against self-incrimination was not rooted in a concern about the reliability of confessions. Rather, its origins were grounded in the rule of *nemo teneturseipsum prodere* ("no one is bound to inform on himself"), a rule dating back to the English ecclesiastical courts which sought to protect individual free will from state intrusion (Leo et al., 2006). The rule of *nemo tenetur*, which was adopted in the colonies and incorporated into the Fifth Amendment, applied only to self-incriminating statements in court, and had never been applied to extrajudicial confessions. By mixing two unrelated voluntariness doctrines, *Bram* rewrote history and provoked considerable confusion by courts and academics alike (Wigmore, 1970). Still, it gave birth to a new basis for excluding involuntary confession evidence—the protection of individual free will.

A third basis for excluding involuntary confessions began to emerge in 1936, in the case of *Brown v. Mississippi*, to deter unfair and oppressive police practices. In *Brown*, three black tenant farmers who had been accused of murdering a white farmer were whipped, pummeled, and tortured until they provided detailed confessions. The Court unanimously reversed the convictions of all three defendants, holding that confessions procured by physical abuse and torture were involuntary. The Court established the Fourteenth Amendment's due process clause as the constitutional test for assessing the admissibility of confessions in state cases. In addition to common law standards, trial judges would now have to apply a federal due process standard when evaluating the admissibility of confession evidence, looking to the "totality of the circumstances" to determine if the confession was 'made freely, voluntarily and without compulsion or inducement of any sort'"(*Haynes v. Washington*, 1963, quoting *Wilson v. United States*, 1896). As such, the Court proposed to consider personal characteristics of the individual suspect (e.g., age, intelligence, mental stability, and prior contact with law enforcement) as well as the conditions of detention and interrogation tactics that were used (e.g., threats, promises, and lies).

This deterrence rationale, implied in *Brown*, was made even more explicit in *Haley v. Ohio*, a case involving a 15-year-old black boy who was questioned throughout the night by teams of detectives, isolated for 3 days, and repeatedly denied access to his lawyer (*Haley v. Ohio*, 1948). While the majority held that the confession was obtained "by means which the law should not sanction" (pp. 600–601), Justice Frankfurter, in his concurrence, went a step further, stating that the confession must be held inadmissible "[t]o remove the inducement to resort to such methods this Court has repeatedly denied use of the fruits of illicit methods" (p. 607).

As these cases suggest, the Supreme Court relied on different and sometimes conflicting rationales for excluding involuntary confessions throughout the twentieth century (Kamisar, 1963; White, 1998). It was not always clear which of the three justifications the Court would rely on when evaluating the voluntariness of a confession. Nevertheless, the Court did appear to designate certain interrogation methods—including physical force, threats of harm or punishment, lengthy or incommunicado questioning, solitary confinement, denial of food or sleep, and promises of leniency—as presumptively coercive and therefore unconstitutional (White, 2001). The Court also considered the individual suspect's personal characteristics, such as age, intelligence, education, mental stability, and prior contact with law enforcement, in determining whether a confession was voluntary. The template of the due process voluntariness test thus involved a balancing of whether police interrogation pressures, interacting with a suspect's personal dispositions, were sufficient to render a confession involuntary (Schulhofer, 1981).

The "totality of the circumstances" test, while affording judges flexibility in practice, has offered little protection to suspects. Without bright lines for courts to follow, and without a complete and accurate record of what transpired during the interrogation process, the end result has been largely unfettered and unreviewable discretion by judges. In practice, when judges apply the test, "they exclude only the most egregiously obtained confessions and then only

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haphazardly" (Feld, 1999, p. 118). The absence of a litmus test has also encouraged law enforcement officers to push the envelope with respect to the use of arguably coercive psychological interrogation techniques (Penney, 1998). Unlike its sweeping condemnation of *physical* abuse in *Brown v. Mississippi*, the Court's overall attitude toward *psychological* interrogation techniques has been far less condemnatory. In particular, the Court's attitudes toward the use of maximization and minimization (Kassin & McNall, 1991) and the false evidence ploy and other forms of deception (Kassin & Kiechel, 1996)—techniques that have frequently been linked to false confessions (Kassin & Gudjonsson, 2004)—has been largely permissive. A discussion of some of these cases follows.

Cases Addressing Interrogation Tactics: Maximization and Minimization

Today's interrogators seek to manipulate a suspect into thinking that it is in his or her best interest to confess. To achieve this change in perceptions of subjective utilities, they use a variety of techniques, referred to broadly as "maximization" and "minimization" (Kassin & McNall, 1991). Maximization involves a cluster of tactics designed to convey the interrogator's rock-solid belief that the suspect is guilty and that all denials will fail. Such tactics include making an accusation, overriding objections, and citing evidence, real or manufactured, to shift the suspect's mental state from confident to hopeless. Toward this end, it is particularly common for interrogators to communicate as a means of inducement, implicitly or explicitly, a threat of harsher consequences in response to the suspect's denials (Leo & Ofshe, 2001).

In contrast, minimization tactics are designed to provide the suspect with moral justification and face-saving excuses for having committed the crime in question. Using this approach, the interrogator offers sympathy and understanding; normalizes and minimizes the crime, often suggesting that he or she would have behaved similarly; and offers the suspect a choice of alternative explanations—for example, suggesting to the suspect that the murder was spontaneous, provoked, peer-pressured, or accidental rather than the work of a cold-blooded premeditated killer. As we will see later, research has shown that this tactic communicates by implication that leniency in punishment is forthcoming upon confession.

As the 1897 case of *Bram v. United States* demonstrates, minimization has been part of the arsenal of police interrogation tactics for over a century. In *Bram*, the authorities induced the defendant to confess based on the kind of unspoken promise that anchors the modern psychological interrogation: "Bram, I am satisfied that you killed the captain. But some of us here think you could not have done the crime alone. If you had an accomplice, you should say so, and not have the blame of this horrible crime on your own shoulders" (*Bram v. United States*, 1897, p. 539). This statement contained no direct threats or promises; rather, it combined elements of maximization (the interrogator's stated certainty in the suspect's guilt) and minimization (the suggestion that he will be punished less severely if he confesses and names an accomplice). Using language that condemns the latter, the Supreme Court reversed Bram's conviction, holding that a confession "must not be extracted by any sort of threats or violence, nor obtained by any direct or implied promises, however slight" (pp. 542–543).

Although a strict interpretation of *Bram* seemed to suggest a ban on minimization, courts throughout the twentieth century followed a practice of evading, contradicting, disregarding, and ultimately discarding *Bram* (Hirsch, 2005a). Briefly in the 1960s, it appeared that the Supreme Court was ready to revitalize *Bram* and to apply it broadly to the psychological interrogation techniques taught by such legendary police reformers as Chicago's Fred Inbau and John Reid. Indeed, the landmark case of *Miranda v. Arizona* (1966), described earlier, cited *Bram* and condemned the Reid technique and other tactics that "are designed to put the subject in a psychological state where his story is but an elaboration of what the police purport to know already—that he is guilty" (p. 450). This newfound concern with the impact of psychological interrogation tactics, however, was short lived. In the immediate aftermath of *Miranda*, the Supreme Court adopted a more deferential attitude toward law enforcement in its confession jurisprudence. In particular, *Arizona v. Fulminante* (1991) in dicta may have sounded the death knell for *Bram*. Responding to a party's invocation of *Bram*, the Court casually remarked that "under current precedent [Bram] does not state the standard for determining the voluntariness of a confession" (p. 286). However, White (1997) noted that "as Fulminante's holding indicates, some promises may be sufficient in and of themselves to render a confession involuntary; other promises may or may not be permissible depending upon the circumstances" (p. 150).

Cases Addressing Interrogation Tactics: Trickery and Deception

The false evidence ploy is a controversial tactic occasionally used by police. Not all interrogation trainers approve of this practice (Gohara, 2006), the use of which has been implicated in the vast majority of documented police-induced false confessions (Kassin, 2005). In several pre-*Miranda* voluntariness cases, the U.S. Supreme Court recognized that deception can induce involuntary confessions, although the Court never held that such tactics would automatically invalidate a confession. In *Leyra v. Denno* (1954), for

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example, Leyra asked to see a physician because he was suffering from sinus problems and police brought in a psychiatrist who posed as a general physician. The Supreme Court held that the "subtle and suggestive" questioning by the psychiatrist amounted to a continued interrogation of the suspect without his knowledge. This deception and other circumstances of the interrogation rendered Leyra's confession involuntary. Similarly, in *Spano v. New York* (1959), the suspect considered one of the interrogating officers to be a friend. The Court held that the officer's false statements, in which he suggested that the suspect's actions might cost the officer his job, were a key factor in rendering the resulting confession involuntary. In *Miranda v. Arizona* (1966), the Supreme Court discussed the use of trickery and deception and noted that the deceptive tactics recommended in standard interrogation manuals fostered a coercive environment. Again, the Court did not specifically prohibit such tactics, choosing instead to offer suspects some relief from the coercive effect by empowering them with rights which could be used to bring interrogation to a halt. The criticism of deception may have fanned hopes that the Court would deal a more direct blow to this controversial tactic in future cases. But such hopes were quickly quashed.

Three years later, in *Frazier v. Cupp* (1969), the Supreme Court addressed interrogation trickery and issued a decision that to this day has been interpreted by police and the courts as a green light to deception. In *Frazier*, police used a standard false evidence ploy—telling Frazier that another man whom he and the victim had been seen with on the night of the crime had confessed to their involvement. The investigating detective also used minimization, suggesting to Frazier that he had started a fight with the victim because the victim made homosexual advances toward him. Despite the use of these deceptive tactics, the Court held that Frazier's confession was voluntary. This ruling established that police deception by itself is not sufficient to render a confession involuntary. Rather, according to *Frazier*, deception is but one factor among many that a court should consider. Some state courts have distinguished between mere false assertions, which are permissible, and the fabrication of reports, tapes, and other evidence—which is not. In the Florida case of *State v. Cayward* (1989), the defendant's confession was suppressed because police had typed up a phony crime laboratory report that placed Cayward's DNA on the victim. However, the court's concern was not that the manufactured evidence might prompt an innocent person to confess but that it might find its way into court as evidence. Similarly, New Jersey confessions were suppressed when produced by a fake, staged audiotape of an alleged eyewitness account (*State v. Patton*, 1993) and a fake crime lab report identifying the suspect's DNA at the crime scene (*State v. Chirokovskcic*, 2004). This is where the law remains today despite numerous cautionary notes from academics and researchers on the use of deception (Gohara, 2006; Gudjonsson, 2003; Kassin, 2005; Kassin & Gudjonsson, 2004; Skolnick & Leo, 1992; but see Grano, 1994; Slobogin, 2007).

Practices in England

Interrogations and confession evidence are regulated in England and Wales by the Police and Criminal Evidence Act of 1984 (PACE; Home Office, 1985), which became effective in January 1986. The Act is supplemented by five Codes of Practice, referred to as Codes A (on stop and search), B (entry and searches of premises), C (detention and questioning of suspects), D (on identification parades), and E (tape recording of interviews). The Codes provide guidance to police officers concerning procedures and the appropriate treatment of suspects. Code C is particularly relevant to issues surrounding "fitness to be interviewed," as it provides guidance "on practice for the detention, treatment and questioning of persons by police officers" (Home Office, 2003, p. 47).

The most important interview procedures set out in PACE and its Codes of Practice are that: Suspects who are detained at a police station must be informed of their legal rights; in any 24-h period the detainee must be allowed a continuous period of rest of at least 8 hours; detainees who are vulnerable in terms of their age or mental functioning should have access to a responsible adult (known as an 'appropriate adult'), whose function is to give advice, further communication, and ensure that the interview is conducted properly and fairly; and all interviews shall be electronically recorded.

Compared to the approach typically taken in the U.S. (e.g., using the Reid technique), investigative interview practices in England are less confrontational. Williamson (2007) discussed in detail how psychological science has influenced the training of police officers and their interviewing practice, making it fairer and more transparent. Prior to 1992, investigators in Britain received no formal training and the chief purpose of interviewing suspects was to obtain confessions. Following some high-profile miscarriages of justice, such as the "Guildford Four" and "Birmingham Six," the Association of Chief Police Officers for England and Wales (ACPO) published the first national training program for police officers interviewing both suspects and witnesses. This new approach was developed through a collaboration of police officers, psychologists, and lawyers. The mnemonic PEACE was used to describe the five distinct parts of the new interview approach ("Preparation and Planning," "Engage and Explain," "Account," "Closure," and "Evaluate"). The theory underlying this approach, particularly in cases of witnesses, victims, and cooperative suspects, can be traced

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to Fisher and Geiselman's (1992) work on the "Cognitive Interview" (Milne & Bull, 1999; for research evidence, see Clarke & Milne, 2001; Williamson, 2006). Recent analyses of police–suspect interviews in England have revealed that the confrontation-based tactics of maximization and minimization are in fact seldom used (Soukara, Bull, Vrij, Turner, & Cherryman, in press; Bull & Soukara, 2009).

POLICE-INDUCED FALSE CONFESSIONS

As described earlier, the process of interrogation is designed to overcome the anticipated resistance of individual suspects who are presumed guilty and to obtain legally admissible confessions. The single-minded objective, therefore, is to increase the anxiety and despair associated with denial and reduce the anxiety associated with confession. To achieve these goals, police employ a number of tactics that involve isolating the suspect and then employing both negative and positive incentives. On the negative side, interrogators confront the suspect with accusations of guilt, assertions that are made with certainty and often bolstered by evidence, real or manufactured, and a refusal to accept alibis and denials. On the positive side, interrogators offer sympathy and moral justification, introducing "themes" that normalize and minimize the crime and lead suspects to see confession as an expedient means of escape. In this section, we describe some core principles of psychology relevant to understanding the suspect's decision making in this situation; then we describe the problem of false confessions and the situational and dispositional factors that put innocent people at risk.

Types of False Confessions

Although it is not possible to calculate a precise incidence rate, it is clear that false confessions occur in different ways and for different reasons. Drawing on the pages of legal history, and borrowing from social-psychological theories of influence, Kassin and Wrightsman (1985) proposed a taxonomy that distinguished among three types of false confession: voluntary, coerced-compliant, and coerced-internalized (see also Kassin, 1997; Wrightsman & Kassin, 1993). This classification scheme has provided a useful framework for the study of false confessions and has since been used, critiqued, extended, and refined by others (Gudjonsson, 2003; Inbau et al., 2001; McCann, 1998; Ofshe & Leo, 1997a, 1997b).

Voluntary False Confessions

Sometimes innocent people have claimed responsibility for crimes they did not commit without prompting or pressure from police. This has occurred in several high-profile cases. After Charles Lindbergh's infant son was kidnapped in 1932, 200 people volunteered confessions. When "Black Dahlia" actress Elizabeth Short was murdered and her body mutilated in 1947, more than 50 men and women confessed. In the 1980s, Henry Lee Lucas in Texas falsely confessed to hundreds of unsolved murders, making him the most prolific serial confessor in history. In 2006, John Mark Karr volunteered a confession, replete with details, to the unsolved murder of young JonBenet Ramsey. There are a host of reasons why people have volunteered false confessions—such as a pathological desire for notoriety, especially in high-profile cases reported in the news media; a conscious or unconscious need for self-punishment to expiate feelings of guilt over prior transgressions; an inability to distinguish fact from fantasy due to a breakdown in reality monitoring, a common feature of major mental illness; and a desire to protect the actual perpetrator—the most prevalent reason for false admissions (Gudjonsson et al., 2004; Sigurdsson & Gudjonsson, 1996, 1997, 2001). Radelet, Bedau, and Putnam (1992) described one case in which an innocent man confessed to a murder to impress his girlfriend. Gudjonsson (2003) described another case in which a man confessed to murder because he was angry at police for a prior arrest and wanted to mislead them in an act of revenge.

Compliant False Confessions

In contrast to voluntary false confessions, compliant false confessions are those in which suspects are induced through interrogation to confess to a crime they did not commit. In these cases, the suspect acquiesces to the demand for a confession to escape a stressful situation, avoid punishment, or gain a promised or implied reward. Demonstrating the form of influence observed in classic studies of social influence (e.g., Asch, 1956; Milgram, 1974), this type of confession is an act of mere public compliance by a suspect who knows that he or she is innocent but bows to social pressure, often coming to believe that the short-term benefits of confession relative to denial outweigh the long-term costs. Based on a review of a number of cases, Gudjonsson (2003) identified some very specific incentives for this type of compliance—such as being allowed to sleep, eat, make a phone call, go home, or, in the case of drug addicts, feed a drug habit. The desire to bring the interview to an end and avoid additional confinement may be particularly pressing for people who are young, desperate, socially dependent, or phobic of being locked up in a police station. The pages of legal history are filled with stories of compliant false confessions. In the 1989 Central Park jogger case described earlier, five

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teenagers confessed after lengthy interrogations. All immediately retracted their confessions but were convicted at trial and sent to prison—only to be exonerated 13 years later (*People of the State of New York v. Kharey Wise et al.*, 2002).

Internalized False Confessions

In the third type of false confession, innocent but malleable suspects, told that there is incontrovertible evidence of their involvement, come not only to capitulate in their behavior but also to believe that they may have committed the crime in question, sometimes confabulating false memories in the process. Gudjonsson and MacKeith (1982) argued that this kind of false confession occurs when people develop such a profound distrust of their own memory that they become vulnerable to influence from external sources. Noting that the innocent confessor's belief is seldom fully internalized, Ofshe and Leo (1997a) have suggested that the term "persuaded false confession" is a more accurate description of the phenomenon. The case of 14-year-old Michael Crowe, whose sister Stephanie was stabbed to death in her bedroom, illustrates this type of persuasion. After a series of interrogation sessions, during which time police presented Crowe with compelling false physical evidence of his guilt, he concluded that he was a killer, saying: "I'm not sure how I did it. All I know is I did it." Eventually, he was convinced that he had a split personality—that "bad Michael" acted out of a jealous rage while "good Michael" blocked the incident from memory. The charges against Crowe were later dropped when a drifter in the neighborhood that night was found with Stephanie's blood on his clothing (Drizin & Colgan, 2004).

Relevant Core Principles of Psychology

Earlier we reviewed the tactics of a modern American interrogation and the ways in which the U.S. Supreme Court has treated these tactics with respect to the voluntariness and admissibility of the confessions they elicit. As noted, the goal of interrogation is to alter a suspect's decision making by increasing the anxiety associated with denial and reducing the anxiety associated with confession (for an excellent description of a suspect's decision-making process in this situation, see Ofshe & Leo, 1997b).

Long before the first empirical studies of confessions were conducted, the core processes of relevance to this situation were familiar to generations of behavioral scientists. Dating back to Thorndike's (1911) law of effect, psychologists have known that people are highly responsive to reinforcement and subject to the laws of conditioning, and that behavior is influenced more by perceptions of short-term than long-term consequences. Of distal relevance to a psychological analysis of interrogation are the thousands of operant animal studies of reinforcement schedules, punishment, appetitive, avoidance, and escape learning, as well as behavioral modification applications in clinics, schools, and workplaces. Looking through this behaviorist lens, it seems that interrogators have sometimes shaped suspects to confess to particular narrative accounts of crimes like they were rats in a Skinner box (see Herrnstein, 1970; Skinner, 1938).

More proximally relevant to an analysis of choice behavior in the interrogation room are studies of human decision making in a behavioral economics paradigm. A voluminous body of research has shown that people make choices that they think will maximize their well-being given the constraints they face, making the best of the situation they are in—what Herrnstein has called the "matching law" (Herrnstein, Rachlin, & Laibson, 1997). With respect to a suspect's response to interrogation, studies on the discounting of rewards and costs show that people tend to be impulsive in their orientation, preferring outcomes that are immediate rather than delayed, with delayed outcomes depreciating over time in their subjective value (Rachlin, 2000). In particular, animals and humans clearly prefer delayed punishment to immediate aversive stimulation (Deluty, 1978; Navarick, 1982). These impulsive tendencies are especially evident in juvenile populations and among cigarette smokers, alcoholics, and other substance users (e.g., Baker, Johnson, & Bickel, 2003; Bickel & Marsch, 2001; Bickel, Odum, & Madden, 1999; Kollins, 2003; Reynolds, Richards, Horn, & Karraker, 2004).

Rooted in the observation that people are inherently social beings, a second set of core principles is that individuals are highly vulnerable to influence from change agents who seek their compliance. Of direct relevance to an analysis of interrogation are the extensive literatures on attitudes and persuasion (Petty & Cacioppo, 1986), informational and normative influences (e.g., Asch, 1956; Sherif, 1936), the use of sequential request strategies, as in the foot-in-the-door effect (Cialdini, 2001), and the gradual escalation of commands, issued by figures of authority, to effectively obtain self- and other-defeating acts of obedience (Milgram, 1974). Conceptually, Latane's (1981) social impact theory provides a predictive mathematical model that can account for the influence of police interrogators—who bring *power*, *proximity*, and *number* to bear on their exchange with suspects (for a range of social psychological perspectives on interrogation, see Bem, 1966; Davis & O'Donahue, 2004; Zimbardo, 1967).

A third set of core principles consists of the "seven sins of memory" that Schacter (2001) identified from cognitive and neuroscience research—a list that includes memory transience, misattribution effects, suggestibility, and bias.

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When Kassin and Wrightsman (1985) first identified coerced-internalized or coerced-persuaded false confessions, they were puzzled. At the time, existing models of memory could not account for the phenomenon whereby innocent suspects would come to internalize responsibility for crimes they did not commit and confabulate memories about these nonevents. These cases occur when a suspect is dispositionally or situationally rendered vulnerable to manipulation and the interrogator then misrepresents the evidence, a common ploy. In light of a now extensive research literature on misinformation effects and the creation of illusory beliefs and memories (e.g., Loftus, 1997, 2005), experts can now better grasp the process by which people come to accept guilt for a crime they did not commit as well as the conditions under which this may occur (see Kassin, 2008).

Situational Risk Factors

Among the situational risk factors associated with false confessions, three will be singled out: interrogation time, the presentation of false evidence, and minimization. These factors are highlighted because of the consistency in which they appear in cases involving proven false confessions.

Physical Custody and Isolation

To ensure privacy and control, and to increase the stress associated with denial in an incommunicado setting, interrogators are trained to remove suspects from their familiar surroundings and question them in the police station—often in a special interrogation room. Consistent with guidelines articulated by Inbau et al. (2001), most interrogations are brief. Observational studies in the U.S. and Britain have consistently shown that the vast majority of interrogations last approximately from 30 minutes up to 2 hours (Baldwin, 1993; Irving, 1980; Leo, 1996b; Wald et al., 1967). In a recent self-report survey, 631 North American police investigators estimated from their experience that the mean length of a typical interrogation is 1.60 hours. Consistent with cautionary advice from Inbau et al. (2001) against exceeding 4 hours in a single session, these same respondents estimated on average that their longest interrogations lasted 4.21 hours (Kassin et al., 2007). Suggesting that time is a concern among practitioners, one former Reid technique investigator has defined interrogations that exceed 6 hours as "coercive" (Blair, 2005). In their study of 125 proven false confessions, Drizin and Leo (2004) thus found, in cases in which interrogation time was recorded, that 34% lasted 6–12 hours, that 39% lasted 12–24 hours, and that the mean was 16.3 hours.

It is not particularly surprising that false confessions tend to occur after long periods of time—which indicates a dogged persistence in the face of denial. The human needs for belonging, affiliation, and social support, especially in times of stress, are a fundamental human motive (Baumeister & Leary, 1996). People under stress seek desperately to affiliate with others for the psychological, physiological, and health benefits that social support provides (Rofe, 1984; Schachter, 1959; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Hence, prolonged isolation from significant others in this situation constitutes a form of deprivation that can heighten a suspect's distress and incentive to remove himself or herself from the situation. Depending on the number of hours and conditions of interrogation, sleep deprivation may also become a source of concern. Controlled laboratory experiments have shown that sleep deprivation, which may accompany prolonged periods of isolation, can heighten susceptibility to influence and impair decision-making abilities in complex tasks. The range of effects is varied, with studies showing that sleep deprivation markedly impairs the ability to sustain attention, flexibility of thinking, and suggestibility in response to leading questions (Blagrove, 1996; for a review, see Harrison & Horne, 2000). This research literature is not all based in the laboratory. For example, performance decrements have been observed in medical interns (e.g., Veasey, Rosen, Barzansky, Rosen, & Owens, 2002; Weinger & Ancoli-Israel, 2002)—as when sleep deprivation increased the number of errors that resident surgeons made in a virtual reality surgery simulation (Taffinder, McManus, Gul, Russell, & Darzi, 1998). Also demonstrably affected are motorists (Lyznicki, Doege, Davis, & Williams, 1998) and F-117 fighter pilots (Caldwell, Caldwell, Brown, & Smith, 2004). Combining the results in a meta-analysis, Pilcher and Huffcut (1996) thus concluded that: "overall sleep deprivation strongly impairs human functioning." The use of sleep deprivation in interrogation is hardly a novel idea. In *Psychology and Torture*, Suedfeld (1990) noted that sleep deprivation is historically one of the most potent methods used to soften up prisoners of war and extract confessions from them. Indeed, Amnesty International reports that most torture victims interviewed report having been deprived of sleep for 24 hours or more.

Presentations of False Evidence

Once suspects are isolated, interrogators, armed with a strong presumption of guilt, seek to communicate that resistance is futile. This begins the confrontation process, during which interrogators exploit the psychology of inevitability to drive suspects into a state of despair. Basic research shows that once people see an outcome as inevitable, cognitive and motivational forces conspire to

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promote their acceptance, compliance with, and even approval of the outcome (Aronson, 1999). In the case of interrogation, this process also involves interrupting the suspect's denials, overcoming objections, and refuting alibis. At times, American police will overcome a suspect's denials by presenting supposedly incontrovertible evidence of his or her guilt (e.g., a fingerprint, blood or hair sample, eyewitness identification, or failed polygraph)—even if that evidence does not exist. In the U.S., it is permissible for police to outright lie to suspects about the evidence (*Frazier v. Cupp*, 1969)—a tactic that is recommended in training (Inbau et al., 2001), and occasionally used (Kassin et al., 2007; Leo, 1996b).

Yet basic psychological research warns of the risk of this manipulation. Over the years, across a range of subdisciplines, basic research has revealed that misinformation renders people vulnerable to manipulation. To cite but a few highly recognized classics in the field, experiments have shown that presentations of false information—via confederates, witnesses, counterfeit test results, bogus norms, false physiological feedback, and the like—can substantially alter subjects' visual judgments (Asch, 1956; Sherif, 1936), beliefs (Anderson, Lepper, & Ross, 1980), perceptions of other people (Tajfel, Billig, Bundy, & Flament, 1971), behaviors toward other people (Rosenthal & Jacobson, 1968), emotional states (Schachter & Singer, 1962), physical attraction (Valins, 1966), self-assessments (Crocker, Voelkl, Testa, & Major, 1991), memories for observed and experienced events (Loftus, 2005), and even certain medical outcomes, as seen in studies of the placebo effect (Brown, 1998; Price, Finniss, & Benedetti, 2008). Scientific evidence for human malleability in the face of misinformation is broad and pervasive.

The forensic literature on confessions reinforces and extends this classic point, indicating that presentations of false evidence can lead people to confess to crimes they did not commit. This literature is derived from two sources of information. First, studies of actual cases reveal that the false evidence ploy, which is not permitted in Great Britain and most other European nations, is found in numerous wrongful convictions in the U.S., including DNA exonerations, in which there were confessions in evidence (Drizin & Leo, 2004; Leo & Ofshe, 1998). That this tactic appears in proven false confession cases makes sense. In self-report studies, actual suspects state that the reason they confessed is that they perceived themselves to be trapped by the weight of evidence (Gudjonsson & Sigurdsson, 1999; Moston, Stephenson, & Williamson, 1992).

Concerns about the polygraph are illustrative in this regard. Although it is best known for its use as a lie-detector test, and has value as an investigative tool, posttest "failure" feedback is often used to pressure suspects and can prompt false confessions. This problem is so common that Lykken (1998) coined the term "fourth degree" to describe the tactic (p. 235), and the National Research Council Committee to Review the Scientific Evidence on the Polygraph (2003) warned of the risk of polygraph-induced false confessions. In a laboratory demonstration that illustrates the point, Meyer and Youngjohn (1991) elicited false confessions to the theft of an experimenter's pencil from 17% of subjects told that they had failed a polygraph test on that question.

The second source of evidence is found in laboratory experiments that have tested the causal hypothesis that false evidence leads innocent people to confess to prohibited acts they did not commit. In one study, Kassin and Kiechel (1996) accused college students typing on a keyboard of causing the computer to crash by pressing a key they were instructed to avoid. Despite their innocence and initial denials, subjects were asked to sign a confession. In some sessions but not others, a confederate said she witnessed the subject hit the forbidden key. This false evidence nearly doubled the number of students who signed a written confession, from 48 to 94%.

Follow-up studies have replicated this effect to the extent that the charge was plausible (Horselenberg et al., 2006; Klaver, Lee, & Rose, 2008), even when the confession was said to bear a financial or other consequence (Horselenberg, Merckelbach, & Josephs, 2003; Redlich & Goodman, 2003), and even among informants who are pressured to report on a confession allegedly made by another person (Swanner, Beike, & Cole, in press). The effect has been particularly evident among stress-induced males (Forrest, Wadkins, & Miller, 2002) and children and juveniles who tend to be both more compliant and suggestible than adults (Candel, Merckelbach, Loyen, & Reyskens, 2005; Redlich & Goodman, 2003). Using a completely different paradigm, Nash and Wade (2009) used digital editing software to fabricate video evidence of participants in a computerized gambling experiment "stealing" money from the "bank" during a losing round. Presented with this false evidence, all participants confessed—and most internalized the belief in their own guilt.

One needs to be cautious in generalizing from laboratory experiments. Yet numerous false confession cases have featured the use and apparent influence of the false evidence ploy. In one illustrative case, in 1989, 17-year-old Marty Tankleff was accused of murdering his parents despite the complete absence of evidence against him. Tankleff vehemently denied the charges for several hours—until his interrogator told him that his hair was found within his mother's grasp, that a "humidity test" indicated he had showered (hence, the presence of only one spot of blood on his shoulder), and that his hospitalized father had emerged from his coma to say that Marty was his assailant—all of which were untrue (the father never

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regained consciousness and died shortly thereafter). Following these lies, Tankleff became disoriented and confessed. Solely on the basis of that confession, Tankleff was convicted, only to have his conviction vacated and the charges dismissed 19 years later (Firstman & Salpeter, 2008; Lambert, 2008).

Minimization: Promises Implied But Not Spoken

In addition to thrusting the suspect into a state of despair by the processes of confrontation, interrogators are trained to minimize the crime through "theme development," a process of providing moral justification or face-saving excuses, making confession seem like an expedient means of escape. Interrogators are thus trained to suggest to suspects that their actions were spontaneous, accidental, provoked, peer-pressured, drug-induced, or otherwise justifiable by external factors. In the Central Park jogger case, every boy gave a false confession that placed his cohorts at center stage and minimized his own involvement (e.g., 16-year-old Kharey Wise said he felt pressured by peers)—and each said afterward that he thought he would go home after confessing based on statements made by police.

Minimization tactics that imply leniency may well lead innocent people who feel trapped to confess. Two core areas of psychology compel this conclusion. The first concerns the principle of reinforcement. As noted earlier, generations of basic behavioral scientists, dating back to Thorndike (1911), and formalized by Skinner (1938), have found that people are highly responsive to reinforcement and the perceived consequences of their behavior. More recent studies of human decision making have added that people are particularly influenced by outcomes that are immediate rather than delayed, the latter depreciating over time in their subjective value (Rachlin, 2000). The second core principle concerns the cognitive psychology of pragmatic implication. Over the years, researchers have found that when people read text or hear speech, they tend to process information "between the lines" and recall not what was stated per se, but what was *pragmatically implied.* Hence, people who read that "The burglar goes to the house" often mistakenly recall later that the burglar actually broke into the house; those who hear that "The flimsy shelf weakened under the weight of the books" often mistakenly recall that the shelf actually broke (Chan & McDermott, 2006; Harris & Monaco, 1978; Hilton, 1995). These findings indicate that pragmatic inferences can change the meaning of a communication, leading listeners to infer something that is "neither explicitly stated nor necessarily implied" (Brewer, 1977).

Taken together, basic research showing that people are highly influenced by perceived reinforcements and that people process the pragmatic implications of a communication suggests the possibility that suspects infer leniency in treatment from minimizing remarks that depict the crime as spontaneous, accidental, pressured by others, or otherwise excusable—even in the absence of an explicit promise. To test this hypothesis, Kassin and McNall (1991) had subjects read a transcript of an interrogation of a murder suspect (the text was taken from an actual New York City interrogation). The transcripts were edited to produce three versions in which the detective made a contingent explicit promise of leniency, used the technique of minimization by blaming the victim, or did not use either technique. Subjects read one version and then estimated the sentence that they thought would be imposed on the suspect. The result: As if explicit promises had been made, minimization lowered sentencing expectations compared to conditions in which no technique was used.

More recently, researchers have found that minimization can also lead innocent people to confess. Using the computer crash paradigm described earlier, Klaver, Lee, and Rose (2008) found that minimization remarks significantly increased the false confession rate when the accusation concerning the forbidden key press was plausible. Russano, Meissner, Kassin, and Narchet (2005) devised a newer laboratory paradigm to not only assess the behavioral effects of minimization but to assess the diagnosticity of the resulting confession (a technique has "diagnosticity" to the extent that it increases the ratio of true to false confessions). In their study, subjects were paired with a confederate for a problem-solving study and instructed to work alone on some problems and jointly on others. In the *guilty* condition, the confederate sought help on a problem that was supposed to be solved alone, inducing a violation of the experimental prohibition. In the *innocent* condition, the confederate did not make this request to induce the crime. The experimenter soon "discovered" a similarity in their solutions, separated the subject and confederate, and accused the subject of cheating. The experimenter tried to get the subject to sign an admission by overtly promising leniency (a deal in which research credit would be given in exchange for a return session without penalty), making minimizing remarks ("I'm sure you didn't realize what a big deal it was"), using both tactics, or using no tactics. Overall, the confession rate was higher among guilty subjects than innocent, when leniency was promised than when it was not, and when minimization was used than when it was not. Importantly, diagnosticity—defined as the rate of true confessions to false confessions—was highest at 7.67 when no tactics were used (46% of guilty suspects confessed vs. only 6% of innocents) and minimization—just like an explicit offer of leniency—reduced diagnosticity to 4.50 by increasing not only the rate of true confessions (from 46 to 81%) but even more so the rate of false confessions (which tripled from 6 to 18%). In short,

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minimization provides police with a loophole in the rules of evidence by serving as the implicit but functional equivalent to a promise of leniency (which itself renders a confession inadmissible). The net result is to put innocents at risk to make false confessions.

It is important to note that minimization and the risk it engenders is not a mere laboratory phenomenon. Analyzing more than 125 electronically recorded interrogations and transcripts, Ofshe and Leo (1997a, 1997b) found that police often use techniques that serve to communicate promises and threats through pragmatic implication. These investigators focused specifically on what they called *high-end inducements*—appeals that communicate to a suspect that he or she will receive less punishment, a lower prison sentence, or some form of prosecutorial or judicial leniency upon confession and/or a higher charge or longer prison sentence in the absence of confession. In some homicide cases, for example, interrogators suggested that if the suspect admits to the killing it would be framed as unintentional, as an accident, or as an act of justifiable self-defense—not as premeditated cold-blooded murder, the portrayal that would follow from continued denial. This is a variant of the "maximization"/"minimization" technique described by Kassin and McNall (1991), which communicates through pragmatic implication that the suspect will receive more lenient treatment if he or she confesses but harsher punishment if he or she does not.

Dispositional Risk Factors

In any discussion of dispositional risk factors for false confession, the two most commonly cited concerns are a suspect's age (i.e., juvenile status) and mental impairment (i.e., mental illness, mental retardation). These common citations are because of the staggering overrepresentation of these groups in the population of proven false confessions. For example, of the first 200 DNA exonerations in the U.S., 35% of the false confessors were 18 years or younger and/or had a developmental disability. In their sample of wrongful convictions, Gross, Jacoby, Matheson, Montgomery, and Patel (2005) found that 44% of the exonerated juveniles and 69% of exonerated persons with mental disabilities were wrongly convicted because of false confessions.

Adolescence and Immaturity

There is strong evidence that juveniles are at risk for involuntary and false confessions in the interrogation room (for reviews see Drizin & Colgan, 2004; Owens-Kostelnik, Reppucci, & Meyer, 2006; Redlich, 2007; Redlich & Drizin, 2007; Redlich, Silverman, Chen, & Steiner, 2004). Juveniles are over represented in the pool of identified false confession cases: 35% of the proven false confessors in the Drizin and Leo (2004) sample were younger than age 18, and within this sample of juveniles, 55% were aged 15 or younger. Comparatively, of all persons arrested for murder and rape, only 8 and 16%, respectively, are juveniles (Snyder, 2006). Numerous high-profile cases, such as the Central Park Jogger case (Kassin, 2002), have demonstrated the risks of combining young age, and the attributes that are associated with it (e.g., suggestibility, heightened obedience to authority, and immature decision-making abilities), and the psychologically oriented interrogation tactics described earlier. Hence, Inbau et al. (2001) concede that minors are at special risk for false confession and advise caution when interrogating a juvenile. Referring to the presentation of fictitious evidence, for example, they note: "This technique should be avoided when interrogating a youthful suspect with low social maturity" (p. 429).

The field of developmental psychology was born over a century ago in the influential writings of James Baldwin, Charles Darwin, G. Stanley Hall, and William Stern (see Parke, Ornstein, Rieser, & Zahn-Waxler, 1994). Since that time, basic research has shown that children and adolescents are cognitively and psychosocially less mature than adults—and that this immaturity manifests in impulsive decision making, decreased ability to consider long-term consequences, engagement in risky behaviors, and increased susceptibility to negative influences. Specifically, this body of research indicates that early adolescence marks the onset of puberty, heightening emotional arousability, sensation seeking, and reward orientation; that mid-adolescence is a period of increased vulnerability to risk-taking and problems in affect and behavior; and that late adolescence is a period in which the frontal lobes continue to mature, facilitating regulatory competence and executive functioning (for reviews, see Steinberg, 2005; Steinberg & Morris, 2001). Recent neurological research on brain development dovetails with findings from behavioral studies. Specifically, these studies have shown continued maturation during adolescence in the limbic system (emotion regulation) and in the prefrontal cortex (planning and self-control), with gray matter thinning and white matter increasing (Steinberg, 2007).

The developmental capabilities and limitations of adolescents are highly relevant to behavior in the interrogation room. In *Roper v. Simmons* (2005), Justice Kennedy cited three general differences between juveniles and adults in support of the Court's reasoning for abolishing the death penalty for juveniles. First, he addressed the lessened maturity and responsibility of juveniles compared to adults with specific mention to the 18-year bright-line requirements for marriage without parental consent, jury duty, and voting. Second, Justice Kennedy noted that "juveniles are

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more vulnerable or susceptible to negative influences and outside pressures, including peer pressure" (p. 15). Consistent with this portrait, Drizin and Leo (2004) found in their sample of false confessions that several involved two or more juveniles (out of 38 multiple false confession cases, half involved juveniles). In recommending that police "play one [suspect] against the other," Inbau et al. (2001) note that this tactic may be especially effective on young, first-time offenders (pp. 292–293). Third, Justice Kennedy recognized that juveniles' personality or "character" is not as well developed as adults. In light of the volatility of adolescence, it is interesting that Inbau et al. (2001) also suggest "themes" for confession that exploit a juvenile's restless energy, boredom, low resistance to temptation, and lack of supervision.

Drawing on basic principles of developmental psychology, there is now a wealth of forensically oriented research indicating that juveniles—suspects, defendants, and witnesses—have age-related limitations of relevance to the legal system in comparison to adults. For example, individuals younger than 16 years generally have impairments in adjudicative competence (e.g., the ability to help in one's own defense) and comprehension of legal terms (Grisso et al., 2003; Saywitz, Nathanson, & Snyder, 1993). In a subset of studies particularly germane to interrogations, several researchers employing a range of methodologies have shown that the risk of false confession is heightened during childhood and adolescence relative to adulthood. Of particular note, as described earlier, juveniles are more likely than adults to exhibit deficits in their understanding and appreciation of the *Miranda* rights that were explicitly put into place to protect people subject to "inherently coercive" interrogations (see Grisso, 1981; Redlich et al., 2003).

In the first set of studies, laboratory-based experiments have examined juveniles' responses in mock crimes and interrogations. Using the Kassin and Kiechel (1996) computer crash paradigm, Redlich and Goodman (2003) found that juveniles aged 12- and 13-years-old, and 15- and 16-years-old, were more likely to confess than young adults (aged 18–26 years), especially when confronted with false evidence of their culpability. In fact, a majority of the younger participants, in contrast to adults, complied with the request to sign a false confession without uttering a word. In another laboratory experiment, researchers examined the effect of positive and negative reinforcement on children aged 5 through 8 years (Billings et al., 2007). Reinforcement strongly affected children's likelihood of making false statements: Of those in the reinforcement condition, 52% made false admissions of guilty knowledge and 30% made false admissions of having witnessed the crime (within a span of 3.5 minutes!). In contrast, of children in the control condition, only 36 and 10% made false guilty knowledge and admissions, respectively. These findings mirror the vast majority of studies on the interview-relevant abilities of child-victim/witnesses (e.g., Garven, Wood, & Malpass, 2000).

In a second set of studies, youths have made decisions in response to hypothetical scenarios. Goldstein et al. (2003) investigated male juvenile offenders' self-reported likelihood of providing false confessions across different interrogation situations and found that younger age significantly predicted false confessions (25% surmised that they would definitely confess despite innocence to at least one of the situations). Similarly, Grisso et al. (2003) examined juveniles' and young adults' responses to a hypothetical mock-interrogation situation—specifically, whether they would confess to police, remain silent, or deny the offense. Compared to individuals aged 16 and older, those between 11 and 15 were significantly more likely to report that they would confess.

In a third set of studies, juveniles have been asked to self-report on actual interrogation experiences. In a sample of 114 justice-involved juveniles, Viljoen, Klaver, and Roesch (2005) found that suspects who were 15-years old and younger, compared to those who were 16- and 17-years old, were significantly more likely to waive their right to counsel and to confess. Overall, only 11 (less than 10%) said they had asked for an attorney during police questioning (see also Redlich et al., 2004) and 9 (6%) said they had at some point falsely confessed. A survey of over 10,000 Icelandic students aged 16–24 years similarly revealed that of those with interrogation experiences, 7% claimed to have falsely confessed, with the rates being higher among those with more than one interrogation experience (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006). In a massive and more recent effort, more than 23,000 juveniles from grades 8, 9, and 10 (average age of 15.5 years) were surveyed from seven countries—Iceland, Norway, Finland, Latvia, Lithuania, Russia, and Bulgaria. Overall, 11.5% (2,726) reported having been interrogated by police. Within this group, 14% reported having given a false confession (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, in press).

Cognitive and Intellectual Disabilities

Much of what is true of juveniles is similarly true for persons with intellectual disabilities—another group that is over-represented in false confession cases (see Gudjonsson, 2003; Gudjonsson & MacKeith, 1994). Hence, in *Atkins v. Virginia* (2002), the U.S. Supreme Court explicitly cited the possibility of false confession as a rationale underlying their decision to exclude this group categorically from capital punishment. The case of Earl Washington is illustrative of the problem. Reported to have an IQ ranging

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from 57 to 69 and interrogated over the course of 2 days, Washington "confessed" to five crimes, one being the rape and murder of a woman (charges resulting from the other four confessions were dismissed because of inconsistencies). Although he could not provide even basic details (e.g., that the victim was raped or her race) and although much of his statement was inconsistent with the evidence, Washington—who was easily led by suggestive questions and deferred to authority figures—was convicted, sentenced to death, and incarcerated for 18 years before being exonerated (Hourihan, 1995).

Mental retardation represents a constellation of symptoms, disorders, and adaptive functioning. The condition is defined by an IQ score of 70 or below and a range of impairments, such as adapting to societal norms, communication, social and interpersonal skills, and self-direction (American Psychiatric Association, 1994). In training police recruits, Perske (2004) identifies from research a number of tendencies exhibited by people who are mentally retarded. Collectively suggesting a heightened susceptibility to influence, the list includes the tendencies to rely on authority figures for solutions to everyday problems; please persons in authority; seek out friends; feign competence; exhibit a short attention span; experience memory gaps; lack impulse control; and accept blame for negative outcomes.

Some researchers have provided evidence for the diminished capacity of persons with cognitive disabilities in studies pertaining to interrogation (Fulero & Everington, 2004). Across four studies of *Miranda* comprehension, findings are quite consistent in showing that persons with mental retardation have significant deficits in their understanding and appreciation of *Miranda* warnings (Cloud, Shepard, Barkoff, & Shur, 2002; Everington & Fulero, 1999; Fulero & Everington, 1995; O'Connell, Garmoe, & Goldstein, 2005). For example, O'Connell et al. (2005) found that 50% of people with mild mental retardation in their sample could not correctly paraphrase *any* of the five *Miranda* components (see also Everington & Fulero, 1999). In comparison, less than 1% of adults in the general population score similarly low (Grisso, 1996). Moreover, research on the capacity of persons with mental retardation to learn and retain the knowledge and skills necessary to be competent suspects and defendants demonstrates that a significant number cannot meet this threshold, even with education (Anderson & Hewitt, 2002).

Everington and Fulero (1999) also examined the suggestibility of persons with mental retardation. Using the Gudjonsson Suggestibility Scale (GSS; a measure of interrogative suggestibility), they found that people with mental retardation were more likely to yield to leading questions and change their answers in response to mild negative feedback (see also O'Connell et al., 2005). Gudjonsson (1991) examined GSS scores among three groups: alleged false confessors, alleged true confessors, and suspects who resisted confession during questioning. He found the alleged false confessors to have the lowest IQ scores as well as the highest suggestibility scores compared to the other two groups (Gudjonsson & Clare, 1995). Finally, Clare and Gudjonsson (1995) examined perceptions of a videotaped suspect who provides a true and false confession during an interrogation and found that 38% of perceivers with intellectual disabilities, compared to only 5% of those without intellectual disabilities, believed the suspect would be allowed to go home while awaiting trial. Additionally, only 52% believed that the suspect should obtain legal advice if innocent, compared to 90% of others.

Personality and Psychopathology

In terms of susceptibility to false confession, it is important to consider other individual factors of relevance to a person's decision to confess. Gudjonsson (2003) discusses a number of personal risk factors, including enduring personality traits (e.g., suggestibility, compliance) as well as psychopathology and personality disorders—categories within the DSM-IV Axis I and II diagnostic framework that are relevant to false confessions.

A number of large-scale studies of false confessions, carried out in Iceland, show the importance of antisocial personality traits and history of offending both among prison inmates (Sigurdsson & Gudjonsson, 2001) and community samples (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006, 2007; Gudjonsson, Sigurdsson, Bragason, et al., 2004; Gudjonsson et al., 2004). There have also been cases in which the personality disorder was considered crucial to understanding the false confession (Gudjonsson, 2006; Gudjonsson & Grisso, 2008). One interpretation of this finding is that persons with antisocial personality disorder, or antisocial traits, are more likely to be involved in offending, more often interviewed by police, and prone to lie for short-term instrumental gain, and are less concerned about the consequences of their behavior. This increases their tendency to make false denials as well as false confessions depending on their need at the time.

Psychopathology seems to be linked to false confessions in that persons with mental illness are over-represented in these cases. Psychological disorder is often accompanied by faulty reality monitoring, distorted perception, impaired judgment, anxiety, mood disturbance, poor self-control, and feelings of guilt. Gudjonsson (2003) provided a number of examples of cases where false confessions were directly related to specific disorders. Following the release of the Birmingham Six in 1991, research conducted for the British Royal Commission on Criminal Justice found that about 7% of suspects detained at police stations had a

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history of mental illness and that many more were in an abnormal mental state due to anxiety and mood disturbance (Gudjonsson, Clare, Rutter, & Pearse, 1993). Similar findings were found in a recent study among suspects at Icelandic police stations (Sigurdsson, Gudjonsson, Einarsson, & Gudjonsson, 2006). In the U.S., research has consistently shown that rates of serious mental illness in the criminal justice system are at least two to five times higher than rates in the general population (e.g., James & Glaze, 2006; Lamb & Weinberger, 1998). To further compound the problem, the majority (75–80%) of offenders with mental illness have co-occurring substance abuse or dependence disorders (Abram, Teplin, & McClelland, 2003), which is an additional risk factor for false confessions (see Sigurdsson & Gudjonsson, 2001).

There is currently little research available to show how different disorders (e.g., anxiety, depression, and schizophrenia) potentially impair the suspect's capacity to waive legal rights and navigate his or her way through a police interview (Redlich, 2004). However, there is recent evidence from two separate studies to suggest that depressed mood is linked to a susceptibility to provide false confession to police (Gudjonsson et al., 2006; Sigurdsson et al., 2006). Gudjonsson et al. (2007) also recently found that multiple exposures to unpleasant or traumatic life events were significantly associated with self-reported false confessions during interrogation. Rogers et al. (2007a) found that most mentally disordered offenders exhibited insufficient understanding of *Miranda*, particularly when the warnings required increased levels of reading comprehension. Finally, Redlich (2007) found that offenders with mental illness self-reported a 22% lifetime false confession rate—notably higher than the 12% found in samples of prison inmates without mental illness (Sigurdsson & Gudjonsson, 1996).

An important type of psychopathology in relation to false confessions is attention deficit hyperactivity disorder (ADHD), which consists of three primary symptoms: inattention, hyperactivity, and impulsivity (American Psychiatric Association, 1994). This condition is commonly found among offenders (Young, 2007). Moreover, research shows that people with ADHD cope during questioning by answering a disproportionate number of questions with "don't know" replies—which may lead police to be suspicious of their answers (Gudjonsson, Young, & Bramham, 2007). They may also exhibit high levels of compliance. Gudjonsson et al. (2008) found that the rate of self-reported false confessions was significantly higher among prisoners who were currently symptomatic for attention deficit hyperactivity disorder (ADHD) than among the other prisoners (41 and 18%, respectively). These findings highlight the potential vulnerability during questioning of people who are currently symptomatic for ADHD.

Protections for Vulnerable Suspects in England

When the police interview mentally disordered persons and juveniles in England and Wales, there are special legal provisions available to ensure that their statements to police are reliable and properly obtained—for example, in the presence of "appropriate adults." The current legal provisions are detailed in the Codes of Practice (Home Office, 2003). Even when the police adhere to all the legal provisions, a judge may consider it unsafe and unfair to allow the statement to go before the jury. Here the crucial issue may be whether or not the defendant was "mentally fit" when interviewed. The term "fitness for interview" was first introduced formally in the current Codes of Practice, which became effective in 2003.

Fitness for interview is closely linked to the concept of "legal competencies," which refers to an individual's physical, mental, and social vulnerabilities that may adversely affect his or her capacity to cope with the investigative and judicial process (Grisso, 1986). Historically, legal competence constructs relating to confession evidence have focused primarily on the functional deficits of juveniles (Drizin & Colgan, 2004), and adult defendants with mental retardation (Fulero & Everington, 2004) and mental illnesses (Melton, Petrila, Poythress, & Slobogin, 1997). Increasingly, the construct of legal competence in criminal cases is also being applied to defendants with "personality disorder" (Gudjonsson & Grisso, 2008). The introduction of "fitness to be interviewed" within the current Codes of Practice in England and Wales is a significant step toward protecting vulnerable suspect populations (Gudjonsson, 2005). Indeed, a similar framework has been introduced in New Zealand and Australia (Gall & Freckelton, 1999).

Innocence as a Risk Factor

On September 20, 2006, Jeffrey Mark Deskovic was released from a maximum-security prison in New York, where he spent 15 years for a murder he said he committed but did not. Why did he confess? "Believing in the criminal justice system and being fearful for myself, I told them what they wanted to hear," Deskovic said. Certain that DNA testing on the semen would establish his innocence, he added: "I thought it was all going to be okay in the end" (Santos, 2006, p. A1).

On the basis of anecdotal and research evidence, Kassin (2005) suggested the ironic hypothesis that *innocence* itself may put *innocents* at risk. Specifically, it appears that people who stand falsely accused tend to believe that truth and justice will prevail and that their innocence will become transparent to investigators, juries, and others. As a result, they cooperate fully with police, often failing to

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realize that they are suspects not witnesses, by waiving their rights to silence and a lawyer and speaking freely to defend themselves. Thus, although mock criminals vary their disclosures according to whether the interrogator seems informed about the evidence, innocents are uniformly forthcoming—regardless of how informed the interrogator seems (Hartwig, Granhag, Strömwall, & Kronkvist, 2006; Hartwig, Granhag, Strömwall, & Vrij, 2005).

Based on observations of live and videotaped interrogations, Leo (1996b) found that four out of five suspects waive their rights and submit to questioning—and that people who have no prior record of crime are the most likely to do so. In light of known recidivism rates, this result suggested that innocent people in particular are at risk to waive their rights. Kassin and Norwick (2004) tested this hypothesis in a controlled laboratory setting in which some subjects but not others committed a mock theft of $100. Upon questioning, subjects who were innocent were more likely to sign a waiver than those who were guilty, 81 to 36%. Afterward, most innocent subjects said that they waived their rights precisely because they were innocent: "I did nothing wrong," "I had nothing to hide." The feeling of reassurance that accompanies innocence may be rooted in a generalized and perhaps motivated belief in a just world in which human beings get what they deserve and deserve what they get (Lerner, 1980). It may also stem from the "illusion of transparency," a tendency for people to overestimate the extent to which their true thoughts, emotions, and other inner states can be seen by others (Gilovich, Savitsky, & Medvec, 1998; Miller & McFarland, 1987). Whatever the mechanism, it is clear that *Miranda* warnings may not adequately protect the citizens who need it most—those accused of crimes they did not commit (Kassin, 2005).

These findings suggest that people have a naïve faith in the power of innocence to set them free. This phenomenology was evident in the classic case of Peter Reilly, an 18-year-old who falsely confessed to the murder of his mother. When asked years later why he did not invoke his *Miranda* rights, Reilly said, "My state of mind was that I hadn't done anything wrong and I felt that only a criminal really needed an attorney, and this was all going to come out in the wash" (Connery, 1996, p. 93). Innocence may lead innocents to forego other important safeguards as well. Consider the case of Kirk Bloodsworth, the first death row inmate to be exonerated by DNA. In 1985, based solely on eyewitness identifications, Bloodsworth was convicted for the rape and murder of a 9-year-old girl. He was exonerated by DNA 8 years later and ultimately vindicated when the true perpetrator was identified. The day of his arrest, Bloodsworth was warned that there would be cameras present and asked if he wanted to cover his head with a blanket. He refused, saying he did nothing wrong and was not going to hide—even though potential witnesses might see him on TV (Junkin, 2004).

THE CONSEQUENCES OF CONFESSION

It is inevitable that some number of innocent people will be targeted for suspicion and subjected to excessively persuasive interrogation tactics, and many of them will naively and in opposition to their own self-interest waive their rights and confess. One might argue that this unfortunate chain of events is tolerable, not tragic, to the extent that the resulting false confessions are detected by authorities at some point and corrected. Essential to this presumed safety net is the belief that police, prosecutors, judges, and juries are capable of distinguishing true and false confessions.

The process begins with the police. Numerous false confession cases reveal that once a suspect confesses, police often close their investigation, deem the case solved, and overlook exculpatory evidence or other possible leads–even if the confession is internally inconsistent, contradicted by external evidence, or the product of coercive interrogation (Drizin & Leo, 2004; Leo & Ofshe, 1998). This trust in confessions may extend to prosecutors as well, many of whom express skepticism about police-induced false confessions, stubbornly refusing to admit to such an occurrence even after DNA evidence has unequivocally established the defendant's innocence (Findley & Scott, 2006; Hirsch, 2005b; Kassin & Gudjonsson, 2004). Upon confession, prosecutors tend to charge suspects with the highest number and types of offenses, set bail higher, and are far less likely to initiate or accept a plea bargain to a reduced charge (Drizin & Leo, 2004; Leo & Ofshe, 1998; but see Redlich, in press).

Part of the problem is that confessions can taint other evidence. In one case, for example, Pennsylvania defendant Barry Laughman confessed to rape and murder, which was later contradicted by blood typing evidence. Clearly influenced by the confession, the state forensic chemist went on to concoct four "theories," none grounded in science, to explain away the mismatch. Sixteen years later, Laughman was set free (http://www.innocenceproject.org). Recent empirical studies have demonstrated the problem as well. In one study, Dror and Charlton (2006) presented five latent fingerprint experts with pairs of prints from a crime scene and suspect in an actual case in which they had previously made a match or exclusion judgment. The prints were accompanied either by no extraneous information, an instruction that the suspect had confessed (suggesting a match), or an instruction that the suspect was in custody at the time (suggesting an exclusion). The misinformation

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produced a change in 17% of the original, previously correct judgments. In a second study, Hasel and Kassin (2009) staged a theft and took photographic identification decisions from a large number of eyewitnesses who were present. One week later, individual witnesses were told that the person they had identified denied guilt, or that he confessed, or that a specific other lineup member confessed. Influenced by this information, many witnesses went on to change their identification decisions, selecting the confessor with confidence, when given the opportunity to do so.

Not surprisingly, confessions are particularly potent in the courtroom. When a suspect in the U.S. retracts his or her confession, pleads not guilty, and goes to trial, a sequence of two decisions is set into motion. First, a judge determines whether the confession was voluntary and hence admissible as evidence. Then a jury, hearing the admissible confession, determines whether the defendant is guilty beyond a reasonable doubt. But can people distinguish between true and false confessions? And what effect does this evidence have within the context of a trial?

Research on the impact of confessions throughout the criminal justice system is unequivocal. Mock jury studies have shown that confessions have more impact than other potent forms of evidence (Kassin & Neumann, 1997) and that people do not fully discount confessions—even when they are judged to be coerced (Kassin & Wrightsman, 1980) and even when the confessions are presented secondhand by an informant who is motivated to lie (Neuschatz, Lawson, Swanner, Meissner, & Neuschatz, 2008). For example, Kassin and Sukel (1997) presented mock jurors with one of three versions of a murder trial transcript. In a low-pressure version, the defendant was said to have confessed to police immediately upon questioning. In a high-pressure version, participants read that the suspect was in pain and interrogated aggressively by a detective who waved his gun in a menacing manner. A control version contained no confession in evidence. Presented with the high-pressure confession, participants appeared to respond in the legally prescribed manner. They judged the statement to be involuntary and said it did not influence their decisions. Yet when it came to the all-important verdict measure, this confession significantly increased the conviction rate. This increase occurred even in a condition in which subjects were specifically admonished to disregard confessions they found to be coerced. Similar results have recently been reported in mock jury studies involving defendants who are minors (Redlich, Ghetti, & Quas, 2008; Redlich, Quas, & Ghetti, 2008).

This point concerning the power of confession evidence is bolstered by recent survey evidence indicating that although laypeople understand that certain interrogation tactics are psychologically coercive, they do not believe that these tactics elicit false confessions (Leo & Liu, 2009). Archival analyses of actual cases also reinforce this point. When proven false confessors pleaded not guilty and proceeded to trial, the jury conviction rates ranged from 73% (Leo & Ofshe, 1998) to 81% (Drizin & Leo, 2004). These figures led Drizin and Leo to describe confessions as "inherently prejudicial and highly damaging to a defendant, even if it is the product of coercive interrogation, even if it is supported by no other evidence, and even if it is ultimately proven false beyond any reasonable doubt" (p. 959).

There are at least three reasons why people cannot easily identify as false the confessions of innocent suspects. First, generalized common sense leads people to trust confessions the way they trust other behaviors that counter self-interest. Over the years, and across a wide range of contexts, social psychologists have found that social perceivers fall prey to the fundamental attribution error—that is, they tend to make dispositional attributions for a person's actions, taking behavior at face value, while neglecting the role of situational factors (Jones, 1990; Ross, 1977). Gilbert and Malone (1995) offered several explanations for this bias, the most compelling of which is that people draw quick and relatively automatic dispositional inferences from behavior and then fail to adjust or correct for the presence of situational constraints. Common sense further compels the belief that people present themselves in ways that are self-serving and that confessions must therefore be particularly diagnostic of guilt. Indeed, most people reasonably believe that they would never confess to a crime they did not commit and have only rudimentary understanding of the predispositional and situational factors that would lead someone to do so (Henkel, Coffman, & Dailey, 2008).

A second reason is that people are typically not adept at deception detection. We saw earlier that neither lay people nor professionals distinguish truths from lies at high levels of accuracy. This problem extends to judgments of true and false confessions. To demonstrate, Kassin, Meissner, and Norwick (2005) videotaped male prison inmates providing true confessions to the crimes for which they were incarcerated and concocting false confessions to crimes selected by the experimenter that they did not commit. When college students and police investigators later judged these statements from videotapes or audiotapes, the results showed that neither group was particularly adept, exhibiting accuracy rates that ranged from 42 to 64%—typically not much better than chance performance. These findings suggest people cannot readily distinguish true and false confessions and that law enforcement experience does not improve performance. This latter result is not surprising, as many of the behavioral cues that typically form part of the basis for training (e.g., gaze aversion, postural cues, and

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grooming gestures) are not statistically correlated with truth-telling or deception (DePaulo et al., 2003).

On the assumption that "I'd know a false confession if I saw one," there is a third reason for concern: Police-induced false confessions often contain *content* cues presumed to be associated with truthfulness. In many documented false confessions, the statements ultimately presented in court contained not only an admission of guilt but vivid details about the crime, the scene, and the victim that became known to the innocent suspect through leading questions, photographs, visits to the crime scene, and other secondhand sources invisible to the naïve observer. To further complicate matters, many false confessors state not just what they allegedly did, and how they did it, but *why*—as they self-report on revenge, jealousy, provocation, financial desperation, peer pressure, and other prototypical motives for crime. Some of these statements even contain apologies and expressions of remorse. To the naïve spectator, such statements appear to be voluntary, textured with detail, and the product of personal experience. Uninformed, however, this spectator mistakes illusion for reality, not realizing that the taped confession is scripted by the police theory of the case, rehearsed during hours of unrecorded questioning, directed by the questioner, and ultimately enacted on paper, tape, or camera by the suspect (see Kassin, 2006).

RECOMMENDATIONS FOR REFORM

Confession is a potent form of evidence that triggers a chain of events from arrest, prosecution, and conviction, through post-conviction resistance to change in the face of exculpatory information. Recent DNA exonerations have shed light on the problem that innocent people, confident in the power of their innocence to prevail, sometimes confess to crimes they did not commit. Research has identified two sets of risks factors. The first pertains to the circumstances of interrogation, situational factors such as a lengthy custody and isolation, possibly accompanied by a deprivation of sleep and other need states; presentations of false evidence, a form of trickery that is designed to link the suspect to the crime and lead him or her to feel trapped by the evidence; and minimization tactics that lead the suspect and others to infer leniency even in the absence of an explicit promise. The second set of risk factors pertains to dispositional characteristics that render certain suspects highly vulnerable to influence and false confessions—namely, adolescence and immaturity; cognitive and intellectual impairments; and personality characteristics and mental illness.

In light of the wrongful convictions involving false confessions that have recently surfaced, as well as advances in psychological research on interviewing, interrogations, and confessions, there are renewed calls for caution regarding confessions and the reform of interrogation practices not seen since the Wickersham Commission Report (1931) and U.S. Supreme Court opinion in *Miranda* (1966). Professionals from varying perspectives may differ in their perceptions of both the problems and the proposed solutions. Hence, it is our hope that the recommendations to follow will inspire a true collaborative effort among law enforcement professionals, district attorneys, defense lawyers, judges, social scientists, and policy makers to scrutinize the systemic factors that put innocent people at risk and devise effective safeguards.

Electronic Recording of Interrogations

Without equivocation, our most essential recommendation is to lift the veil of secrecy from the interrogation process in favor of the principle of transparency. Specifically, *all custodial interviews and interrogations of felony suspects should be videotaped in their entirety and with a camera angle that focuses equally on the suspect and interrogator.* Stated as a matter of requirement, such a policy evokes strong resistance in some pockets of the law enforcement community. Yet it has also drawn advocates from a wide and diverse range of professional, ideological, and political perspectives (e.g., American Bar Association, 2004; Boetig, Vinson, & Weidel, 2006; Cassell, 1996a; Drizin & Colgan, 2001; Geller, 1994; Gudjonsson, 2003; Leo, 1996c; Slobogin, 2003; Sullivan, 2004; The Justice Project, 2007).

In England, under the Police and Criminal Evidence Act of 1984, the mandatory requirement for tape-recording police interviews was introduced to safeguard the legal rights of suspects and the integrity of the process. At first resisted by police, this requirement has positively transformed the ways in which police interviews are conducted and evaluated. Over the years, the need for taping has pressed for action within the U.S. as well. In *Convicting the Innocent*, a classic study of wrongful convictions, Edwin Borchard (1932) expressed concern that police abuses during interrogations led to involuntary and unreliable confessions. His solution, utilizing the technology of the time, was to make "[phonographic records" [of interrogations] which shall alone be introducible in court" (pp. 370–371).

Throughout the twentieth century, other advocates for recording were less concerned with preventing false confessions and more concerned with increasing the accuracy of the justice system by eliminating the swearing contests between police officers and suspects over what occurred during the interrogation (Kamisar, 1977; Weisberg, 1961). Still others saw that recording interrogations held

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tremendous benefits for law enforcement by discouraging note-taking and other practices that could inhibit suspects, helping police officers obtain voluntary confessions, nabbing accomplices, and protecting officers from false allegations of abuse (Geller, 1993; O'Hara, 1956). Despite these calls for recording, by the turn of the twentieth century only two states, by virtue of state Supreme Court decisions—Alaska (*Stephan v. State*, 1985) and Minnesota (*State v. Scales*, 1994)—required law enforcement officers to electronically record suspect interrogations. The pace of reform in this area, however, is picking up and once again a concern about false confessions seems to be the impetus. In the post-DNA age, and particularly in the past 5 years, as the number of wrongful convictions based on false confessions has continued to climb, concerns about the reliability of confession evidence have led to a renewed push for recording requirements (Drizin & Reich, 2004). As a result of statutes and court rulings, seven additional jurisdictions—Illinois, Maine, New Mexico, New Jersey, Wisconsin, North Carolina, and the District of Columbia—have joined Minnesota and Alaska, in requiring recordings of custodial interrogations in some circumstances (Robertson, 2007; Sullivan, 2004). In several other states, supreme courts have stopped short of requiring recording but either have issued strongly worded opinions endorsing recording—e.g., New Hampshire (*State v. Barnett*, 2002) and Iowa (*State v. Hajtic*, 2007)—or, in the case of Massachusetts, held that where law enforcement officers have no excuse for the failure to record interrogation, defendants are entitled to a strongly worded instruction admonishing jurors to treat unrecorded confessions with caution (*Commonwealth v. DiGiambattista*, 2004).

In addition to recent developments in state courts and legislatures, there is a growing movement among law enforcement agencies around the country to record interrogations voluntarily. Over the past 70 years, the idea has been anathema to many in law enforcement—including the FBI, which prohibits electronic recording, and John Reid & Associates, which used to vigorously oppose the practice of recording interrogations (Inbau et al., 2001; but see Buckley & Jayne's [2005] recent publication, *Electronic Recording of Interrogations*; for an historical review, see Drizin & Reich, 2004). Yet there are now signs that police opposition is thawing (e.g., Boetig et al., 2006). Several years ago, a National Institute of Justice study found that one-third of large police and sheriff's departments throughout the U.S. were already videotaping at least some interrogations or confessions and that their experiences with the practice were positive (Geller, 1993). A more recent survey of more than 465 law enforcement agencies in states that do not require electronic recording of interrogations has revealed that the practice is widespread. Without any legislative or judicial compulsion, police departments in many states routinely record interviews and interrogations in major felony investigations. Without exception, they have declared strong support for the practice (Sullivan, 2004; Sullivan, Vail, & Anderson, 2008).

There are numerous advantages to a videotaping policy. To begin, the presence of a camera may deter interrogators from using the most egregious, psychologically coercive tactics—and deter frivolous defense claims of coercion where none existed. Second, a videotaped record provides trial judges (ruling on voluntariness) and juries (determining guilt) an *objective* and *accurate* record of the process by which a statement was taken—a common source of dispute that results from ordinary forgetting and self-serving distortions in memory. In a study that demonstrates the problem, Lamb, Orbach, Sternberg, Hershkowitz, and Horowitz (2000) compared interviewers' verbatim contemporaneous accounts of 20 forensic interviews with alleged child sex abuse victims with tape recordings of these same sessions. Results showed that more than half of the interviewers' utterances and one quarter of the details that the children provided did not appear in their verbatim notes. Even more troubling was that interviewers made frequent and serious source attribution errors—for example, often citing the children, not their own prompting questions, as the source of details. This latter danger was inadvertently realized by D.C. Detective James Trainum (2007) who—in an article entitled "I took a false confession – so don't tell me it doesn't happen!"—recounted a case in which a suspect who had confessed to him was later exonerated: "Years later, during a review of the videotapes, we discovered our mistake. We had fallen into a classic trap. We believed so much in our suspect's guilt that we ignored all evidence to the contrary. To demonstrate the strength of our case, we showed the suspect our evidence, and unintentionally fed her details that she was able to parrot back to us at a later time. It was a classic false confession case and without the video we would never have known" (see also Trainum, 2008). Similarly, Police Commander Neil Nelson, of St. Paul, Minnesota, said that he too once elicited a false confession, which he came to doubt by reviewing the interrogation tape: "You realize maybe you gave too much detail as you tried to encourage him and he just regurgitated it back" (Wills, 2005; quoted online by Neil Nelson & Associates; http://www.neilnelson.com/pressroom.html).

To further complicate matters of recollection, police interrogations are not prototypical social interactions but, rather, extraordinarily stressful events for those who stand accused. In a study that illustrates the risk to accurate retrieval, Morgan et al. (2004) randomly assigned trainees in a military survival school to undergo a realistic high-stress or low-stress mock interrogation. Twenty-four hours later, he found that those in the high-stress condition had

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difficulty even identifying their interrogators in a lineup. In real criminal cases, questions constantly arise about whether rights were administered and waived, whether the suspect was cooperative or evasive, whether detectives physically intimidated the suspect, whether promises or threats were made or implied, and whether the details in a confession emanated from the police or suspect, are among the many issues that become resolvable (in Great Britain, as well, taping virtually eliminated the concern that police officers were attributing to suspects admissions that would later be disputed; see Roberts, 2007).

In recent years, Sullivan (2004, 2007) has tirelessly interviewed law enforcement officials from hundreds of police and sheriff's departments that have recorded custodial interrogations and found that they enthusiastically favored the practice. Among the collateral benefits they often cited were that recording permitted detectives to focus on the suspect rather than take copious notes, increased accountability, provided an instant replay of the suspect's statement that sometimes revealed incriminating comments that were initially overlooked, reduced the amount of time detectives spent in court defending their interrogation practices, and increased public trust in law enforcement. Countering the most common apprehensions, the respondents in these interview studies reported that videotaping interrogations did not prove costly or inhibit suspects from talking to police or incriminating themselves. Typical of this uniformly positive reaction, Detective Trainum (2007) notes: "When videotaping was first forced upon us by the D.C. City Council, we fought it tooth and nail. Now, in the words of a top commander, we would not do it any other way."

It is beyond the scope of this article to draft a model rule that would address such specific details as what conditions should activate a recording requirement, how the recordings should be preserved, whether exceptions to the rule should be made (e.g., if the equipment malfunctions, if the suspect refuses to make a recorded statement), and what consequences would follow from the failure to record (e.g., whether the suspect's statement would be excluded or admitted to the jury with a cautionary instruction). As a matter of policy, however, research does suggest that it is important not only that entire sessions be recorded, triggered by custodial detention, but that the camera adopt a neutral "equal focus" perspective that shows both the accused and his or her interrogators. In 20-plus years of research on illusory causation effects in attribution, Lassiter and his colleagues have taped mock interrogations from three different camera angles so that the suspect, the interrogator, or both were visible. Lay participants who saw only the suspect judged the situation as less coercive than those focused on the interrogator. By directing visual attention toward the accused, the camera can thus lead jurors to underestimate the amount of pressure actually exerted by the "hidden" detective (Lassiter & Irvine, 1986; Lassiter, Slaw, Briggs, & Scanlan, 1992). Additional studies have confirmed that people are more attuned to the situational factors that elicit confessions whenever the interrogator is on camera than when the focus is solely on the suspect (Lassiter & Geers, 2004; Lassiter, Geers, Munhall, Handley, & Beers, 2001). Under these more balanced circumstances, juries make more informed attributions of voluntariness and guilt when they see not only the final confession but the conditions under which it was elicited (Lassiter, Geers, Handley, Weiland, & Munhall, 2002). Indeed, even the perceptions of experienced trial judges are influenced by variations in camera perspective (Lassiter, Diamond, Schmidt, & Elek, 2007).

Reform of Interrogation Practices

In light of recent events, the time is ripe for police, district attorneys, defense lawyers, judges, researchers, and policymakers to evaluate current methods of interrogation. All parties would agree that the surgical objective of interrogation is to secure confessions from perpetrators but not from innocent suspects. Hence, the process of interrogation should be structured in theory and in practice to produce outcomes that are accurate, as measured by the observed ratio of true to false confessions. Yet except for physical brutality or deprivation, threats of harm or punishment, promises of leniency or immunity, and flagrant violations of a suspect's constitutional rights, there are no clear criteria by which to regulate the process. Instead, American courts historically have taken a "totality of the circumstances" approach to voluntariness and admissibility. Because *Miranda* does not adequately safeguard the innocent, we believe that the time is right to revisit the factors that comprise those circumstances.

As illustrated by the Reid technique and other similar approaches, the modern American police interrogation is, by definition, a guilt-presumptive and confrontational process—aspects of which put innocent people at risk. There are two ways to approach questions of reform. One is to completely reconceptualize this model at a macro level and propose that the process be converted from "confrontational" to "investigative." Several years ago, after a number of high-profile false confessions, the British moved in this direction, transitioning police from a classic interrogation to a process of "investigative interviewing." The Police and Criminal Evidence (PACE) Act of 1984 sought to reduce the use of psychologically manipulative tactics. In a post-PACE study, Irving and McKenzie (1989) found that the use of psychologically manipulative tactics had significantly declined—without a corresponding drop in the frequency of confessions. The post-PACE confession rate

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is also somewhat higher in the UK than in the U.S. (Gudjonsson, 2003). In 1993, the Royal Commission on Criminal Justice further reformed the practice of interrogation by proposing the PEACE model described earlier ("Preparation and Planning," "Engage and Explain," "Account," "Closure," and "Evaluate"), the purpose of which is fact finding rather than confession. Observational research suggests that such investigative interviews enable police to inculpate offenders—and youthful suspects as well (Hershkowitz, Horowitz, Lamb, Orbach, & Sternberg, 2004; Lamb, Orbach, Hershkowitz, Horowitz, & Abbott, 2007)—by obtaining from them useful, evidence-generating information about the crime (for reviews, see Bull & Soukara, 2009; Williamson, 2006).

Similar techniques have been taught and employed in the U.S. as well, where Nelson (2007) reports from experience that it is highly effective. Recent laboratory research has also proved promising in this regard. In one series of experiments, interviewers more effectively exposed deceptive mock criminals when they strategically withheld incriminating evidence than when they confronted the suspects with that evidence (Hartwig et al., 2005, 2006). In an experiment using the Russano et al. (2005) cheating paradigm described earlier, Rigoni and Meissner (2008) independently varied and compared accusatorial and inquisitorial methods and found that the latter produced more diagnostic outcomes—lowering the rate of false confessions without producing a corresponding decrease in the rate of true confessions. Although more systematic research is needed, it is clear that investigative interviewing offers a potentially effective macro alternative to the classic American interrogation. Indeed, New Zealand and Norway have recently adopted the PEACE approach to investigative interviewing as a matter of national policy.

A second approach to the question of reform is to address specific risk factors inherent within a confrontational framework for interrogation. On the basis of converging evidence from actual false confession cases, basic principles of psychology, and forensic research, the existing literature suggests that certain interrogation practices alone and in combination with each other pose a risk to the innocent—whether they are dispositionally vulnerable or not. Focused in this way, but stopping short of making specific recommendations, we propose that the following considerations serve as a starting point for collaborative discussion.

Custody and Interrogation Time

As noted earlier, the human needs for belonging, affiliation, and social support, especially in times of stress, are a fundamental human motive. Prolonged isolation from significant others thus constitutes a form of deprivation that can heighten a suspect's distress and increase his or her incentive to escape the situation. Excessive time in custody may also be accompanied by fatigue and feelings of helplessness and despair as well as the deprivation of sleep, food, and other biological needs. The vast majority of interrogations last from 30 minutes up to 2 hours (Baldwin, 1993; Irving, 1980; Kassin et al., 2007; Leo, 1996b; Wald et al., 1967). Inbau et al. (2001) cautioned against surpassing 4 hours, and Blair (2005) argued that interrogations exceeding 6 hours are "legally coercive." Yet research shows that in proven false confession cases the interrogations had lasted for an average of 16.3 hours (Drizin & Leo, 2004). Following PACE in Great Britain, policy discussions should begin with a proposal for the imposition of time limits, or at least flexible guidelines, when it comes to detention and interrogation, as well as periodic breaks from questioning for rest and meals. At a minimum, police departments should consider placing internal time limits on the process that can be exceeded—initially and at regular intervals thereafter, if needed—only with authorization from a supervisor of detectives.

Presentations of False Evidence

A second problem concerns the tactic of presenting false evidence, which is often depicted as incontrovertible, and which takes the form of outright lying to suspects—for example, about an eyewitness identification that was not actually made; an alibi who did not actually implicate the suspect; fingerprints, hair, or blood that was not actually found; or polygraph tests that they did not actually fail. In *Frazier v. Cupp* (1969), the U.S. Supreme Court reviewed a case in which police falsely told the defendant that his cousin (whom he said he was with), had confessed, which immediately prompted the defendant to confess. The Court sanctioned this type of deception—seeing it as relevant to its inquiry on voluntariness but not a reason to disqualify the resulting confession. Although some state courts have distinguished between mere false assertions, which are permissible, and the fabrication of reports, tapes, and other evidence, which are not, the Supreme Court has not revisited the issue.

From a convergence of three sources, there is strong support for the proposition that outright lies can put innocents at risk to confess by leading them to feel trapped by the inevitability of evidence against them. These three sources are: (1) the aggregation of actual false confession cases, many of which involved use of the false evidence ploy; (2) one hundred-plus years of basic psychology research, which proves without equivocation that misinformation can substantially alter people's visual perceptions, beliefs, motivations, emotions, attitudes, memories, self-assessments, and even certain physiological outcomes, as seen in

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studies of the placebo effect; and (3) numerous experiments, from different laboratories, demonstrating that presentations of false evidence increase the rate at which innocent research participants agree to confess to prohibited acts they did not commit. As noted earlier, scientific evidence for the malleability of people's perceptions, decisions, and behavior when confronted with misinformation is broad and pervasive. With regard to a specific variant of the problem, it is also worth noting that the National Research Council Committee to Review the Scientific Evidence on the Polygraph (2003) recently expressed concern over the risk of false confessions produced by telling suspects they had failed the polygraph (see also Lykken, 1998).

Over the years, legal scholars have debated the merits of trickery and deception in the interrogation room (e.g., Magid, 2001; Slobogin, 2007; Thomas, 2007) and some law enforcement professionals have argued that lying is sometimes a necessary evil, effective, and without risk to the innocent (Inbau et al., 2001). To this argument, two important points must be noted. First, direct observations and self-report surveys of American police suggest that the presentation of false evidence is a tactic that is occasionally used (e.g., Feld, 2006a, 2006b; Kassin et al., 2007; Leo, 1996b). Some interrogators no doubt rely on this ploy more than others do. Yet in a position paper on false confessions, the Wisconsin Criminal Justice Study Commission (2007) concluded that "Experienced interrogators appear to agree that false evidence ploys are relatively rare" (p. 6). Second, it is instructive that in Great Britain, where police have long been prohibited from deceiving suspects about the evidence, relying instead on the investigative interviewing tactics described earlier, there has been no evidence of a decline in confession rates (Clarke & Milne, 2001; Gudjonsson, 2003; Williamson, 2006).

In light of the demonstrated risks to the innocent, we believe that the false evidence ploy, which is designed to thrust suspects into a state of inevitability and despair, should be addressed. The strongest response would be an outright ban on the tactic, rendering all resulting confessions per se inadmissible—as they are if elicited by promises, threats, and physical violence (such a ban currently exists in England, Iceland, and Germany; suspects are differently protected in Spain and Italy, where defense counsel must be present for questioning). A second approach, representing a relatively weak response, would involve calling for no direct action, merely a change of attitude in light of scientific research that will lead the courts to weigh the false evidence ploy more heavily when judging voluntariness and reliability according to a "totality of the circumstances."

Representing a compromise between an outright ban and inaction, we urge police, prosecutors, and the courts, in light of past wrongful convictions and empirical research, to heighten their sensitivity to the risks that false evidence poses to the innocent suspect. One way to achieve this compromise would be to curtail some variants of the false evidence ploy but not others—or in the case of some suspects but not others. As noted earlier, some state courts have distinguished between mere false assertions and the fabrication of reports, tapes, photographs, and other evidence, the latter being impermissible. This particular distinction seems arbitrary. False evidence puts innocents at risk to the extent that a suspect is vulnerable (e.g., by virtue of his or her youth, naiveté, intellectual deficiency, or acute emotional state) and to the extent that the alleged evidence it is presented as incontrovertible, sufficient as a basis for prosecution, and impossible to overcome. By this criterion, which the courts would have to apply on a case-by-case basis, a confession produced by telling an adult suspect that his cousin had confessed, the ploy used in *Frazier v. Cupp* (1969), might well be admissible. Yet a confession produced by telling a traumatized 14-year-old boy that his hair was found in his murdered sister's grasp, that her blood was found in his bedroom, and that he failed an infallible lie detector test—the multiple lies presented to false confessor Michael Crowe—would be excluded (White, 2001).

Minimization Tactics

A third area of concern involves the use of minimization techniques (often called "themes," "scenarios," or "inducements") that can communicate promises of leniency indirectly through pragmatic implication. While American federal constitutional law has long prohibited the use of explicit promises of leniency (*Bram v. United States*, 1897; *Leyra v. Denno*, 1954; *Lynumn v. Illinois*, 1963), uses of minimization are less clear. There is some legal support for the proposition that implicit promises of leniency are also prohibited in federal constitutional law (White, 1997), although a majority of states hold that a promise of leniency is only one factor to be considered in determining whether a confession is involuntary (White, 2003).

Multiple sources support the proposition that implicit promises can put innocents at risk to confess by leading them to perceive that the only way to lessen or escape punishment is by complying with the interrogator's demand for confession, especially when minimization is used on suspects who are also led to believe that their continued denial is futile and that prosecution is inevitable. These sources are: (1) the aggregation of actual false confession cases, the vast majority of which involved the use of minimization or explicit promises of leniency (Drizin & Leo, 2004; Leo & Ofshe, 1998; Ofshe & Leo, 1997a, 1997b; White, 2001); (2) basic psychological

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research indicating, first, that people are highly responsive to reinforcement and make choices designed to maximize their outcomes (Hastie & Dawes, 2001), and second that people can infer certain consequences in the absence of explicit promises and threats by pragmatic implication (Chan & McDermott, 2006; Harris & Monaco, 1978; Hilton, 1995); and (3) experiments specifically demonstrating that minimization increases the rate at which research participants infer leniency in punishment and confess, even if they are innocent (Kassin & McNall, 1991; Klaver, Lee, & Rose, 2008; Russano et al., 2005).

In light of the demonstrated risks to the innocent, we believe that techniques of minimization, as embodied in the "themes" that interrogators are trained to develop, which communicate promises of leniency via pragmatic implication, should be scrutinized. Some law enforcement professionals have argued that minimization is a necessary interrogation technique (Inbau et al., 2001). As with the false evidence ploy, there are several possible approaches to the regulation of minimization techniques—ranging from the recommendation that no action be taken to an outright ban on minimization. Between these extreme positions one might argue that some uses of minimization but not others should be limited or modified.

Minimization techniques come in essentially three forms: those that minimize the *moral* consequences of confessing, those that minimize the *psychological* consequences of confessing, and those that minimize the *legal* consequences of confessing (Inbau et al., 2001; Ofshe & Leo, 1997a, 1997b). One possible compromise between the two extreme positions noted above would be to permit moral and psychological forms of minimization, but ban legal minimization that communicates promises of leniency via pragmatic implication. With this distinction in mind, interrogators would be permitted, for example, to tell a suspect that he or she will feel better after confession (psychological minimization) or that he or she is still a good person (moral minimization), but not that the legal consequences of his actions will be minimized if he confesses (e.g., as may be implied by self-defense and other themes). More research is thus needed to distinguish among the different tactics that interrogators are trained to use (e.g., the provocation, peer pressure, and accident scenarios), and the pragmatic inferences that these tactics lead suspects to draw concerning the consequences of confession.

Protection of Vulnerable Suspect Populations

There is a strong consensus among psychologists, legal scholars, and practitioners that juveniles and individuals with cognitive impairments or psychological disorders are particularly susceptible to false confession under pressure. Yet little action has been taken to modulate the methods by which these vulnerable groups are questioned when placed into custody as crime suspects. More than 45 years ago, the 1962 President's Panel on Mental Retardation questioned whether confessions from defendants with mental retardation should ever be admissible at trial (see Appelbaum & Appelbaum, 1994). In 1991, Fred Inbau wrote that "special protections must be afforded to juveniles and to all other persons of below-average intelligence, to minimize the risk of untruthful admissions due to their vulnerability to suggestive questioning" (1991, pp. 9–10). More recently, Inbau et al. (2001) advised against use of the false evidence ploy with youthful suspects or those with diminished mental capacity: "These suspects may not have the fortitude or confidence to challenge such evidence and, depending on the nature of the crime, may become confused as to their own possible involvement" (p. 429; also see Buckley, 2006).

It is uniformly clear to all parties that vulnerable suspect populations—namely, juveniles and people who are cognitively impaired or psychologically disordered—need to be protected in the interrogation room. In operational terms, we believe that there are two possible ways to protect these vulnerable populations. The first concerns the mandatory presence of an attorney. A least with regard to juveniles, a parent, guardian, or other interested adult is required in some states to protect young suspects who face interrogation. Yet research suggests that the presence of an interested adult does not increase the rate at which juveniles assert their constitutional rights because these adults, often passive, frequently urge their youths to cooperate with police—a tendency observed both in the U.S. (Grisso & Ring, 1979; Oberlander & Goldstein, 2001) and in the UK, where the law provides for access to an "appropriate adult" (Pearse & Gudjonsson, 1996). For this reason, juveniles—at least those under the age of 16 (at present, the research evidence is less clear when it comes to older adolescents)—should be accompanied and advised by a professional advocate, preferably an attorney, trained to serve in this role (see Gudjonsson, 2003).

As a second possible means of protection, law enforcement personnel who conduct interviews and interrogations should receive special training—not only on the limits of human lie detection, false confessions, and the perils of confirmation biases—but on the added risks to individuals who are young, immature, mentally retarded, psychologically disordered, or in other ways vulnerable to manipulation. In a survey of 332 Baltimore police officers, Meyer and Reppucci (2007) found that while respondents understood in general terms that adolescents lack maturity of judgment and are more malleable than adults, they did not by implication believe that juvenile suspects were at greater risk in the interrogation room. Hence, they reported using roughly the same Reid-like techniques with juveniles

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as they do with adults (e.g., confrontation, repetition, refusal to accept denials, false evidence, minimization, and use of alternative questions). Interestingly, one-third of these respondents stated that police could benefit from special training with regard to the interrogation of juvenile suspects. In light of research described earlier, as well as Inbau et al.'s (2001) cautionary notes on the interrogation of minors and their heightened risk for false confession, we agree.

Summary and Conclusion

In 1932, Edwin Borchard published *Convicting the innocent: Sixty-five actual errors of criminal justice*, in which several false confession cases were included. Addressing the question of how these errors were uncovered, he noted how "sheer good luck" played a prominent role and lamented on "how many unfortunate victims of error have no such luck, it is impossible to say, but there are probably many." Today's generation of post-conviction exonerations well illustrate the role that sheer good luck plays (e.g., as when DNA, long ago collected, was preserved; as when the true perpetrator finds a conscience and comes forward). With increased scientific attention to the problem of false confessions, and the reforms recommended in this article, we believe it possible to reduce the serendipitous nature of these discoveries and to increase both the diagnosticity of suspects' statements and the ability of police, prosecutors, judges, and juries to make accurate decisions on the basis of these statements.

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Selling Confession: The Interrogator, the Con Man, and their Weapons of Influence

By: Deborah Davis, Ph.D.*

Psychologically speaking, a successful interrogation is analogous to selling a resident of the Yukon air conditioning in January; for a suspect to acknowledge a criminal act involving negative consequences requires that the suspect believe a confession is in his best interest. Jayne, B. C., & Buckley, J. P. (1999). The investigator anthology (p. 207)

With just a few minor changes of terminology, the boys...got basic training in criminal interrogation. Indeed, the principles involved in selling a product door to door are similar to those described in this text for eliciting confessions from criminal suspects. The investigator's "product" is the truth, and a successful interrogator sells it in quite the same way as these boys were taught to sell newspaper subscriptions. Inbau, Reid, Buckley & Jayne (2001). Criminal interrogations and confessions. (p. 211)

...a salesman, a huckster as thieving and silver-tongued as any man who ever moved used cars or aluminum siding, more so, in fact, when you consider that he's selling long prison terms to customers who have no genuine need for the product. Simon, D. (1991) Homicide: A year on the killing streets. p. 213 (describing the police interrogator)

These colorful depictions of the interrogator, his goals, and his methods suggest that he shares much in common with the accomplished conman or salesman. Indeed, as popular interrogation manuals suggest, the interrogator, in order to induce a suspect to confess against his self-interests, must convince the suspect of the exact opposite of the truth, and of what common sense would suggest. Through, in effect, an extended "anti-Miranda warning," the interrogator works to convince the suspect that everything he says - preferably including a detailed confession to the crime at hand-can and will work to his benefit, whereas denial or failure to talk to his interrogator can and will be held against him. But how, exactly, does he do this? And how does the interrogator's technique resemble that of a car salesman or conman?

Setting the Stage

Influence professionals of all stripes--whether interrogators, salesmen, conmen, Madison Avenue advertisers, or even our own pesky children-- universally recognize that persuasion is easier if the target's



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natural resistance can be undermined. Attempts to persuade, when offered in the proper context, by the proper agent of influence, on the properly "softened-up" target will be far more persuasive. Known by social influence experts as "pre-persuasion," this stage-setting can entail multiple points of attack, including choosing the physical setting, establishing the "credentials" or trustworthiness of the agent of influence, manipulating the emotional or physical status of the target, "framing" the issues or "setting the agenda" of a meeting or interaction, and many other relatively subtle tactics. All such tactics essentially "soften-up" the target in one or more respects.

Interrogators recognize that to maximize the likelihood of confession, they can motivate the suspect via two pathways: increasing stress, discomfort or anxiety to motivate escape at any cost; and/or leading the suspect to the apparently rational conclusion that confession is in his best interest. Thus, a criminal suspect can be rendered more vulnerable to the interrogator's influence via one or both pathways.

If he lacks physical strength and stamina, he may be unable to tolerate a lengthy interrogation or an uncomfortable physical setting, and, failing to recognize his own ability to stop the interrogation by invoking Miranda rights, he may view confession as the only or most effective way to terminate an intolerable situation. If his mental abilities are compromised through physical or emotional distress, severe fatigue, intoxication or other impairments, he will be less able to critically evaluate what he's told, to remember reasons why he should not believe it, or to identify alternative ways to handle the situation--and therefore will be more susceptible to persuasion. If the interrogator appears to be friendly, sympathetic, and motivated to help the suspect, the suspect's motivation to resist him will be undermined. And finally, if the interrogator can successfully frame the issues and evidence the suspect will consider such that they exclude the possibility of establishing innocence (the clearly most desirable alternative), it is that much easier to sell confession as the best available alternative. These are the goals guiding the interrogator's attempt to set the stage to his advantage.

Maximizing Physical and Emotional Distress

"The entire thrust of police interrogation there, as in all the cases today, was to put the defendant in such an emotional state as to impair his capacity for rational judgment." (*Miranda v. Arizona*, p. 465)

A common cause of confession, whether true or false, is inability to tolerate short term distress in order to maximize long term outcomes. Suspects become willing to comply with interrogator demands in order to escape what they find to be an intolerable situation; and as the stresses of the interrogation mount, they become increasingly unable to think and reason rationally about what is actually in their best interest, or how much long term damage will result from confession. Recognizing these effects of distress, but faced in the post-Miranda era with the specter of exclusion if a confession is elicited via obvious physical or emotional abuse, modern interrogators must turn to less obvious subtle ways to increase discomfort or distress.

Though deprivation of basic physical needs such as nourishment, sleep or safety from physical abuse may be grounds for exclusion, subtle inducement of discomfort can go completely unnoticed. Popular interrogation manuals include such recommendations for accomplishing this goal as deliberately uncomfortable chairs, uncomfortable temperatures, and bare unattractive settings. Although unlikely to be recognized by courts as a cause for exclusion, such physical discomfort can significantly add to suspects' overall level of distress. As the interrogation proceeds, distress is typically further enhanced by such factors as continuing social isolation, the fact of being accused, fear of eventual consequences, and the aversive nature of the interrogation tactics themselves.

Interrogators may also benefit through their choice of when to interrogate the suspect. Many suspects are interrogated at the very time at which they are most compromised. Some are interrogated shortly after they have found their loved ones dead, and therefore are emotionally shocked and severely distressed. Others are interrogated when severely fatigued, sleep-deprived, or intoxicated. Each of these impairments undermines the ability to endure further distress or to think and reason adequately. And, although interrogators can choose to delay until the suspect is less compromised, they commonly proceed to interrogation knowing that the suspect will be more vulnerable to influence when physically or emotionally weak. Although a fatigue-inducing 20 hour interrogation may be regarded by courts as indicative of coercion, an interrogation that begins with a suspect already fatigued by 20 hours of hard work is unlikely to be considered coercive. Thus, the interrogator is better able to take advantage of existing impairments than to induce them himself.

Establishing the Power and Beneficence of the Interrogator

From the lowliest panhandler to the loftiest marketing professional, agents of influence are aware of the importance of the personal characteristics of the persuader. They will be most effective when appearing to possess characteristics consistent with the message they promote. When attempting to influence others to give him money, a panhandler will be most effective when appearing genuinely poor and unable to work - such as, for example, apparently being blind or missing a limb. The opposite will typically be true of an investment counselor, who would benefit from the appearance of competence and effectiveness when arguing that he can obtain impressive returns on the target's investments. Both would benefit from likeability and the appearance of trustworthiness. The panhandler should appear to genuinely need the money (not as an imposter posing as the disabled in order to con trusting marks); whereas the aspiring investment counselor should appear to be honest and trustworthy (not as someone who may intend to embezzle or cheat the investor). And both are likely to be more effective if they are likeable and pleasant, gaining the good will of their targets.

Taking such lessons to heart, the criminal interrogator presents himself in a manner that both undermines resistance to persuasion and directly facilitates it. First, contrary to widely held expectations that interrogators will be hostile and threatening, they are instead trained to make use of the "liking" principle of influence (likeable sources of influence are generally more effective). Since a suspect's natural inclination may be to distrust the intentions and motives of his interrogator, the interrogator must work to overcome the resistance such feelings would tend to create. Making himself likeable is part and parcel of this process. To accomplish this, the interrogator will typically engage in a pre-interrogation stage in which the suspect is questioned in a non-accusatory fashion about his own background, acquaintance with the parties or situation involved, and so on. One of the most effective ways to promote liking of oneself is to express liking, admiration and approval of others. With this in mind, the pre-interrogation interview is done in a very friendly and often chatty fashion, in which the interrogator may flatter the suspect and project a sense of similarity and common ground with the suspect in order to develop trust and rapport. To minimize resistance throughout the interrogation, this friendly, sympathetic demeanor is typically maintained even when the interview proceeds into the accusatory interrogation.

In some cases, the "sympathetic-detective" (good cop) may be presented in contrast to the bad cop (the Mutt-Jeff technique), which can direct resistance toward the bad cop, further lessening resistance to the "good" cop.

The interrogator further casts himself as sympathetic toward the suspect and as trying to help him get the most desirable long term outcomes-a strategy we have dubbed "The Sympathetic Detective with the Time-

Limited Offer." The time-limited offer refers to the detective's stated desire to help, along with his admonition that he cannot help the suspect unless the suspect "tells the truth" (i.e., confesses).

The detective also typically states or implies that once the interrogation is completed the case will be handled by others with less sympathetic views or motivations, and therefore failure to confess and explain during the interrogation will do far reaching damage to the suspect's case. The following is typical of the "Sympathetic Detective" strategy:

"Have you ever heard the saying opportunity knocks once? That means, you know, we all get one chance. Everybody gets one chance. Okay? And after that one chance comes it doesn't come back. And that---right now is your chance.

Look Areal, you seem like a nice stand up kind of guy, no murderer. This is probably a situation that you didn't realize you were getting into..didn't plan. You know, I think this thing bothers you a lot. And I think you probably got a pretty good heart, and I think you relive this thing and I think you think about it a lot...I don't think you're a cold blooded killer, or I know you're not a cold-blooded killer. I think you feel bad about this, you know. I see there's a lot of pain inside you. I can see that. I mean you feel bad..But you know, shit happens. I'd like to help you, man. I have my own conscience, okay? And I got to look at myself in the mirror. I got to know before I leave here I did everything that I could to see you get on the right track so you don't have to go down for something you didn't do. But if I'm wasting my time with you, tell me now. I don't have to sit here and talk to you. I'm-I'm concerned about you. But if you don't tell me the truth, there's no reason for me to be here. I got a wife and family at home and I can just go home to them.

All I know is this thing won't go away. If you want people to believe this was a plan...but this is your chance. This is your opportunity to put your side on the table... I've been doing this for a long time, and I've seen a lot of guys, young guys like you, make big mistakes. Okay? And I'm very concerned that you're going to make the biggest mistake of your life. ...I believe you will tell the truth. But I am worried when you're ready to tell the truth it just might be too late. Either way stuff's gonna happen, you know, the legal process, the wheels are turning right now and we want to give you the opportunity to come forward and tell us your side of the story before it's too late and we just take it for, you know, I mean, we're trying to give you the benefit here. We're trying to give you the opportunity to come forward and tell us what happened, your side of the story versus the other side. Right now we're just talking. I'm not upset with you. I know what you're saying to me. But when I stop talking to you, they're going to do what they have to do. Okay? And then decisions are going to be made. Okay? And we're not going to be talking to you anymore. There's nothing that you're going to have to say that the DA's going to be interested in hearing. They'll just go with the information they got."

Notice the many tactics contained in this monologue. The detective tries to make Areal believe he likes him, thinks he is not a criminal, and would like to help him in order to make Areal like and trust him. But he warns Areal that this is a time-limited offer, making use of the "scarcity" or "deadline" technique so pervasively used by retailers, and salesmen of all kinds (Buy this time share today at the discounted price of $250,000-tomorrow it will be back to the regular price at $300,000; Buy the TV, available only during the two-day sale at this price; Buy the condo and get the free cruise available only while you are at this presentation, etc.). He emphasizes that this is Areal's opportunity to tell his side, his "one chance"--an opportunity that he implies will be permanently lost once the case is handed off to the DA.

He invokes the reciprocity principle of influence. That is, people are more likely to comply with a request if the agent of influence has first done something for the target, which induces feelings of obligation to reciprocate that benevolence-for example, the vacuum salesperson who vacuums the carpet of the target before attempting to complete the sale; or the aluminum siding salesman who offers a free gift for the homeowner who agrees to listen to the salespitch. The interrogator invokes this reciprocity principle by saying that he is essentially doing the suspect a favor by forfeiting time with his family in order to try to help the suspect-that he does not need an explanation of what happens for his own purposes, since he already has all the necessary evidence to prove guilt. He is only there to give the suspect a much needed opportunity to explain himself. The resulting feelings of obligation can pressure the suspect to confess in order to fulfill the need to reciprocate the detective's kindness.

But among the most important messages conveyed by such a detective monologue is the invocation of the "authority" principle of persuasion (we are more likely to comply with requests and to believe information offered by a person with apparent authority or expertise). The Sympathetic Detective and Set-up Strategies (next paragraph) are crucial to establishing authority---that is, the idea that the detective is someone who knows what is helpful to the suspect, and someone who CAN personally help the suspect. The "Sympathetic Detective" strategy is crucial for the detective to establish a foundation against which the arguments he will later bring to bear will appear to make sense. In practice, this consists of two vital ideas- (1) that there are choices to be made about how to handle the situation that will be determined by what happens between the suspect and interrogator during the interrogation; and (2) that there may be a way to minimize the consequences of the alleged act, even if the suspect admits involvement. That is, the "Sympathetic Detective" strategy helps to establish the interrogator as a legitimate authority with control over the suspect's long term outcomes, one likely to be more beneficent than those the suspect would have to deal with after the interrogation, and therefore one whose help the suspect should take advantage of.

These conclusions are reinforced by a second strategy, one we've dubbed "The Set-up Question." The popular Reid 9-Step method of interrogation includes the admonition to ask the suspect a question such as the following:

"Tell me Jack, what do you think should happen to the person who did this thing? Should he just go straight to jail, or are there some circumstances in which he should maybe get counseling or help, not go to jail, get some help instead?"

Although interrogators view this as a test of guilt (alleging that a guilty person should recommend clemency, whereas an innocent should recommend jail), such a question clearly conveys the message that the possibility of clemency exists, that there are choices about how to deal with a guilty perpetrator. This reinforces the message of the "Sympathetic Detective" strategy that the interrogator has choices about how to handle the suspect, including choices of both whether to file charges at all, and if so what specific charges. Our own research has shown that observers exposed to an interrogation including either the "Sympathetic Detective" strategy or the "Set-up Question" are significantly more likely than those exposed to interrogations without these strategies to believe the detective has choices between specific charges and letting the suspect go without charges or sending him to counseling. Further, the "Sympathetic Detective" strategy renders them more likely to believe the detective likes the suspect, wants to help him, and will try to help him get the best outcomes. Together, such beliefs effectively set the stage for the detective's remaining tactics to persuade the suspect to confess.

Framing the Issues and Agenda

Those of us who lived through the 2004 presidential campaign can easily recognize the powerful effects of Republican George Bush's strategy to frame the primary issue of the campaign as one of national security. The infamous "circling wolves" ad of the 2004 campaign exemplified the Republican focus on raising fears of terrorist attack to increase support for Republican candidates. Republicans are generally perceived as more effective on issues of national defense, and to the extent the public can be led to focus on national defense as the primary issue, Republicans garner more votes.

Even in the present context of 2008, when public opinion has shifted against the Iraq war, Democratic candidate Hillary Clinton once again raised the specter of terror with her now infamous, but discouragingly effective, "3 am" ad inquiring who one would most trust to answer the phone when something scary and bad has happened in the world-with apparently devastating effects for Barack Obama. But Republicans remain those the public perceives as strongest on national defense, and Republican candidate John McCain may have been the ultimate beneficiary of her strategy. A March, 2008 poll indicated that voters' answers to the "3 am" question favored John McCain (45%) over either Clinton (27%) or Obama (18%) (Newsweek, March 17, 2008, p. 41: Always Their Own Worst Enemies, by Evan Thomas).

Proper framing of the issues is particularly effective when enacted under conditions in which one also controls the agenda. The importance of agenda setting has been illustrated in the context of jury research, for example, in that the foreman can dramatically affect verdicts through the organization or agenda of the deliberations. Depending upon the initial distribution of juror opinion, for example, an immediate vote may result in more or less likelihood of a defense verdict than a call to first discuss the evidence. A foreperson who agrees with a substantial majority favoring guilt will do better to call for an immediate show of hands, whereas one who disagrees with that majority would do better to call for a detailed review of the evidence before any vote.

Police interrogations are designed to both set the agenda and frame the issues in a manner to facilitate confession.

Taking Innocence off the Table: The "Borg" Maneuver

"Resistance is futile!" The Borg

Quite rightly, interrogators realize that a suspect's natural tendency will be to deny guilt, and that if a suspect believes there is a chance of establishing innocence he will push that agenda and argue vociferously with his accusers. To avoid this situation, interrogation tactics are designed to, from the outset, deny the suspect any hope of exoneration. Step 1 of the popular Reid 9-Step Method, "Positive Confrontation" - or what we call the "Borg Maneuver" - begins this process of dashing all hope of exoneration. The suspect is to be told firmly and confidently that the results of "our" investigation have clearly shown that you are the one who.... (committed the crime in question). The Inbau et al. (2001) manual recommends that the detective bring props supporting his apparent "evidence" of guilt-such as a full folder (apparently full of evidence), or bags of "evidence" such as hairs, bullets, slides of blood, or a lineup with the suspect's picture circled and so on. He may also confront the suspect with real or fabricated evidence of guilt, such as alleged failed polygraph results, statements of alleged co-perpetrators, eyewitness identifications, claims of trace evidence such as fingerprints, DNA or hair fibers. The goal of this confrontation is to sweep away resistance that would naturally arise and be fueled by hopes of exoneration, and turn the suspect's attention to the issue of how to minimize the consequences.

Recognizing that if guilt is established, another apparent reason, or "pretence," for the interrogation will be needed, the interrogator is advised to make one or more "transition statements" (from interview and confrontation to interrogation) that explain the remaining goals.

"..if there is no doubt as to the suspect's involvement in the crime, the investigator should not require any further statements from the suspect to prove his case. Therefore, not only does the transition statement have to offer a legally permissible reason for the suspect to confess, but it also must establish a pretense for the interrogation other than to elicit a confession." Inbau et al. (2001), p. 224

Therefore, having cited the evidence of the suspect's guilt and confidently asserted that the investigation clearly implicates the suspect, the detective sets the new agenda.

Reframing the Issues: Focus on Consequences

Essentially, the interrogator recasts the purpose of the interrogation from "investigating guilt" to "deciding what to do about it". He "argues against self-interest" (we are more persuaded by those who apparently have nothing to gain by persuading us), saying that he doesn't need a confession from the suspect since guilt is already proven. He then lays out the new agenda, claiming "we're not here to find out whether you did it. We're here to find out why you did it, and what kind of person you are" (thereby clearly implying that such things matter). The Inbau et al (2001) manual recommends such statements as the following:

"The reason I wanted to sit down and talk with you about this is to find out what the circumstances were surrounding this thing. The reason why someone did something is often much more important than what he did." 225

"Now Sam, there is absolutely no doubt that you did this. What I need to establish with you right now is what kind of person you are." 225

"Joe, The only reason I'm talking to you now is that we don't know how many other homes in that area you have entered. There's no question that you went into the home on Wilson Avenue last weekend. My concern is that we have over 20 unsolved burglaries within a two-mile radius of that home...Now if you're involved in all those other 20 burglaries, quite frankly, I wouldn't expect you to say anything. But, Joe, if you're not involved in all of those others, if it was a lot less than 20, we need to know that because it means that there is someone else out there responsible for those. The last thing I want to have happen is for you to be blamed for something you didn't do. That's why I'm talking to you now." 226

(Recommended statements to suspect regarding reasons for the interrogation: Inbau et al (2001), p. 225-226)

Notice, again, the many weapons of social influence included in such statements. The interrogator sets the agenda for what will be discussed, and frames the underlying issues to be addressed by the discussion. Making use of the "psychology of inevitability" (we are less likely to try when success seems impossible), he minimizes resistance by taking innocence off the table ("Now Sam, there is absolutely no doubt that you did this."). Referring to the results of "our" investigation rather than "my" investigation, he lends credibility to his claims of proof of guilt via the influence principle "social proof" (we are more likely to believe something endorsed by more people); and he sets an agenda to discuss issues he casts as relevant to what will be done about the suspect's actions ("We're going to talk about why you did this, and in doing so we're going to

learn about what kind of person you are).

Reinforcing the messages of the "Sympathetic Detective" and "Set-up Question" tactics, he implies there are choices about how to handle the suspect ("The reason why someone did something is often much more important than what he did." "What I need to establish with you right now is what kind of person you are."). Why, after all, would one want to know these things in this legal context if they didn't matter for legal outcomes? All the while, he again "argues against self-interest," and suggests he is there only to help the suspect (The last thing I want to have happen is for you to be blamed for something you didn't do. That's why I'm talking to you now.), further invoking the reciprocity principle to obligate the suspect to talk in return.

Making the Sale

"...a guilty suspect will not easily be persuaded to offer incriminating statements that could potentially lead to losing his job or a prison sentence. The investigator, therefore, must provide a perceived benefit to the suspect for telling the truth." Inbau et al. (2001), p. 221

"... for a suspect to acknowledge a criminal act involving negative consequences requires that the suspect believe a confession is in his best interest." Jayne, B. C., & Buckley, J. P. (1999). The investigator anthology (p. 207)

The preliminary stages of the interrogation are typically successful in convincing the suspect that, as with the traffic cop we can occasionally convince to let us go, the interrogation can be seen as a negotiation in which the suspect provides information or explanations that can result in leniency-even potentially release without charges, as the Set-Up question implies (Are there circumstances in which the person who did this should get a second chance, maybe not go to jail, etc.).

The suspect now "knows" that the detective has significant control over his fate. This renders him particularly motivated to please the detective and get his "help." It renders him very attentive to any cue that will tell him what he needs to say or do. He "knows" that what kind of person he is and what exactly happened and why he did it can matter. But how? What's the best story to tell? He looks to the "authority" in the room for advice.

The detective, of course, advocates for confession or "telling the truth" (assuming the person is guilty.) To sell this idea, he admittedly must convince the suspect that confession is in his best interests. Knowing that the suspect will be trying to assess the relative costs and benefits of confession versus denial, the interrogator must argue for the alleged "benefits" of confession (and costs of denial) and minimize the apparent "costs" of confession (and benefits of denial). But, since explicit promises of legal benefits or threats of legal costs can be grounds for exclusion of the confession, these arguments must be done through implication, and can be supplemented by reference to non-legal costs and benefits-such as "doing the right thing," "being a stand-up guy and making family proud," or other appeals to moral or social issues.

Minimizing the Costs of Confession

This process begins with the second step of the Reid 9-Step method, which entails suggested scenarios for how and why the event happened that appear less serious, often seemingly not even criminal (such as accidents, self-defense, or apparently justifiable aggression). This process, known as "theme-development," is carried out by the interrogator, sometimes in rather long monologues such as the following "self/family-defense" theme proposed in a gang murder case, where the detective attempts to convince the suspect to

implicate his own brother as the shooter:

"When somebody comes running at you and they pretend to have a gun, how long do you wait before you do something?..I keep hearing from different people, it's never, happened to me, but they say somebody knows what they're doing can stab you with a knife faster than you can pull the trigger, okay? And all of a sudden, if you're worried about this guy, and all of a sudden, somebody comes from the side or from the back, that would get my attention...."

"I worry about taking care of myself, taking care of my family, taking care of my friends. You do what you got to do right then. No difference, okay? Stuff happens sometimes without thinking. Things just happen by themselves sometimes. I know that, okay? You do the best you can to defend yourself. I understand that, okay? That's not a question here, okay? You didn't know it was going to happen. You think it was an accident...So this person was protecting you, correct? Well, I have a few friends but I've only got one family. And I would do anything for my family. If I had to work three jobs, if I had to work 12 hours a day, if I had to give one of my kidneys, I would."

"....What you're telling me sounds kind of like-The Cartwrights? There was three brothers. Horse was the big guy, Adam was the next guy, and Little Joe was the small one. Three brothers all different sizes. All looked different. Believe you me, if there was a fight, they would take care of each other like that. They didn't even have to say a word. If someone hit their brother, they hit one brother, the other two brothers would jump in like that. Family comes first. Okay?"

"So you felt threatened. Someone was protecting you. This was not planned out. This was an accident. This is something that happened on its own, and those pendejos are dead, this is what they were doing. They were out screwing around, trying to make something happen, and they made something happen, alright? They made it happen. Who is the guy that was protecting you? You were afraid. He did something to protect you. We know that, okay? You're telling me a brother's not going to take care of a brother? That's no brother if he doesn't. That's bullshit, okay? My brother would do anything for me, okay, anything. And I would do anything for him, okay? Is all we're talking about is your brother protecting your life? Is that what we're talking about?"

"I understand that...You got to stand together. When someone says hey, take care of him. Take care of that for me. Take care of business. Okay. When stuff is happening like that, how long do you wait before you take care of business? You can't wait too long or you're the guy that's going to be in the gutter dead, okay? The guys who didn't belong there started their shit, and they got what-what happens all the time, okay?"

"The person who pulled the trigger that day, that's not what their plan was that morning when they woke up. I know that. To me, that makes a big difference, okay?..So when that person woke up that morning, they didn't decide hey, you know what? I'm going to go kill a couple people today...That's not what they said. Something happened that day and sometimes things just happen by themselves. I understand that, okay? I think this was self-defense. You know your brother. Your brother is not a cold -blooded person. He's not-you know-a cold blooded killer. He probably feels worse than you do. Even if you did shoot somebody, sometimes that happens for a reason. I mean sometimes there's such a thing as self-defense, you know.....Maybe those guys started it, and I believe they did because those guys are knuckleheads. Yeah, maybe they didn't deserve to die. But sometimes, you know, sometimes these guys bring it on themselves."

"I'll give you another little example what I had happen one time when I was investigating a homicide. Um, I had people telling me that this guy pulled a gun and he shot and killed another guy. That's a pretty simple thing, right? I mean, just, "Boom, boom." Pulls a strap, shoots a guy dead. So what do you think about that? What do you think about that guy, the guy who shot the other guy? Stone, cold killer, right? You - that's somebody you probably wouldn't want on the street. You wouldn't want to meet up with that fool, just going to pull a gun and kill somebody right in front of you for no reason. But then pretty soon we found out that the gun that the victim had had fallen in the - storm drain. The victim had a gun as well. And the victim was pulling this gun when the other guy shot and killed him. That's a little bit different scenario, isn't it? That guy got a voluntary manslaughter. People understood because they have the whole story about what happened out there. And the DA understood when he evaluated the case. And he filed the appropriate charges. That's what we're trying to tell you. We're trying to understand what happened out there so that we can tell the DA what really happened."

Notice the many messages contained in this monologue. First and foremost, the killing is cast as apparently non-criminal, seemingly taking away the potentially devastating costs that would otherwise accompany admission to involvement. That is, the interrogator states that he believes that the suspect's brother did the shooting (apparently negating personal guilt) as a necessary and potentially life-saving defense against a potentially lethal attack initiated by others (self-defense is widely considered non-criminal). The interrogator reinforces the justifiability of the shooting by talking about how any brother would do this for his brother, and if not he's "no brother." He says he would do it for his own brother. In other words, "anyone in your brother's shoes would have done the same thing, including me, and if he didn't he's a bad human being." He invokes images from Bonanza or other TVs shows in which the suspect may have seen many shootings in defense of self or family that resulted in no criminal charges, reinforcing the idea that such acts are not criminal. Further justifying the act, the interrogator says the victims were looking for trouble, started the altercation, and got what they deserved; that the suspect and his brother didn't intend any of this, and that they were the actual victims, who would now be dead if they hadn't defended themselves. He minimizes the seriousness of the shooting, ("Is that all this is?" "I can understand that." He would have done the same thing, etc.). And in the final paragraph, the detective explicitly mentions the connection between the self-defense scenario and potential legal charges, emphasizing the point that one can't get the benefit of such a defense if one doesn't "tell your side of the story."

Having proposed such scenarios minimizing the seriousness of the act in question, the detective will typically go on to state something like "If that's what happened, I can understand that. It's no big deal. But if, on the other hand, ... (stating a more serious action---e.g., "You shot these guys as a warning to their gang to stay off your territory."), then that's different. I don't want to talk to you anymore. But if (the minimized scenario) is how it happened that's no big deal, we can work with that (implying we can help you if this version is true).

Then, making use of the "contrast" principle (a particular alternative will seem more desirable when contrasted to another that is less desirable than when evaluated with no context), the detective is advised to ask "the alternative question" (Step 7 of the Reid method), which presents two versions of the event (one apparently more serious than the other) and asks the suspect which version is true. The Inbau et al. (2001) manual noted the similarity between this alternative question technique and Step 4 of a 5-Step approach given to one of their sons for selling newspapers: "Close the sale by forcing a decision. Offer the customer two choices of either signing up for a trial one-month offer or, for greater savings, a six-month offer. Never

ask, "Do you want to buy the paper?" The interrogator, like the newspaper boy, not only frames the issue (Why and how did you commit this crime?-excluding "Did you commit this crime."), but enumerates the possible positions on the issue (Was it this terrible, legally serious, version? Or, was it this other version, which is "no big deal" that I can completely understand?). For example, the alternative question in the murder case was posed as follows, immediately following the long monologue recounted earlier:

Detective: "Did he shoot these people to kill them? Did he shoot them to scare them? Did he shoot them to protect you? What do you think he would say?"
Defendant: The three one.
Detective: Which one?
Defendant: It was protection.

As in our murder case, themes that minimize the apparent seriousness of the crime are often very successful in eliciting initial admissions of involvement. Suspects often expect no criminal charges will result, and are often astonished when arrested and charged with a crime. Indeed, reported reasons for confession among true and false confessors alike prominently include the expectation that they will be let go. As many as 40% of confessors have reported in surveys that they confessed in order to be released. Such an apparently irrational belief is the direct reflection of the success of theme development and other tactics in conveying benefits and minimizing costs of confession. Indeed, minimizing themes such as the self/family defense theme in our murder case are understood by those who hear them as promises of leniency, even though courts typically fail to view them as such.

Sometimes the interrogation will stop with such apparently minimal admissions of guilt. Often, however, using the "commitment" principle of influence (Once we have committed ourselves to a course of action by taking any step consistent with it, we are more likely to take other steps toward the same goal.), the interrogators build on the initial admission to successively elicit more damaging versions of the act. These principles are commonly used by conmen and salesmen of all kinds.

For example, using the "foot-in-the-door" technique (Each incremental behavior increases the likelihood of compliance with a more major request), a car salesman might get the target to "just" take a ride" in the car, then come into the building, then sit at the negotiating table, and finally purchase the car. In the same way, the interrogator will induce the suspect to first make the apparently minimal admission and then attempt to move him toward more and more serious admissions or versions of the event.

Using the "bait and switch" technique, the store may lure customers to come in with an ad for a deeply discounted attractive item, only to inform them when they arrive that that alternative is "sold out"-but this more expensive item is available and more attractive for X, Y and Z reasons. Or, the car salesman might practice "low-balling" whereby he lures the customer to the table with the suggestion of an attractive price, only to find that his "supervisor" won't approve the deep discount promised, but can approve a more modest one. Such techniques are commonly practiced and very effective. Once having visited the store or having sat down at the negotiating table, the customer is more likely to make a purchase.

Theme development can be viewed as the "bait" or "low-ball" where the suspect is offered a great deal (extremely low cost) if he confesses by admitting to the minimized scenario. But, the "switch" soon follows, when the interrogator explains why the minimized version just doesn't work, and it must have been a more serious scenario. He may leave the room and come back after pretending to checking new evidence or reports to tell the suspect that the evidence unfortunately just doesn't support the initial version.

For example, in a child molestation case, the suspect first admitted to a minimized scenario in which he says he might have unknowingly touched his granddaughter's genitals while asleep dreaming of his wife. He didn't remember. The detective then directed the conversation to how he "stopped immediately" when he realized what he was doing, and got the suspect to confirm this version. But then, he pointed out that if the suspect didn't remember whether this happened or not, he wouldn't remember stopping when he realized what happened. Then the detective then asked whether the suspect's hand was inside or outside her pajamas.

"What, you don't know? Well, she says you put your hand inside her pants and inserted your fingers into her vagina. Okay, well if you can't, how far do you want to go, if you can't remember. I have to believe what they're telling me, is that what you want? Do you want me to believe what she's telling me and move on? You can't really deny it if you don't remember. I mean, if you inserted your finger into her vagina that's sexual assault...if you were sleeping and you had no idea what happened, then I can't say that's not true. Alright?"

This led to half-hearted admissions that he might remember. Pretty soon, this was followed by attempts to get the suspect to admit that he knew what he was doing, that he made a mistake that he would take responsibility for. The suspect's counterarguments were met with the detective's question:

"I can't move on until you tell me, look Detective Lampert, I'm not a child molester, you know if..if you're not..Detective Lampert I'm not a child molester, I made this mistake it won't happen, how do I know it's not going to happen again? If you don't know what you're doing, you're sleeping, how..how can you assure me it's not going to happen again?"

Essentially, through a brilliant foot-in-the door, lowballing, bait-and-switch strategy, Detective Lampert herded the suspect into making full admissions of intentional sexual assault, while still managing to convey to the suspect that he would be better off by making such admissions. Although the initial hope that he could claim total lack of awareness of the crime was dashed, he would still expect to achieve the benefit of showing remorse and assuring the detective that it would not happen again (with the associated possibility of being sent to counseling instead of jail - as suggested in the set-up question as well as later in the interrogation); and he would avoid the potential costs of not confessing (as we shortly discuss).

The interrogation so thoroughly overwhelmed the suspect's capacity to track what was happening to him as he was tricked into progressively more and more damaging admissions that he later consistently and vehemently insisted that the videotape and the transcript were "doctored," refusing to believe that he had admitted to what he clearly did say on the record.

Maximizing the Costs of Denial

Defendant: "If you fight a case, you might be free. If you fight your case."
Detective: "Maybe, Maybe not. But if you didn't do anything wrong, you were just at the wrong place at the wrong time, what is it you're going to fight? Fight something that's not there."
Defendant: "My innocence"
Detective: "Innocence from what, Arael? What innocence? Being at the wrong place at the wrong time is not a crime. Fighting with somebody who's fighting with you is not a crime. Attacking somebody-attacking somebody that doesn't mean no harm to you, yeah. That's a crime. What is it-what innocence are you going to be fighting? The only thing you're going to be doing is putting the spotlight on yourself. Saying okay. I got something to hide. That's only going to make people more suspicious of you."

Recall our earlier assertion that interrogation can be thought of as an extended "Anti-Miranda Warning" in which the message is that everything you say can and will be used for your benefit, whereas denial or refusal to talk can and will be held against you. The above exchange is illustrative of many messages interrogators convey concerning the costs of denial. The detective says what many are already inclined to believe-through denial or refusal to talk, you will only make yourself appear guilty. Here the detective even suggests this will cause the investigation to focus on the suspect.

Very often, implied costs of silence or denial are conveyed through the infamous "co-perpetrator" ploy, in which the detective claims that an alleged co-perpetrator has implicated the suspect, and has claimed the suspect engaged in the most legally serious role in the offense.

"And you know what's going to happen after, you know, everybody says exactly what happened and you're---you're back there and you're the one screwing around with this thing. Who do you think they're going to focus their attention on?"

"You got to stand up like..like a man. You just can't lay down there like a dead dog. You got to stand up. You got to defend yourself. You got to put your side on the table. Otherwise people are going to walk all over you. People are going to point fingers at you. People are going to lie about you. In fact, they're already pointing fingers at you, saying you were the one who started this, who planned it, and the one who made the first shot. But I don't think that's what happened. I think you were just in the wrong place at the wrong time....but if you don't stand up and tell me what really happened, your side of the story, the DA's gonna have to go with the story he's got...."

Here, the detective has essentially threatened the suspect with more serious charges -those appropriate for what the co-perpetrator is allegedly accusing him of-if he fails to offer his "side" of what happened. That is, he must admit he had a role, but can claim a more benign role than he would otherwise be held accountable for.

Another commonly used argument concerns the likely reactions of judge and jury. The idea that no one will believe the person is innocent is combined with arguments concerning how he will be perceived if he continues to deny guilt:

"But if you..if you come in and tell me right now, okay look this might have happened once, I made a mistake, I thought my wife was here, or whatever, I've been drinking..I can understand that, okay? But if..if you sit here and say hey, you know what, that never happened. I never touched that girl, she's lying this and that, the fact is that it's not, I think you're exaggerating the truth okay? Then that makes you look bad.."

"If you can come up and say yeah, this is what happened, you know it was one time, it was a mistake, I knew it was a mistake and I stopped, man I can understand that. But if you don't say anything..then what happens is ..and what happens is, you look like a..you like somebody who's looking..preying on these little girls okay? If you're lying about what happened. That's the perception people get...you understand that, that's..that's the way people look at ya'."

"Okay, ...if you had twelve people judging you, alright? And you have twelve people listening to your story. Okay? Would you feel better about somebody that..that..that eventually came out and

just admitted okay, yeah, I did it but I know it was a mistake afterwards and I didn't do it anymore, or do you think somebody telling me well I was asleep and I didn't know I was doing it and that's how this happened. Uh..who would out you feel better about? The guy that admitted it happened or would you believe the guy that was telling you that it happened when he was asleep? Would you believe somebody telling you, okay this happened when I was sleeping, two separate times, then I got up both times? And said oh, well it's not going to happen anymore. Or would it make you feel better if somebody said yeah, you know what, I wasn't sleeping, I did it, it was a mistake, I knew it was a mistake and I want to get on with my life. Which one would you feel better about? If you were sitting there looking at somebody else saying these things? Would you feel better about the guy that admitted it was a mistake and just wanted to move on? If I was the Judge if I was somebody looking at you..And I have all this proof, I can prove it happened. And then the guy's that's..that's you right, are telling me okay, well I..I was sleeping and when I woke up and saw I was doing it, I stopped right away. That's not believable okay?"

"I understand what you're saying but I would feel better, I would feel better about somebody saying, hey you know what I was afraid to tell the truth, here's what happened. I did to this girl, it was a mistake and I stopped. And actually you know what? I think I may need some help. I'm afraid to be around children right now because I want to get some help and move on with my life. Can you see how that would..uh..that would make me feel better, how that would make..make you look better?"

The detective has clearly both (1) implied that he will receive more lenient reactions from judge and jury if he admits deliberately molesting the girl and knows it was a mistake than if he lies by denying intent, (2) reinforced the notion that establishing innocence is off the table, and (3) reinforced the hope that if he admits it he may be even more likely to get the counseling or help or "second chance" referred to in the Set-up Question and throughout the interrogation.

Perhaps the most pervasive "threat" offered by the typical interrogator is the threat of withdrawal of his own support-something likely to be highly valued by the suspect, and something he is likely to try to protect and maintain. Typically, the detective threatens to withdraw his "help" if the suspect refuses to cooperate by "telling the truth."

DET: I'm willing to work with somebody who's willing to work with me. You know what I mean?
Suspect: Yeah.
DET: Where, where, where I can't help someone out is if it looks like they ain't being a hundred percent straight with stuff, all right? You need to try to help yourself here.... You know, right now this thing's in my hand. Okay? To get this thing straightened out with you...But I can't stay here all night. I mean I got a family to go home to. I'm, you know...so I'm going to leave. I can call these other guys and tell them I'm done."

The detective in this exchange reinforces the notion of his own authority to "work with" and help the suspect (get "this thing" "straightened out"), as well as the contingent nature of his offer to help, and emphasizes that the suspect is about to lose his help if he fails to cooperate.

Generally, like promises of leniency, threats of more serious legal consequences are conveyed indirectly and by implication. Nevertheless, they are understood just as clearly as if explicitly stated. The suspect may not know what specific differences in charges there may be, but he clearly receives the message that the charges or outcomes will be more harsh if he doesn't fully admit his role in the alleged criminal behavior.

The Final Product: True and False Confessions

Once the suspect has admitted to some role in the crime, the detective will ask the suspect to put it in writing-stating exactly what happened, often including an apology to the victim(s) and expressions of remorse (which he is led to believe will help him with the DA, judge and/or jury). Unfortunately, much of the information elicited through interrogation is inaccurate. The interrogation techniques are heavily suggestive, and the detective does most of the talking, all the time suggesting to the suspect what he thinks happened. The suspect tells stories based on a mixture of true and false arguments and "evidence" he is confronted with during the interrogation. Essentially, the interrogators knowingly suggest and elicit a great deal of false or misleading information in order to get any kind of incriminating statement from the suspect. While they often believe that this false information will be a "stepping stone" approach to eventually getting the full truth, they underestimate the biasing influences the suspect is subject to, and overestimate the extent to which these biased stories will eventually be cast aside in favor of a fully accurate account.

Unfortunately, the truth may never emerge fully, during the interrogation or ever. False statements can range from full false confessions to horrific crimes, to false implication of others, to false details that can nevertheless affect charges filed against the suspect or others. The co-perpetrator ploy, for example, seems to be heavily implicated in known cases of false confession and false implication of others. Drizin and Leo (2004) identified 125 cases involving known false confessions. For more than 30% of their sample, more than one defendant confessed falsely to the same crime-ranging from 2 to 5 false confessors per case.

Although the steadily increasing tide of DNA and other exonerations of the wrongfully convicted has cast a spotlight on the role of false confessions elicited through the tactics described here, too little attention has yet been paid to the fact that false confessions represent only the tip of the iceberg of false information elicited through police interrogation. The issue of the "quality" of information elicited via coercive interrogations seems to arise more prominently when involving physical coercion or torture. It remains for law enforcement and the legal community to expand their awareness of the potentially devastating effects of false information to include not just whether a person falsely confessed to a crime, but to encompass the many additional falsehoods affecting the nature of legal charges against the suspect as well as potential charges against others the suspect may implicate. The devil is often in the details, and if the details cannot be counted on neither can we count on a just result.

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Lassiter, G. D. (Ed.), Interrogations, confessions, and entrapment. New York: Kluwer Academic.

Leo, R. A. (2008). Police interrogation and American justice. Cambridge, MA: Harvard University Press. ■

VITA

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EDUCATION

H.S.	Spring Branch High School: Houston, Texas June, 1968
B.A.	University of Texas: Austin, Texas June, 1970
Ph.D.	Ohio State University; Columbus, Ohio August, 1973

EMPLOYMENT HISTORY

1971-73	National Institute of Mental Health Pre-doctoral trainee in social psychology Ohio State University; Columbus, Ohio
1973-75	Post-doctoral research associate Ohio State University; Columbus, Ohio
1975-77	Assistant Professor, Psychology Department Southern Illinois University; Carbondale, Illinois
1977-78	Assistant Professor, Psychology Department Georgia State University; Atlanta, Georgia
1978 -	Psychology Department University of Nevada; Reno, Nevada
1982-1988	Chair, Interdisciplinary Doctoral Program in Social Psychology, UNR
1986-2011	President, Sierra Trial & Opinion Consultants
1981-2012	Clarinetist, Reno Chamber Orchestra
1981-2005	Clarinetist, Reno Philharmonic Orchestra

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

Association for Psychological Science
American Psychology and Law Society
Society of Personality and Social Psychology
Society of Applied Social Psychology
Society of Experimental Social Psychology

TEACHING EXPERIENCE

UNDERGRADUATE

Introduction to Psychology
Introduction to Social Psychology
Theories of Social Psychology
Research Methods in Social Psychology
Adolescent Psychology
Mate Selection and Marital Satisfaction
Statistics
Psychology and Law
Prejudice and Discrimination
Personality
Experimental Psychology
Attitudes and Persuasion
Memory on Trial
Social Influence

GRADUATE

Social Psychology
Psychology and Law
Research Methods
Theories of Social Psychology
Intraindividual Processes
Analysis of Social Interaction
Language and Conversation
Memory on Trial
Social Influence
Attachment and Close Relationships
Social Skills
Prejudice and Discrimination
Attitudes and Persuasion
Memory and Social Cognition
Practical Experience with Research Design
Special Topics in Social Psychology
Forensic Psychology

RESEARCH, THESIS & DISSERTATION SUPERVISION

1975 to Present-- Supervised individual research projects, theses and dissertations for Graduate students in psychology.

1988 to Present-- Supervise theses and dissertations for Master's and Ph.D. in Judicial Studies candidates at the National Judicial College in Reno.

GUEST LECTURER

1988 to Present Periodic guest lecturer at the National Judicial College on issues and research in the area of Psychology and Law; Member, Thesis or Dissertation Committees for Judges in Master's or Ph.D. Programs in Judicial Studies

CONTINUING LEGAL EDUCATION

Northern Nevada Women's Attorneys (1988)
Carson City Bar Association (1988)
Nevada Association of Defense Counsel (1989)
Washington D. C. Women's Bar Association (1989)
Washington D. C. Association of Defense Counsel (1989)
American Trial Lawyer's Seminar, Lake Tahoe (1989)
Inns of Court, Reno (1989, 1990, 1994, 1995, 1996, 1997, 1998, 2000)
New York Bar Association (1996)
National College of Trial Advocacy (Association of Trial Lawyers of America) (1996)
Journal of Air Law and Commerce Symposium (2001)
Washoe County Public Defenders (2001, 2002, 2003)
Washoe County Bar (2009)
National Defender Investigator Association (2002; 2008; 2010)
Northern California Defender Investigator Association (2003)
California Attorneys for Criminal Justice (2004, 2005)
Indiana Public Defender Association (2004)
Missouri State Public Defender Winter Workshop (2005)
Texas Criminal Defense Lawyers Association (2004)
Edison Electric Institute Claims Committee (2004)
National Seminar for Federal Defenders (2005)
Association of American Law Schools (2006)
Nevada Bar Association, Las Vegas & Reno (2006)
Baton Rouge, LA; Shreveport, LA (2007) (Arranged by Judges and Private Attys)
National Judicial College, Reno (2007, 2009, 2010, 2013, 2014)
Tennessee Association of Criminal Defense Lawyers, Nashville (2007)
Osgood Hall Law School, Toronto, Canada (2007)
National Counsel of Juvenile and Family Court Judges (2008, 2011, 2012)
Law and All That Jazz CLE Seminar, New Orleans (2008)
(Louisiana Association of Criminal Defense Lawyers)
Expert Symposium, U.S. Army Jag Attorneys, New Orleans (2011)
Wisconsin Association of Criminal Defense Attorneys (2012)
National Judicial College Seminar on Children and the Law (2012)
Louisiana Investigator Association (2012)

EDITORIAL ACTIVITIES

EDITOR

1991- Editor and publisher of "**FROM THE MIND'S EYE**". From The Mind's Eye was a newsletter designed to report social science research on law and courtroom psychology.

EDITORIAL BOARDS

1970-1973 Representative Research in Social Psychology.
1980-1988 Journal of Experimental Social Psychology.
1985-1988 Journal of Personality and Social Psychology.
2008 - Personal Relationships
2007 - Journal of Behavior Analysis of Offender and Victim Treatment and Prevention

AD-HOC REVIEWING

JOURNALS

Journal of Personality and Social Psychology
Journal of Experimental Social Psychology
Personality and Social Psychology Bulletin
Journal of Applied Social Psychology
Journal of Research in Personality
Journal of Personality
Social Psychology Quarterly
Psychological Review
Psychological Bulletin
International Journal of Aging and Human Development
Body Image: An International Journal of Research
Human Communication Research
Evolutionary Psychology
Personal Relationships
European Journal of Social Psychology
Representative Research in Social Psychology
Journal of Behavior Analysis of Offender and Victim Treatment and Prevention
Journal of Experimental Psychology: Applied
Applied Cognitive Psychology
Journal of Forensic Psychology Practice
Psychology, Public Policy and Law
Psychology, Crime and Law
Behavioral Sciences and the Law
Law and Human Behavior

GRANTING AGENCIES

National Science Foundation
National Institute of Mental Health
Canadian Research Council
Israel Science Foundation

GRANTS RECEIVED

2012-13 "Flying under the radar: Undermining resistance to investigative interviewing through interviewer priming, social ostracism and self-affirmation" DOJ/FBI $175,000

PUBLICATIONS

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Bell, V., Villalobos, J. G., & Davis, D. (2014). Attorneys. In Levine, T. R. (Ed.), *Encyclopedia of Lying and Deception.* Thousand Oaks, CA: Sage.

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and Dissatisfaction. *Personal Relationships, 13,* 465-483.

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Davis, D., & O'Donohue, W. T. (2004). The road to perdition: "Extreme influence" tactics in the interrogation room. In W. T. O'Donohue, E. Levensky (Eds.) *Handbook of forensic psychology* (pp. 897-996). New York, Elsevier Academic Press.

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Davis, D., & Follette, W. C. (2003). Toward an empirical approach to evidentiary ruling. *Law and Human Behavior, 27 (6),* 661-684.

Kemmelmeier, M., & Davis, D., & Follette, W. C. (2003). Seven sins of misdirection? Ethical considerations and constraints surrounding the use of deception in research.. In

O'Donohue, W., & Ferguson, K. (Eds.) *The Handbook of Professional Ethics for Psychologists.*. Sage: Thousand Oaks.

Follette, W. C., Davis, D., & Kemmelmeier, M. (2003). Ideals and realities in the development and practice of informed consent. In O'Donohue, W., & Ferguson, K. (Eds.) *The Handbook of Professional Ethics for Psychologists.*. Sage: Thousand Oaks.

Davis, D., Shaver, P. R., & Vernon, M. L. (2003). Physical, emotional and behavioral reactions to breaking up: The roles of gender, age and attachment style. *Personality and Social Psychology Bulletin, 29,* 871-884.

Davis, D., & Follette, W. C. (2002) Rethinking probative value of evidence: Base rates, intuitive profiling and the *post*diction of behavior. *Law and Human Behavior, 26,* 133-158.

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Davis, D., & Follette, W. C. (2001). "*DIPP*ing" in the jury pool: Designing voir dire questions to *D*iagnose, *I*ngratiate, *P*ersuade, and *P*rocure the jury you want. *Proceedings of the Journal of Air Law and Commerce Symposium.*

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Davis, D. (1991). Facing justice and judging faces: What do they have in common? In D. Davis (Ed.) *From the Mind's Eye. 1* (1).

Davis, D. (1991). Making the best use of physical characteristics in court. In D. Davis (Ed.), *From the Mind's Eye. 1* (1).

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communication sets. In S. Duval & R. A. Wicklund, *A theory of objective self-awareness.* New York: Academic Press, 180-186.

Davis, D., & Ostrom, T. M. (1973) Trait implication in impression formation. *Proceedings, LXXXI Annual Convention,* American Psychological Association, 195-196.

Jellison, J. M., & Davis, D. (1973). Relationships between perceived ability and attitude extremity. *Journal of Experimental Social Psychology, 27,* 430-436.

Davis, D., & Brock, T. C. (1972). Paradoxical instigation of self-criticism by inordinate praise. *Proceedings, LXXX Annual Convention. American psychological association,* 191-192.

Ostrom, T. M., Edwards, J. D., Rosenblood, L. K., & Davis, D. (1972). Communication discrepancy and attitude change: a bibliography of research and theory. *Catalog of Selected Documents in Psychology, 2*, 64-84.

PRESENTATIONS

NATIONAL MEETINGS

Davis, D., & Jellison, J. M. (1972). Relationships between perceived ability and attitude extremity. Eastern Psychological Association, Boston.

Davis, D., & Brock, T. C. (1972). Paradoxical instigation of self criticism by inordinate praise. American Psychological Association, Honolulu.

Davis, D., & Ostrom, T. M. (1973) Trait implication in impression formation. American Psychological Association, Montreal.

Davis, D., Ostrom, T. M., & Caldwell, J. (1973). Meaning shift and the set size effect. Western Psychological Association, Anaheim.

Davis, D., & Brock, T. C. (1973) Heightened self-awareness, self-esteem, and egocentric thought. Eastern Psychological Association, Washington, D. C.

Davis, D., & Brock, T. C. (1974). Social determinants of physical pleasuring: Effects of the relative status of the pleasurer and the recipient. Western Psychological Association, San Francisco.

Davis, D., Brock, T. C., & Rainey, H. G. (1974). Social determinants of physical pleasuring: Effects of the attractiveness and responsiveness of the recipient. Eastern Psychological Association, Philadelphia.

Ostrom, T. M., & Davis, D. (1975). Stimulus interaction in impression formation. Eastern Psychological Association, New York.

Davis, D. (1975). Use of first person pronouns as a function of increased objective self-awareness and prior feedback. Eastern Psychological Association, New York,.

Davis, D., & Perkowitz, W. T. (1977) Effects of responsiveness in a verbal exchange on interpersonal attraction. American Psychological Association, San Francisco.

Martin, H. J., & Davis, D. (1977) Effects of sex, responsiveness, and relationship meaningfulness on physical pleasuring. American Psychological Association, San Francisco.

Davis, D. (1978). Similarity, interaction, and interpersonal attraction. American Psychological Association, Toronto, Canada.

Davis, D. (1978). Instrumental conditioning of conversational behavior: Responsiveness is rewarding. American Psychological Association, Toronto, Canada.

Davis, D., Holtgraves, T., Kasmer, J., & Ginsburg, G. (1982). Self-consciousness, attitudes, subjective norms, and behavioral intentions. American Psychological

Association, Washington, D. C.

Davis, D. (1982). Information-processing consequences of responsiveness in dyadic interaction. Nags Head Conference on Social Cognition, Nags Head, North Carolina. (Invited address).

Davis, D. (1982). Antecedents and consequences of responsiveness in dyadic interaction. Nags Head Conference on Naturalistic Studies of Social Interaction, Nags Head, North Carolina. (Invited address).

Holtgraves, T., & Davis, D. (1983). Perceptions of unresponsive others: Attributions, attraction, understandability, and memory for their utterances. Western Psychological Association, San Francisco, California.

Holtgraves, T., & Davis, D. (1983). Processing efficiency of responsive and unresponsive content. American Psychological Association, Anaheim, California.

Davis, D. (1983). Moderators of the consequences of responsiveness in dyadic interaction. Nags Head Conference on Social Cognition, Nags Head, North Carolina. (Invited address).

Davis, D. (1983). When unresponsive behavior is not so bad. Nags Head Conference on Interpersonal Relations, Nags Head, North Carolina.

Davis, D. (1984) Antecedents and consequences of responsiveness in dyadic interaction. Southwestern Psychological Association, New Orleans. (Invited Address)

Davis, D. (1984) Antecedents and consequences of responsiveness in dyadic interaction. International Communications Association, San Francisco. (Invited Address).

Dewitt, J. S., Davis, D., Naseth, G. J., & Carney, A. (1984). Moderators of the consequences of responsiveness in communication. International Communications Association, San Francisco. (Invited address).

Davis, D. (1984) Speech acts and planning in conversation. Symposium; International Communications Association, San Francisco. (Invited to organize and chair this symposium)

Davis, D., & Droll, D. (1984). Toward a psychology of forgiving. American Psychological Association, Toronto. (Invited address).

Holtgraves, T. M., & Davis, D. (1984) Attributional consequences of responsiveness in conversation. American Psychological Association, Toronto. (Invited address).

Davis, D. (1984). The role of responsiveness in interpersonal relations. Society of Experimental Social Psychology. Snowbird Resort, Utah. (Invited address).

Davis, D., & Droll, D. (1985). Relative power, accounts and apologies as

determinants of forgiving. American Psychological Association, Los Angeles.

Carney, A., Davis, D., & Lipparelli, M. A. (1986). A reformulation and extension of Brown and Levinson's theory of politeness. Western Psychological Association, Los Angeles.

Carney, A., Dewitt, J. S., & Davis, D. (1986). Effects of stereotypes, order of presentation, and familiarity on person memory. Western Psychological Association, Los Angeles, 1986.

Davis, D., Carney, A., & Dewitt, J. S. (1986). Comprehension and face as determinants of listener responsiveness in conversation. American Psychological Association, Washington, D. C.

Davis, D. (1986). Chair, session entitled "The social relations model." American Psychological Association, Washington, D. C.

Davis, D. (1986). Effects of listener status and familiarity, and the magnitude of request on use of polite form in conversation. Hags Head Conference on Groups, networks and organizations, Nags Head, North Carolina. (Invited address).

Davis, D. (1987). Psychology and the legal system. Society of Experimental Social Psychology, Charlottesville, Virginia.

Lewis, E. W., & Davis, D. (1988). The attribution of responsibility: An application to the legal system. Western Psychological Association, San Francisco.

Gastanaga, L., Greenstein, F., Kaplan, M., Pearlman, A., Price, N., Robbins, R., Wentzel, S., & Davis, D. (1988). Verbal assertiveness: A theoretical review and reformulation. Western Psychological Association, San Francisco.

Davis, D., Rippens, P., & Foushee, R. (1989). Public knowledge and beliefs concerning child sex abuse. Western Psychological Association, Reno.

Davis, D. (1989). Chair, session on "Opportunities for research support for AIDS related projects." Western Psychological Association, Reno.

Lewis, E. W. & Davis, D. (1992). Mitigating circumstances in sentencing: The effect of attributional complexity. American Psychology and Law Society, San Diego.

Davis, D., & Ostler, T. (1992). Erotophobia, sex guilt and biased jurors. American Psychology and Law Society, San Diego.

Lewis, E. W., & Davis, D. (1992). Effects of attributional complexity, authoritarianism, and empathy on sentencing. Rocky Mountain Psychological Association, Boise.

Savoy, S. O., Coker, R., Misselli, V., Mifflin, J., & Davis, D. (1992). Juror reactions

to sex applications of hypnosis in the legal system. Rocky Mountain Psychological Association, Boise.

Ostler, T., & Davis, D. (1992). Erotophobia, sex guilt and reactions to sex related crimes. Rocky Mountain Psychological Association, Boise.

Davis, D., & Lesbo, M. (1997). May to December: A theory of mate selection across the life span. Society of Experimental Social Psychology, Toronto, Canada, October, 1997.

Lesbo, M., Davis, D., & Sundahl, I. (1997). Age and sex differences in advertising for mates. Rocky Mountain Psychological Association, Reno, April, 1997.

Sundahl, I., Davis, D., & Lesbo, M. (1997). Perceptions of control and bet size: A naturalistic study of casino craps. Rocky Mountain Psychological Association, Reno, April, 1997.

Davis, D., & Lesbo, M. (1999). The role of sexuality stereotypes in judgments of rape among women of four races. Northwest Conference on Memory and Cognition, May 1999.

Davis, D., Follette, W. C., & Merlino, M. L. (1999). Seeds of rape: Female behavior is probative for females, definitive for males. Psychological Expertise and Criminal Justice: A conference for Psychologists and Lawyers (Jointly sponsored by APA and ABA). Washington, DC, October.

Davis, D., & Lesbo, M. (2000). Gender, attachment and physical, emotional and behavioral reactions to breakups. Western Psychological Association, Portland, Oregon, April, 2000.

Davis, D., & Follette, W. C. (2000). Attachment, marital interaction: The four horsemen and their first cousins. Western Psychological Association, Portland, Oregon, April, 2000.

Davis, D., & Follette, W. C., (2000). Attachment style and emotional expression in close relationships. Western Psychological Association, Portland, Oregon, April, 2000.

Davis, D., & Lesbo, M. (2000). Gender, attachment and subjective motivations for sex. Western Psychological Association, Portland, Oregon, April, 2000.

Davis, D. (2001). Factors compromising witness memory in high profile/traumatic cases. SMU Air Law and Commerce Symposium, Dallas, February.

Davis, D., & Follette, W. C. (2001). "*DIPP*ing" in the jury pool: Designing voir dire questions to *D*iagnose, *I*ngratiate, *P*ersuade, and *P*rocure the jury you want. SMU Air Law and Commerce Symposium, Dallas, February.

Davis, D., Follette, W. C., & Lesbo, M. V. (2001). Adult attachment style and the experience of unwanted sex. Western Psychological Association, Maui, Hawaii, May.

Davis, D. Lesbo, M. V., Fuhrel, A., & Barkewai, Z. (2001). May to December: Determinants of romantic relationship motivation across the lifespan. Western Psychological Association, Maui, Hawaii, May.

Davis, D., Follette, W. C., & Vernon, M. L., Shaver, P. R. (2001). Adult attachment style, extent and manner of expression of sexual needs. Western Psychological Association, Maui, Hawaii, May.

Davis, D., & Follette, W. C. (2001). Fallacies of post hoc heuristic reasoning in the judicial system. Western Psychological Association, Maui, Hawaii, May.

Follette, W. C., & Davis, D. (2001). Rethinking the rules of evidence: Empirical determination of "Probative value" of evidence. Western Psychological Association, Maui, Hawaii, May.

Davis, D. (2001). Victim syndrome evidence in court: Heuristic reasoning from diagnosis to verdict. Western Psychological Association, Maui, Hawaii, May.

Davis, D., & Goodis, J. (2001). Does consent to alcohol equal consent to sex? American Psychological Association, San Francisco, August.

Davis, D., & Lesbo, M. V. (2001). Sculpting the body beautiful: Attachment style and use of plastic surgery. American Psychological Association, San Francisco, August.

Vanous, S., & Davis, D. (2001). Motive evidence: Probative or just prejudicial? Rocky Mountain Psychological Association, Reno, April.

Vanous, S., & Davis, D. (2002). Cultural stereotypes of motive, means and how to cover up a crime. Rocky Mountain Psychological Association, Salt Lake City, April.

Davis, D. (2002). Memory on trial. Federal Public Defender Investigator Association, Portland, Oregon, April.

Davis, D. (2002). Toward empirical standards for evaluation of the admissibility of evidence. Society of Experimental Social Psychology, Columbus, Ohio, October.

Davis, D., Follette, W. C. (2003). Attachment, terror management, and end-of-life caregiving/receiving. *Compassionate Love Conference*, sponsored by the International Association of Relationship Research and the Fetzer Foundation.

Davis, D. (2004). Attachment, sexual motivation and sexual behavior. *Society of Personality and Social Psychology.*

Davis, D. (2004). Attachment and sexual pathology. *International Association of Relationship Research.* Bloomington, Indiana.

Davis, D. (2004). Sex in service of attachment and caregiving. *Dynamics of*

Romantic Love: Attachment, Caregiving, and Sex. Davis, California.

Davis, D. (2004, January). Attachment and end-of-life caregiving. Invited address: Duke University Medical School.

Davis, D., Knaack, D., Lopez, P., Koyama, M., White, B., Bailey, D. & Kusal, T. (2005). Memory for Threats in Conversation Enhanced by Later Knowledge of Violence Between Participants. *American Psychological Society*, Los Angeles, CA.

Davis, D., Vanous, S., & Cucciare, M. (2005) Unconscious Transference as an Instance of 'Change Blindness.' *American Psychological Society,* Los Angeles, CA.

Shaver, P. R., Schachner, D. A., Gillath, O., & Davis, D. (2005). Interrelations of the Attachment and Sexual Behavioral Systems. Symposium Title:Research on Sexual Motives: Implications for Sexual Behavior and Intimate Relationships. *American Psychological Association.*

Rumble M, Keefe F, Porter L, Miller J, Davis D, Scipio C, Garst J, Peterson B. Relationship of marital attachment style to symptoms,self-efficacy and psychological distress in patients with lung cancer and their spouses. Poster presented at the annual meeting of the American Pain Society, San Antonio, TX, May 2006.

Davis, D. (2006). Confession evidence. *Association of American Law Schools.* Washington, D. C. (January) (Invited Address).

Davis, D., Leo, R. A., Knaack, D., Bailey, D. A. (2006). Sympathetic detectives with time limited offers: Effects on perceived consequences of confession. Association for Psychological Science. New York, May.

Davis, D., Vernon, M. V., & Shaver, P. R. (2006). How do we cause our relationships to fail? The role of attachment style. *Association for Psychological Science,* New York, May.

Davis, D., Carlen, L. & Gallio, J. (2006). Attachment, rape supportive attitudes, and perceived validity of claims in three rape scenarios. *Association for Psychological Science.* New York, May.

Nelson, K. J., Laney, C., Le, A. J., Fowler, N. B., Knowles, E. D., Davis, D., & Loftus, E. F. (2007). Change blindness can cause mistaken eyewitness identifications. *Association for Psychological Science.* Washington, D.C., May.

Davis, D., Weaver, T., Leo, R. A. (2007). Effects of failed polygraph results on true and false confessions. *American Psychological Association,* San Francisco, CA., August.

Davis, D., Leo, R. A., Follette, W. C. (2007). Effects of interrogation tactics on recommendation of false confession for the innocent. *Interrogations and Confessions.* El

Paso, TX: September.

Davis, D. (2007). The problem of false confessions: Policy considerations and the issue of type I and type II outcome errors in interrogations.

Davis, D. & Follette, W. C. (2007). Blowing smoke and selling snake oil: Sources of invalidity and exaggeration in expert testimony; Osgoode Hall Law School, Toronto, CA, November. (Invited address).

Davis, D., Leo, R. A., & Follette, W. C. (2008). Recommending false confession for the innocent. *American Psychology-Law Society.* Ft. Lauderdale, Fl: March.

Davis, D., (2009) Society of Experimental Social Psychology, Academic, "Interrogation through pragmatic implication", Accepted, Society of Experimental Social Psychology, Portland, Maine, October.

Davis, D. (2009), Lowman, J., Sigilloa, A., Association for Psychological Science, Academic, "Age and perceived net benefits of romantic relationships", Accepted, Association for Psychological Science, San Francisco, May.

Davis, D. (2009), Sigilloa, A., Lowman, J., Association for Psychological Science, Academic, "Attachment and perceived advantages and disadvantages of romantic relationships", Accepted, Association for Psychological Science, San Francisco; May..

Davis, D., Hernandez, J., Follette, W. C., Leo, R. A. (2010). "Interrogation through pragmatic implication: Communicating beneficience and promises of leniency. Society for Personality and Social Psychology, Las Vegas, Nevada, January.

Hernandez, O., Draper, C., Davis, D., & Leo, R. (2010). Stage setting in police interrogation: Interactive effects of a "pretext" for interrogation and "minimization." American Psychology-Law Society, Vancouver, Canada; March.

Davis, D. (2010). Jury decisions and experience (Panel Moderator). *Western Social Science Association.* Reno, NV: April

Davis, D. (2010), Inconsistencies between law and the limits of human cognition., Society of Experimental Social Psychology, Minneapolis, MN. (October).

Davis, D., Sigilloa, A. Lowman, J. (2010). Adult attachment style and strategies of social influence., Western Psychological Association, Cancun. (April).

Davis, D., (2010). "Law is an Ass: Ignorance and stubbornness in applications of psychology to law", Invited, Memory and the Law: Na tional Science Foundation, Tuscon Arizona. (February 2010).

Williams, M. J., & Davis, D. (2012, April). Authoritarian personality moderates the deleterious effects of ostracism. Rocky Mountain Psychological Association, Reno, NV.

Villalobos, J. G., Williams, M. J., & Davis, D. (2013, January). Self-Regulation and the Perceived Wisdom of a False Confession to Murder. Society for Personality and Social Psychology. New Orleans, LA.

Davis, D., Williams, M. J., & Villalobos, J. G. (2013). Interrogation-related regulatory decline: The roles of prior effort and stereotype threat. American Psychology-Law Society. Portland, OR.

Leo, R. A., & Davis, D. (2013). To walk in their shoes: The problem of recognizing false confessions. American Psychology-Law Society. Portland, OR.

Davis, D. (2013). Where Lucifer Thrives: Situational forces impairing interrogator judgment and strategy. Western Psychological Association. Reno, NV.

Williams, M. J., Villalobos, J. G., & Davis, D. (2013). The other L (Lobotomy) effect: Determinants and consequences of impaired executive control in suspects. Western Psychological Association. Reno, NV.

Davis, D., Mikulincer, M., & Soref, A. (2014). Flying under the radar II: Using face and contextual primes to undermine resistance to out-group interviewers. American Psychology-Law Society, New Orleans, LA.

Davis, D., Mikulincer, M., & Soref, A. (2014). Flying under the radar I: Priming states of mind can increase or decrease disclosure of sensitive personal information. American Psychology-Law Society, New Orleans, LA.

INTERNATIONAL MEETINGS

Davis, D., & Brock, T. C. (1976). Determinants of interpersonal physical pleasuring. International Congress of Psychology, Paris, France.

Davis, D. (1980). A "rewards of interaction" interpretation of the similarity-attraction relationship: Theory and data. International Congress of Psychology, Leipzig, East Germany.

Davis, D. (1980). Antecedents and consequences of responsiveness in dyadic interaction. International Congress of Psychology, Leipzig, East Germany.

Davis, D., & Holtgraves, T. M. (1983). Responsiveness, understanding and memory in dyadic interaction. Interamerican Congress of Psychology, Quito, Ecuador.

Kelley, L., Davis, D., & Wood, J. (1984) Status, physical attractiveness and

popularity as elicitors of responsiveness from others. International Congress of Psychology, Acapulco, Mexico.

Davis, D., Kelley, L., Wood, J., & Steronko, R. (1984). Consequencias evolucionarias de responsividad materna y peterna: amour proprio y punto internal de control. International Congress of Psychology, Acapulco, Mexico.

Davis, D., Dewitt, J. S., & Carney, A. (1985). Las limitaciones en algunas reglas de conversacion: Cuando se espera y se condona el comportamiento no responsivo. Interamerican Congress of Psychology, Caracus, Venezuela.

Davis, D., & Lewis, E. W. (1988). The attribution of responsibility within the American legal system. XXIV International Congress of Psychology, Sydney Australia.

Davis, D., Wentzel, S., Robbins, R., Price, N., Pearlman, A., Kaplan, M., Greenstein, F., & Gastanaga, L. Verbal assertiveness in conversation. XXIV International Congress of Psychology, Sydney, Australia, 1988.

Davis, D., Rippens, P., & Foushee, R. (1989). Public beliefs about child sexual abuse. Interamerican Congress of Psychology, Buenos Aires, Argentina.

Davis, D., Ostler, T., & McBride, G. (1989). Verbal and nonverbal flirting techniques. Interamerican Congress of Psychology, Buenos Aires, Argentina.

Davis, D. & Leontauras, A. (1995). Dating preferences and practices across the lifespan. Interamerican Congress of Psychology, Puerto Rico. (Invited Address).

Davis, D., Lesbo, M., Adams, R., Shelton, N., Lindquist, M. (1998). The role of stereotypes regarding sexuality in judgements of rapes among women of four races. 24th Annual Congress of Applied Psychology, San Francisco, CA, August, 1998.

Sundahl, I., Davis, D., & Lesbo, M. (1998). Personality and preferences for casino games. 24th International Congress of Applied Psychology, San Francisco, CA, August, 1998.

Davis, D., & Lesbo, M. (1998). Female wardrobe choices and sexual intent: Female intent and male interpretation. 24th International Congress of Applied Psychology, San Francisco, CA., August, 1998.

Davis, D., & Lesbo, M. (1998). Use of the Internet for cross-cultural survey research: A study of life-span mate selection. 24th International Congress of Applied Psychology, San Francisco, CA, August, 1998.

Davis, D., Lesbo, M. & Thoroughgood, A. J. (1999). The role of stereotypes of female sexuality in rape. Northwest Conference on Memory and Cognition, Victoria, Canada, May 1999.

Davis, D. (2012). Identity threat in the interrogation room: How do suspects behave

when they don't expect to be believed? International Conference on Investigative Interviewing. Nicolet, Canada.

Davis, D., Mikulincer, M., Soref, A., Villalobos, G., Ogundimu, O., Perez, L., Ghiglieri, M., & Williams, M. J. (2013, October). *Effects of self-affirmation, mortality salience, attachment security, and ostracism on self-disclosure of negative personal information*. Paper session presented at the meeting of the High-Value Detainee Interrogation Group, Washington, D.C.

Davis, D., Williams, M. J., & Villalobos, J. G. (2013, March). *Interrogation-related regulatory decline: The roles of prior effort and stereotype threat*. Paper session presented at the meeting of the Western Psychological Association, Reno, NV.

Villalobos, J. G., Williams, M. J., & Davis, D. (2013, January). *Self-regulation and the perceived wisdom of false confession to murder*. Poster session presented at the meeting of the Society for Personality and Social Psychology, New Orleans, LA.

Williams, M. J., Villalobos, J. G., & Davis, D. (2013, April). The Other "L" (Lobotomoy) Effect: Determinants and Consequences of Impaired Executive Control in Suspects. Paper presented at the 93rd Annual Convention of the Western Psychological Association. Reno, NV.

Davis, D., Williams, M. J., & Villalobos, J. G. (2013, March). Interrogation-Related Regulatory Decline: The Roles of Prior Effort and Stereotype Threat. Paper presented at the 2013 American Psychology-Law Society conference. Portland, OR.

Davis, D., Mikulincer, M., & Soref, A. (2014). FLYING UNDER THE RADAR I: Priming States of Mind Can Increase or Decrease Disclosure of Sensitive Personal Information. Paper presented at the 2014 American Psychology-Law Society conference. New Orleans, LA.

Davis, D., Mikulincer, M., & Soref, A. (2014). FLYING UNDER THE RADAR II: Using Face and Contextual Primes to Decrease Resistance to Outgroup Members Paper presented at the 2014 American Psychology-Law Society conference. New Orleans, LA.

A Letter of Attestation by Cynthia Brzozowski, Anthony Cardoza and James Wood in State of Ohio vs. Danny Lee Hill

Drs. Cynthia Brzozowski, Anthony R. Cardoza and James D. Wood attest to the following:

Professional Background of Affiants

I, Dr. Brzozowski, am a licensed dentist (NY), a Board Certified Forensic Dentist (D-ABFO), and currently self-employed as a dental practitioner in Garden City, NY. I received my BA from the University of Pennsylvania (1981) and my DMD degree from the Boston University School of Dentistry in 1986. I have been a practicing general dentist in New York for 28 years and a Forensic Dental Consultant for the Suffolk County Medical Examiner's Office since 1995. I am a Diplomate of the American Board of Forensic Odontology (ABFO), a Fellow of the American Academy of Forensic Sciences (AAFS), and a member of the American Society of Forensic Odontology (ASFO) since 1993. Currently, I am a Vice President of the Suffolk Society of Forensic Dentistry and help to train and maintain the Suffolk County Medical Examiner's Dental Identification Team. I am also a member of DMORT Region 2 team, a division of the National Disaster Medical System and Department of Health and Human Services. My forensic experiences include forensic dental identifications for the Suffolk County Medical Examiner's Office as well as in mass disaster incidence (including TWA Flight 800, WTC, United Flight 587, Hurricane Katrina) and missing persons cases and consultations in bite mark cases involving violent crimes and domestic abuse.

I, Dr. Anthony R. Cardoza, am a licensed dentist (CA), a Board Certified Forensic Dentist (D-ABFO), and currently self-employed as a dental practitioner in San Diego, CA. I am a 1981 graduate of California Lutheran University with a BA in Chemistry, and graduated in 1985 with a DDS from Northwestern University School of Dentistry. I am a Diplomate of the American Board of Forensic Odontology (ABFO), a Fellow of the American Academy of Forensic

DEFENDANT'S EXHIBIT
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Sciences (AAFS), a Member of the American Society of Forensic Odontology (ASFO), a Member of the California Society of Forensic Dentistry (CSFD), a Member of the American Dental Association (ADA), a Member of the California Dental Association (CDA), and a Member of the California Dental Identification Team (CalDIT). I am a forensic dental consultant for the California Department of Justice Missing/Unidentified Persons Unit and the Missing Persons DNA Task Force, the San Diego Police Department, and the San Diego County Sheriff's Department. Since 1993 I have been affiliated with the San Diego County Medical Examiner, the Imperial County Coroner and more recently, the Riverside County Coroner. I also received forensic training at the University of Texas Health Science Center, Southwest Symposium. I have written articles for both professional journals and textbooks and lecture extensively on forensic dentistry at dental conferences throughout the United States, Canada and Europe.

I, Dr. James Wood, am a licensed dentist (CA), a Board Certified Forensic Dentist (D-ABFO), and currently self-employed as a dental practitioner in Cloverdale, CA. I am a 1982 graduate of the University of California at Riverside and a 1986 graduate of the Loma Linda University School of Dentistry. I am a Forensic Dental Consultant to the Mendocino, Lake, and Sonoma County Sheriff's Departments and the Santa Rosa Police Department. I am also a consultant to the California Department of Justice Missing/Unidentified Persons Unit and the Missing Persons DNA Task Force. I am a Diplomate of the American Board of Forensic Odontology (ABFO), Fellow of the Academy of General Dentistry, a Fellow of the Academy of Forensic Sciences, and a Fellow of the American College of Dentists. I am a past President and Legislative Chair of the Redwood Empire Dental Society. I was Chair of the California Dental Association's Council on

Legislation (2003). In addition, I am active in national legislative issues affecting dentistry with the American Dental Association.

Materials Reviewed

In November of 2015, we were forwarded various materials by Dr. Gary Berman, President of the American Board of Forensic Odontology (ABFO). The materials were from the trial of State of Ohio vs Danny Lee Hill and included the trial testimony of Drs. Mertz and Levine. Also included were reports from Drs. Mertz and Levine. In addition, we were forwarded by Dr. Franklin Wright fourteen photographic images of the purported pattern injury on the penis of the homicide victim.

In addition to the case-specific materials, we reviewed the 2009 National Academy of Sciences (NAS) report, *Strengthening Forensic Science in the United States: A Path Forward* ("*NAS Report*"); the newly promulgated ABFO Decision Tree; and the *ABFO Bite mark Guidelines* from 1984, 2000, and 2014.

The National Academy of Sciences Report

The 2009 NAS Report thoroughly reviewed and studied bite mark literature and research. The report found that there was no basis in science for forensic odontologists to proffer individualization testimony, i.e., concluding that the suspect is "the biter" to the exclusion of all other potential sources.

a. Specifically, the NAS found that the requisite research has not been done to allow a forensic odontologist to reliably individualize a known dentition (the biting surface of teeth) to an unknown bite mark. The report emphasized that "the

committee received no evidence of an existing scientific basis for identifying an individual to the exclusion of all others." *NAS Report* at 176.

b. Further, bite mark examiners cannot testify to the rarity or probative value of a "match" because no base rate data regarding the characteristics of teeth and bite patterns exists. *Id.* The NAS found that "no scientific studies support this assessment, and no large population studies have been conducted." *NAS Report* at 176. In other words, if a "match" is declared, there is no information concerning how many other dentitions might also "match" the putative bite mark.

Conclusion

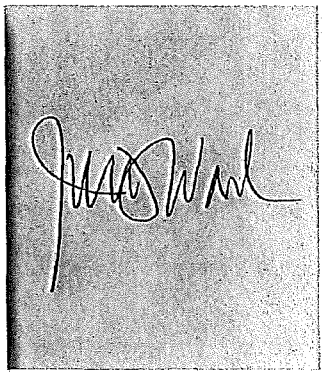
Advances in scientific knowledge since the time of Mr. Hill's trial now preclude associating a specific individual to any alleged bitemark where the universe of potential perpetrators is unknown. Indeed, the recent, significant changes to the ABFO Manual would ensure that the individualization testimony proffered in this open population case would not today be offered by a board-certified forensic odontologist. Applying the most current methodology, standards, and scientific understanding available today to the mark at issue, moreover, we find there is insufficient information to support the conclusion that the injury was a bite mark at all. Under the current ABFO Decision tree, we would conclude that this injury is **'not a human bitemark"** and so no further analysis or comparison should have been undertaken.

With respect,

Cynthia Brzozowski DMD, DABFO

Dr. Cynthia Brzozowski. DMD, D-ABFO (ABFO Board of Directors)

Dr Anthony R. Cardoza, DDS, D-ABFO (ABFO Board of Directors)



Dr. James D. Wood, DDS, D-ABFO

Trumbull County Court of Common Pleas

Case No. 85-CR-317

Danny Lee Hill

v.

STATE OF OHIO

AFFIDAVIT OF

I, Dr. Gary Berman, declare under the penalty of perjury:

1. I am a member of the American Board of Forensic Odontology (ABFO). As such, I am familiar with the ABFO Bitemark Methodology Standards and Guidelines.
2. I was provided by Dr. Frank Wright, bitemark case opinions and testimony from Drs. Lowell Levine and Curtis Mertz. I was also provided two black and white photographs labeled A1 and A2. These two photographs were of a patterned injury on a human penis on a deceased individual, Raymond Fife.
3. The American Board of Forensic Odontology has developed guidelines to help in the analysis of patterned injuries resembling human bitemarks. The American Board of Forensic Odontology's 2015 Guidelines state, "The ABFO does not support a conclusion of "The Biter" in an open population case(s)."
4. It is my opinion that Dr. Mertz's opinion linking a biter to this patterned injury can not be done. The 2015 guidelines of the ABFO states that you can not support an opinion of "The Biter" in an open population case.

DEFENDANT'S EXHIBIT P

Gary M Berman,

Sworn to me this 10th of Dec, 2015.

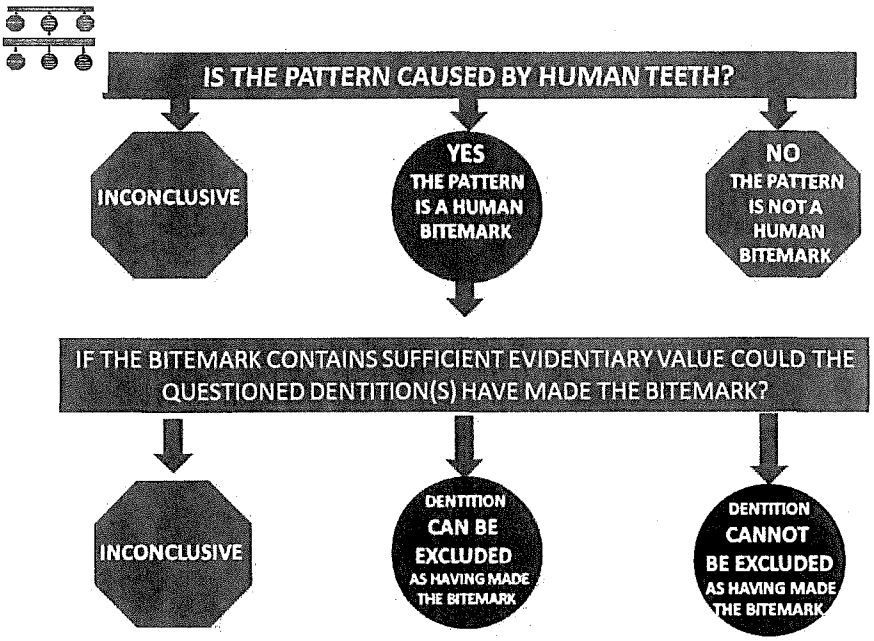
Lauren I Letenyei
Notary Public

Oakland Michigan,
County State

06-03-2020
My commission expires:

12-10-15
Date

LAUREN I LETENYEI
NOTARY PUBLIC - MICHIGAN
OAKLAND COUNTY
MY COMMISSION EXPIRES 06/03/2020
ACTING IN OAKLAND COUNTY



DEFENDANT'S EXHIBIT R

American Board of Forensic Odontology

Diplomates Reference Manual

March 2016 Edition

DEFENDANT'S EXHIBIT S

Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

A. ***Human Bitemark*** – human teeth created the pattern.

• *Criteria*: the pattern demonstrates class and/or individual characteristics of human teeth.

B. ***Not a Human Bitemark*** – human teeth did not create the pattern.

• *Criteria*: the pattern does not demonstrate class and/or individual characteristics of human teeth.

C. ***Inconclusive*** – there is insufficient information to reach an opinion whether or not the pattern is a bitemark.

• *Criteria:* class and/or individual characteristics of human teeth are missing, incomplete, distorted, or otherwise insufficient in the pattern.

Terms Used to Relate a Questioned Dentition to a Bitemark:

A. *Excluded* as Having Made the Bitemark

• *Criteria:* the bitemark demonstrates class and/or individual characteristics that could not have been created by the dentition in question.

B. *Not Excluded* as Having Made the Bitemark

• *Criteria:* the bitemark demonstrates class and/or individual characteristics that could have been created by the dentition in question.

C. Inconclusive

• *Criteria:* although the analyst has concluded the pattern is a human bitemark, there is missing, incomplete, or otherwise insufficient information to form an opinion whether or not the dentition in question caused the bitemark.

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

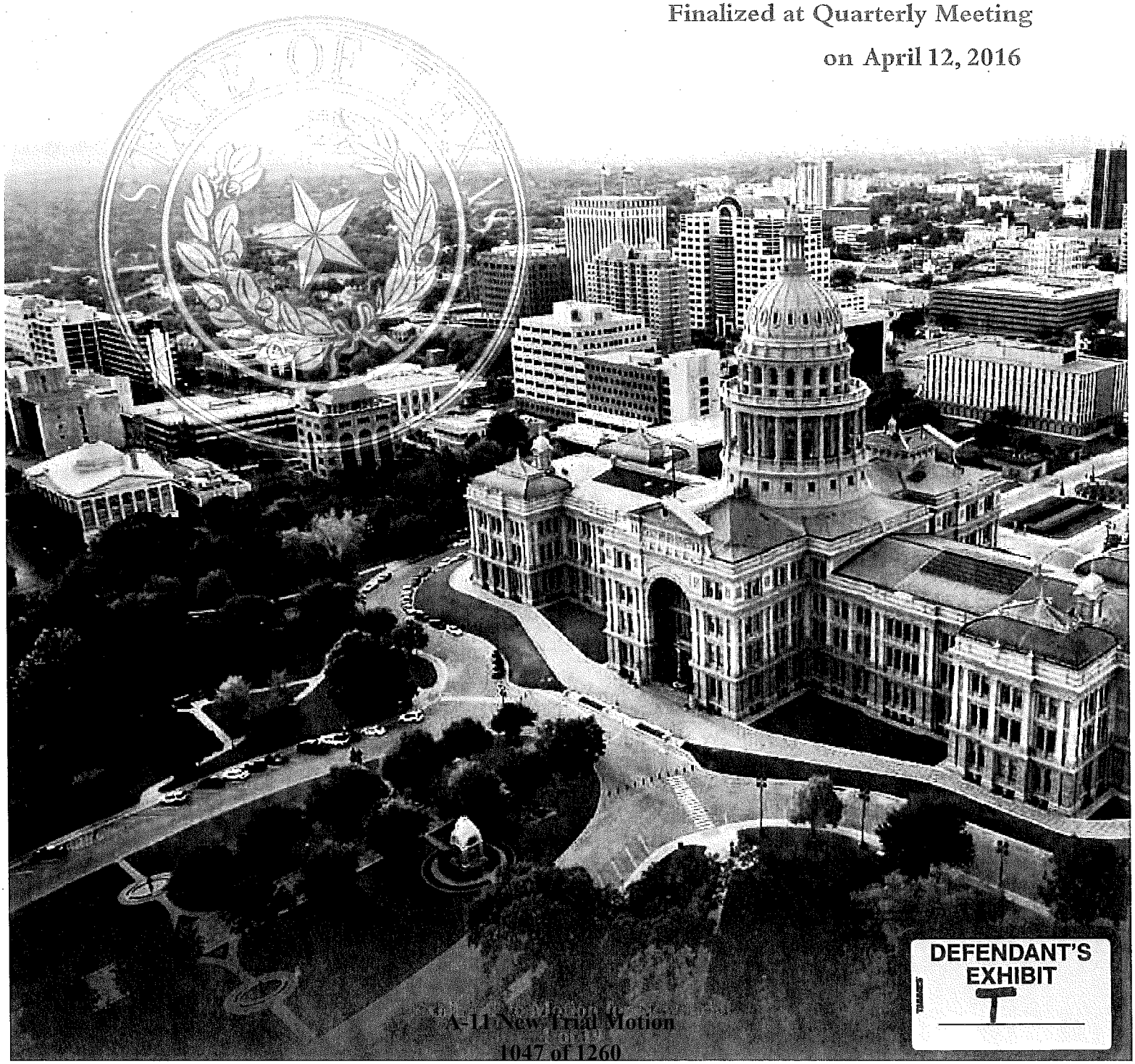
TEXAS FORENSIC SCIENCE COMMISSION

Justice Through Science

FORENSIC BITEMARK COMPARISON COMPLAINT FILED BY NATIONAL INNOCENCE PROJECT ON BEHALF OF STEVEN MARK CHANEY - FINAL REPORT

Finalized at Quarterly Meeting

on April 12, 2016



DEFENDANT'S EXHIBIT

T

I. SUMMARY OF THE COMMISSION'S STATUTORY AUTHORITY

A. Legislative Background and Jurisdiction

The Texas Legislature created the Texas Forensic Science Commission ("Commission") during the 79th Legislative Session by passing House Bill 1068 (the "Act"). The Act amended the Texas Code of Criminal Procedure to add Article 38.01, which describes the composition and authority of the Commission.[1] During the 83rd and 84th Sessions, the Legislature further amended the Code of Criminal Procedure to clarify and expand the Commission's jurisdictional authority.[2]

The Commission has nine members appointed by the Governor of Texas.[3] Seven of the nine commissioners are scientists and two are attorneys (one prosecutor nominated by the Texas District and County Attorney's Association, and one criminal defense attorney nominated by the Texas Criminal Defense Lawyer's Association).[4] The Commission's Presiding Officer is Dr. Vincent J.M. Di Maio.[5]

1. Accreditation Jurisdiction

Texas law prohibits a forensic analysis from being admitted in a criminal case if the entity conducting the analysis is not accredited by the Commission:[6]

> "...a forensic analysis of physical evidence under this article and expert testimony relating to the evidence are not admissible in a criminal action if, at the time of the analysis, the crime laboratory conducting the analysis was not accredited by the commission under Article 38.01."[7]

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[1] *See* Act of May 30, 2005, 79th Leg., R.S., ch. 1224, § 1, 2005.
[2] *See* Acts 2013, 83rd Leg., ch. 782 (S.B.1238), §§ 1 to 4, eff. June 14, 2013; Acts 2015, 84th Leg., ch. 1276 (S.B.1287), §§ 1 to 7, eff. September 1, 2015, (except TEX. CODE CRIM. PROC. art. 38.01 § 4-a(b) which takes effect January 1, 2019).
[3] *Id.* at art. 38.01 § 3.
[4] *Id.*
[5] *Id.* at § 3(c).
[6] Until the 84th Legislative Session, the accreditation program was under the authority of the Department of Public Safety ("DPS").
[7] TEX. CODE CRIM. PROC. § 38.35(a)(4).

The term "forensic analysis" is defined as follows:

> "Forensic analysis" means a medical, chemical, toxicologic, ballistic, or other expert examination or test performed on physical evidence, including DNA evidence, for the purpose of determining the connection of the evidence to a criminal action, except that the term does not include the portion of an autopsy conducted by a medical examiner or other forensic pathologist who is a licensed physician.[8]

The term "crime laboratory" is broadly defined, as follows:

> "Crime laboratory" includes a public or private laboratory or other entity that conducts a forensic analysis subject to this article.[9]

Texas law exempts certain forensic disciplines from the accreditation requirement—either by statute, administrative rule, or by determination of the Commission.[10] A key threshold question is whether bitemark comparison[11] is subject to the accreditation requirement. Neither the statute nor the administrative rules (carried over from DPS) mention forensic odontology specifically. The term "forensic analysis" undoubtedly includes bitemark comparison, but no national accreditation body recognized under Texas law (e.g., ASCLD/LAB, ANAB, etc.) offers accreditation in bitemark comparison. Accreditation by one of these nationally recognized bodies is mandatory for entities seeking to be accredited under Texas law.[12]

Under a strict reading of the statute, bitemark comparison should not be admissible in Texas criminal courts because it does not meet the accreditation

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[8] *Id.* at § (a)(4).
[9] *Id.* at § (d)(1).
[10] *Id.* at 38.01 § 4-d(c).
[11] The Commission specifically uses the term "bitemark comparison" to refer to the act of analyzing a patterned injury for purposes of either associating or excluding a suspect or group of suspects based on the observable characteristics of the patterned injury. The Commission has no concerns regarding the components of bitemark analysis that include swabbing a patterned injury site for possible DNA analysis or to determine the presence or absence of salivary amylase.
[12] 37 Tex. Admin. Code § 651.4.

requirement set forth in the Code of Criminal Procedure and neither DPS nor the Commission has ever exempted forensic odontology by administrative rule. In an abundance of caution, the Commission has instructed staff to seek confirmation of this interpretation through a legal opinion request to the Attorney General's office. This report will be updated to reflect the Attorney General's opinion once it is received.

Most Texas judges are unlikely to be aware of the statutory requirement for accreditation outside of traditional forensic disciplines such as toxicology, drug chemistry, DNA, etc. This is especially true considering the small number of bitemark cases in Texas. Because bitemark comparison has been admitted in Texas courts since 1954 (with the *Doyle* case involving a bitemark in cheese), it continues to be admitted.[13]

2. Investigative Jurisdiction

Texas law requires the Commission to "investigate, in a timely manner, any allegation of professional negligence or professional misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory, facility or entity."[14] The Act also requires the Commission to: (1) implement a reporting system through which accredited laboratories, facilities or entities may report professional negligence or professional misconduct; *and* (2) require all laboratories, facilities or entities that conduct forensic analyses to report professional negligence or misconduct to the Commission.[15]

The Commission is also expressly authorized to investigate allegations of professional negligence and misconduct for forensic disciplines that are *not currently*

[13] *See Doyle v. State*, 159 TEX. CRIM. 310, 263 S.W.2D 779 (JAN. 20, 1954).
[14] TEX. CODE CRIM. PROC. art. 38.01 § 4(a)(2).
[15] *Id.* at § 4.

subject to accreditation, such as the forensic bitemark comparison at issue in this case.[16] However for cases involving forensic disciplines not subject to accreditation, the Commission's reports are limited to the following:

- Observations regarding the integrity and reliability of the forensic analysis conducted;
- Best practices identified by the Commission during the course of the investigation; and
- Other recommendations deemed relevant by the Commission.[17]

II. INVESTIGATIVE PROCESS

A. Complaint Process

When the Commission receives a complaint, the Complaint Screening Committee conducts an initial review of the document at a publicly noticed meeting.[18] After discussing the complaint, the Committee votes to recommend to the full Commission whether the complaint merits any further review.[19]

In this case, the Committee discussed the complaint (*See* **Exhibit I**) at a publicly noticed meeting of the Complaint and Disclosure Screening Committee in Austin, Texas on August 13, 2015. The Commission discussed the complaint again the following day, on August 14, 2015, at its quarterly meeting, also in Austin, Texas. After deliberation, the Commission voted unanimously to create a four-member investigative panel to review the complaint pursuant to Section 4.0(b)(1) of the Policies and Procedures. Members voted to elect Dr. Harvey Kessler, Dr. Vincent Di Maio, Dr. Ashraf Mozayani and Mr. Richard Alpert as members of the panel, with Dr. Harvey Kessler (Director of Pathology

[16] *Id.* at § 4(b-1).
[17] *Id.*
[18] *See* Policies and Procedures at 3.0.
[19] *Id.*

and Professor at the Texas A&M University Baylor College of Dentistry) serving as Chairman.

Once a panel is created, the Commission's investigations include: (1) relevant document review; (2) interviews with stakeholders as necessary to assess the facts and issues raised; (3) collaboration with affected agencies; (4) requests for follow-up information where necessary; (5) hiring of subject matter experts where necessary; and (6) any other steps needed to meet the Commission's statutory obligations.

B. Other Important Limitations on the Commission's Authority

In addition to the limitations described above regarding reports involving disciplines not subject to accreditation, the Commission's authority contains other important statutory limitations. For example, ***no finding contained herein constitutes a comment upon the guilt or innocence of any individual.*** [20] Additionally, the Commission's written reports are not admissible in a civil or criminal action.[21]

The Commission also does not have the authority to issue fines or other administrative penalties against any individual, laboratory or entity. The information the Commission receives during the course of any investigation is dependent upon the willingness of stakeholders to submit relevant documents and respond to questions posed. The information gathered has ***not*** been subjected to the standards for admission of evidence in a courtroom. For example, no individual testified under oath, was limited by either the Texas or Federal Rules of Evidence (*e.g.,* against the admission of hearsay) or was subjected to formal cross-examination under the supervision of a judge.

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[20] TEX. CODE CRIM. PROC. 38.01 at § 4(g).
[21] *Id.* at § 11.

The Commission has no jurisdiction in civil cases or administrative proceedings such as case falling within the jurisdiction of the Texas Department of Family and Protective Services. The recommendations in this report apply exclusively to bitemark analyses performed in the context of criminal actions. Moreover, the recommendations are specific to the bitemark comparison sub-discipline of forensic odontology, and do not apply to human identifications, age estimations or other areas of forensic odontology unrelated to the analysis of patterned injuries on skin. Finally, as previously noted the Commission is not concerned about the components of bitemark analysis that are limited to swabbing a patterned injury site for possible DNA analysis or to determine the presence or absence of salivary amylase.

III. Summary of Steven Mark Chaney Criminal Case

Steven Mark Chaney was convicted of the murder of John Sweek and sentenced to life in prison on December 14, 1987. John Sweek and his wife, Sally, sold cocaine from their East Dallas apartment and were found brutally murdered in June 1987, with autopsy reports indicating multiple stab wounds and slit throats. Despite suspicions pointing to the couple's Mexican drug supplier, Mr. Chaney became a suspect when another customer of the Sweeks informed police that Chaney had a motive because he owed the Sweeks $500 for drugs he had purchased. Mr. Chaney offered nine alibi witnesses but was still found guilty.

At trial, two forensic odontologists, Drs. Jim Hales and Homer Campbell, testified the mark on John Sweek's forearm was a human bitemark that matched Chaney's dentition. Dr. Campbell testified that Chaney made the bitemark to a reasonable degree of dental certainty while Dr. Hales testified that there was a "one to a million" chance

someone other than Mr. Chaney could have left the bitemark. This testimony was compelling to the jury. As one juror stated after the verdict, "Do you want me to tell you what made my decision? [...] The bitemark." Mr. Chaney unsuccessfully appealed his case and his conviction became final in December of 1989.

In 2015, Mr. Chaney's lawyers filed a writ of habeas corpus challenging his conviction. On October 12, 2015, after Dr. Jim Hales recanted his testimony and the Dallas County District Attorney's Office agreed the bitemark evidence was unsupportable, Mr. Chaney was released from prison. Mr. Chaney's writ is pending with the Texas Court of Criminal Appeals where additional writ grounds are being litigated.

IV. BITE MARK PANEL: PROCESS

The Commission formed a Bite Mark Investigation Panel at the August 14, 2015 quarterly meeting. Since that time the Panel has met three times to conduct its inquiry. Under Dr. Kessler's leadership, the Bite Mark Panel focused its efforts on collecting and reviewing the existing scientific literature and data underlying bitemark comparison and providing recommendations to the full Commission as a result of the review. Dr. Kessler sought input from the American Board of Forensic Odontology ("ABFO") and its members, as well as other interested forensic odontologists and criminal justice stakeholders.

The first Panel meeting was held on September 16, 2015, in Dallas, Texas at the Dallas County District Attorney's Office. The Panel discussed correspondence with the ABFO regarding Dr. Kessler's request for scientific data along with the other materials that had been submitted prior to meeting. The Panel also heard from Chris Fabricant on behalf of Mr. Chaney. Mr. Fabricant provided a summary of the case facts and key

issues contained in the complaint. Following Mr. Fabricant was Dr. David Senn, DDS, Clinical Assistant Professor at the University of Texas Health Science Center at San Antonio. Dr. Senn gave a summary response to the complaint, provided information and answered questions concerning the ABFO's historical and current initiatives. Dr. Senn expressed his belief that the Chaney complaint contained some "truths, half-truths, and non-truths." Dr. Kessler requested that Dr. Senn delineate each of the categories in a written document. The Panel also discussed the best way to approach case identification and review with input from the ABFO and other stakeholders. In addition to Chris Fabricant and Dr. Senn, the Panel also received public comment from Dr. Roger Metcalf, DDS/JD, Patricia Cummings of the Dallas County Conviction Integrity Unit and Julie Lesser of the Dallas County Public Defender's Office, co-counsel for Mr. Chaney.

The Panel held its next meeting on November 16, 2015 at the Tarrant County District Attorney's Office in Fort Worth, Texas. The Panel sought and received numerous research studies, presentations and related information concerning the state of scientific research and data underlying bitemark comparison. Mr. Chaney, who had his conviction set aside and was released from prison on October 12, 2015, was present at the meeting. The Panel then heard from an impressive list of experts in the field of forensic odontology. To begin, Dr. David Senn presented a PowerPoint (*See* **Exhibit D**) in which he focused on agreements and disagreements with the original complaint as well as his observations regarding cadaver research conducted by Mr. Peter and Dr. Mary Bush and current research in his program at UTHSC San Antonio. The Panel next welcomed Dr. Frank Wright who gave a presentation on the appropriate use, role and limitations of

bitemark evidence and his perspective on needed research and next steps. (*See* **Exhibit E.**)

Drs. Iain Pretty and Adam Freemen also presented their Construct Validity of Bitemark Assessments study using the ABFO Decision Tree that was originally presented at the American Academy of Forensic Sciences ("AAFS") Annual Scientific Meeting in February 2015. (*See* **Exhibit B.**) The presentation included lessons learned and the scientific implications of the results. Participants further commented on the various action items from the study including their opinions on the next steps needed in research, scientific reporting and a possible moratorium recommendation. Finally, the Panel heard a presentation from Mr. Peter Bush regarding the current context of research and limitations in bitemark comparison, including numerous clinical studies he conducted at SUNY Buffalo with Dr. Mary Bush and colleagues.

Panel members, staff and stakeholders asked questions of the presenters and engaged in a spirited discussion regarding the implications of the research. Upon conclusion of the presentations, the Panel agreed that due to the volume and breadth of materials, members needed further time to thoroughly review the data before making any recommendations. Forensic odontologists in attendance, specifically Drs. Pretty, Freeman, Wright and Senn discussed a possible follow-up study to the Freeman/Pretty study that could help more clearly identify threshold criteria for determining human bitemarks.

The Panel also discussed the retroactive case identification and review process, including a list of 33 cases developed through stakeholder input and staff research. The Panel discussed obtaining further case information directly from the ABFO Diplomates

along with historical data from the National Museum of Health and Medicine archives. The Panel decided to wait to establish a case review subcommittee until further input was sought from the full Commission.

The Panel held its third meeting on February 11, 2016 in Austin, Texas. The Panel heard from Dr. Senn who gave a brief presentation on the ABFO's progress since the Panel's November 16, 2015 meeting in Fort Worth. Dr. Senn explained the research related to bitemark comparison is slow going but being developed. (*See* **Exhibit D.**) Dr. Senn also offered the assistance of all nine Texas ABFO-certified members in any multidisciplinary bitemark case review conducted by the Commission.

The Panel next heard from General Counsel Lynn Garcia regarding jurisdictional issues under Texas law and possible recommendations for the full Commission. Garcia summarized the actions taken, presentations given, and research provided to the Panel. The Panel discussed a number of recommendations to be made to the full Commission. Dr. Frank Wright addressed the Panel regarding his longstanding quest for meaningful proficiency testing in the discipline, as well as his agreement regarding the need for foundational research using agreed upon criteria to test proficiency and reliability.

The Panel unanimously voted to make several recommendations to the full Commission, all of which were accepted and are outlined in Section VI below.

V. COMMISSION OBSERVATIONS: INTEGRITY & RELIABILITY

A. Scientific Research

The Commission makes two threshold observations that should be universally accepted among forensic odontologists and stakeholders in the broader criminal justice community. First, there is no scientific basis for stating that a particular patterned injury

can be associated to an individual's dentition. Any testimony describing human dentition as "like a fingerprint" or incorporating similar analogies lacks scientific support. Second, there is no scientific basis for assigning probability or statistical weight to an association, regardless of whether such probability or weight is expressed numerically (*e.g.,* 1 in a million) or using some form of verbal scale (*e.g.,* highly likely/unlikely). Though these types of claims were once thought to be acceptable and have been admitted into evidence in criminal cases in and outside of Texas, it is now clear they have no place in our criminal justice system because they lack any credible supporting data.

After addressing these historical issues, the Commission turned its focus to the remaining questions facing the community. First, can forensic odontologists reliably and accurately identify whether a patterned injury is a human bitemark? Second, if they are able to determine that the patterned injury is a human bitemark, can they reliably and accurately distinguish between patterned injuries made by adults versus those made by children? Third, is there any support for the contention that where the forensic evidence is of high enough quality, a well-trained forensic odontologist can reliably and accurately *exclude an individual* from having been the source of the bitemark?

At the current time, the overwhelming majority of existing research does not support the contention that bitemark comparison can be performed reliably and accurately from examiner to examiner due to the subjective nature of the analysis. While the research is too extensive to repeat in the body of this report (*See* **Exhibits A-G**), one recent study by Drs. Iain Pretty and Adam Freeman was of tremendous concern to the Commission. (*See* **Exhibit B.**) Because the Bitemark Panel spent significant time reviewing the study and consulting with its authors and critics, it is summarized here.

The study, entitled *Construct Validity Bitemark Assessments Using the ABFO Bitemark Decision Tree* ("Freeman/Pretty Study") asked ABFO board-certified Diplomates to review photographs of 100 patterned injuries. The Diplomates were asked to answer the following 3 questions: (1) Was there sufficient evidence to render an opinion on whether injury was a human bitemark? (2) Using the ABFO decision tree as a guide, was the injury a human bitemark? (3) If a human bitemark, did it have distinct, identifiable arches and individual tooth marks?

Thirty-eight ABFO Diplomates completed the whole study and an additional six partially completed the study. The study revealed an enormous spread of decisions among the Diplomates *on the basic question of whether the patterned injury was a human bitemark.* The Diplomates agreed unanimously in only four of the cases. They achieved 90% agreement in eight of the cases.

The inability of ABFO Diplomates to agree on the threshold question of whether a patterned injury constitutes a human bitemark was of great concern to the Commission. Also of significant concern (and discussed extensively at the November 2015 meeting in Fort Worth) is the fact that the Freeman/Pretty Study was not published in a timely manner due to various political and organizational pressures within the ABFO. For many Commissioners who have experience in other areas of forensic science, such a resistance to publish scientific data contradicts the ethical and professional obligations of the profession as a whole, and is especially disconcerting when one considers the life and liberty interests at stake in criminal cases.

B. Lack of Quality Control and Organizational Inflexibility

In addition to the foundational science and research issues described above (as well as in the Exhibits to this report) the Commission noted significant quality control and infrastructure differences between forensic odontology and other patterned and impression disciplines subject to the Commission's jurisdiction. The following is a non-exhaustive list of those issues:

1. There is no ISO-accrediting body (like ASCLD/LAB or ANAB) that offers an accreditation program in bitemark comparison;

2. The criteria for identification published on the American Board of Forensic Odontology (ABFO) website, including the decision tree, was outdated until recently and included the use of terms like "The Biter" and "The Probable Biter." Though the terms were recognized as unsupportable, they remained on the website until the 2016 AAFS meeting when the ABFO Diplomates voted to remove the decision tree and replace it with a new one.

3. There is significant disagreement among ABFO members about how to establish criteria for the identification of bitemarks, and how to test that criteria through research studies;

4. There is no system for outside auditing of the analytical criteria as applied in casework;

5. There is no systemic requirement for peer review or technical review;

6. There is no consistency in the way analytical results are reported;

7. There is no meaningful proficiency testing system; and

8. There is no system for identifying or providing notification of non-conformances, or a method for conducting retroactive case reviews when necessary to protect against miscarriages of justice.

While the ABFO is accredited by the Forensic Specialties Accreditation Board ("FSAB"),[22] it is a voluntary process; certification bodies are invited to participate in

[22] White House Subcommittee on Forensic Science, *Interagency Working Group on Accreditation and Certification, Observations Concerning Certification of Forensic Science Practitioners* at 3 (2013).

FSAB accreditation if they meet basic eligibility requirements."[23] Programs accredited by FSAB vary greatly in certain key areas, such as: "eligibility, use of proficiency tests, practical exercises, training, continuing education, recertification requirements, etc."[24] There are "vast differences in the certification examination processes and essential elements for forensic science disciplines which leads to fragmentation of the various certification programs accredited by the same entity."[25]

FSAB accreditation standards "are not recognized by a third party or accredited under ISO-17011."[26] As the NAS report noted in Recommendation 7, certification should take into account established and recognized standards, such as those published by ISO.[27] ISO-17024 (Conformity assessment – General requirements for bodies operating certification of persons) describes the necessary standards for organizations that certify individuals. In recommending that all certification bodies achieve ISO-17024 accreditation within 10 years, the White House Interagency Working Group on Accreditation and Certification asserted that accreditation under ISO-17024, "ensures the validity, reliability, and quality of the certification programs."[28] Given all current information available to the Commission, it is unlikely the ABFO would be able to achieve ISO-17024 accreditation for its certification program anytime in the near future.

VI. RECOMMENDATIONS

The Commission recommends that bitemark comparison not be admitted in criminal cases in Texas unless and until the following are established:

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[23] Nat's Res. Council, Nat'l Acad. of Scis., *Strengthening Forensic Science in the United States: A Path Forward*, (2009) at 209.
[24] http://thefsab.org/accredited.htm
[25] *Id.*
[26] White House Subcommittee on Forensic Science at 4.
[27] *Id.*
[28] Subcommittee on Forensic Science at 4.

1. *Criteria for identifying when a patterned injury constitutes a human bitemark.* This criteria should be expressed clearly and accompanied by empirical testing to demonstrate sufficient inter and intra-examiner reliability and validity when the criteria are applied.

2. *Criteria for identifying when a human bitemark was made by an adult versus a child.* This criteria should be expressed clearly and accompanied by empirical testing to demonstrate sufficient inter and intra-examiner reliability and validity when the criteria are applied.

3. Rigorous and appropriately validated proficiency testing using the above criteria.

4. A collaborative plan for case review including a multidisciplinary team of forensic odontologists and attorneys.

Assuming the first two research areas can be addressed sufficiently, the Commission believes follow-up research should focus on the criteria that form the basis for the "exclude" and "cannot exclude" categories contemplated by new decision trees making their way through the ABFO and the Organization for Scientific Area Committees ("OSAC") processes. (*See* **Exhibit J.**) ABFO guidelines should also follow the example of other forensic disciplines by including peer/technical review of cases as well as the development of a model report that provides information to the trier of fact regarding the limitations of the forensic analysis.

The Commission understands these items are already high priorities for the ABFO leadership, and the organization will need to work with other stakeholders (academic institutions, etc.) in implementing the recommendations. To that end, the Commission encourages collaboration and participation between the ABFO, researchers and practitioners.

A. Special Word About Victims of Child Abuse

The Commission understands that victims in bitemark cases are often small children. There is no question that the health and safety of our most vulnerable

population must be protected. For this reason, the Commission reiterates that its recommendations do not apply to civil cases involving Child Protective Services, but are limited to those cases in which an individual is accused of a crime and faces the loss of liberty if convicted. The Commission's recommendations for foundational research are focused on what it understands to be the most important issues in child abuse cases. If subsequent published data supports the ability of forensic odontologists to identify human bitemarks reliably and accurately based on defined criteria and to distinguish between the bitemarks of adults and children reliably and accurately, the Commission will revise its recommendations to reflect these developments.

During one of the Bitemark Panel meetings, Commissioners were told that recommending a moratorium on bitemark comparison would "hurt children." The Commission disagrees. First, if anyone should take responsibility for the current state of bitemark comparison, it is the very organization of practitioners that, due to its glacial pace, reticence to publish critical data, and willingness to allow overstatements of science to go unchecked for decades, is facing a barrage of well-founded criticism. As many Texas prosecutors have indicated, no conviction for child abuse or other violent crime should rest solely on bitemark comparison evidence. While the Commission understands and appreciates the important and helpful role forensic science plays in providing justice to victims, we must be vigilant to ensure the science used in criminal cases stands on a solid foundation of research and data, both for the benefit of victims and the accused.

VII. DEVELOPMENTS SINCE FEBRUARY 12, 2016 MEETING

The ABFO held its annual meeting at the AAFS meeting in Las Vegas the week of February 22, 2106. During that meeting, Dr. Adam Freeman was elected President of

the organization, and he released a letter to the stakeholder community describing organizational progress shortly after the meeting. (*See* **Exhibit H.**) Some non-exhaustive highlights of developments since the Commission's last meeting are:

1. The old decision tree including the terms "Biter" and "Probably Biter" has been removed from the ABFO website and guidelines. New guidelines were adopted which do not permit for biter identity, and additional guideline revisions are in progress.

2. A research team including Drs. Pretty, Freeman, Wright and Wood has begun working on the Commission's first recommendation regarding foundational research set forth above. An update on that research is expected within six months.

3. Significant efforts are underway to improve the ABFO proficiency testing and should be adopted in February 2017.

4. An ABFO subcommittee has been established to assist with case reviews to guard against miscarriages of justice. Individual odontologists in and outside of Texas have expressed willingness to assist with these cases.

5. The Bitemark Committee has been charged with the task of developing a mandatory blinded second opinion methodology.

6. The ABFO has implemented a bylaws change to allow for changes of standards and guidelines as new information becomes available, and not only at the organization's annual meeting. Dr. Freeman has publicly expressed his commitment to making the ABFO a more nimble and responsive organization. (*See* **Exhibit H.**)

The Commission looks forward to working with the ABFO, the Complainant and other interested stakeholders regarding these and other developments in the weeks and months ahead. This report may be updated to reflect the results of additional research and/or case reviews. Any questions regarding the contents of this report may be directed to the Commission's General Counsel, Lynn Garcia at lynn.garcia@fsc.texas.gov.

TABLE OF EXHIBITS

EXHIBIT A	American Board of Forensic Odontologists Communications and Research Outline
EXHIBIT B	Drs. Iain Pretty and Adam Freeman Construct Validity Study Presentation
EXHIBIT C	Dr. Iain Pretty Submission to Investigative Panel Including Appendices
EXHIBIT D	Dr. David Senn Presentations and Documents
EXHIBIT E	Dr. Frank Wright Presentation
EXHIBIT F	Mr. Peter Bush & Dr. Mary Bush Presentation and Documents
EXHIBIT G	Dr. John Demas Submission
EXHIBIT H	Dr. Adam Freeman Presidential Message
EXHIBIT I	Chaney Complaint and Exhibits
EXHIBIT J	New Decision Tree

IN THE COURT OF COMMON PLEAS
TRUMBALL COUNTY, OHIO

THE STATE OF OHIO,	:	
Plaintiff,	:	
v.	:	Case No.: 85-CR-317
DANNY LEE HILL,	:	
Defendant.	:	

AFFIDAVIT OF FRANKLIN D. WRIGHT, D.M.D.

I, Dr. Franklin D. Wright, hereby declare as follows:

BACKGROUND

1. I am a board-certified practicing forensic dentist with nearly three decades of experience as the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office. I have presented lectures and workshops in forensic odontology throughout the United States, Europe, Central America, and South America, including to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science.

2. I am a past president of the American Board of Forensic Odontology ("ABFO"), and currently chair of the ABFO Bitemark Proficiency Examination Development Committee.

3. I have reviewed, investigated, and consulted on hundreds of bite-mark cases.

4. I have been retained by the State of Ohio on numerous occasions to analyze bitemarks in criminal investigations and trials. I have also testified on behalf of the State of Ohio in criminal trials, including homicides.

5. A detailed curriculum vitae is attached as Exhibit A to this Affidavit.

6. On January 26, 2014, Counsel for Danny Lee Hill requested that I review certain case files and evidence relating to the prosecution of Mr. Hill for the murder of Raymond Fife. I understand that Mr. Hill was tried and convicted in the Trumbull County Court of Common Pleas in January 1986. At that trial, the court heard testimony relating to alleged bitemark evidence from two forensic dentists: Dr. Curtis Mertz and Dr. Lowell Levine. Such evidence is directly in my field of expertise.

7. After my review of the materials provided to me, I authored a letter to Mr. Hill's counsel, dated March 30, 2014, in which I reported my findings. This Affidavit confirms and supplements my findings as set forth in that letter, which is incorporated by reference and a copy of which is attached as Exhibit B to this Affidavit.

MATERIALS CONSIDERED

8. In reaching my opinions and as part of preparing this Affidavit, I have reviewed the following materials: Report of Dr. Curtis Mertz Report, Report of Dr. Lowell Levine, Trial Testimony of Dr. Mertz, Trial Testimony of Dr. Levine, and twenty-two black-and-white images that were photographs of the victim in the case of *State v. Danny Lee Hill*. I have been informed these were admitted as evidence during the trial of Danny Lee Hill.

9. In addition, I have relied on the experience and training acquired over my nearly three-decade career as a forensic dentist and consultant.

10. Finally, I have considered conversations that I had with Dr. Curtis Mertz, who is now deceased.

OPINION

11. It is my opinion, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim, Raymond Fife, is not a human bitemark.

12. Using the ABFO Bitemark Decision Tree first adopted by the ABFO in February 2013, when a patterned injury is defined by the ABFO Bitemark Terminology Guidelines as not representing a human bitemark, then analysis and comparison to any suspected biter is not sanctioned under any circumstances, and as a rule cannot be performed to a reasonable degree of medical/dental certainty.

13. Even if the patterned injury on the victim was a human bitemark, which it is not, its location on the penis of the victim makes the scientifically supportable identification of a particular biter impossible.

~~14.~~ It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that patterned injury on Raymond Fife's penis was created by a human teeth.

15. It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that the patterned injury on Raymond Fife's penis was created by Danny Lee Hill to the exclusion of millions of other individuals in the open universe of possible biters.

THE TESTIMONY AND OPINION OF DR. CURTIS MERTZ

16. Dr. Mertz erred when he conclusively identified Mr. Hill as the source of the patterned injury on the victim.

17. In my opinion, applying the current guidelines and standards of the ABFO, there is no scientific support for the conclusion that Mr. Hill left any portion of the patterned injury on the victim.

18. Furthermore, it is my opinion that the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question. Dr. Mertz's assertion that Mr. Hill caused the injury on the victim's penis required him to speculate that the victim's penis was erect when the bite occurred, that this erect penis would have been one and a third the size of a flaccid penis, and that therefore the dimensions of the bite-mark that were actually measured were approximately a third smaller than the dentition of the alleged biter. This speculation is nothing but a blind guess. Such blind guessing is not a reasonable or reliable scientific methodology, nor is it permitted under the ABFO Guidelines (or the ABFO-recommended "Decision Tree" based on those Guidelines). In my opinion, the extrapolations that Dr. Mertz made from his actual measurements (based on his speculation regarding the presence of erection and erect versus flaccid penis circumference) are not scientifically supportable, and suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias.

19. This bias is evidenced by the fact that Dr. Mertz chose to address only those aspects of the patterned injury that he felt that he could link to Mr. Hill's dentition, ignoring other aspects of the patterned injury that he could not link to Mr. Hill.

DR. MERTZ'S POST-TRIAL STATEMENTS

20. Dr. Mertz passed away in 2005. He was my mentor, as well as a respected teacher and scholar in the forensic odontology community. However, Dr. Mertz confided in me

that he regretted the testimony that he gave in this case, and that he did not believe that it was scientifically supportable.

21. These statements, or statements like them, were made to me by Dr. Mertz on two occasions. I discussed this case with Dr. Mertz at the time that I was preparing to take my ABFO certification examination in 1988 and then again in the 1990s. During both conversations, Dr. Mertz and I discussed the testimony that he gave in Mr. Hill's case.

22. On both occasions, in 1988 and again in the 1990s, Dr. Mertz confided to me that he no longer believed, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim in this case was a human bitemark. He also stated, on both occasions, that he no longer believed, to a reasonable degree of medical/dental certainty, that Mr. Hill's dentition was the source of that injury. Dr. Mertz clarified that if he had the opportunity to give further testimony in proceedings involving Mr. Hill, he would not have given the same opinion and testimony that the Court admitted as evidence.

THE TESTIMONY AND OPINION OF DR. LOWELL LEVINE

23. Dr. Lowell Levine erred when he opined that the injury on the victim represents a human bitemark.

24. Dr. Levine further erred when he stated (i) that either Mr. Hill, or his co-defendant, Tim Combs, could have been the biter, and (ii) that it is likely that one portion of the patterned injury was caused by Mr. Hill.

25. In my opinion, the only reasonable and reliable scientific conclusion that could be asserted given Dr. Levine's recorded observations about the patterned injury was either (i) that the patterned injury lacked specificity, and thus could not supply a basis for identifying either

Mr. Hill or Mr. Combs (or anyone else) as the biter, or (ii) that Mr. Hill's and Mr. Comb's dentitions were similar enough that a bitemark left by either of them would leave a pattern indiscernible from a bitemark pattern left by the other.

I declare under penalty of perjury that the foregoing is true and correct.

Franklin D. Wright, D.M.D.

Executed this 22 day of September, 2014.

Subscribed and sworn to me by the person known to me as Franklin D. Wright, D.M.D., this 22 day of September, 2014.

Notary Public: Melanie Sauter

My commission number: 3/3/2018

My commission expires: 3/3/2018

NOTARY PUBLIC STATE OF OHIO

MELANIE A. SAUTER
Notary Public, State of Ohio
My Commission Expires
March 3, 2018

DECLARATION OF FRANKLIN D. WRIGHT, D.M.D.

I, Dr. Franklin D. Wright, declare the following under penalty of perjury. If called, I would testify as follows:

BACKGROUND

1. I am a practicing forensic dentist with over three decades of experience as the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office. I have presented lectures and workshops in forensic odontology throughout the United States, Europe, Central America, and South America, including to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science.

2. I am a past president of the American Board of Forensic Odontology ("ABFO"), and past chair of the ABFO Bitemark Proficiency Examination Development Committee.

3. I resigned my position and membership with the ABFO in November, 2017.

4. Over the course of my three-decade career in forensic odontology, I have reviewed, investigated, and consulted on hundreds of bitemark cases.

5. I have been retained by the State of Ohio on numerous occasions to analyze bitemarks in criminal investigations and trials. I have also testified on behalf of the State of Ohio in criminal trials, including homicides.

6. A detailed curriculum vitae is attached as Exhibit A to this Affidavit.

7. On January 26, 2014, Counsel for Danny Lee Hill requested that I review certain case files and evidence relating to the prosecution of Mr. Hill for the murder of Raymond Fife. I understood that Mr. Hill was tried and convicted in the Trumbull County Court of Common Pleas in January 1986. At that trial, the court heard testimony relating to alleged bitemark

evidence from two forensic dentists: Dr. Curtis Mertz and Dr. Lowell Levine. Such evidence is directly in my field of expertise.

8. After my review of the materials provided I authored a letter to Mr. Hill's counsel, dated March 30, 2014, in which I reported my findings.

9. On September 22, 2014, I executed an Affidavit that confirmed and supplemented my findings in that letter. The content of that affidavit has been incorporated into this declaration.

MATERIALS CONSIDERED

10. In reaching my opinions, I have reviewed these materials: Report of Dr. Curtis Mertz Report, Report of Dr. Lowell Levine, Trial Testimony of Dr. Mertz, Trial Testimony of Dr. Levine, and twenty-two black-and-white images that were photographs admitted as evidence during the trial of Danny Lee Hill.

11. In addition to the case-specific materials, I reviewed the 2009 National Academy of Sciences (NAS) report, *Strengthening Forensic Science in the United States: A Path Forward* ("NAS Report"); the 2016 Report to the President by the President's Council of Advisors on Science and Technology, *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* ("PCAST Report"); the ABFO Bite Mark Guidelines; and the *Construct Validity Bitemark Assessments Using the ABFO Bitemark Decision Tree* ("Construct Validity Study"), and the April 12, 2016, report from the Texas Forensic Science Commission, titled *Forensic Bitemark Comparison Complaint Filed by National Innocence Project on Behalf of Steven Mark Chaney.*

12. I also have relied on the experience and training acquired over my career as a forensic dentist and consultant.

13. Finally, I have considered conversations I had with Dr. Curtis Mertz, who is now deceased.

14. After I executed the 2014 affidavit, I reviewed a report by Dr. Levine dated February 29, 2016, that was filed with the state court by the prosecutor.

OPINION

15. As detailed in my 2014 Affidavit, it is my opinion that the patterned injury on the victim, Raymond Fife, is not a human bitemark.

16. My opinion about this injury is based on my experience, but is also informed by the results of the *Construct Validity Study*, which demonstrated that even the ABFO Board-Certified Diplomates cannot reliably identify a pattern injury as a human bite mark.

17. My recent resignation from the ABFO was prompted by the failure of the organization to recognize the profound implications of the *Construct Validity Study*. In my view, the results of that study required the organization to renounce the use of bitemark analysis and comparison unless and until the method could be scientifically validated. My position is consistent with the findings published by the Texas Forensic Science Commission following its six-month study, which I participated in as a subject matter expert.[1]

18. As detailed below, under the ABFO's current Guidelines, Dr. Mertz's testimony identifying Mr. Hill as "the biter" is scientifically indefensible.

19. I was prepared to testify at a full evidentiary hearing in 2016 where I would have expanded on my opinions about the lack of scientific reliability to bitemark comparison. I was also prepared to discuss the influence of bias, including racial bias, likely played in Dr. Mertz's

[1] The report and all of the exhibits are available online at http://www.fsc.texas.gov/sites/default/files/FinalBiteMarkReport.pdf.

ultimate opinion. However, I was informed by counsel for Mr. Hill that the judge retracted the order granting a hearing and then subsequently denied the request for a new trial. My testimony was substantially limited.

THE TESTIMONY AND OPINION OF DR. CURTIS MERTZ

20. I testified at an evidentiary hearing on December 21, 2015, about the significant changes by the ABFO on the scientific reliability of bitemark comparison.

21. The guidelines in place for board-certified forensic dentists have dramatically changed, once again, since my 2015 testimony. Though his testimony fell within acceptable limits at the time of trial, today, these guidelines would preclude the testimony given by Dr. Mertz in this case.

22. Analyzing this injury under today's standards, I conclude that the two circular marks on the victim's penis contains insufficient detail to declare it a human bite mark. Under today's Guidelines, it could be, at best, characterized as "Inconclusive," and no further comparison could or would be undertaken.

23. Even if this could be determined to be a bitemark, there is insufficient evidentiary value for a comparison as one cannot definitively determine upper or lower arches, the midlines of the arches, or clear outlines of the incisal edges of individual teeth.[2] Nor is it possible to state definitively the orientation of this injury.

[2] The ABFO Guidelines define a bite mark as follows: A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition. ABFO Manual at 115.

24. In my view, the injury at issue in this case is of uniquely poor quality and totally lacks evidentiary value. While obviously the quality of the injury has not itself changed since Mr. Hill's trial, available scientific understanding and evidence about how such poor quality can, as here, preclude further analysis has changed.

25. In addition, the ruler Dr. Mertz used to analyze the injury is not a two-sided, right-angled ABFO forensic ruler, so one cannot determine definitively if there is photographic distortion due to the angle of the camera lens. Thus, pursuant to the ABFO Guidelines, under no circumstances should any comparison to a suspected dentition have been attempted using this evidence.

26. Not only was this injury probably not a bitemark and unsuitable for comparison, but Dr. Mertz's conclusions about its source in this case are also now understood to be unreliable, and, indeed wrong, both as a matter of generally accepted science and pursuant to the ABFO Guidelines. As the NAS Report and PCAST Report have made clear, there is no science that supports a conclusion that a specific perpetrator inflicted a particular bite mark.

27. Furthermore, it is my opinion that the location of the patterned injury renders it impossible to make any positive association between a suspected biter and this patterned injury. Dr. Mertz's assertion that Mr. Hill caused the injury on the victim's penis required him to speculate that the victim's penis was erect when the bite occurred, this erect penis would have been three times the size of a flaccid penis, and that therefore the dimensions of the bitemark that were actually measured were approximately a third smaller than the dentition of the alleged biter. This speculation is only a blind guess. Such blind guessing is not a reasonable or reliable scientific methodology, nor is it permitted under the ABFO Guidelines.

28. In my opinion, the extrapolations that Dr. Mertz made from his actual measurements (based on his speculation regarding the presence of erection and erect versus flaccid penis circumference) are not scientifically supportable, and suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias.

29. This bias is evidenced by the fact that Dr. Mertz addressed only those aspects of the patterned injury he felt he could link to Mr. Hill's dentition, ignoring other aspects of the patterned injury he could not link to Mr. Hill.

DR. MERTZ'S POST-TRIAL STATEMENTS

30. Dr. Mertz passed away in 2005. As noted, he was my mentor, and a respected teacher and scholar in the forensic odontology community. However, prior to his death, Dr. Mertz told me that he regretted the testimony he gave in this case, and that he did not believe that it was scientifically supportable.

31. These statements, recorded here to the best of my recollection, were made by Dr. Mertz on two different occasions after my questioning his conclusions in this case in 1988. The first conversation in the mid 1990s where Dr. Mertz stated to me that he still believed Mr. Hill bit the penis of the victim but he wouldn't state "reasonable medical/dental certainty" in his conclusions as he had in his testimony and our previous discussion of this case in 1988. Later in the 1990s, Dr. Mertz told me that he did not have the same opinion of "reasonable medical/dental certainty" to which he had testified in the case. He further explained that he would not be able to testify with ANY certainty that Mr. Hill's teeth caused the injury on the penis of the victim or that injuries on the penis were caused by teeth.

32. Dr. Mertz further confided that he felt pressure from the prosecution to offer testimony that Mr. Hill was the source of a human bitemark on the victim's penis. Dr. Mertz told me he felt this pressure interfered with his ability to offer a scientifically unbiased analysis of the evidence. He also stated that absent that pressure he would not have given the opinion or testimony used to convict Mr. Hill. I do not know if he informed the prosecutor of his misgivings about his testimony.

33. When Dr. Mertz was discussing this case with me, he made racially prejudicial statements about the defendant being a black man including the "n" word. I recall at the time finding those statements inappropriate, offensive, and unacceptable as they pertained to a case in which Dr. Mertz was working.

34. Despite these expressed regrets, Dr. Mertz to my knowledge never came forward publicly and did not tell me the name of the case so that I could do so. Whether this was because of his beliefs about Mr. Hill's guilt or his race, I do not know. I did not know until Mr. Hill's current counsel contacted me that it was Mr. Hill's case to which Dr. Mertz was referring.

OUTCOME AND CONFIRMATION BIAS

35. It is my understanding that Dr. Mertz knew that Mr. Hill was a suspect in the case when he received the casts of his teeth, before undertaking any comparison and rendering his conclusions. This is improper under today's understanding of the proper scientific method because it creates cognitive bias which can infect the conclusions and render them unreliable. As the PCAST report found: "Cognitive bias refers to ways in which human perceptions and judgments can be shaped by factors other than those relevant to the decision at hand. It includes

'contextual bias,' where individuals are influenced by irrelevant background information . . . ." PCAST Report at 31

36. Here, the information that Mr. Hill was a suspect, given to Dr. Mertz *before* analyzing the evidence and reaching his conclusions, was irrelevant background information that could shape his ultimate judgment, rendering it even more unreliable. By today's standards, no forensic odontologist should know the facts of the case or the suspects formulated by the police prior to analyzing any suspected dentition. At the time of Dr. Mertz's analysis, that was the common, but mistaken, practice.

37. Because cognitive bias occurs at a subconscious level and "cannot be willed away,"[3] these findings in no way diminish the professionalism or virtue of scientists, both forensic and otherwise. Instead, experts (given the shortcuts in reasoning and perception that their experience affords them) may actually be at a greater risk of succumbing to cognitive bias (again unintentionally) than non-experts.

38. The contextual bias discussed above was, unfortunately, only one aspect of implicit bias likely to have influenced Dr. Mertz's opinion in this case. Considering his use of racially derogatory language in my presence, including the "n word," and comments he made to me about this case in particular, racial bias also played a role in Dr. Mertz's willingness to "match" Mr. Hill to the two marks on the victim's penis.

39. I have personally reviewed hundreds of "bitemark" cases, including several with Dr. Mertz. *None* of those cases were close to the gross speculation he proffered in this case. In my experience with Dr. Mertz, he was always very careful not to speculate in order to simply inculpate a suspected biter. Indeed, as discussed above, Dr. Mertz confided to me that he had no

[3] NAS Report, at 122.

confidence in his opinion in this case, and yet did nothing to retract his testimony, perhaps because of Mr. Hill's race and what he viewed as Mr. Hill's likely guilt. Therefore, knowledge of the race of both the victim and the defendant in this racially charged, highly emotional case, is likely to have had an impermissible effect on Dr. Mertz's willingness to depart so far from the careful, conservative analysis he taught me during the years he acted as my mentor.

THE TESTIMONY AND OPINIONS OF DR. LOWELL LEVINE

40. Dr. Lowell Levine erred when he opined that the injury on the victim represents a human bitemark.

41. Dr. Levine further erred when he stated (i) that either Mr. Hill, or his co-defendant, Tim Combs, could have been the biter, and (ii) that one portion of the patterned injury was likely caused by Mr. Hill.

42. In my opinion, the only reasonable and reliable scientific conclusion that could today be asserted given Dr. Levine's recorded observations about the patterned injury was, as with Dr. Mertz, that the patterned injury lacked specificity, and thus could not supply a basis for identifying the injury as a bite mark and either Mr. Hill or Mr. Combs (or anyone else) as the biter.

43. I agree with Dr. Levine's February 29, 2016, report insofar as he acknowledges that bitemark comparison is subjective. But when he states it is an art based on science, I am concerned that his own bias is clouding his current judgment. Dr. Levine should know by now that his testimony at Mr. Hill's trial was also not based on sound science and should not have been admitted.

44. As a forensic dentist, Mr. Hill's case is one of the most egregious examples of how bitemark comparison has been used wrongly and fraudulently to sustain a capital murder conviction.

I declare under penalty of perjury that the foregoing is true and correct.

Franklin D. Wright, D.M.D.

Executed this 7th day of June, 2020.

UNIVERSITY OF NEVADA •Reno

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TO: Ms. Vicki Werneke
Assistant Federal Public Defender
Capital Habeas Unit
Office of Federal Public Defender
Northern District of Ohio

FROM: Deborah Davis, Ph.D.
Professor of Psychology
University of Nevada, Reno

RE: Affidavit Ohio v. Danny Lee Hill: #85-CR-317

DATE: 9 2 2014

I, Deborah Davis declare as follows:

1. You have asked me to provide an analysis of the case of Danny Lee Hill to assess the potential that he falsely confessed.

2. This affidavit contains my qualifications as an expert on false confessions, the records I have reviewed regarding this case, and a general description of my opinions.

3. The attached report provides the specific basis of the opinions herein and details regarding what science has shown about the causes of false confession, sources of suspect vulnerability to influence/coercion, and difficulties of evaluating the validity of confessions.

4. **Education and Experience** (see Attached CV)

5. I am currently Professor of Psychology at the University of Nevada, Reno, where I have worked since 1978. I am also a member of the faculty of the National Judicial College.

6. I received a B. A. in Psychology from the University of Texas (Austin) in 1970, and a Ph. D. in Psychology from Ohio State University in 1973. After spending two years as a Post-Doctoral Fellow at Ohio State, I taught at Southern Illinois University for two years and Georgia State University for one year before moving to the University of Nevada, Reno.

7. I have published approximately 20 articles and chapters on the topic of police interrogation and confessions, and presented approximately 16 times on this topic at conferences of scientific organizations and 14 times at Continuing Legal Education events for legal organizations and the National Judicial College. In addition, I have published a number of other articles and chapters that include discussion of interrogations and confession, and many others that address the broader topic of social influence. Finally, I have published many other articles in other areas of psychology.

8. I was awarded a grant from the Department of Justice/Federal Bureau of Investigation to perform research on interrogation techniques in 2012.

9. I have completed the basic and advanced interrogation training seminars offered by John Reid, Assoc. and Wicklander-Zulawski (the primary interrogation training organizations in America), on criminal and corporate interrogation.

10. I have testified as an expert witness on interrogation and confessions in Alaska, Colorado, California, Illinois, Louisiana, Michigan, Missouri, Mississippi, New Mexico, New York, Oregon, South Carolina, Pennsylvania, Utah, and Washington State.

11. Records Reviewed

12. (SH1): Motion to Suppress Hearing Vol. 1 273 pp
13. (SH2): Motion to Suppress Hearing Vol. 2 259 pp
14. Adaptive functioning narrative (16 pp)
15. Trial Transcript Vol. 1 (321 pp)
16. Trial Transcript Vol. 2 (312 pp)
17. Trial Transcript Vol. 3 (346 pp)
18. Trial Transcript Vol. 4 (313 pp)
19. Tim Combs Statements to Police
20. Timeline for Danny Hill Case (7 pp)
21. Probation Report (22 pp)
22. Mitigation Report (408 pp)

23. Hill Video Interview Transcript (54 pp)
24. Hill Audio Interview Transcript (44 pp)
25. Coroner's Verdict (1 p)
26. Autopsy Report (11 pp)
27. Voluntary Statement of Timothy Combs Written (4 pp)
28. Interrogation Timothy Combs (78 pp)

29. **OVERVIEW OF OPINIONS**

30. Danny Lee Hill was a retarded teenage African American at the time of the murder in question. He became a suspect in the violent abuse and murder of a young 12 yr old boy because he went to police himself, saying he had relevant information about the crime. A reward of $5,000 had been posted for such information. Danny asserts that he went to police to try to tell them a false story that would get him the reward. Police quite correctly suspected him of lying (as he admits he did). But this led them to suspect he was involved in the crime himself. These suspicions led police to interrogate Danny on two subsequent occasions, during the second of which he eventually admitted involvement in the crime.

31. Danny Hill did not believe he could refuse to talk to police, though he was given Miranda warnings during each interrogation. Danny demonstrably did not understand many of the words entailed in the warnings, nor did he understand the implications of waiver. He could barely read, and could not read (or understand verbally) most of the content. Moreover, his interrogators essentially instructed him to talk to them and presented the warnings as a formality rather than a choice to be made. Thus, his waiver could not be considered voluntary, knowing or intelligent.

32. Danny Hill was an individual who was highly susceptible to influence, given his low IQ and difficult life history. He was interrogated by officers he had known most of his life, including his Uncle Morris Hill. He was explicitly told that nothing was going to happen to him, that he was not under arrest, and that he would be going home. At the same time, he was accused of involvement in the crime and interrogated in a very suggestive manner. That is, officers fed Danny Hill almost every fact that was incorporated into his final confession. The officers noted this pattern themselves:

> "You know, Danny, it seems like everything we suggest to you, you agree with us; right? Isn't that the way it seems to you? .. Now, if we suggest something, it seems that you agree with us. In other words, about the cigarette lighter; I suggested he was looking for it, and you agreed with it. Now, if I was to just suggest and say that the boy sucked your pee-pee, would you agree to that?" (Audio Interview Transcript, p. 37).

33. It is my opinion that this statement by the interrogator sums up very accurately where the content of Danny Lee Hill's confession came from. He was told he was involved and instructed to tell the officers exactly what happened. His denials were not believed, and they repeatedly told him he was lying and needed to admit his involvement. It was only after his own Uncle Morris Hill met with him alone and instructed him to start admitting that he was involved that Danny agreed, and the taped interrogations followed.

34. It is clear from the interrogation transcripts (which begin well after the questioning that day began) that Danny gets his answers from the interrogators' suggestions. They asked questions suggesting an answer (such as "Did he put anything in the victim's mouth."). Thus, Danny gave answers essentially agreeing with what he was asked. When he gave an answer inconsistent with what interrogators knew (or thought they knew), they corrected him and told him what they believe happened instead. He would then change his answers. When they asked him leading questions they knew to be false, Danny agreed with those too. This pattern is what led the interrogator to say that it seemed that everything they suggested Danny would agree with.

35. In addition to the interrogators suggestions, information about the case and details were widely available in the community. Countless members of the community were around the crime scene when police arrived. The victim had been found by his father. Thus, many details of how the victim was found and in what condition could have been conveyed through the community by the victim's family or directly observed by others at the crime scene.

36. I do not have access to all of the evidence in the case, and cannot offer an ultimate opinion of guilt or innocence. However, it is my opinion, based on the evidence surrounding the interrogations themselves and Danny's personal characteristics, that Danny Hill's confession was highly unreliable. It is very possible that he was simply a young teenager of low intelligence living in relative poverty who saw an opportunity to get what must have seemed a fortune to him ($5,000). He decided to concoct some lies that would seem like valuable evidence to police. But he didn't really know what he was talking about, in that he knew only publicly available facts about the crime.

37. His lies were not plausible, in part, because he didn't know the real facts. It is very difficult for liars to construct a plausible story that will fit facts others know but they don't. It is also difficult for them to keep straight in memory what they have told (keep track of their own stories and who they have told them to, etc.). Danny Hill started constructing a story he thought would be plausible, but he had to keep making up more stuff as police questioned him about details or challenged his first accounts—and then keep all that straight in memory. This is something that is essentially impossible for a retarded young man such as Danny.

38. Therefore, whether guilty or innocent, it is no surprise that he gave multiple inconsistent accounts in his initial two interrogations and stories to his interrogators: with the result that he became a serious suspect. Danny Hill had gotten himself in a situation where his initial efforts to claim a reward led him into a series of interrogations in which he first tried to maintain his original position as a witness with valuable information, but was so clearly caught in lies that his interrogators transitioned into trying to elicit admissions of guilt. By his third interrogation Danny was already stuck with his previous statements, could not see his way out of the interrogation itself or any way to successfully deny involvement (given the interrogators' insistence that he was involved and must tell them how) and was finally led to change his story in the direction his interrogators had become convinced was true.

39. Given Danny Hill's personal characteristics and vulnerability to influence, his personal history with his interrogators, the demands placed on him to confess, and the way in which the content of his confession was fed to him, little weight should be given to his confession as evidence of guilt. Moreover, whether he is actually innocent or guilty, the details of his confession were fed to him by his interrogators and should not be regarded as reliable.

Executed this 3rd day of September 2014 in Reno, Nevada.

Deborah Davis, Ph.D.

State of Nevada
County of Washoe

Signed and sworn before me on 3 Sept 2014
by Deborah Davis

Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Washoe
AMBER MILLER
No: 04-91829-2
My Appointment Expires July 11, 2016

125 N.E.3d 158
Court of Appeals of Ohio, Eleventh District, Trumbull County.

STATE of Ohio, Plaintiff-Appellee,
v.
Danny Lee **HILL**,
Defendant-Appellant.

NO. 2016-T-0099
|
Decided 12/03/2018

Synopsis

Background: Defendant, convicted of aggravated murder, filed motions for new trial and to disqualify county prosecutor. The Court of Common Pleas, Trumbull County, No. 85 CR 317, denied the motions. Defendant appealed.

Holdings: The Court of Appeals, Diane V. Grendell, J., held that:

[1] trial court could strike portions of defendant's motion for new trial that exceeded scope of the issue related to the bite mark evidence;

[2] there was no evidence presented in defendant's motion for new trial that defendant was unavoidably delayed in obtaining expert testimony concerning victim's injuries and defendant's confession;

[3] trial court did not err in its application of res judicata and the law of the case doctrine;

[4] trial court did not fail to acknowledge that the bite mark evidence on the murder victim was newly discovered evidence;

[5] evidence supported trial court's conclusion that a new trial would not result in a different outcome;

[6] trial court did not abuse its discretion by denying defendant's motion for a new trial without holding an evidentiary hearing; and

[7] there was no actual breach of confidence resulting in prejudice to defendant by defendant's former trial counsel taking position with county prosecutor's office.

Affirmed.

Thomas R. Wright, P.J., concurred in judgment only.

Colleen Mary O'Toole, J., dissented with opinion.

Procedural Posture(s): Appellate Review; Post-Conviction Review.

West Headnotes (19)

[1] **Criminal Law** Newly Discovered Evidence
Criminal Law Time for Making
When considering an untimely motion for new trial based on newly discovered evidence, a trial court is required to engage in a two-step process, first determining whether

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the motion should be allowed and then considering the merits thereof. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[2] **Criminal Law** Newly Discovered Evidence

To warrant the granting of a motion for a new trial in a criminal case, based on the ground of newly discovered evidence, it must be shown that the new evidence (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[3] **Criminal Law** Time for Making

A trial court considering an untimely motion for a new trial would only need to consider whether evidence is, in fact, newly discovered if it finds that defendant had no knowledge of the existence of the ground supporting the motion and could not have learned of that existence within the time prescribed for filing the motion in the exercise of reasonable diligence. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[4] **Criminal Law** Newly Discovered Evidence

Criminal Law Surprise and newly discovered evidence

The allowance of a motion for a new trial on the grounds of newly discovered evidence is within the competence and discretion of the trial judge; and in the absence of a clear showing of abuse such decision will not be disturbed. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[5] **Criminal Law** Scope of assignment

The trial court granted defendant leave to file his motion for a new trial only on the basis of bite mark evidence found on the murder victim and presented at trial, and therefore the trial court could strike portions of defendant's motion for new trial that exceeded scope of the issue related to the bite mark evidence; defendant's request for leave only referenced the bite mark evidence, and defendant's two witnesses at evidentiary hearing only discussed the bite mark evidence. (Per Diane V. Grendell, J., with one judge concurring in judgment only.) Ohio Civ. R. 12(F).

[6] **Criminal Law** What constitutes newly discovered evidence in general

There was no evidence presented in defendant's motion for new trial that defendant was unavoidably delayed in obtaining testimony from doctor challenging the opinions of pathologist regarding the victim's injuries and testimony from doctor opining that little weight should be given to defendant's confession as evidence of his guilt; grounds for their testimony were expressly acknowledged at time of trial, and many of the points raised by the doctor opining about defendant's confession were raised by trial counsel. (Per Diane V. Grendell, J., with one judge concurring in judgment only.) Ohio Civ. R. 12(F).

[7] **Judgment** Criminal prosecutions

Where leave to file a motion for new trial is based on issues that could have been raised on direct appeal the doctrine of res judicata is properly invoked to deny leave. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[8] **Criminal Law** Particular evidence or cases

Judgment Criminal prosecutions

The trial court did not err in its application of res judicata and the law of the case doctrine in its denial of defendant's motion for a new trial based on newly discovered evidence related to bite mark evidence on the murder victim presented at trial; the bite mark evidence did nothing to vitiate the sufficiency of the overwhelming evidence against defendant. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[9] **Criminal Law** Determination

The trial court determining whether to grant defendant's motion for new trial did not fail to acknowledge that the bite mark evidence on the murder victim was newly discovered evidence; trial court explicitly referred to "new evidence relating to bite mark evidence," and trial court subjected the bite mark evidence to an analysis to determine whether newly discovered evidence warranted the granting of a motion for a new trial. (Per Diane V. Grendell, J., with one judge concurring in judgment only.) Ohio Crim. R. 33.

[10] **Criminal Law** Particular evidence or cases

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Defendant's presence during murder of victim could not be seriously questioned, and therefore evidence supported the trial court's conclusion that a new trial would not result in a different outcome; witnesses observed defendant with other principal convicted of the murder in area in which victim was later found, witness observed defendant toss stick that matched description of that which was used during the attack, defendant attempted to implicate persons who were not found to have any connection with the crime, defendant misled police about his involvement by denying his presence at crime scene and his association with other principal convicted for murdering the victim, and defendant's brother testified that several days after the attack he observed defendant washing a pair of pants that were stained with something red that "looked like blood." (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[11] **Criminal Law** Degree of proof

Criminal Law Relative strength of circumstantial and direct evidence

Circumstantial evidence and direct evidence inherently possess the same probative value, and when the state relies on circumstantial evidence to prove an essential element of the offense charged, there is no need for such evidence to be irreconcilable with any reasonable theory of innocence in order to support a conviction. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[12] **Homicide** Homicide in General

Circumstantial evidence alone may be sufficient to support a conviction for murder. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[13] **Criminal Law** Subsequent Condition or Conduct of Accused

The fact of an accused's flight, escape from custody, resistance to arrest, concealment, assumption of a false name, and related conduct, are admissible as evidence of consciousness of guilt, and thus of guilt itself. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[14] **Criminal Law** Suppression or destruction of evidence, or misrepresentations to avoid suspicion or cast it upon another

Exculpatory statements, when shown to be false or misleading, are circumstantial evidence of guilty consciousness and have independent probative value. (Per Diane V.

Grendell, J., with one judge concurring in judgment only.)

[15] **Criminal Law** Hearing and rehearing in general

The trial court did not abuse its discretion by denying defendant's motion for a new trial without holding an evidentiary hearing; trial court did not question the validity of defendant's newly discovered bite mark evidence and proceeded on the assumption that his evidence would have precluded the admission of the State's evidence at trial, and trial court then considered whether the absence of bite mark evidence would have been outcome determinative. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

Ohio Crim. R. 33.

[16] **Criminal Law** Hearing and rehearing in general

Rule of criminal procedure governing a new trial does not require a hearing on a motion for new trial and the decision to conduct a hearing lies within the sound discretion of the trial court. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

Ohio Crim. R. 33.

[17] **Criminal Law** Disqualification of one prosecutor affecting or imputed to the rest of the office

There was no actual breach of confidence resulting in prejudice to defendant by defendant's former trial counsel taking a position with county prosecutor's office; defendant proffered no evidence of an actual breach of confidence resulting from his former trial counsel's employment by prosecutor's office. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[18] **Criminal Law** Disqualification of Prosecutor

Hiring of defendant's uncle as an investigator with public defender's office and victim's mother as a victim's advocate with prosecutor's office had no bearing on whether county prosecutor's office should have been disqualified; neither defendant's uncle nor victim's mother were attorneys. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

[19] **Criminal Law** Decisions on motion for new trial

Circumstantial evidence overwhelmingly pointed toward defendant's guilt in aggravated murder convictions, and therefore the trial court did not commit

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prejudicial and reversible error when it failed to consider and rule on defendant's argument in motion for a new trial that expert testimony on behalf of the State should have been treated as fabrication. (Per Diane V. Grendell, J., with one judge concurring in judgment only.)

***161** Criminal Appeal from the Trumbull County Court of Common Pleas, Case No. 85 CR 317.

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OPINION

DIANE V. GRENDELL, J.

{¶ 1} Defendant-appellant, **Danny** Lee **Hill**, appeals the decisions of the Trumbull County Court of Common Pleas to deny his Motion for New Trial without hearing and to deny his Motion to Disqualify the Office of the Trumbull County Prosecutor. The issues before this court are whether a trial court may strike portions of a motion for new trial based on newly discovered evidence that exceeded the scope of the court's order granting leave to file the motion for new trial; whether the doctrines of res judicata and law of the case may be applied in analyzing the merits of a motion for new trial; whether a trial court must formally recognize evidence as newly discovered in its analysis of whether the evidence justifies the granting of a motion for new trial; whether an aggravated murder conviction may be sustained based solely on circumstantial evidence; whether a trial court errs in denying a motion for new trial without holding a hearing where the determinative issue turns on the probability of a different outcome at trial in the absence of certain evidence; whether a county prosecutor's office must be disqualified where defendant's former trial counsel takes a position with the office in the absence of actual prejudice; and whether a demonstration of the unreliability of bite mark evidence renders trial proceedings so fundamentally unfair as to deprive a defendant of due process. For the following reasons, we affirm the decision of the court below.

{¶ 2} On November 14, 2014, Hill filed a Request for Leave to File a Motion for New Trial pursuant to Ohio Criminal Rule 33(B). On November 20, 2014, the State filed its Response to Hill's Request, to which Hill filed a Reply on February 12, 2015. On May 14, 2015, Hill filed Supplemental Authority in Relation to his Request for Leave to File a Motion for New Trial.

{¶ 3} On May 22, 2015, Hill filed a Motion to Disqualify the Office of the Trumbull County Prosecutor. On June 16, 2015, the State filed

its Response to Hill's Motion to disqualify, to which Hill filed a Reply on July 7, 2015.

{¶ 4} On December 21, 2015, the trial court held an evidentiary hearing on Hill's Request for Leave, at the conclusion of which it orally denied the Motion to Disqualify the Office of the Trumbull County Prosecutor.

{¶ 5} On June 7, 2016, the trial court issued its Order on Petitioner's Request ***162** for Leave to File a Motion for New Trial pursuant to Ohio Criminal Rule 33(B). The court noted that on January 31, 1986, after a trial presided over by a three-judge panel, Hill was found guilty of Aggravated Murder in violation of R.C. 2903.01(B) with Specifications for Kidnapping, Rape, and Aggravated Arson (Count # 1); Kidnapping in violation of R.C. 2905.01 (Count # 2); Rape in violation of R.C. 2907.02 (Count # 3); Aggravated Arson in violation of R.C. 2909.02 (Count # 4); and Felonious Sexual Penetration in violation of former R.C. 2907.12(A)(1) and (3) (Count # 6). The court further noted that, on March 5, 1986, Hill was sentenced to death for Aggravated Murder. [1]

[1] Hill was sentenced to imprisonment for the indeterminate period of ten to twenty-five years for Kidnapping, the determinate period of life for Rape, the indeterminate period of ten to twenty-five years for Aggravated Arson, and the determinate period of life for Felonious Sexual Penetration.

{¶ 6} Hill's convictions are based on the murder of Raymond Fife on September 10, 1985. The factual record is set forth in detail in *State v. Hill*, 11th Dist. Trumbull Nos. 3720 and 3745, 1989 WL 142761 (Nov. 27, 1989), and *State v. Hill*, 64 Ohio St.3d 313, 595 N.E.2d 884 (1992).

{¶ 7} The trial court determined, by clear and convincing evidence, that Hill was unavoidably prevented from filing his Motion for Leave within the one hundred twenty day period provided for by Criminal Rule 33. The court noted that "[t]he crux of Petitioner's argument for leave to file a motion for new trial * * * pivots on the scientific advances in forensic odontology made since 1986 that call into question the reliability of bite mark evidence presented in Hill's trial." In 2013, the American Board of Forensic Odontology established new guidelines for bite mark analysis which could not have been discovered by any amount of due diligence in 1986. Moreover, the court found that "the local and state Public Defender's Office had a conflict of interest in preparing and filing the motion for leave for a new trial" resulting in unavoidable further delay.

{¶ 8} On these grounds, the trial court granted Hill leave to file a motion for new trial.

{¶ 9} On June 13, 2016, Hill filed a Motion for New Trial. On July 5, 2016, the State filed its Response, to which Hill filed a Reply on July 19, 2016.

{¶ 10} On June 16, 2016, the State filed a Motion to Strike Defendant's Motion for New Trial. On June 27, 2016, Hill filed a Response

{¶ 11} On September 21, 2016, Hill filed Supplemental Authority and Renewed Motion

for Evidentiary Hearing. On September 23, 2016, the State filed its Response, to which Hill filed a Reply on September 26, 2016.

{¶ 12} On October 3, 2016, the trial court issued its Order on Petitioner's Motion for Evidentiary Hearing on Motion for New Trial.

{¶ 13} With respect to the State's Motion to Strike, the trial court found that, in his June 13, 2016 Motion for New Trial, Hill "included issues that were never raised in his prior motion for leave to file a new trial motion." These issues included "the voluntariness of Hill's statements given to the Warren Police Department after the murder of Raymond Fife in 1985" and Dr. Adelman's testimony regarding "the stick or broomstick handle that was introduced by the State at Hill's trial." The court found these additional claims, "unilaterally added by Petitioner in his motion for new trial," to be redundant, impertinent, and immaterial under Civil Rule 12(F). Moreover, the court found "any further ***163** discussion of these claims * * * barred by the '*law of the case*' doctrine and '*res judicata*.' " The court ordered these claims stricken.

{¶ 14} The trial court then considered whether Hill's newly discovered bite mark evidence, even if contradicting or impeaching prior trial testimony, "can serve as the basis for a new trial in this case," which question turned on "whether the bite mark evidence creates a 'strong probability' that there would be a different outcome in a future trial." Without conducting an evidentiary hearing on the issue, the court concluded that, "even if the bite mark evidence is excluded, considering the totality of the evidence against the Petitioner, particularly on the Kidnapping specification, Petitioner has failed to demonstrate a 'strong probability' that there would be a different outcome if a new trial were granted in this case." In reaching its conclusion, the court noted that the "Ohio Supreme Court thoroughly reviewed the sufficiency of the evidence in this case when it affirmed the Petitioner's convictions," and the "majority of the Court's findings on sufficiency had nothing to do with the bite mark evidence."

{¶ 15} Accordingly, the trial court denied Hill's Motion for New Trial.

{¶ 16} On October 26, 2016, Hill filed a Notice of Appeal. On appeal, Hill raises the following assignments of error.

{¶ 17} "[1.] The trial court committed prejudicial and reversible error when it held it was precluded under the doctrines of *res judicata* and/or 'law of the case' from an independent review of the evidentiary record and/or an independent determination of the merits of Mr. Hill's motion for new trial based on newly discovered evidence, thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶ 18} "[2.] The trial court committed prejudicial error when it held that Mr. Hill's new evidence did not satisfy the requirements of *State v. Petro* because the bitemark evidence proffered by Mr. Hill did not create a 'strong probability' of a different result if Mr. Hill is granted a new trial thus denying Mr. Hill due process of law in violation of the Fifth,

Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶ 19} "[3.] The trial court committed prejudicial and reversible error when it failed to hold that Mr. Hill's bitemark evidence constituted 'new evidence' under Criminal Rule 33 and *State v. Petro* thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶ 20} "[4.] The trial court committed prejudicial and reversible error when it granted the State's Rule 12 motion to strike Mr. Hill's non-bitemark evidence based on an erroneous interpretation of *State v. Petro* and/or an inappropriate application of 'law of the case' and/or *res judicata* thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶ 21} "[5.] The trial court committed prejudicial and reversible error when it failed to conduct an evidentiary hearing before denying Mr. Hill's motion thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶ 22} "[6.] The trial court abused its discretion by not granting Mr. Hill's motion to disqualify the Trumbull County Prosecutor thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, ***164** Eighth, and Fourteenth Amendments to the United States Constitution."

{¶ 23} "[7.] The trial court committed prejudicial and reversible error when it failed to consider and rule on Mr. Hill's argument that the fabricated expert evidence at his trial constituted a violation of his Eighth and Fourteenth Amendment rights."

[1] {¶ 24} When considering an untimely motion for new trial based on newly discovered evidence, a trial court is required to engage in a "two-step process," first determining whether the motion should be allowed and then considering the merits thereof. *State v. Elersic*, 11th Dist. Geauga No. 2006-G-2740, 2007-Ohio-3371, 2007 WL 1881496, ¶ 23.

{¶ 25} With respect to the timeliness requirement, the Rules of Criminal Procedure provide:

> Motions for new trial on account of newly discovered evidence shall be filed within one hundred twenty days after the day upon which the verdict was rendered, or the decision of the court where trial by jury has been waived. If it is made to appear by clear and convincing proof that the defendant was unavoidably prevented from the discovery of the evidence upon which he must rely, such motion shall be filed within seven days from an order of the court finding that he was unavoidably prevented from discovering

> the evidence within the one hundred twenty day period.

Crim.R. 33(B).

{¶ 26} With respect to the merits of a motion for new trial, Criminal Rule 33 provides:

> A new trial may be granted on motion of the defendant * * * [w]hen new evidence material to the defense is discovered which the defendant could not with reasonable diligence have discovered and produced at the trial. When a motion for a new trial is made upon the ground of newly discovered evidence, the defendant must produce at the hearing on the motion, in support thereof, the affidavits of the witnesses by whom such evidence is expected to be given, and if time is required by the defendant to procure such affidavits, the court may postpone the hearing of the motion for such length of time as is reasonable under all the circumstances of the case. The prosecuting attorney may produce affidavits or other evidence to impeach the affidavits of such witnesses.

Crim.R. 33(A)(6).

[2] {¶ 27} "To warrant the granting of a motion for a new trial in a criminal case, based on the ground of newly discovered evidence, it must be shown that the new evidence (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence." *State v. Hawkins*, 66 Ohio St.3d 339, 350, 612 N.E.2d 1227 (1993), citing *State v. Petro*, 148 Ohio St. 505, 76 N.E.2d 370 (1947), syllabus.

[3] {¶ 28} Moreover, a "trial court would only need to consider whether the evidence is, in fact, 'newly discovered' if it finds that appellant 'had no knowledge of the existence of the ground supporting the motion and could not have learned of that existence within the time prescribed for filing the motion in the exercise of reasonable diligence.' " (Citation omitted.) *State v. Trimble*, 2015-Ohio-942, 30 N.E.3d 222, ¶ 19 (11th Dist.).

***165** **[4]** {¶ 29} "The allowance of a motion for a new trial on the grounds of newly discovered evidence is within the competence and discretion of the trial judge; and in the absence of a clear showing of abuse such decision will not be disturbed." *State v. Williams*, 43 Ohio St.2d 88, 330 N.E.2d 891

(1975), paragraph two of the syllabus; *State v. Schiebel*, 55 Ohio St.3d 71, 564 N.E.2d 54 (1990), paragraph one of the syllabus.

{¶ 30} Hill's assignments of error will be considered out of order.

[5] **[6]** {¶ 31} In the fourth assignment of error, Hill contends that the trial court erred in applying Civil Rule 12(F) to strike portions of his Motion for New Trial.

{¶ 32} Civil Rule 12(F) provides: "Upon motion made by a party before responding to a pleading or, if no responsive pleading is permitted by these rules, upon motion made by a party within twenty-eight days after the service of the pleading upon him or upon the court's own initiative at any time, the court may order stricken from any pleading any insufficient claim or defense or any redundant, immaterial, impertinent, or scandalous matter."

{¶ 33} Hill notes that the "trial court cited no authority for applying Civil Rule 12(F) in a criminal context." Appellant's brief at 41. On the contrary, the trial court cited to Criminal Rule 57(B) which provides: "If no procedure is specifically prescribed by rule, the court may proceed in any lawful manner not inconsistent with these rules of criminal procedure, and shall look to the rules of civil procedure and to the applicable law if no rule of criminal procedure exists." *Compare State v. Schlee*, 117 Ohio St.3d 153, 2008-Ohio-545, 882 N.E.2d 431, ¶ 10 ("the plain language of Crim.R. 57(B) permits a trial court in a criminal case to look to the Rules of Civil Procedure for guidance when no applicable Rule of Criminal Procedure exists"); *Elersic*, 2007-Ohio-3371, at ¶ 23 (Criminal Rule 33 "does not specify the procedure by which the initial order is to be obtained"). The court also cited precedent for striking a reply brief when it was not filed by rule or with leave of the court. *State ex rel. Ebbing v. Ricketts*, 133 Ohio St.3d 339, 2012-Ohio-4699, 978 N.E.2d 188, ¶ 15.

{¶ 34} In the present case, the trial court granted the State's Motion to Strike to the extent that Hill's Motion for New Trial included material supporting additional claims beyond the scope of Hill's Motion for Leave, which was "limited * * * to the issue of the scientific reliability of bite mark evidence based upon the scientific advances in [the] field of forensic dentistry and the 2013 ABFO guidelines." These materials included the affidavits of Dr. Zhongxue Hua (challenging the opinions of pathologist Dr. Howard Adelman regarding the victim's injuries), Dr. Stephen Greenspan (challenging opinions proffered in the course of proceedings on Hill's *Atkins* petition), and Dr. Deborah Davis (opining that "little weight should be given to [Hill's] confession[2] as evidence of guilt").

2 As a practical matter, Hill never confessed to inflicting any harm to the victim but, rather, made incriminating/inculpatory statements.

{¶ 35} The trial court understood that it had granted Hill leave to file his Motion for a New Trial only on the basis of bite mark evidence. This conclusion is hardly controversial given that Hill's Request for Leave only referenced and/or discussed bite mark evidence. *See* pages 11 to 13 of the Request for Leave discussing "newly discovered evidence" and

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"due diligence." Moreover, at the evidentiary hearing held on the Request for Leave, Hill's two witnesses only discussed the bite mark evidence. ***166** Accordingly, we reject Hill's argument that there was "an absence of any formal direction to Mr. Hill that he must confine his motion for new trial solely to bite mark issues." Appellant's brief at 43. The trial court could not be expected to grant leave beyond what was formally sought and argued for by Hill.

{¶ 36} Hill also contends that the affidavits in question are "new" inasmuch as "[n]either Dr. Hua nor Dr. Davis have previously testified on behalf of Mr. Hill" and "[n]o court has ever ruled on the admissibility or inadmissibility of their testimony." Appellant's brief at 43. Hill's argument fails to appreciate that the crucial issue is whether there was unavoidable delay in obtaining their testimony. Dr. Hua's affidavit essentially concedes that his opinions are not based on any advances in scientific knowledge. He states: "At no point, ***including at the time the opinions were proffered in 1985-86 or today***, has there been a reliable scientific basis for Dr. Adelman's testimony regarding the nature of the wounds to Raymond Fife's rectum, or any object purportedly used to create those wounds."[3] Dr. Davis offers nothing more than her opinion that "**Danny Hill's** confession was highly unreliable" based "on the evidence surrounding the interrogations themselves and Danny's personal characteristics."

[3] Dr. Hua also challenged the validity of Dr. Adelman's trial testimony regarding asphyxia and erection. As this testimony pertained to the bitemark evidence on which the Request for Leave was granted, it should have been and in fact was considered by the trial court in ruling on the merits of the Motion for New Trial. The court stated: "The Petitioner submitted an affidavit from Dr. Zhongxue Hua. Dr. Hua criticized the testimony of Dr. Adelman and Dr. Mertz and concluded that there was no scientific basis to support their conclusions that Fife's penis was erect at the time the patterned injuries occurred."

{¶ 37} Nothing about these affidavits suggests that Hill could not have learned of the existence of the grounds for their testimony in the exercise of reasonable diligence. On the contrary, the grounds for Hua's and Davis' testimony were expressly acknowledged at the time of trial. At trial, counsel for Hill spoke derisively of Dr. Adelman's testimony identifying the stick that was used to sodomize Fife:

> This must be the stick! So, they submit it, and at a point in time * * * Mr. Adelman comes up with the conclusion this could be the stick. Well, he's assuming, first off, it's a stick or piece of wood of some sort, okay, evidentally [sic], from the plant material later on, but he assumes it's the stick. So, he shows sections and everything else, and yeah, it could have caused that. You could have taken any broom handle, anything;

> implement handle, anything, split it, crack it like it usually does like that, and it probably would have fit also. The prosecutor's got this wonderful stick. This is evidence. Boy! That is great!

{¶ 38} Similarly, many of the salient points raised by Dr. Davis were previously raised by trial counsel. He emphasized that Hill had been placed in classes for the educable mentally retarded since the first grade. Counsel also suggested that the officers and detectives were fully aware of Hill's diminished capacity and intentionally interrogated Hill before his more intellectually competent co-principal, Timothy Combs, because "they know damn well how basically stupid Danny is and they could break him down." Both Davis and trial counsel describe Hill's statements as being the product of manipulative interrogation techniques and inherently unreliable.

{¶ 39} In the absence of any evidence that Hill was unavoidably delayed in obtaining the testimony of Drs. Hua and ***167** Davis, their testimony was properly struck from consideration by the trial court as the court could not have properly considered its merits. *Trimble*, 2015-Ohio-942, 30 N.E.3d 222, at ¶ 12 ("[a] trial court may not consider the merits of the motion for a new trial until it makes a finding of unavoidable delay"); *State v. Rodriguez-Baron*, 7th Dist. Mahoning No. 12-MA-44, 2012-Ohio-5360, 2012 WL 5863613, ¶ 11 ("[l]eave of court must be granted before the merits of the motion are reached").

{¶ 40} Hill also objects to the trial court's reference to res judicata and the law of the case doctrine as barring further discussion of the issues raised by Drs. Hua and Davis. For the law of the case doctrine, *see* *Nolan v. Nolan*, 11 Ohio St.3d 1, 3, 462 N.E.2d 410 (1984) ("the decision of a reviewing court in a case remains the law of that case on the legal questions involved for all subsequent proceedings in the case at both the trial and reviewing levels"); for res judicata, *see* *State v. Szefcyk*, 77 Ohio St.3d 93, 671 N.E.2d 233 (1996), syllabus ("a final judgment of conviction bars a convicted defendant who was represented by counsel from raising and litigating in any proceeding, except an appeal from that judgment, any defense or any claimed lack of due process that was raised or could have been raised by the defendant at the trial, which resulted in that judgment of conviction, or on an appeal from that judgment").

[7] {¶ 41} We note, however, that, where leave to file a motion for new trial is based on issues that could have been raised on direct appeal the doctrine of res judicata is properly invoked to deny leave. *State v. Shuster*, 5th Dist. Morgan No. 16AP0012, 2017-Ohio-2776, 2017 WL 2258804, ¶ 18 (cases cited).

{¶ 42} The fourth assignment of error is without merit.

[8] {¶ 43} In his first assignment of error, Hill contends that the trial court erred in its application of res judicata and the law of the case doctrine as a way of excusing itself "from engaging in an independent re-examination of the new evidence and evidentiary record as required by Criminal Rule 33 and *State*

v. Petro." Since "the trial court's denial of Mr. Hill's motion rests upon its finding of preclusion, * * * its Order must be reversed." Appellant's brief at 11-12.

{¶ 44} The trial court invoked the law of the case doctrine and res judicata to establish the following as binding: "[t]he Ohio Supreme Court independently weighed all of the trial evidence and found that Petitioner's conviction for Aggravated Murder and the rape specification, as well [as] the kidnapping and aggravated arson specifications, were supported by evidence beyond a reasonable doubt." We disagree, however, that the court based its denial of Hill's Motion for New Trial solely on the Supreme Court's determination that there was sufficient evidence to support Hill's convictions.

{¶ 45} The trial court did independently consider whether the bite mark evidence satisfied the standard set by *Petro*, in particular whether the evidence disclosed a "strong probability" that it would change the outcome if a new trial were granted, albeit not doing so "in a jurisprudential vacuum." The court appealed to prior judicial review of the evidence to convict Hill to support its own conclusion that Hill's convictions could stand independently of the bite mark evidence.

{¶ 46} The trial court frankly acknowledged that "[t]he granting of a new trial based on newly discovered evidence by its obvious terms involves consideration of newly discovered evidence." The court noted the "relevancy of bite-mark testimony [as] a factor in proving whether Hill's ***168** mouth came into contact with the victim's penis," but "had no relevance on the question of whether Hill had anal intercourse with Fife." Similarly, "the bite mark evidence does nothing to vitiate the sufficiency of the overwhelming evidence against the Petition on the Kidnapping specification to the Aggravated Murder count," and the same could be said of the Aggravated Arson charge. The court's appeal to the Supreme Court's review of the evidence is used to support its conclusion that Hill's convictions remain valid even in the absence of the bite mark evidence, rather than the proposition that consideration of Hill's evidence is foreclosed. Hill may certainly disagree with the court's conclusion regarding the significance of the bite mark evidence to his convictions, but this does not render the court's invocation of res judicata and the law of the case doctrine reversible error per se.

{¶ 47} The first assignment of error is without merit.

[9] {¶ 48} In the third assignment of error, Hill faults the trial court for "never formally acknowledg[ing] that Mr. Hill's bitemark evidence constituted new evidence pursuant to Criminal Rule 33." Appellant's brief at 26.

{¶ 49} Hill's argument is undermined by the trial court's own statements acknowledging that the bite mark evidence is newly discovered evidence. *See*, *e.g.*, "this Court, in its discretion granted leave to Petitioner to file a motion for new trial, finding that the Petitioner was 'unavoidably prevented' from discovering new evidence relating to 'bite mark' evidence that was not in existence at the time of Petitioner's trial," and "[t]he *sole basis* of Petitioner's motion for leave to file a motion for a new trial is predicated on 'newly discovered' bite mark

evidence that did not exist in 1985." Moreover, the court subjected Hill's bite mark evidence to the *Petro* analysis, which action would be nonsensical unless the evidence was considered newly discovered evidence.

{¶ 50} The third assignment of error is without merit.

[10] {¶ 51} In the second assignment of error, Hill challenges the trial court's decision to deny his Motion for New Trial on the grounds that, "even if the bite mark evidence is excluded, considering the totality of the evidence against the Petitioner, particularly on the Kidnapping specification, Petitioner has failed to demonstrate a 'strong probability' that there would be a different outcome if a new trial were granted in this case." Hill counters that, in the absence of the bite mark evidence, "there existed *no other direct evidence* supporting Mr. Hill's active involvement in those specific crimes." Appellant's brief at 22. Thus, the court could not simply assume, based on the sufficiency of the non-bite mark evidence, that the results of Hill's trial would have been the same. According to Hill, "the bitemark was essential to showing that [he] was an active participant, not a passive accomplice." Appellant's brief at 24.

[11] **[12]** {¶ 52} Before considering the trial evidence, it should be emphasized that "[c]ircumstantial evidence and direct evidence inherently possess the same probative value," and that, "[w]hen the state relies on circumstantial evidence to prove an essential element of the offense charged, there is no need for such evidence to be irreconcilable with any reasonable theory of innocence in order to support a conviction." *State v. Jenks*, 61 Ohio St.3d 259, 574 N.E.2d 492 (1991), paragraph one of the syllabus. It follows that "circumstantial evidence alone may be sufficient to support a conviction for murder." ***169** *State v. Nicely*, 39 Ohio St.3d 147, 529 N.E.2d 1236 (1988), paragraph one of the syllabus.

[13] {¶ 53} It should also be recognized that: "It is today universally conceded that the fact of an accused's flight, escape from custody, resistance to arrest, concealment, assumption of a false name, and related conduct, are admissible as evidence of consciousness of guilt, and thus of guilt itself." (Citation omitted.) *State v. Williams*, 79 Ohio St.3d 1, 11, 679 N.E.2d 646 (1997); *State v. Wagner*, 8th Dist. Cuyahoga No. 48433, 1985 WL 7448, *2 (Jan. 17, 1985) ("Ohio law is clear that evidence of flight from the scene of a crime may be considered as some evidence of guilt").

[14] {¶ 54} Similarly, exculpatory statements, "when shown to be false or misleading, are circumstantial evidence of guilty consciousness and have independent probative value." (Citation omitted.) *State v. Thompson*, 10th Dist. Franklin No. 05AP-1268, 2006-Ohio-3440, 2006 WL 1826737, ¶ 21; *Wilson v. United States*, 162 U.S. 613, 620-621, 16 S.Ct. 895, 40 L.Ed. 1090 (1896) ("if the jury were satisfied, from the evidence, that false statements in the case were made by defendant * * *, they had the right * * * to regard false statements in explanation or defense, made or procured to be made, as in themselves tending to show guilt").

{¶ 55} Turning to the evidence at trial, it cannot be reasonably doubted that Hill was present during the kidnapping, assault, rape, and burning of Fife. The issue, then, is whether there was evidence from which Hill's participation in the kidnapping, assault, rape, and burning of Fife may be inferred. Finally, we must consider whether there was a strong probability of Hill's convictions in the absence of the bite mark evidence. [4]

[4] The focus is not whether the bite mark evidence contributed to Hill's convictions, which it certainly did, but, rather, was there a strong probability of conviction had such evidence not been presented.

{¶ 56} The testimony from the following witnesses established Hill's presence with Combs at the scene of the crime both before and after the attack:

{¶ 57} Matthew Hunter, a student at Warren Western Reserve on September 10, 1985, saw Hill and Combs together while he was cutting grass for a neighbor on Jackson Street at about 3:00 p.m. Later that afternoon, around 5:00 p.m., Hunter took a trail through a wooded area from Jackson Street to the Valu-King on Palmyra Road. At this time, Hunter saw Hill and Combs "in the parking lot coming towards the store." Hunter went into the store to purchase cookies and juice. Upon exiting, he saw Hill and Combs standing in front of a Laundromat connected to the Valu-King. After passing by Hill and Combs, Hunter saw "Raymond Fife coming in the parking lot off Palmyra Road" on a bike. Hunter described the bike as "a small dirt bike," red with "knobby tires." Hunter re-entered the woods and returned home.

{¶ 58} Darren Ball, a student at Warren Western Reserve at the time, was walking home with a friend, Troy Cree, after football practice at about 5:30 p.m. From Willow Drive, they entered a trail leading through a field/woods toward the Valu-King. They met Combs on the trail "coming from the Valu-King." After acknowledging Combs, they jogged for about twenty seconds to the end of the trail where they heard a child's scream "like somebody needed help or something." Ball explained that they began to jog because Combs is "a fag" and "does it on boys." Upon hearing the scream, Ball turned around but did not see Combs.

***170** {¶ 59} Cree likewise recalled passing Combs on the trail and hearing a child scream about thirty seconds later.

{¶ 60} Donald Allgood, a student at Warren Western Reserve, was walking on Willow Drive around 5:30, 6:00 p.m. and saw Hill, Combs, Andre McCain, and one other person "walking out of the field coming from Valu-King." From Willow, they turned north on Hemlock Avenue. Allgood observed that Hill "with a little flick of his wrist * * * threw a stick to his right." Allgood estimated the stick to be about twelve inches long. Allgood noted that Combs was pulling up his zipper and held his head down.

{¶ 61} Raymond Fife was found that evening by his father in the wooded area behind the Valu-King.

{¶ 62} On September 12, 1985, the day that Fife died from his injuries, Hill came to the Warren Police Department claiming to have "some information about that boy that was beat up." At this point, Hill had not been contacted by the police in connection with the crime. Hill spoke with Sergeant Thomas Stewart and offered that he had seen a person named Reecie Lowry riding Fife's bike. Hill correctly described the bike as a reddish dirt bike with knob wheels. Hill could not explain how he knew it was Fife's bike. When asked if Lowry still had the bike, Hill replied that Lowry probably had put the bike back in the field where Fife was attacked (and where the bike was found the next day). Hill also mentioned seeing Lowry together with Andre McCain. Another detail of the attack mentioned by Hill was Fife had been choked with underwear.

{¶ 63} Earlier that day, the police had learned from Cree that Combs had been in the woods behind the Valu-King at the time of the attack (as noted above, neither Cree nor Ball had seen Hill or Fife although they had heard a child's scream). Since Combs was a suspect, Sergeant Stewart mentioned his name. Hill responded by suggesting that Combs "could have done it," since he "likes to * * * mess with [white boys] in the butt." However, Hill denied seeing Combs since Combs had been released from "the joint."

{¶ 64} On September 13, 1985, Hill was interviewed by Detective Dennis Steinbeck. Hill claimed that, on September 10, he was at home sleeping until 7:00 p.m. Hill repeated his statements that he had seen Lowry on Fife's bike on a couple of occasions since the attack; he had not seen Combs since he had gone to jail; and he was not present at the Palmyra Road Valu-King.

{¶ 65} Hill's initial statements to the police are indicative of his guilt for several reasons. In them, he tried to implicate persons in the crime who were not found to have any connection with the crime. Hill also misled the police about his own involvement by denying his presence at the crime scene and his association with the other principal convicted for murdering Fife.

{¶ 66} On September 16, 1985, Hill was brought to the police station by Detectives Steinbeck and Morris **Hill** (**Danny's** uncle). Hill consented to conduct recorded interviews, one audio and the other video. Hill admitted that he was with Combs when Fife was attacked but denied participating. Hill's statements during the interviews were generally inconsistent and incoherent. Hill claimed it was Combs' idea to attack Fife in order to take his bike. Hill described the attack in some detail. Some details were corroborated by other evidence and some details were demonstrably false. Some details were suggested by police officers and some Hill proffered of his own accord. Hill's description of the attack also varied as he told it. For example, ***171** when asked by the police Hill affirmed in both the audio and video interviews that Fife vomited during the assault, a detail confirmed by emergency personnel. [5] However, in the audio interview Fife vomited because Combs had smashed his head against the bike pedal while in the video interview Fife vomited because Combs was abusing his genitals.

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5 EMT Raleigh Hughes spoke with Fife's father who described his son as "engulfed with vomit" and having "vomited all over himself." Hughes himself did not observe any vomit as the father wiped it off prior to his arrival.

{¶ 67} Hill's account of his own behavior during the assault was similarly inconsistent. At one point, Hill remained by the Valu-King and watched the attack from a distance. At another point, Hill was only a few feet from the attack. At another point, Hill had taken a board with the intent of hitting Combs with it. At another point, Hill was left alone with Fife while Combs went to Valu-King.

{¶ 68} While much of Hill's testimony is of doubtful veracity, Hill betrays his guilt by making several statements which were not suggested by police, were contradicted by other evidence or were of an incredible nature, and served to deflect blame away from him.

{¶ 69} Hill consistently testified that, after the attack, he chased and/or followed Combs out of the field onto Jackson Street, despite the police suggesting that they exited onto Willow Drive as witnessed by Allgood. It was necessary for the otherwise suggestible Hill to deny being seen exiting onto Willow Drive because Allgood, in addition to seeing him in Combs' company, testified that Hill possessed a stick matching the description of the stick used to sodomize Fife.

{¶ 70} Dr. Adelman testified that one of Fife's several mortal injuries was "the penetration and perforation of the rectum and the urinary bladder." He described two wounds in particular, a contusion in the rectum and a penetration into the urinary bladder through the rectum. Dr. Adelman was able to identify the presence of plant cells in the injured areas of the rectum and bladder.

{¶ 71} Allgood testified that he observed Hill throw a stick about twelve inches long back into the woods. During the September 16 interviews, Hill described a stick which he claimed Combs used to sodomize Fife as "like a broom handle thing * * * but some of it was broke"; "it had ridged ends like and the other end wasn't ridged, it had like a round -- it was like a round head." After Combs had finished "grind[ing] it in his butt," Hill "didn't see the stick no more" because Combs "must of just threw it."

{¶ 72} Notably, Hill advised the police that the stick would not or could not be found. Hill suggested that a garbage man might have come and taken the stick, insisting, despite police incredulity, that "they come back there to pick up the garbage." Hill added that Combs might have returned and picked up the stick and, alternatively, that Combs was looking for the stick the next day but was unable to find it.

{¶ 73} On the same day that Hill was providing these statements to the police, Officer James Teeple was searching the area near Willow Drive where Allgood had seen Hill throw the stick (Allgood had been taken to the scene and pointed out the specific area police officers). Teeple found a stick matching Hill's (yet unknown) description - a broken broom handle - about six feet from the path. Teeple focused on this particular stick because in size it matched Allgood's description and because "it appeared

to have been freshly ***172** put": "All the other sticks were under grass, were covered with moss, were securely attached or growing there. It looked like a broom handle and * * * was not covered with any moss or it was not dirty, it wasn't grown with weeds."

{¶ 74} Although no blood or other physical evidence linking it to Fife was found on the stick, the inference remains reasonable that it was the stick involved and it was in Hill's possession as he exited the path. Even without this inference, Allgood's testimony remains that Hill exited the trail holding a twelve inch stick and a stick of that size is consistent with the injuries to Fife's rectum and bladder.

{¶ 75} Hill's own testimony also implicates him. Hunter testified that Hill and Combs were standing near Valu-King when Fife was approaching the parking lot. Hill claimed that Combs wanted Fife's bike and went after Fife for that purpose. Hill continued that Combs wanted him to help but he refused. Combs then went into the field several hundred feet distant while Hill remained by the building. From this position, Hill claimed he saw Combs knock Fife off the bike, strip Fife, begin to strangle him, and throw him to the ground. In the course of describing the events of the attack, Hill's position changes to within ten feet of the events he is describing, close enough that Fife, in Hill's words, "was looking at me, like he wanted me to come over there and get him." Hill's explanations as to how he came to join Combs in the woods are risible, as he variously describes hiding in the bushes and/or attempting to sneak up on Combs with a board to hit him. No factfinder would be bound to accept Hill's proffered reasons as to how he came to be present in the woods where Fife was attacked. And any rational factfinder would be justified in inferring from Hill's proffered nonsense that his real motivation and reason for accompanying Combs was to participate in Fife's rape, beating, strangulation, burning, and, ultimately, murder.

{¶ 76} There are other aspects of Hill's statements to the police that support his convictions. Hill was asked why he never attempted to contact the police, intervene in the attack, or seek medical help for Fife after the attack. Hill explained: "If I would have ran and tried to find my uncle [Detective Morris] or you or one of you all, tell one of you all -- his mother don't like me anyway. She would have found him down here, he would have went home and told his mother that I was the one that did it, and she would have followed him down here and said that she probably know that I would do something like that." While theoretically possible, the more reasonable inference is that Hill failed to report the crime because he committed the crime.

{¶ 77} Such examples could be multiplied. As a final point, it is worth noting that Hill admits he was left alone with Fife. According to Hill's statements, Combs left the scene to obtain a stick and/or lighter fluid used to sodomize and/or burn Fife respectively. There is some corroboration for this fact in the testimony of Ball and Cree who encountered Combs alone on the trail but who did not see either Hill or Fife, whose testimony also suggests that Combs may have been serving as a lookout for Hill. Whether Combs was looking for a stick or serving as lookout, the fact remains that Combs

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trusted Hill to be left alone with Fife from which the obvious implication may be inferred.

{¶ 78} Raymond Vaughn, Hill's brother, testified that on the evening of September 20, 1985, Hill was washing a pair of pants in the bathtub (the family did not have an automatic washer) that were stained with something red that "looked like blood." ***173** Vaughn saw Hill wash the same pair of pants on two successive nights. [6]

6 Hill contends Vaughn's testimony has little probative value because he recanted following trial. Reply brief at 28. Although Vaughn subsequently claimed his testimony was coerced, he also testified that he first confided his observations to his grandmother at the time Hill was arrested – prior to any possible coercion.

{¶ 79} The State also presented testimony pursuant to Evid.R. 404(B) and R.C. 2945.59 for the purpose of showing motive, plan, and identity of the defendant. *Hill*, 64 Ohio St.3d at 322, 595 N.E.2d 884. Candyce Jenkins testified that, in 1984, Hill anally raped and bit her during an attack in which he also threatened to sodomize her with a knife. [7] Mary Ann Brison testified that, in 1984, Hill raped her in the woods behind the Valu-King. Stephen Melius testified that, in 1984, he was in juvenile detention with Hill and that Hill importuned him to engage in homosexual acts.

7 Hill maintains that Jenkins' testimony would have been inadmissible without the bite mark evidence but this is doubtful. Jenkins' testimony was nonetheless indicative of motive, plan, and identity inasmuch as Hill raped her anally, demonstrated a delight in inflicting pain, threatened sodomy with an inanimate object, and, according to Hill's own statement, disposed of evidence following the rape in the woods behind Valu-King where Fife was attacked.

{¶ 80} The foregoing evidence fairly supports the trial court's conclusion, "[e]ven if this Court were to conclude based on today's advance in forensic odontology and the ABFO guidelines, that the bite-mark evidence is unreliable and could not be introduced in a future trial, there is no probability, much less a strong probability that a new trial would result in a different outcome." That Hill was present during the attack cannot be seriously questioned. The issue is whether his active participation can be inferred from his efforts to conceal his involvement and to place the blame on others. Such an inference is legally permissible and, given the facts of the present case, compelling. *Compare State v. Trewartha*, 165 Ohio App.3d 91, 2005-Ohio-5697, 844 N.E.2d 1218, ¶ 40 (10th Dist.) (finding the following facts "more than enough for a jury to directly or circumstantially find defendant guilty of aggravated murder while committing an aggravated robbery": "[t]he state's witnesses linked defendant to procurement of the alleged murder weapon, placed defendant at the scene of the crime with the weapon, proximally connected defendant and the only other possible shooter to the victim at the time of the fatal gunshot, and associated defendant with property last seen on the victim's person").

{¶ 81} Although the foregoing analysis focuses on the sixth *Petro* factor, the trial court noted without elaboration that "[t]here is no question that the advancements in forensic odontology impeach and contradict the trial testimony of the experts." Further considering this *Petro* factor, it is noteworthy that Hill's trial counsel raised many of the same arguments advanced by Hill as newly discovered evidence, albeit without the endorsement of expert witnesses. Hill's bite-mark evidence is to a degree cumulative. For example, regarding the bite mark testimony, Hill's trial counsel emphasized that the two experts who testified at trial contradicted each other to such a degree that the reliability of the expertise itself was called into question:

> [I]f these are the giants; maybe the top two or third, fourth best * * *, if that's what we've got here and they disagree, what does that make the state of the evidence? How can you consider that? ***174** * * * You got the two best supposedly, or at least Mr. Levine, I would say, is better, but you got two experienced people, and they give different opinions. Mr. Levine also said that it could be caused by -- he ruled out Mr. Combs because he didn't see any fractured teeth. Of course, he said it could be caused by any person. In other words, the characteristics aren't that great that he would pin it down to anybody. Just a fractured tooth, maybe. So, what do we have? We don't have proof beyond a reasonable doubt involved in the tooth mark, and that's the only thing that really ties Danny in.

{¶ 82} Conversely, the prosecutor at trial made the point during closing arguments that the bite mark evidence was not at all necessary to convict Hill:

> [T]he other important factors in the evidence in this case and in --- especially through the pathologist, is that we know that no one person could have done all these things, and **Danny** Lee **Hill** knew that also. And this is a key. For example, when you listen to the tapes and the video cassette about knocking the boy off the bike and then removing the bike to hide it in the woods, how could one person take care of the little boy and get rid of the bike? And that makes more sense when we look at **Danny** Lee **Hill** himself; the fact that he came to the police station. Why? We know that he was trying to

> take the blame from himself; to place the heat somewhere else. And he mentions two individuals by the name of Lowry and McCain. Talks about shorts. He talks about the bike that he saw Maurice Lowry on which he later admits were not true. But why, when he homes in to blame somebody initially, does he blame two people? Reason and common sense. That's all this case takes to realize that -- you don't even need two experts to say his teeth marks were on this little boy's penis -- he's guilty.

{¶ 83} The second assignment of error is without merit.

[15] {¶ 84} In the fifth assignment of error, Hill contends that the trial court abused its discretion by denying his Motion for New Trial without holding an evidentiary hearing. "In light of the trial court's inexperience with the facts of Mr. Hill's trial, its attempt to avoid independent analysis in favor of inapplicable theories of preclusion, and its repeated mischaracterization of the trial and appellate court records, an evidentiary hearing was, at a minimum, necessary." Appellant's brief at 53.

[16] {¶ 85} Criminal Rule 33 does not require a hearing on a motion for new trial and the decision to conduct a hearing lies within the sound discretion of the trial court. *State v. White*, 8th Dist. Cuyahoga No. 105430, 2017-Ohio-6984, 2017 WL 3189250, ¶ 28.

{¶ 86} We find no abuse of discretion in the trial court's decision not to hold a hearing on the Motion for New Trial. The court did not question the validity of Hill's bite mark evidence and proceeded on the assumption that his evidence would have precluded the admission of the State's evidence at trial. The court then considered whether the absence of bite mark evidence would have been outcome determinative. *Hill*, 64 Ohio St.3d at 333, 595 N.E.2d 884 (finding no abuse of discretion in the failure to hold a hearing where, even considering the newly discovered evidence, "the result of the defendant's trial would not have been different").

{¶ 87} The fifth assignment of error is without merit.

[17] **[18]** {¶ 88} In the sixth assignment of error, Hill argues that the trial court erred by denying his Motion to Disqualify ***175** the Office of the Trumbull County Prosecutor.

{¶ 89} With respect to motions for disqualification, the Ohio Supreme Court has established the following test:

{¶ 90} In ruling on a motion for disqualification of either an individual (primary disqualification) or the entire firm (imputed disqualification) when an attorney has left a law firm and joined a firm representing the opposing party, a court must hold an evidentiary hearing and issue findings of fact using a three-part analysis:

(1) Is there a substantial relationship between the matter at issue and the matter of the former firm's prior representation;

(2) If there is a substantial relationship between these matters, is the presumption of shared confidences within the former firm rebutted by evidence that the attorney had no personal contact with or knowledge of the related matter; and

(3) If the attorney did have personal contact with or knowledge of the related matter, did the new law firm erect adequate and timely screens to rebut a presumption of shared confidences with the new firm so as to avoid imputed disqualification?

Kala v. Aluminum Smelting & Refining Co, Inc., 81 Ohio St.3d 1, 688 N.E.2d 258 (1998), syllabus.

{¶ 91} When the motion for disqualification is directed against the entire prosecutor's office, however, Ohio courts of appeals have consistently held that the mere appearance of impropriety is insufficient to merit disqualification, and that there must be evidence of an actual breach of confidence resulting in prejudice to the defendant. *State v. Bachman*, 5th Dist. Stark No. 2014CA00198, 2015-Ohio-2054, 2015 WL 3421555, ¶ 24 (cases cited).

{¶ 92} Hill maintains that a conflict of interest exists as the result of his trial counsel, James Lewis, being hired by the prosecutor's office in January 2013, following his retirement from the Trumbull County Public Defender. Hill maintains this "creates a real and significant conflict of interest that, by itself, warrants disqualification of the office." Appellant's brief at 54.

{¶ 93} Any presumption of shared confidences that may exist by virtue of the fact that Attorney Lewis began working for the county prosecutor's office were effectively rebutted by the following considerations. Lewis represented Hill from 1985 to 1986, but was not hired by the prosecutor's office until 2013. According to the State, Lewis was hired for a part-time position in the child support division and "has had no input in any felony case * * * includ[ing] any postconviction litigation or appeal filed by [Hill]." Hill's Motion to Disqualify was filed in May 2015, almost thirty years after Lewis' representation of Hill had terminated and was filed in connection with a Motion for New Trial based on newly discovered evidence, i.e., evidence discovered after Lewis' representation of Hill had ceased.

{¶ 94} Hill has proffered no evidence of an actual breach of confidence resulting from Attorney Lewis' employment by the prosecutor's office. Rather, Hill relies upon "the proposition that a presumption of shared confidences–and thus a conflict of interest–exists where a defendant's counsel later joins the prosecutor's office trying defendant's case." Reply brief at 39. The cases cited by Hill fail to substantiate this claim. *See Bachman*, 2015-Ohio-2054, at ¶ 24 ("[a] decree disqualifying the prosecutor's office should only be issued by a court when actual prejudice is demonstrated"); *State v. Richardson*, 2014-Ohio-3541, 17 N.E.3d 644, ¶ 32 (3d Dist.) ("the mere ***176** appearance of impropriety in a government office is not sufficient, in and of

itself, to warrant disqualification of the entire office") (citation omitted).

{¶ 95} Hill also claims disqualification is merited on account of Attorney Lewis hiring Hill's uncle, Detective Morris Hill, as an investigator with the public defender's office and Fife's mother, Miriam Fife's, employment by the prosecutor's office as a victim's advocate. This court notes that neither Hill's uncle nor Fife's mother are attorneys and thus their employments, either past or present, have no bearing on whether the prosecutor's office should be disqualified under the framework established by *Kala*.

{¶ 96} The sixth assignment of error is without merit.

[19] {¶ 97} In the seventh and final assignment of error, Hill maintains that bite mark testimony of Dr. Curtis Mertz, who testified on behalf of the State at trial, "was so contrary to science and logic, and so demonstrably false, that it should be treated as pure fabrication." Appellant's brief at 57. Hill relies on the case of *Ege v. Yukins*, 485 F.3d 364 (6th Cir.2007), in which the federal court granted habeas relief on the grounds the bite mark evidence ("Dr. Warnick's statement that among the 3.5 million residents of the Detroit metropolitan area, Ege's teeth, and *only* Ege's teeth, could have made the mark on Thompson's cheek") was so egregiously prejudicial as to constitute the denial of fundamental fairness at trial. *Id.* at 375-376.

{¶ 98} *Ege* is readily distinguishable. Unlike the present case, in *Ege* "none of [the State's non-bite mark evidence] placed Ege at the scene of Thompson's murder." *Id.* at 377. On the other hand, the *Ege* court recognized that, "[o]bviously, many cases are tried on nonphysical circumstantial evidence alone, and in many cases this circumstantial evidence overwhelmingly points toward the defendant's guilt." *Id.* Hill's is such a case.

{¶ 99} The seventh assignment of error is without merit.

{¶ 100} For the foregoing reasons, the decision of the Trumbull County Court of Common Pleas to deny Hill's Motion for New Trial without hearing and to deny his Motion to Disqualify the Office of the Trumbull County Prosecutor is affirmed. Costs to be taxed against appellant.

THOMAS R. WRIGHT, P.J., concurs in judgment only,

COLLEEN MARY O'TOOLE, J., dissents with a Dissenting Opinion.

COLLEEN MARY O'TOOLE, J., dissents with a Dissenting Opinion.

{¶ 101} Based on the decision in *Hill v. Anderson*, 881 F.3d 483 (6th Cir.2018), I would dismiss the instant appeal as moot. In that case, the United States District Court for the Northern District of Ohio had dismissed Hill's petition for habeas corpus, which was premised on the contention that his low intelligence prevents the death penalty from being applied to him; ineffective assistance of trial counsel; prosecutorial misconduct; and violation of his

due process rights. *Id.* at 486-487. On appeal, the Sixth Circuit affirmed the judgment of the district court regarding the last three claims, but reversed and remanded for the district court to grant Hill's petition on his claim his low intelligence prevents him from being executed. *Id.* at 487.

{¶ 102} In its lengthy analysis, the Sixth Circuit paid considerable attention to the decision of this court in *State v. Hill*, 177 Ohio App.3d 171, 2008-Ohio-3509, 894 N.E.2d 108 (11th Dist.) It found that this court misapplied the law regarding ***177** adaptive deficits, and misread the record regarding Hill's adaptive deficits. *Hill v. Anderson*, 881 F.3d at 492-501. [8]

8 I respectfully note that the Sixth Circuit cites to this writer's dissent in *Hill*, 177 Ohio App.3d 171, 894 N.E.2d 108, for which this writer received a storm of public attacks, with approval. *Hill v. Anderson*, 881 F.3d at 500.

{¶ 103} In *In re Guardianship of Weller*, 2d Dist. Montgomery No. 24337, 2011-Ohio-5816, 2011 WL 5452978, ¶ 7, the court stated:

{¶ 104} " 'The doctrine of mootness is rooted in the "case" or "controversy" language of Section 2, Article III of the United States Constitution and in the general notion of judicial restraint.' *James A. Keller, Inc. v. Flaherty* (1991), 74 Ohio App.3d 788, 791 [600 N.E.2d 736], * * *. 'While Ohio has no constitutional counterpart to Section 2, Article III, the courts of Ohio have long recognized that a court cannot entertain jurisdiction over a moot question.' *Id.* 'It has been long and well established that it is the duty of every judicial tribunal to decide actual controversies between parties legitimately affected by specific facts and to render judgments which can be carried into effect. It has become settled judicial responsibility for courts to refrain from giving opinions on abstract propositions and to avoid the imposition by judgment of premature declarations or advice upon potential controversies.' *Fortner v. Thomas* (1970), 22 Ohio St.2d 13, 14 [257 N.E.2d 371], * * *. In other words, an issue is moot when it has no practical significance, being instead merely hypothetical or academic." (Parallel citations omitted.)

{¶ 105} I admit the issues presented in the appeal before us, and those presented to the Sixth Circuit. Further, the State of Ohio might petition the United States Supreme Court for certiorari regarding the Sixth Circuit's decision. Pursuant to U.S. Sup.Ct. Rule 13(1), petitions for certiorari must be filed within 90 days of the date the lower court's decision becomes final. The Sixth Circuit denied the state's motion for rehearing en banc in *Hill v. Anderson* April 9, 2018, which means the state has until July 9, 2018 to petition the U.S. Supreme Court. [9] A further 60 days can be provided on a showing of good cause. U.S. Sup.Ct. Rule 13(5).

9 The 90 day period actually concludes July 8, 2018, which, however, is a Sunday.

{¶ 106} But, otherwise, unless and until the United States Supreme Court reverses the decision of the Sixth Circuit, any decision this court renders has no practical significance.

{¶ 107} Again, I would dismiss this appeal as moot.

{¶ 108} I dissent.

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The Supreme Court of Ohio

FILED
JUN 12 2019
CLERK OF COURT
SUPREME COURT OF OHIO

State of Ohio

v.

Danny Lee Hill

Case No. 2019-0068

ENTRY

Upon consideration of the jurisdictional memoranda filed in this case, the court declines to accept jurisdiction of the appeal pursuant to S.Ct.Prac.R. 7.08(B)(4).

(Trumbull County Court of Appeals; No. 2016-T-0099)

Maureen O'Connor
Chief Justice

The Official Case Announcement can be found at http://www.supremecourt.ohio.gov/ROD/docs/

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO

DANNY LEE HILL,	)	
	)	
Petitioner	)	**Case No.**
	)	
v.	)	**CAPITAL HABEAS CASE**
	)	
TIM SHOOP, Warden	)	
	)	
Respondent.	)	
	)	

DANNY LEE HILL'S PETITION FOR WRIT OF HABEAS CORPUS
PURSUANT TITLE 28 U.S.C. SECTION 2254

INTRODUCTION

1. The foundation of the State's case against Danny Lee Hill was the bitemark comparison evidence, the *only* alleged physical evidence in the case. Mr. Hill was convicted and sentenced to death because the State asserted that the bitemark comparison was sound science that conclusively proved Mr. Hill committed the brutal attack on Raymond Fife. The assumption that bitemark comparison was based on valid scientific principles has been the anchor for the prosecution's case over the years.

2. Bitemark comparison though is pseudoscience, and the evidence in this case stands apart as grossly speculative and unreliable even in a discipline today known for its complete unreliability. No court today would ever allow bitemark comparison evidence to be used at a trial because it has been completely and totally discredited by the scientific community. The impact that such evidence has on a case cannot be overstated. The use of faux evidence has led to dozens of wrongful convictions across the country and Mr. Hill's case is a primary example. But for the testimony of Dr. Curtis Mertz, the forensic odontologist, Mr. Hill could not have been convicted

of the crimes against Fife.

3. But when the Ohio courts were presented with this revelation, the state courts turned a blind eye and refused to acknowledge that Mr. Hill's fundamental rights to a fair trial and due process were violated. The well-established fundamental due process principles require that a capital offense be based on reliable, admissible evidence, not pseudoscience and wholesale fabrication that drove to his conviction. At each step along the way, lower courts have evaded their judicial responsibilities, invoking erroneous standards, imposing spurious burdens, misconstruing both fact and law, and, finally, refusing to engage in the fulsome, objective analysis required by the constitution.

4. The Ohio courts found correctly that because the bitemark comparison used against him has been discredited, Mr. Hill had met the stringent standard for filing a motion for new trial to present newly discovered evidence. However, the state court unreasonably applied the facts and unreasonably interpreted clearly established Supreme Court authority to the claims.

5. First, by requiring Mr. Hill to "vitiate" the sufficiency of the evidence against him, the courts constructively required Mr. Hill to prove his actual innocence. Second, the courts' refusal to meaningfully interpret the facts and instead rely on a misapplication of the "law of the case" concept further ensconced the error caused by the admission of the junk science. Third, the state courts applied unsubstantiated and unfounded inferences to deny the motion for new trial. These errors were only exacerbated by a series of decisions by the trial court — denying Mr. Hill a hearing, striking his evidence, and allowing the conflicted Trumbull County Prosecutors' office to continue prosecuting his case —that impermissibly tilted the proceedings for the State.

6. Mr. Hill is entitled to habeas relief as his constitutional rights to a fair trial and fundamental due process have been gravely denied.

Respectfully submitted,

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PROCEDURAL HISTORY

7. This Court possesses jurisdiction over this Petition pursuant to 28 U.S.C. § 2254 because Mr. Hill asserts a federal constitutional challenge to his conviction and incarceration by the State of Ohio.

8. Mr. Hill's constitutional claims were fully litigated in state court. On June 13, 2016, Mr. Hill filed, with permission of the Court of Common Pleas for Trumbull County, Ohio, a delayed Motion for New Trial based on new evidence. Mr. Hill's motion requested a new trial pursuant to Ohio Criminal Rule 33 and asserted that Mr. Hill's conviction and incarceration violated his federal Fifth, Eighth, and Fourteenth Amendment rights. *Id.* at 43-47. The Court of Common Pleas denied Mr. Hill relief on October 5, 2016, without addressing the specific federal constitutional claims. *See* Exhibit 1, 10/3/16 Court of Common Pleas Order ("Tr. Order").

9. On February 27, 2017, Mr. Hill timely appealed the Court of Common Pleas' ruling to the Eleventh District Court of Appeals. There, Mr. Hill appealed the denial of his Rule 33 motion

and re-asserted his claim that his conviction, incarceration, and death sentence violated his rights under the Fifth, Sixth, Eighth, and Fourteenth Amendments. Mr. Hill also asserted that the Court of Common Pleas violated due process when it denied his motion for new trial.

10. Mr. Hill's appeal was denied on December 3, 2018. Exhibit 2, *State v. Hill*, 125 N.E.3d 158 (Ohio Ct. App. 2018). In support, the Honorable Diane V. Grendell authored an opinion in her name only. The Honorable Thomas R. Wright concurred in judgment only. The Honorable Colleen Mary O'Toole dissented.

11. Mr. Hill filed timely a petition for discretionary review with the Ohio Supreme Court, challenging the denial of his motion for new trial and once again raised his federal constitutional claims under the Fifth, Sixth, Eighth, and Fourteenth Amendments. *Hill v. State*, Case No. 2019-0068.

12. On June 12, 2019, the Ohio Supreme Court declined Mr. Hill's petition. Exhibit 3. *State v. Hill*, 156 Ohio St.3d 1405 (Ohio 2019).

13. This habeas petition is timely filed.

THIS NUMERICALLY SECOND HABEAS PETITION IS NOT SUBJECT TO THE GATE KEEPING FUNCTION OF 28 U.S.C. § 2244(B).

14. Although Mr. Hill's initial habeas petition had already been addressed and ruled on by the court, this second-in-time habeas petition is not subject to the gate keeping function of 28 U.S.C. §2244(b) as this is not a successor petition. "The phrase 'second or successive petition' is a term of art given substance in [the Supreme Court's] prior habeas corpus cases." *Slack v. McDaniel*, 529 U.S. 473, 486 (2000). As a term of art, a literal reading of this phrase is improper. *Stewart v. Martinez-Villareal*, 523 U.S. 637, 644 (1998). AEDPA does not define "second or successive petition" so the parameters of the phrase are set by the doctrine of abuse of the writ. *Felker v. Turpin*, 518 U.S. 651, 665 (1996). This definition of "abuse of the writ' remains

unchanged by AEDPA. *Slack*, 529 U.S. at 486; *Martinez-Villareal*, 523 U.S. at 644-45 (using pre-AEDPA law); *Panetti v. Quarterman*, 551 U.S. 930, 947 (2007).

15. A petition is second or successive under §2244(b) if it raises a claim that was or could have been raised in the earlier petition. *In re Bowen*, 436 F.3d 699, 74-05 (6th Cir. 2006). A habeas petition is "numerically second" but not successive under §2244(b) when it presents a claim that is "unripe when [the] initial petition was filed [because] the events giving rise to the claim had not yet occurred." *In re Jones*, 652 F.3d at 605.

16. Ohio Criminal Rule 33 requires a petitioner to file a Request for Leave to File a Motion for New Trial when more than 120 days have elapsed since the conviction. On November 14, 2014, Mr. Hill filed his Request for Leave. After conducting a hearing on the request for leave motion, the trial court found Mr. Hill could not have raised the claims concerning the discredited bitemark evidence previously and had been diligent in raising the claim upon discovery.

17. The issues raised in this habeas petition were not raised in the first-in-time habeas petition in 1996, and could not have been raised previously. In August 2013, the American Board of Forensic Odontology (ABFO), the organization responsible for accrediting and establishing standards for bite mark analysts, stated for the first time, in its Reference Manual, that open-population identification is no longer sanctioned. Based on these new guidelines and other media that reported it, Mr. Hill's counsel requested that another forensic odontologist affirm the ABFO's retreat from its previously claimed ability to identify "the biter", and to review the bitemark evidence proffered at Mr. Hill's trial.

18. After a review of this evidence, Dr. Franklin Wright determined that the bitemark identification testimony in Mr. Hill's trial was now understood by the scientific community, including the ABFO, to be completely unreliable. Exhibit 4, 2014 Affidavit of Dr. Franklin Wright.

Moreover, Dr. Wright averred that he recognized the evidence from this case from his work with Dr. Mertz after Mr. Hill's trial and that Dr. Merz regretted his testimony at the Hill trial. Dr. Wright averred that he believed Dr. Mertz testified as he did out of sympathy for the victim and possibly pressure from the prosecution and the community. (In a declaration signed on June 7, 2020, Dr. Wright attested that besides prosecutorial pressure, Dr. Mertz's testimony was also motivated by racial animus against Mr. Hill.) As the trial court found, these new scientific developments and Dr. Mertz's own assessment of his trial testimony could not have been produced within 120 days of Mr. Hill's trial. *In re Jones*, 652 F.3d at 605.

I. PROCEDURAL BACKGROUND

A. Conviction and Direct Appeal

19. On January 31, 1986, a three-judge panel found Mr. Hill guilty of aggravated murder, with specifications. A mitigation hearing took place on February 26, 1986; two days later, the panel sentenced Mr. Hill to death. The convictions and sentences were affirmed on direct appeal. *See State v. Hill*, 11th Dist. Nos. 3720, 3745, 1989 WL 142761 (Ohio Ct. App. Nov. 27 1989); *State v. Hill*, 595 N.E.2d 884 (Ohio 1992).

20. Mr. Hill thereafter filed in the Trumbull County Court of Common Pleas a Petition to Vacate or Set Aside Judgment and/or Sentence Pursuant to Ohio Revised Code Section 2953.21. Although Mr. Hill requested discovery, the court issued an opinion denying the request without conducting an evidentiary hearing or allowing any discovery.

21. Mr. Hill appealed to the Eleventh District Court of Appeals, which affirmed the lower court's decision. *State v. Hill*, 11th Dist. No. 94-T-5116, 1995 WL 418683 (June 16, 1995). The Ohio Supreme Court declined to accept jurisdiction to review. *State v. Hill*, 656 N.E.2d 951 (Ohio 1995). No application for re-opening the direct appeal pursuant to Ohio Rule of Appellate

Procedure 26(B) was filed on Mr. Hill's behalf.

B. Federal Habeas Claims

22. On December 2, 1996, Mr. Hill filed in this Court an initial Petition for a Writ of Habeas Corpus, pursuant to 28 U.S.C. § 2254. This Court denied the petition on September 29, 1999.

23. Mr. Hill timely appealed that ruling to the United States Court of Appeals for the Sixth Circuit. In *Hill v. Anderson*, 300 F.3d 679 (6th Cir. 2002), the Court of Appeals held that, given the United States Supreme Court's then recent ruling in *Atkins v. Virginia*, 536 U.S. 304 (2002), Mr. Hill's cognitive deficiency-based Eighth Amendment claim had not been exhausted in state court. It ordered Mr. Hill back to state court to litigate the issue.

24. On November 27, 2002, Mr. Hill filed an *Atkins* claim in the Trumbull County Court of Common Pleas. A hearing was conducted in October 2004, with rebuttal testimony in March 2005. On February 15, 2006, the Court of Common Pleas denied Mr. Hill's *Atkins*-based petition.

25. An appeal was perfected to the Eleventh District Court of Appeals, which affirmed the trial court's denial on July 11, 2008, with one judge dissenting. *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509 (11th Dist.). The opinion was authored by the Honorable Diane V. Grendell.

26. The Ohio Supreme Court declined jurisdiction on August 26, 2009, with two justices dissenting. *State v. Hill*, 912 N.E.2d 107 (Ohio 2009).

27. Mr. Hill thereafter filed an Amended Petition for Writ of Habeas Corpus in this Court regarding his exhausted *Atkins* claim. The petition was denied June 25, 2014. *Hill v. Anderson*, 96-cv-00795, 2014 WL 2890416 (N.D. Ohio Jan. 25, 2014)

28. On February 2, 2018, the Sixth Circuit Court of Appeals reversed this Court's ruling, holding that the state court's *Atkins*-based determinations regarding Mr. Hill's cognitive function were an unreasonable application of clearly established law. *Hill v. Anderson*, 881 F.3d 483 (6th Cir. 2018).

29. On January 7, 2019, the Supreme Court granted *certiorari* and vacated the Sixth Circuit's decision in a *per curiam* opinion. *Shoop v. Hill*, __ U.S. __, 139 S.Ct. 504 (2019).

30. On May 20, 2020, after further briefing and oral argument, the Sixth Circuit Court of Appeals again ordered that habeas relief be granted on the *Atkins* claim. *Hill v. Anderson*, __ F.3d __, 2020 WL 2551881 (6th Cir. May 20, 2020). The Warden filed a petition for rehearing on May 28, 2020, that is still pending as of filing this habeas petition.

C. Mr. Hill's Motion for New Trial

31. On November 14, 2014, Danny Lee Hill filed in the Trumbull County Court of Common Pleas a motion for leave to file a delayed motion for new trial based on newly-discovered evidence, pursuant to Ohio Criminal Rule 33(B). In seeking relief under Ohio Criminal Rule 33, Mr. Hill's motion asserted that he was convicted, incarcerated, and sentenced to death in violation of his federal Fifth, Eighth, and Fourteenth Amendment rights. Mr. Hill also moved to recuse the judges of the Trumbull County Court of Common Pleas.

32. In support of his motion for new trial, Mr. Hill offered an affidavit from Dr. Franklin Wright, a prominent and widely-respected Ohio-based forensic odontologist, who (i) opined that bitemark evidence relied upon to convict Mr. Hill trial was scientifically invalid, (ii) disclosed that Dr. Curtis Mertz, the expert who presented that evidence, had confessed on at least two occasions in the 1990s that he no longer stood by his testimony in Mr. Hill's case, and (iii) the purported mark on the victim was not even a bite mark. Mr. Hill also detailed recent developments

in the field of bitemark analysis that confirmed the scientific baselessness of the evidence used against him. Exhibit 4, 2014 Affidavit of Dr. Franklin Wright.

33. Mr. Hill attached a draft of his proposed motion for new trial to his motion for leave, supported by an affidavit from Dr. Wright, and additional affidavits from Dr. Iain Pretty, a forensic odontologist, who confirmed and expanded upon Dr. Wright's opinion Exhibit 5, Affidavit of Dr. Ian Pretty, from Dr. Zhongxue Hua, a pathologist, who detailed the grossly speculative and unscientific nature of non-bitemark and bitemark-adjacent evidence offered at Mr. Hill's trial Exhibit 6, Affidavit of Dr. Zhongxue Hua, and Dr. Debra Davis, a psychologist and academic specializing in false confessions, who explained how the coercive interrogation techniques used on Mr. Hill rendered his statements to the police unreliable Exhibit 7, Affidavit of Dr. Debra Davis.

34. The State opposed Mr. Hill's recusal request on November 18, 2014, and opposed Mr. Hill's motion for leave on November 20, 2014.

35. On November 21, 2014, Presiding Judge Andrew J. Logan recused the entire Trumbull County Court of Common Pleas from further proceedings. On April 10, 2015, the Ohio Supreme Court appointed Judge Patricia A. Cosgrove to preside over the proceedings.

36. Judge Cosgrove conducted several conferences by phone and held a formal evidentiary hearing on December 21, 2015, to determine whether the request for leave to file met the stringent standards for filing a delayed motion for new trial. On June 7, 2016, the trial court found by clear and convincing evidence that Mr. Hill was unavoidably delayed in presenting the claims previously and therefore granted Mr. Hill's motion for leave the motion for new trial. *See* Exhibit 8, Order granting leave to file Motion for New Trial.

37. On June 13, 2016, Mr. Hill filed his motion for new trial, with a supporting

memorandum that was substantially the same as the proposed brief attached to his motion for leave.

38. On June 16, 2016, the State responded with a consolidated motion which opposed Mr. Hill's request for a hearing and sought to strike Mr. Hill's motion in part or whole. On July 5, 2016, the State filed an additional response to Mr. Hill's motion for new trial, arguing that Mr. Hill's bitemark evidence was not "newly discovered" or "new evidence" and, in the alternative, that the evidence did not meet the requirements for a new trial under Rule 33 and *State v. Petro*, 76 N.E.2d 370 (Ohio 1947).

39. On August 8, 2016, the court held a telephone status conference. During that call, the court scheduled an evidentiary hearing for September 29-30. On August 17, 2016, however, the Court convened yet another telephone status conference during which it summarily canceled the scheduled hearing and stated that it would issue a decision an opinion shortly.

40. On September 20, 2016, Mr. Hill filed a renewed motion for a hearing on his claims. He also provided the Court with supplemental authority regarding bitemark evidence—a then recent report to the President from the President's Council of Advisors on Science and Technology (PCAST), titled Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods.

41. October 3, 2016, the Court of Common Pleas denied Mr. Hill's motion and all relief without mentioning his constitutional claims. Exhibit 1, Order denying Motion for New Trial.

42. Although the trial court acknowledged the "shocking" nature of Mr. Hill's new bitemark evidence, and conceded it raised "serious concerns about the scientific reliability of bite mark evidence," it nonetheless denied Mr. Hill all relief. Exhibit 1, Order at 25.

43. In its opinion, the court agreed that Mr. Hill's new evidence regarding his bitemark

identification discredited Dr. Mertz's analysis. However, it struck the non-bitemark or bitemark adjacent arguments and evidence and invoked the doctrines of *res judicata* and/or law of the case, finding itself "bound" by language found in Mr. Hill's decades-old direct appeal. The court held that Mr. Hill's new evidence did not satisfy Rule 33 or the applicable standard under *State v. Petro* because, even if the bitemark evidence was eliminated from the record, Mr. Hill could not show a strong probability of a different result at retrial.

44. On February 27, 2017, Mr. Hill filed a timely appeal of the Court of Common Pleas' decision in the Eleventh District Court of Appeals.

45. On December 3, 2016, a three-judge panel affirmed the trial court's decision without a binding opinion. Although Judge Grendell (once again) authored an opinion (on her own behalf), the Honorable Thomas R. Wright concurred in the decision only, and the Honorable Colleen Mary O'Toole dissented. *State v. Hill*, 125 N.E.3d 158 (Ohio Ct. App. 2018)

46. On January 17, 2019, Mr. Hill filed a petition for discretionary review with the Ohio Supreme Court. That petition was denied on June 12, 2019. On November 6, 2019, Mr. Hill filed a petition for writ of *certiorari* in the United States Supreme Court. On January 13, 2020, that petition was denied.

II. FACTUAL BACKGROUND

A. The Investigation

47. On Tuesday, September 10, 1985, 12-year-old, Raymond Fife was attacked while riding his bike near the Valu-King convenience store in Warren, Ohio. Initially reported missing by his family, Fife was eventually found by his father at approximately 9:00 P.M. that evening, in a wooded area behind a Valu-King convenience, unconscious but alive. He died two days later in the hospital.

48. In the week following the assault, Mr. Hill provided the Warren Police Department with several statements regarding knowledge he claimed to possess about the assault on Fife.

49. Mr. Hill first contacted the police voluntarily, seeking a reward for information he purported to possess. Then, however, the police treated him as a suspect. Mr. Hill, just eighteen with an I.Q. below 70, was initially unaware that he was a suspect. Mr. Hill's uncle, Morris Hill, was a detective with the Warren Police Department, and Mr. Hill knew the police officers who questioned him personally.

50. Twice Mr. Hill was transported from his home to the Warren police station for interrogation. While he was being questioned, the Warren police rebuffed attempts by Hill's family to contact him and provide him with counsel. *See, e.g., State v. Hill*, 1989 WL 142761, at *11. This extended, coercive questioning—which included intimidation tactics by Mr. Hill's uncle, Morris Hill, with a documented history of beating Mr. Hill while he was in police custody[1]—ultimately resulted in two recorded statements, one on audio tape and one on video. In these statements Mr. Hill suggested—erratically, with little regard for realities of time, space, or human anatomy—that he witnessed the assault on Fife but adamantly denied participation. Mr. Hill named Timothy Combs as the perpetrator. Only the bitemark evidence "proved" Mr. Hill's participation in the attack.

51. During Mr. Hill's September 16 interrogation, the police removed Combs from his high school for questioning. Combs, 17 years old with a juvenile history of rape of younger boys,

[1] *See, e.g., Hill v. Anderson*, 300 F.3d at 681 ("According to Detective Hill, Danny's mother then asked him to 'whup [Danny's] ass,' and when Danny, then in police custody, claimed he had nothing to do with the burglary, Detective Hill 'smacked him in the mouth.' Detective Hill said he had struck Danny while he was in police custody 'a couple of times.'")

was eventually convicted of Fife's rape and murder and sentenced to consecutive life sentences.[2] When told that Mr. Hill had identified him as the perpetrator, Combs blamed Mr. Hill for the assault before admitting that in fact he had sodomized Fife during the assault.

52. During Mr. Hill's on-going interrogation, the police leveraged Mr. Hill's anxiety and fear in several ways, including by "warning" him that Combs would testify in court that Mr. Hill was responsible for the assault if Mr. Hill did not provide the police the details they desired. The videotaped portion of Mr. Hill's interrogation from September 16, in which he purportedly offered "knowledge" about the attack on Fife, came in the aftermath of this threat.

53. An attorney, Roger Bauer, appeared at the police station and tried to advise Mr. Hill not to talk to the police. Attorney Bauer was removed by the interrogating detectives, however. The Warren Police Department later filed a grievance against Attorney Bauer that was dismissed. Exhibit 9, Affidavit of Roger Bauer.

54. On September 17, 1985, the State charged Hill with Aggravated Murder in violation of Ohio Rev. Code § 2903.01(B); Kidnapping in violation of Ohio Rev. Code § 2905.01(A); Rape in violation of Ohio Rev. Code § 2907.02(A)(1)(3); and Felonious Sexual Penetration in violation of Ohio Rev. Code § 2907.12(A)(1)(3).

55. On September 23, 1985, Mr. Hill was indicted on charges of aggravated murder, with aggravating circumstances of kidnapping, rape, aggravated arson and aggravated robbery. Ohio Rev. Code § 2929.04(A)(7). Under Ohio law then, as now, aggravated murder constituted a capital offense.

[2] Combs died in prison in 2018.

B. Mr. Hill's Trial

56. Trial commenced January 21, 1986, before a three-judge panel. Pre-trial, Mr. Hill sought to suppress his statements to the police, and certain physical evidence. Those motions were denied. During the 10-day trial, the State called nearly two dozen witnesses, including four experts.

57. No witnesses placed Mr. Hill at the actual scene of the crime, let alone claimed to have witnessed his participation in the assault. Likewise, the State offered no physical evidence connecting Mr. Hill to the violence against Fife.[3] The State admitted this deficiency in its opening and closing statements where it acknowledged it would "like to have . . . forensic evidence," but conceded it could point to "no evidence of blood," "no blood test" and no fingerprints linking Mr. Hill to the crime. Trial Tr. at 20-21, 1196.

1. Fact Witnesses

58. Among the State's witnesses were several local teenagers, including Donald Allgood, Tony Cree, and Darren Ball— who testified they saw Mr. Hill and/or Timothy Combs near the Valu-King around the time of the assault. None testified that they saw Mr. Hill with Fife, let alone that they witnessed Mr. Hill assault Fife.

59. **Donald Allgood**, a 16-year- old student at a local high school, identified Mr. Hill as one of four individuals "coming out of the woods" where Fife was found on the day of the assault. Trial Tr. at 449-450. Allgood stated that two of those individuals, but not Mr. Hill, were pulling up their zippers. Trial Tr. at 439, 454, 480. The State ignored this part of Allgood's testimony; later, it argued that Mr. Hill must have participated in the crime because only two people

[3] As discussed at length herein, although the State *characterized* the bitemark evidence used against Mr. Hill as a kind of physical evidence of his participation, the purported connection between the injury to Fife's penis and Mr. Hill was based on a completely speculative analysis by Dr. Mertz.

were, or could have been, at the scene. Trial Tr. at 1250 (alleging that "the only two people back there, the only two, were Tim Combs and Danny Hill"); Trial Tr. at 1265 (arguing that Hill must have participated because "Tim couldn't do all those things at one time" by himself).

60. Allgood also provided testimony regarding a "stick" he claimed to have witnessed Mr. Hill discard; the State later relied on this testimony to link a broken broom handle to Mr. Hill through the testimony of the State's expert pathologist, Dr. Howard Adelman.

61. Allgood conceded that he did not mention this stick in his original statement to the police; he mentioned it only after the police arrived at his house the next day, with Prosecutor Watkins in tow. Trial Tr. at 456-457. This follow-up visit to Allgood occurred one day after Dr. Adelman had completed his initial post-mortem analysis and determined that Fife had been "penetrated" and "perforated" by an "object." Trial Tr. at 355.

62. On the stand, Allgood could not confirm that the broken broom handle the State offered into evidence was, in actuality, the stick he witnessed being thrown. Trial Tr. at 461 (noting that the stick "was about 12 inches long" and that "it could have been" a "conventional wood stick or branch" not a broom handle); Trial Tr. at 21 (prosecution's description of the object in evidence as "18 inches" long).

63. Allgood's recollection of four individuals exiting the path behind Valu-King was not his only point of conflict with the State's other evidence. Although Allgood testified that he was "sure" Combs was wearing full-length "blue jeans" and a "leather jacket" when he exited the path behind the Valu-King, Trial Tr. at 438, this description was contradicted by **Tony Cree** and **Darren Ball**, two teenagers who testified they saw Combs (but not Mr. Hill) at the "bend" or "curb" of the path behind Valu-King. According to Cree and Ball, when they saw Combs on the path behind the Valu-King around the time of the assault, he was wearing sunglasses, a wool hat,

a t-shirt, and a pair of shorts. Trial Tr. at 846 (Ball), 862-863 (Cree).

64. After passing Combs on the path, Ball and Cree jogged away from him toward the Valu-King parking lot. Trial Tr. at 864 (Cree) (confirming he saw Combs "in th[e] bend area" and that he was "traveling . . . from Valu-King"); Tr. at 845-846 (Ball) (noting that he saw Combs at the "curb" in the path "coming from the Value-King"). The bend in the path where Cree and Ball saw Combs was approximately 185 feet from the location where Fife's body was found.

65. Neither Cree nor Ball saw Mr. Hill on the day of the assault. Both, however, testified that they assumed Combs had "gotten" somebody on the path. Trial Tr. at 853 (Ball), 866 (Cree).

66. The State also called **Raymond Vaughn**, Mr. Hill's younger brother, who testified that he witnessed Mr. Hill washing a red stain from a pair of gray pants in the bathtub, days after the assault. *Id.* at 40. Vaughn later recanted his testimony, swearing in an affidavit he never saw Mr. Hill washing his pants and that he only testified otherwise "because of the coercion of the prosecutor." *State v. Hill*, 1989 WL 142761, at *24. The State's own witnesses testified that no trace of blood could be found on Mr. Hill's pants.

67. The State attempted to establish Mr. Hill's sexual attraction to boys through a surprise witness, **Stephen Melius**, a frequent runaway who had been in-and-out of juvenile detention a dozen times.[4] Trial Tr. at 1130. Melius testified that Mr. Hill had once made what Melius perceived (but could not confirm) were sexual overtures when the two shared a cell in juvenile detention. Trial Tr. at 1019-1020 (Attorney Kontos admitting that the State withheld Melius' name and nature of his testimony from defense "to wait and see if the Court would admit

[4] Mr. Hill had been sentenced to juvenile detention for prior sexual assaults against adult women.

it or not"); 1043 (Melius). Melius did not testify that Mr. Hill became violent at any point during the events described.

68. Sergeant Steinbeck of the Warren police sought Melius because of a third-party report that Mr. Hill had been present in the cell during a prior sexual assault against Melius. Trial Tr. at 1043-1044 (Melius). Although this report turned out to be inaccurate, Steinbeck pressed Melius on any other interactions with Mr. Hill; in response to this prodding, Melius alleged the previously unreported sexual overture by Mr. Hill. Trial Tr. at 1042.

69. Melius's brief testimony was riddled with errors. The names and dates he provided did not match the records of the juvenile detention facility; they *did*, however, match the facts of Melius's *other*, documented sexual assault. Trial Tr. at 1115-1118 (Maderitz), 1024 (Melius) (third cellmate with Hill and Melius was "Bob," who was "white"), 1044 (third person in cell during reported sexual assault was "Bob").

70. Other testimony was provided by Det. Hill, Mr. Hill's uncle, who acknowledged that on several prior occasions he had "whipped" Mr. Hill at the police station to get him to talk to investigators.[5] Trial Tr. at 745-746. Only after being left in an interrogation room alone with his uncle did Mr. Hill profess any first-hand knowledge about the crime about the crime against Raymond Fife. Trial Tr. at 741-744; *see also Hill v. Anderson*, 300 F.3d at 682–83 ("After being brought to the station again and left alone with his uncle for a few minutes, Danny Hill made an abrupt about-face and confessed to involvement in the crime."); *Hill v. Anderson*, 2020 WL 2551881 * 23 ("The record contains ample evidence demonstrating that Hill's waiver was neither

[5] The State's other witnesses included James Teeple (Trial Tr. at 117-198), who collected forensic evidence for the Warren police, Candyce Jenkins (Trial Tr. at 684-702) and Mary Ann Brison (Trial Tr. at 702-712), who both testified that Hill had previously assaulted them, and Thomas Stewart (Trial Tr. at 623-687) and Morris Hill (Trial Tr. at 713-769), a member of the Warren police who participated in Mr. Hill's interrogation.

voluntary nor knowing.").

71. Although Mr. Hill adamantly stated that he did not participate in the assault on Fife, prosecutors used his statements against him, asserting that he knew details "about the crime that nobody but the actual killer or killers could know." Trial. Tr. at 11. This inference was undermined by Sgt. Steinbeck, who testified that rumors had swirled within Warren's insular community. According to Steinbeck, "some fiction, some reality got out in the community" regarding unreported details of the crime. Trial Tr. at 283.

2. Expert Testimony and Forensic Evidence

72. Physical evidence against Mr. Hill was non-existent. To compensate, the State relied heavily on faux scientific testimony to connect him to the assault. Its actual success was mixed. For instance, the State called **James Wurster**, an employee of the Ohio Bureau of Criminal Identification, who analyzed pants seized from Hill's home and the broken broom handle the State alleged had been used to sodomize Fife. Mr. Wurster testified that the pants revealed no trace of blood. Trial Tr. at 604-605 (testifying that he "did not find any blood" on Mr. Hill's pants), 619 (testifying that he found "no blood whatsoever" on Mr. Hill's pants). Mr. Wurster similarly testified that no trace of blood could be found on the "stick." Trial Tr. at 607-608 (testifying that he was not "able to find any blood on" the stick); 619 (agreeing that he found "no indication" of blood on the stick).

73. Several witnesses testified that, had the stick *actually* been used in the assault, blood would likely have seeped into its grain, remaining detectable by forensic analysis. These included **Dr. Howard Adelman**, the State's expert pathologist, who acknowledged that, had the stick been used as alleged, "blood would go into the cellular structure of the wood" and "probably be absorbed right away." Trial Tr. at 407. The State's only rebuttal to that testimony was the

prosecutor's speculation that rain may have washed any blood away. Trial Tr. at 22 (Opening Argument).

(a) Dr. Howard Adelman

74. Dr. Adelman's initial connection to Mr. Hill's case was Fife's autopsy, which Adelman performed on September 13, 1985. However, he was also responsible for contacting first Dr. Lowell Levine and then Dr. Curtis Mertz, forensic odontologists, in the hope they might analyze two small wounds on the glans of Fife's penis that Adelman speculated might be bitemarks.

75. Testifying in his role as forensic pathologist, Dr. Adelman identified blunt force trauma; ligature strangulation; subdural hemorrhage; retroperitoneal and abdominal contusions; penetration and perforation of the anus, the rectum, and urinary bladder; and third-degree burns. *See generally* Trial Tr. at 349-63.

76. But Adelman's most important role was providing a "scientific" cover for the State's attempt to connect Mr. Hill to Fife's body. He offered: (i) his theory about Fife's arousal during asphyxiation which rationalized the "matching" of Mr. Hill's teeth to the injury on Fife even though they were of significantly different sizes; and (ii) testimony that linked Fife's internal injuries to the State's broom handle and, purportedly, Mr. Hill.

77. More specifically, Dr. Adelman testified that it was "know[n] that asphyxia can cause erections, and in legal hangings, it's been described that there are erections and ejaculations that occur." Trial Tr. at 418. This testimony was accepted into evidence even though Dr. Adelman admitted he was "not exactly sure of the mechanism" through which asphyxia causes an erection, only that he knew it "just occurs." Trial Tr. at 418. Dr. Adelman also opined that the State's broken broom handle fit Fife's injuries like a "key in a lock." Trial Tr. at 383. Neither opinion was

challenged with expert testimony at trial, nor supported by sound science.

(b) Dr. Curtis Mertz

78. Given the attenuated and indirect nature of the State's other evidence, the prosecution's case ultimately rested on the testimony of **Dr. Curtis Mertz**, a dentist and oral surgeon who served as Chief of Dental Staff at Ashtabula Medical Center, in Ashtabula, Ohio.

79. At the time of his testimony, Dr. Mertz was a "Diplomate" (or member) of the American Board of Forensic Odontology ("ABFO"). He was also a former president of the ABFO. Trial Tr. at 908-909.

80. Dr. Mertz was not the State's first choice as an expert witness. Dr. Adelman first contacted Dr. Lowell Levine—at the time one of the most prominent bitemark specialists in the country, now diminished by his role in a series of false convictions. Dr. Adelman asked Levine to travel to Ohio to assess the would-be "bitemark."

81. However, when Levine could not definitively link Hill to the injury on Fife's penis, the State sought a second opinion and, "[o]n or about September 13th, 1985," Dr. Adelman asked Dr. Mertz to "come down and view what the pathologist felt may well be a bite mark on a homicide victim." Trial Tr. at 917 (Mertz).

82. Dr. Mertz testified unequivocally not only that the injuries found on Fife's penis were human bitemarks, but that they were caused by Mr. Hill and no one else. Trial Tr. at 937 ("It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and photographs that I had, made the bite on [the victim]."). He also testified that he could ascertain the precise mechanism or method through which Mr. Hill left the marks on Fife. Trial Tr. at 941-942 ("And the bites undoubtedly were inflicted in this manner.") (emphasis added).

83. As Dr. Mertz's notes clarify, however, no such match was possible based on the actual evidence at hand. To generate a match, Dr. Mertz speculated that Fife, a 12-year-old boy, 1) had an asphyxiation-caused erection, and 2) that erection accounted for the "approximately" 33% size differential between the marks on Fife's skin and Mr. Hill's teeth. Trial Tr. at 956, 979.

84. Dr. Mertz cited just two sources in support of this novel theory: the introduction to a chapter on asphyxiation from the 1968 edition of Gradwohl's Legal Medicine, and a 1971 article by L.G. Farkas, "Basic Morphological Data of External Genitals in 177 Healthy Central European Men," in the American Journal of Physical Anthropology. Neither of these sources involved children Fife's age. According to Dr. Mertz, himself, he sought this literature to justify his conclusion. Trial Tr. at 954, 956, 979.

85. Although his entire opinion was predicated on these "arousal"-adjusted measurements, Dr. Mertz testified that he could not recollect or discuss that part of his analysis. Trial Tr. at 977 ("I do not have the measurements here with me . . . And I do not have them from memory nor do I have a metal rule with me to give you the measurements.").

3. The State's Characterization of the Bitemark Evidence

86. In both its opening and closing arguments, the State repeatedly characterized Dr. Mertz's identification of Mr. Hill as *indelible*, *individualized*, and most of all, *scientific* proof of Mr. Hill's participation in the violence against Fife. It made this point in its opening statement, when it previewed its case for the three-judge panel:

> Evidence will show that in odontology, that teeth, *like fingerprints* in a way, leave identifying characteristics . . . Doctor Mertz will tell this Court that in his opinion, with reasonable medical and dental certainty, that the teeth marks on the private part of Raymond Fife were made by [Mr. Hill] . . . [Mr. Hill] has a rotated tooth and a chipped tooth which is sufficient enough for Doctor Mertz to come to the conclusion that [Mr. Hill]'s teeth marks are on [the victim].

Trial Tr. at 30-32 (emphasis added).

87. And it returned to it in its closing argument, again touting Dr. Mertz's bitemark evidence as conclusive scientific evidence of Hill's participation in the assault:

> I think that especially significant is the odontology evidence in this case . . [N]ot only do we have exclusion of [Timothy Combs], we have, with reasonable medical certainty from Doctor Mertz, that [Mr. Hill's] tooth . . . gives us *the best evidence* because that's what Doctor Mertz says is a *trademark* and *blueprint* that we can follow in the pattern of injury on [the victim].

Trial Tr. at 1199-1200 (emphases added).

88. Further, Dr. Mertz's bite-mark identification infected every corner of Mr. Hill's trial. For instance, prosecutors invoked the purported bitemarks for admitting highly prejudicial, otherwise inadmissible testimony regarding Mr. Hill's prior bad acts, arguing that the common denominator of "biting" provided evidence of Mr. Hill's "method" and "motive." Trial Tr. at 33-34.

89. Worse, the State invoked the bitemark evidence to characterize Mr. Hill—African American and intellectually disabled—as something worse than an "animal," caught up in "sexual frenzy and perversion" of the attack of the white victim. Trial Tr. at 1169.

90. Further, by using the "bitemark" to establish Mr. Hill's active participation *and* arguing it was *per se* evidence of forced fellatio, a form of rape, the State essentially elevated Dr. Mertz's testimony into a standalone justification for imposing the death penalty. Trial Tr. at 31.

91. Dr. Mertz's identification of Hill proved just as important during Mr. Hill's direct appeal. In reviewing the propriety of Mr. Hill's death sentence, the court of appeals pointed to Mr. Hill's "personal odontological 'signature'" on Fife's genitalia as proof he actively participated in the assault. *State v. Hill*, 1989 WL 142761 at *30. This was crucial, given the court's recognition that the State's other evidence in the record left Mr. Hill's participation unknown and/or unclear.

Id. at *33. Elsewhere, it relied on Dr. Mertz's bitemark identification to find that Dr. Adelman's theory regarding Fife's potential asphyxiation-based arousal was admissible. *Id.* at *16.

III. MR. HILL'S NEW EVIDENCE

92. As detailed directly above Dr. Mertz's bitemark "identification" played an outsized role Mr. Hill's conviction and sentencing. The case against Mr. Hill was otherwise underwhelming. Although witnesses testified that they saw Hill near the Valu-King and/or with Combs, nothing implicated him in the actual attack. Dr. Mertz filled that gap.

93. His credentials as a board-certified "Diplomate" and an ex-president of the ABFO, his use of ABFO-sanctioned methodology and an ABFO "scoring sheet," (which has also been abandoned now by the ABFO), and his rhetoric of scientific "certainty," elevated his testimony above the murkier, indirect evidence that made up the rest of the State's case. Those same qualities also hid the pseudoscientific nature of his "identification" of Mr. Hill as the "biter" of Raymond Fife. Trial Tr. at 908-909, 949-950.

A. Dr. Franklin Wright

94. As part of Mr. Hill's motion for new trial, he offered the affidavit and opinion of Dr. Franklin Wright who is (like Dr. Mertz) a former president of the ABFO and who has (also like Dr. Mertz) frequently testified on behalf of the State of Ohio in criminal prosecutions. Exhibit 4, Wright Aff. at ¶¶ 2, 4.

95. In his affidavit and opinion, Dr. Wright methodically dismantled Dr. Mertz's bitemark opinion. He did so in two primary ways. First, he explained why Dr. Mertz's testimony regarding Mr. Hill was now universally understood to be scientifically baseless. *Id.* at ¶¶16-19. And second, he revealed that Dr. Mertz had privately retracted or recanted his testimony against Mr. Hill. *Id.* at ¶¶ 20-22. The credibility of Dr. Wright's analysis was bolstered by such criticism's

being very painful for him—Dr. Wright knew Dr. Mertz describing him as a "mentor" and "a respected teacher and scholar in the forensic odontology community." *Id.* at ¶ 20.

96. Applying current ABFO methodology, Dr. Wright explained there no longer existed *any* sanctioned (and thus generally - accepted or scientifically - recognized) method of bitemark analysis that would permit an expert to conclude that Mr. Hill, and only Mr. Hill, bit Raymond Fife. Exhibit 4, Wright Aff. at ¶ 17 ("In my opinion, applying the current guidelines and standards of the ABFO, there is no scientific support for the conclusion that Mr. Hill left any portion of the patterned injury on the victim."); *see also* Exhibit 10, ABFO Flow Chart (MNT Ex. R); Trial Tr. at 1267 (State Closing Argument) ("That's the state of the expert evidence that we have. That the bite mark was made by this man here (indicating to [Mr. Hill]) and nobody else.").

97. Dr. Wright also recounted that, on at least two occasions in the decade post-trial, Dr. Mertz (i) privately confided regret for his testimony against Mr. Hill, (ii) conceded that his testimony was scientifically unsupportable, and (iii) stated that he would not have given the same testimony again. *Id.* at ¶ 20, ¶ 22. According to Dr. Wright, Dr. Mertz's recantation was total; he retracted not just his identification of Mr. Hill as the source of the victim's injury, but even his underlying conclusion that the injury could reliably be classified as a human bitemark. *Id.* at ¶ 22.[6] Wright likewise stated that, in his own opinion, the mark on Fife could not be identified as a bitemark.

98. Dr. Wright was willing and able to testify in state court until the trial court retracted the evidentiary hearing.

99. Dr. Wright has supplemented his prior affidavit with additional relevant

[6] At the time of Dr. Mertz's recantations, Dr. Mertz did not share with Dr. Wright the name of the victim, the name of the defendant, or even that the defendant had been convicted and sentenced to death – a self-serving omission that came at the expense of Mr. Hill. Wright Aff. at ¶ 20-22.

information. Exhibit 11, 2020 Declaration of Dr. Franklin Wright (Wright Decl). Besides the information detailed in his 2014 affidavit, Dr. Wright would have also testified that he believes Dr. Mertz's conclusions were affected by his own racial bias. Dr. Wright's affidavit revealed that Dr. Mertz made racist comments about Mr. Hill being African-American, including calling him the "n word."

100. Dr. Wright averred these racist statements and beliefs affected Dr. Mertz's testimony in this case: "Considering [Dr. Mertz's] use of racially derogatory language in my presence, including the 'n word,' and comments he made to me about this case in particular, racial bias also played a role in Dr. Mertz's willingness to 'match' Mr. Hill to the two marks on the victim's penis." *Id.* Wright Decl. at ¶38. Said plainly, Dr. Mertz would indulge in grossly speculative trial testimony due to his explicit racism, specifically directed at Mr. Hill by his use of an incendiary racial slur to describe him.

B. Public Criticism, Changing Standards, and the ABFO's Turn Toward Modesty

101. As Mr. Hill explained in his motion, recent scientific review had revealed little basis for asserting *any* pattern injury was a bitemark. Mr. Hill provided this information as part of his detailed recounting of the ABFO's recent repudiation of the very "methodology" Dr. Mertz relied upon.

102. This historical overview was supported by a variety of extrinsic sources, including the affidavit of forensic odonatologist Dr. Iain Pretty. Mr. Hill's motion for new trial placed Dr. Mertz's opinion within the broader context of the scientific community's rebuke of the "discipline"—and, in doing so, detailed a watershed series of events that had sparked an on-going epistemological crisis for the ABFO and its members.

103. Mr. Hill's overview began in 2009, when the National Academy of Sciences

("NAS") issued a report, Strengthening Forensic Science in the United States: A Path Forward ("NAS Report")[7] that exposed the discipline's all-encompassing lack of biological, methodological, and statistical foundation.[8]

104. Until 2009, forensic odonatologists like Dr. Mertz had devised their own standards, approved their own methodologies, and determined for themselves the acceptable scope of bitemark testimony—with no input by, or inquiry from, disinterested scientists. This permissive, nearly boundless discretion contributed to over two dozen wrongful convictions and countless baseless indictments.[9]

105. Forensic odonatologists, the NAS discovered, had long treated their *untested* hypotheses regarding dental measurement and uniqueness as if they were proven principles. Once examined by the NAS, however, those hypotheses turned out to be universally unverifiable. The NAS concluded that (i) the uniqueness of the human dentition had not been scientifically established; (ii) the ability of teeth to uniquely "mark" skin had not been scientifically established; and (iii) that no standards for type, quality, or number of individual characteristics necessary to "identify" an individual had ever been established. NAS Report at 175-76; *see also* Exhibit 5,

[7] The 2009 NAS Report was the culmination of nearly four years of work by a select committee of members of the forensic, scientific and legal communities, who were directed by Congress to assess the current state of forensic science in this country and make recommendations to strengthen it. The committee heard extensive testimony from a vast array of scientists, law enforcement officials, medical examiners, crime laboratory officials, investigators, attorneys and leaders of professional and standard-setting organizations. At the time of its publication, the NAS Report constituted the most comprehensive assessment of bitemark evidence to date, the product of a collaborative effort by highly-respected members of the scientific and legal communities, including a federal judge, prosecutor and defense attorney.

[8] As described *infra*, the NAS' criticism of the bitemark discipline is now universally accepted outside of a handful of recalcitrant practioners.

[9] For a list, see: https://www.innocenceproject.org/wp-content/uploads/2019/01/Description-of-bite-mark-exonerations-and-statistical-analysis_UPDATED-01.28.19.pdf

Pretty Aff. at ¶¶ 2.1-2.3.

106. The NAS also noted that, although forensic odonatologists might "understand the anatomy of teeth and the mechanics of biting," their knowledge is woefully "insufficient to conclude that bite mark comparisons can result in a conclusive match" because "there is no established science indicating what percentage of the population or subgroup of the population could also have produced the bite." *Id.* at 174-75 (emphasis added). All-in-all, the NAS found that bite-mark identification was plagued by "inherent weaknesses" that called into doubt "the value and scientific objectivity" of the discipline. *Id.* at 174; *see also id.* at 176 (noting "basic problems inherent in bite mark analysis").

107. In an aside particularly relevant to high-profile, racially-charged prosecutions like that of Mr. Hill,[10] the NAS recognized that bitemark analysts pose a significant, and discipline-specific, risk of being compromised by prosecutorial and/or public pressure:

> [F]orensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which to choose in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect.

Id. at 175.

108. Even today, the bitemark "discipline" lacks the objective standards and verifiable methods necessary to reliably conclude that a particular suspect's teeth produced a specific

[10] As the local press acknowledged at the time, the investigation and trial of Mr. Hill occupied a "prominent position in the media spotlight," producing an endless barrage of "film footage and pictures [that] filled television screens and newspapers with a stoic family enduring the graphic retelling of their son's death." *See* McCarthy, Fife Case Coverage Prompts Questions, The Vindicator, Feb. 23, 1986 at A6.

bitemark. And yet, throughout the discipline's entire history, practitioners had been identifying "biters" to a "medical certainty" even though they did not know *what* they should measure, *how* they should measure it, or what any such measurements *actually meant*.

109. The NAS concluded that forensic odontologists had long mistaken their subjective interpretation for objective analysis. Ironically, this charge was unwittingly confirmed by the State, in its opposition to Mr. Hill's motion in state court. There, the State attached an affidavit from Dr. Levine which acknowledges that "[t]he comparison of [Fife's] injuries with the dentition and an exemplar of the bite pattern that the dentition in question would cause ***is an Art based upon Science***." *See* Exhibit 13, Levine Affidavit at 1 (emphasis added). Levine's defensive response is that of a pseudoscientist, not a real one.

110. Following the NAS report, a growing body of research continues to reveal the magnitude of the discipline's short-comings. Among the research cited by Mr. Hill was Construct Validity Bitemark Assessments Using the ABFO Bitemark Decision Tree ("Construct Validity Study"), a study undertaken by Drs. Iain Pretty (who submitted an affidavit on Mr. Hill's behalf) and Adam Freeman (another former president of the ABFO), in which photographs of 100 patterned injuries were presented for analysis to all (at that time) 103 ABFO board-certified "Diplomates."

111. The Construct Validity Study asked the Diplomates asked to answer three basic questions: *first*, whether there was sufficient evidence to determine a patterned injury was a human bitemark; *second*, whether, consistent with the ABFO decision tree, the injury could be determined to be either a human bitemark, not a human bitemark, or suggestive of a human bitemark (the three options the ABFO's guidelines then provided); and *third*, if the injury was a human bitemark, whether it had distinct, identifiable arches and individual tooth marks. *See* Motion for New Trial,

at 18-20.

112. Thirty-nine board-certified ABFO Diplomates, accounting for nearly 40% of ABFO diplomates practicing at the time, answered all 100 questions, resulting in nearly 4,000 determinations. The Study did not examine the results for ground truth (i.e., whether the Diplomates accurately ascertained what type of injury they were looking at) but to see whether the ABFO's "certified" experts could agree internally, amongst themselves, regarding these threshold determinations. *Id.*

113. The results of the Construct Validity Study were—as even the trial court conceded—"shocking," exposing the fundamental "inability of top forensic odontologists to arrive at a consensus as to whether a patterned injury constitute[s] a bitemark, much less a human one." Tr. Order at 25.

114. The trial court's "shock" was well-founded. The 39 respondents unanimously agreed on just 4 of the 100 case studies. Only 20 of the 100 case studies resulted in 90% agreement among respondents. Most damningly, only 16 of 100 cases resulted in 90 percent agreement that a pattern *was even a bitemark.* The scientific evidence is now clear; forensic odontologists cannot reliably agree on whether they are *looking at* a bitemark, let alone who made it.[11]

[11] As Mr. Hill's motion detailed, the Construct Validity Study's findings were hardly anomalous. A study published in the May 2013 Journal of Forensic Sciences similarly noted that, "[w]hile most odontologists would suggest they can determine with a reasonable degree of certainty what is and what is not a bitemark, there is little evidence to support this claim." *See* Mark Page, et al., Expert Interpretation of Bitemark Injuries-A Contemporary Study, 58(3) J. FORENSIC SCI. 664 (May 2013)). Looking to close this gap, researchers asked fifteen Australian forensic odontologists-- who comprised the majority of those practicing forensic odontology in Australia-- to examine six images of potential bitemarks, five of which were of marks confirmed by living victims to have been caused by teeth. *Id.* at 665. The odontologists were then asked in narrative form whether the injuries were, in fact, bitemarks. As with the Construct Validity Study, "conclusions between practitioners [were] highly variable." *Id.* at 671. Thus, "the qualitative data plainly verifie[d] the fact that there is a wide range of opinion expressed over even the most basic assumption in bitemark analysis: that of the origin of the mark itself." *Id.* The study further

115. On-going scientific scrutiny has only reinforced these findings. In 2015, the Texas Forensic Science Commission—which operates as a regulatory body for legal and judicial use of forensic evidence in Texas—undertook an exhaustive six-month investigation into the scientific reliability of bitemark comparison evidence.[12]

116. On April 12, 2016, it released its report, titled Forensic Bitemark Comparison Complaint Filed by National Innocence Project on Behalf of Steven Mark Chaney (the "Texas Report").[13] Like the NAS report, the Construct Validity Study, and numerous other studies, the Texas Commission's conclusions were devastating:

> First, there is no scientific basis for stating that a particular patterned injury can be associated to an individual's dentition. Any testimony describing human dentition as "like a fingerprint" or incorporating similar analogies lacks scientific support. Second, there is no scientific basis for assigning probability or statistical weight to an association, regardless of whether such probability or weight is expressed numerically (*e.g.* 1 in a million) or using some form of verbal scale (*e.g.*, highly likely/unlikely). Though these types of claims were once thought to be acceptable and have been admitted into evidence in criminal cases in and outside of Texas, it is now clear they have no place in our criminal justice system because they lack any credible supporting data.

Id. at 11-12.

117. The Commission was also greatly troubled by the ABFO's "glacial pace, reticence

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concluded that this "inconsistency indicates a fundamental flaw in the methodology of bitemark analysis and should lead to concerns regarding the reliability of any conclusions reached about matching such a bitemark to a dentition." *Id.* at 670.

[12] Under Texas law, the Commission oversees the accreditation of all laboratories in Texas, but also investigates allegations of professional negligence or misconduct against any laboratory, facility or entity that provides scientific testimony at trial.

[13] Over 1200 pages of exhibits were also released in support of report. Counsel have not attached all of the exhibits to the Report to this motion, but will provide those upon request. The report and all of the exhibits are available online at http://www.fsc.texas.gov/sites/default/files/FinalBiteMarkReport.pdf.

to publish critical data, and willingness to allow overstatements of science to go unchecked for decades." *Id.* at 17. This recalcitrance had earned forensic odontology and its practitioners "a barrage of well-founded criticism." *Id.*

118. Because of its review, the Commission recommended "that bitemark comparison not be admitted in criminal cases in Texas unless and until" the scientific community establishes both the reliability of bitemark comparison and sufficient proficiency and accreditation protocols to ensure that reliability. *Id.* at 15-16.

119. The relentless, and relentlessly public, nature of this criticism—along with litany of overturned convictions and lawsuits—finally spurred the ABFO to re-examine its "sanctioned" methods and conclusions. For decades, the ABFO had allowed its members to promote themselves to prosecutors based on their ability to identify "the Biter," i.e., the singular individual responsible for a crime.

120. In August 2013, the ABFO officially conceded this individualization was invalid in "open" or "undefined population" cases (like Mr. Hill's), where the universe of potential suspects is unknown.[14] When the ABFO updated its Reference Manual—a field guide for

[14] The amount of research and analysis questioning the validity of bite-mark analysis published between the NAS report in 2009 and Mr. Hill's motion for new trial was substantial. See Bush, M.A., Bush, P.J., and Sheets, H.D., A Study of Multiple Bitemarks Inflicted in Human Skin by a Single Dentition Using Geometric Morphometric Analysis, For. Sci. Int'l 211:1-8 (2011); Bush, M.A., Miller, R.G., Bush, P.J., and Dorion, R.B., Biomechanical Factors in Human Dermal Bitemarks in a Cadaver Model, J. Forensic Sci. 54(1):167-176 (2009); Sheets, H.D., Bush, P.J., Brzozowski, C., Nawrocki, L.A., Ho, P., and Bush, M.A., Dental Shape Match Rates in Selected and Orthodontically Treated Populations in New York State: A Two Dimensional Study, J. Forensic Sci. 56(3):621-626 (2011); Bush, M.A., Bush, P.J., and Sheets, H.D., Similarity and Match Rates of the Human Dentition In 3 Dimensions: Relevance to Bitemark Analysis, Int'l J. Leg. Med. 125(6):779-784 (2011); Bush, M.A., Bush, P.J., and Sheets, H.D., Statistical Evidence for the Similarity of the Human Dentition, J. Forensic Sci. 56(1):118-123 (2011); Bush, M.A., Thorsrud, K., Miller, R.G., Dorion, R.B.J., and Bush, P.J., The Response of Skin to Applied Stress: Investigation of Bitemark Distortion in a Cadaver Model, J. Forensic Sci. 55(1):71-76 (2010); Miller, R.G., Bush, P.J., Dorion, R.B., and Bush, M.A., Uniqueness of the Dentition as Impressed

practitioners—it formally eliminated individualization and identification as a sanctioned conclusion in open-field cases. *See* Exhibit 12, American Board of Forensic Odontology, Inc. Diplomates Reference Manual, at 117 ("The ABFO does not support a conclusion of 'The Biter' in an open population case(s)"); *see also* Pretty Aff. at ¶¶ 3.4-3.6.

121. Although this constituted an unprecedented, dramatic shift in ABFO-sanctioned bitemark analysis, it was not the last such change. In 2016, the ABFO *once again* revised its protocols, this time eliminating *any* conclusion beyond a broad claim that an individual could not be *eliminated* as a potential biter. Motion for New Trial at 23; *see also Ex parte Chaney*, 563 S.W.3d 239, 261 n.41 (Tex. Crim. App. 2018) ("The new Guidelines, as published in March 2016, prohibit individualization testimony in *all* cases").

122. Roughly six months after making this change, on September 20, 2016, the President's Council of Advisors on Science and Technology (PCAST) issued yet another detailed critique of bitemark analysis, titled Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods.[15] It concluded:

> that bitemark analysis does not meet the scientific standards for

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in Human Skin: A Cadaver Model, J. Forensic Sci. 54(4):909-914 (2009); Bush, M.A., Cooper, H.I., and Dorion, R.B., Inquiry into the Scientific Basis For Bitemark Profiling and Arbitrary Distortion Compensation, J. Forensic Sci. 55(4):976-983 (2010); Sheets, H.D., and Bush, M.A., Mathematical Matching of a Dentition to Bitemarks: Use and Evaluation of Affine Methods, Forensic Sci. Int'l 207(1-3):111-118 (2011); Sheets, H.D., Bush, P.J., and Bush, M.A., Bitemarks: Distortion and Covariation of the Maxillary and Mandibular Dentition as Impressed in Human Skin, Forensic Sci. Int'l (2012). Broadly speaking, this research scientifically establishes that, even assuming the uniqueness of human dentition, human skin is not capable of capturing that uniqueness with sufficient fidelity to identify a "biter," as Dr. Mertz purported to do in this case.

[15] The full report may be found at the PCAST website:

https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf.

> foundational validity, and it far from meeting such standards. To the contrary, available scientific evidence strongly suggests that examiners cannot consistently agree on whether an injury is a human bitemark and cannot identify the source of [a] bitemark with reasonable accuracy.

PCAST Report at 87.

123. The PCAST Report did not merely challenge the validity of the discipline's past and present practices, it raised serious questions about its future. The Council characterized "the prospects of developing bitemark analysis into a scientifically valid method" as "low" and recommended that no funds even be devoted to the attempt. *Id.* at 9. In a follow-up report responding to practitioners unhappy with PCAST's initial critique, the Council doubled-down, noting that, while there were "no empirical studies whatsoever that establish the scientific validity or degree of reliability of bitemark analysis as currently practiced," there was "considerable literature pointing to the unreliability of the method." PCAST Addendum, at 5.

124. It is hardly surprising that the only permissible conclusions under current ABFO Guidelines are so broad and generic they bear no resemblance to the personalized dental "signature" identified by Dr. Mertz.

125. Dr. Wright's opinion about bitemark comparison has evolved to where he now acknowledges it is not scientifically reliable.

> My recent resignation from the ABFO was prompted by the failure of the organization to recognize the profound implications of the Construct Validity Study. In my view, the results of that study required the organization to renounce the use of bitemark analysis and comparison unless and until the method could be scientifically validated. My position is consistent with the findings published by the Texas Forensic Science Commission following its six-month study, which I participated in as a subject matter expert.

Exhibit 11, Wright Decl. ¶ 17.

C. Critical Analysis Specific to Dr. Mertz's Testimony

126. Although Dr. Mertz's testimony against Mr. Hill embodied all of his discipline's

above-detailed elemental flaws, many of the most troubling aspects of his identification of Mr. Hill are distinct to Mr. Hill's trial. These aspects are largely the product of specific obstacles posed by the purported bitemarks on Fife.

127. First, human skin is a fundamentally unreliable template for capturing impressions. With Fife, this lack of reliability was exacerbated by the subject injury's location on his penis, where the skin is curved and "highly distortable." Exhibit 5, Pretty Aff. at ¶ 5 (noting that penile "tissue is highly distortable," and "[t]he surface is curved, soft and the risk of postural distortion high."); Wright Aff. at ¶ 18 ("the location of the patterned injury in [Fife's] case render[ed] it impossible to make *any* positive association between a suspected biter and the patterned injury in question."). Second, Dr. Mertz's measurements of the pattern injury *did not match* Mr. Hill's teeth—the marks were roughly 33% smaller than Mr. Hill's dentition. Trial Tr. at 956, 979.

128. For an actual scientist, beholden to objective methods and measurements, these factors would have been enough to deter any attempt at analysis, let alone "certain" conclusions. Rather than being dissuaded, however, Dr. Mertz saw an opportunity to solve one problem with the other. He *relied* upon the variability of penile skin to rationalize "matching" the otherwise mismatched injury to Mr. Hill.

129. To do so, Dr. Mertz baselessly testified that (i) Fife's penis was erect at the time of the purported bite because of his asphyxiation, and (ii) that the erection could reliably account for the "approximately" 33% size differential between the marks in Fife's skin and Hill's teeth. Trial Tr. at 956. Dr. Mertz's opinion rested *entirely* on this macabre theory; without it, there was no match, no testimony, and no conviction.

130. In retrospect, that such testimony was permitted seems remarkable; after all, Dr. Mertz's opinion required him to delve into highly-specific subfields of anatomy and pathology—

fields in which he was decidedly not an expert. That lack of expertise is why, even when he found supporting literature, he misinterpreted it. For instance, his use of Gradwohl was directly contradicted by the text itself, which specifically rejected the possibility of drawing the kinds of conclusions he offered on the stand. Exhibit 6, Hua Affidavit at ¶ 17. Similarly, his extrapolation of measurements from the Farkas article—which synthesized the results of numerous studies of grown men from around the world—was both statistically invalid and riddled with basic mathematical errors.[16]

131. As Mr. Hill and his experts noted, Dr. Mertz's cherry-picking foray into old medical literature is a prototypical example of motivated reasoning or confirmation bias. That Dr. Mertz's "analysis" would always point to Mr. Hill was something of an open secret. According to the State's closing argument, Dr. Mertz "knew . . . before he even finished" his review of Fife's body he would identify Mr. Hill: "that that is what they were going to find, and that's what they found, and that's [that Mr. Hill] did the biting." Trial Tr. at 1266.

D. Analysis of Non-Bitemark and Bitemark-Adjacent Evidence

132. Besides his "new" bitemark evidence, Mr. Hill supported his motion with expert opinions that illuminated the tenuous—and often baseless—nature of much of the non-bitemark or bitemark-adjacent evidence adduced at Mr. Hill's trial. These included analysis and opinion from Drs. Hua and Davis.

[16] Dr. Wright, who revered Dr. Mertz, was nonetheless compelled to describe this portion of Dr. Mertz's testimony as "nothing but a blind guess," impermissible under the ABFO guidelines. Exhibit 4 Wright Aff. at ¶ 18. Dr. Pretty labeled this testimony "unscientific, unsubstantiated, and speculative. Exhibit 5, Pretty Aff. at ¶ 7.2. And Dr. Hua concluded that "Dr. Mertz ignore[d] both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed." Exhibit 6, Hua Aff. at ¶ 21.

1. The Pathology Evidence "Linking" Mr. Hill to the Crime Was Baseless

133. Dr. Hua's affidavit detailed why Dr. Adelman's testimony about asphyxiation-based erections would never be admissible today: "Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion [on Fife's possible erection] is . . . inappropriate and renders his opinions in this specific case speculative and unreliable." Exhibit 6, Hua Aff. at ¶ 11.[17] Decades of research have revealed that "the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects of one to the others is baseless." *Id.* at ¶ 12.

134. Regarding Dr. Adelman's testimony that the State's "stick" fit Fife's injuries like a "key in a lock," Dr. Hua explained there is (and was) no reliable means of narrowly identifying the instrument that caused these injuries, let alone with the precision necessary to describe it through the analogy of a "key and a lock." *Id.* at ¶ 8.

2. Mr. Hill's Statements to the Police Were Unreliable

135. The expert affidavit provided by Dr. Davis addressed the manipulative interrogation methods the Warren police used on Mr. Hill, a developmentally disabled eighteen-year with an I.Q. below 70. Her analysis explained how, by subjecting Mr. Hill to a dizzying barrage of facts and threats, the Warren Police extracted from Mr. Hill false "knowledge" of the assault.[18] Exhibit 7, Davis Aff. at 3-4.

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[17] Dr. Adelman admitted he was "not exactly sure of the mechanism" through which asphyxia causes an erection, but rather that it "just occurs." Trial Tr. at 418.

[18] Although technically at an age of majority, Mr. Hill has been identified as intellectually disabled (also known as all of his life, with his IQ estimated at various times to be between 49 and 70. *Hill v. Anderson*, 2020 WL 2551881 (6th Cir. May 20, 2020); Exhibit 14, Affidavit of Dr. Stephen Greenspan. It is not surprising that Mr. Hill was unaware that he could refuse to talk to the police; nor is it likely that he was competent to understand his rights when he was subjected to repeated and lengthy interviews. Nor was he capable of comprehending the grave and complicated long-term ramifications of waiving those rights. Already highly susceptible to influence given his

136. The United States Supreme Court has recognized the risk posed by such tactics, including the "inherently compelling pressures" of custodial police interrogation and the way, "[e]ven for an adult, the physical and psychological isolation of custodial interrogation can 'undermine the individual's will to resist and ... compel him to speak where he would not otherwise do so freely.'" *J.D.B. v. North Carolina*, 564 U.S. 261, 269 (2011). In doing so, the Court has noted "mounting empirical evidence that [interrogative] pressures can induce a frighteningly high percentage of people to confess to crimes they never committed." *Corley v. United States*, 556 U.S. 303, 321 (2009) (citing Drizin & Leo, The Problem of False Confessions in the Post–DNA World, 82 N.C. L. Rev. 891, 906-07 (2004)).

137. Given these developments, Dr. Davis's opinion regarding the effect of coercion on Mr. Hill's recorded statements should not have been controversial. Nearly seventeen years ago, even before this wave of research, the Sixth Circuit detailed the troubling circumstances under which Mr. Hill stated the police:

> Questioned twice, he consistently denied any involvement in the killing. Then his uncle was assigned to the case. After being brought to the station again and left alone with his uncle for a few minutes, Danny Hill made an abrupt about-face and confessed to involvement in the crime. In evaluating these events, Danny Hill's previous interactions with his uncle are important: twice before, when Hill was in police custody, his uncle struck him when he refused to talk. Even accepting his uncle's version of events, in which Detective Hill simply told Danny Hill he believed he was involved in the killing, this episode raises a serious question of coercion. That any officer had struck a suspect is troubling; of special concern here is that Danny Hill was struck by an officer who was also a close family member.

Hill v. Anderson, 300 F.3d at 682–83. *See also Hill v. Anderson*, 2020 WL 2551881 * 22 ("And while Hill was certainly exposed several times to Miranda warnings, we are not convinced that he

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age and mental capacity. Mr. Hill's pliability was augmented by the fact that the police relied on a physically-threatening family member, Det. Hill, to apply additional pressure.

ever registered the warnings' meaning.").

138. According to Dr. Davis, on-going study continues to identify environmental and psychological factors that might cause individuals to confess to crimes they did not commit. Perhaps, given Mr. Hills heightened susceptibility and the conditions of his interrogation, his recorded statements display many of the warning signs of a false confession—for instance, his account was self-contradictory, fantastical, and, though he occasionally alighted on a relevant fact or detail, he could not describe the crime or the scene in a holistic and coherent manner. Exhibit 7 Davis Aff. at ¶¶ 34, 37.

139. Further, Mr. Hill misstated basic elements of the events. At various points he stated that the attack took place over two or three hours, when it was likely no more than fifteen minutes in duration. At another point, Mr. Hill falsely suggested Combs tore Fife's penis wholly from his body.

140. The police were *so* effective at bending Mr. Hill's testimony to their understanding of the crime they became self-conscious, stating to Mr. Hill "it seems like everything we suggest to you, you agree with us [.]" Exhibit 7 Davis Aff. at ¶ 32 .[19]

141. In keeping with this, Dr. Davis noted that many of the "details" relied upon by the State as evidence of guilt—what the State contended only the killer could have known—were the product of leading questions and planted answers. Trial Tr. at 11. For instance, although the State alleged that Mr. Hill "knew" details regarding Fife underwear, which were found around his neck, Mr. Hill never mentioned this fact until the police provided him with the detail and even then he

[19] There are similar examples on nearly *every* page of the interrogation transcripts, typically involving details the State continues to characterize as evidence of guilt. These details include his participation in the assault; the fact that Fife was set on fire; that Fife was covered in vomit; that Fife was "bleeding bad"; the color of Fife's shorts; and oral-genital contact between assailant and victim.

repeatedly described Fife as *wearing* the underwear during the assault. Exhibit 7 Davis Aff., at ¶ 34.

142. Likewise, when Mr. Hill was asked about Fife's position on the ground after the assault, Mr. Hill stated that Fife was on his stomach, face down. Only when investigators told Mr. Hill he was found on his back, and asked Mr. Hill if he or Combs had turned the boy over, did Mr. Hill respond that he had crept from the bushes in which he was hiding and turned Fife over to check if he was breathing.

E. Conclusion

143. Viewed as a whole, Mr. Hill's new evidence showed not just that the State's "best evidence" was a wholesale fabrication, but that the State's entire case against Mr. Hill was infected with manufactured, manipulated, and unreliable evidence. Mr. Hill should never have been convicted *with* Dr. Mertz's bitemark opinion; he would not have been convicted without it.

STANDARD OF REVIEW

144. Mr. Hill brings this petition pursuant to 28 U.S.C. § 2254(a), and asserts that his conviction, incarceration, and sentence are "in violation of the Constitution or laws or treaties of the United States." 28 U.S.C. § 2254(a).

145. To succeed, Mr. Hill must show he has exhausted the remedies provided by the State of Ohio, 28 U.S.C. § 2254(b)(1)(A). Further, if his due process claim was adjudicated on the merits, he must establish that he was denied relief based upon an "unreasonable determination of the facts in light of the evidence presented in the State court proceeding[.]" 28 U.S.C. § 2554(d)(2).

146. A federal court may only "issue the writ in cases where there is no possibility fair-minded jurists could disagree." *Harrington v. Richter*, 562 U.S. 86, 102 (2011). Although this

standard is "difficult to meet," *Harrington*, 562 U.S. at 102, it is "not insatiable," and thus, "[e]ven in the context of federal habeas, deference does not imply abandonment or abdication of judicial review." *Harris v. Haeberlin*, 526 F.3d 903, 910 (6th Cir. 2008) (internal quotations omitted).

147. "[W]hen a federal claim has been presented to a state court and the state court has denied relief, it may be presumed that the state court adjudicated the claim on the merits in the absence of any indication or state-law procedural principles to the contrary." *Johnson v. Williams*, 568 U.S. 289, 298 (2013) (quoting *Harrington*). Where evidence exists that the state court *did not* adjudicate the merits of petitioner's constitutional claim, "the deference due under AEDPA does not apply." *Durr v. Mitchell*, 487 F.3d 423, 432 (6th Cir. 2007) (citations omitted). In such situations, federal courts review "questions of law and mixed questions of law and fact *de novo*." *Id*.

148. Although state court factual determinations are typically "presumed correct absent clear and convincing evidence to the contrary," *Miller–El v. Cockrell*, 537 U.S. 322, 340 (2003), where a court "does not determine a factual issue" its factual conclusions "[are] not entitled to deference" under Section 2254(e)(1). *Leonard v. Warden, Ohio State Penitentiary*, No. 09-056, 2013 WL 831727, at *12 (S.D. Ohio Mar. 6, 2013); *see also Channer v. Brooks*, 320 F.3d 188, 195 (2d Cir. 2003) ("It is true that where a state court does not resolve a question of fact, no presumption of correctness can possibly attach with respect to that issue"). Likewise, where a state court has addressed a factual issue through applying legal principles, the opinion "does not enjoy AEDPA's strong presumption in favor of a state court's finding of historical fact." *Hall v. Vasbinder*, 563 F.3d 222, 236 (6th Cir. 2009); *see also* § 2254(e)(1).

149. Finally, "the amount of deference paid to a state court varies based on the nature of that court's ruling." *Miller v. Stovall*, 608 F.3d 913, 918 (6th Cir. 2010). Where "one of the three

judges on [a] state appellate panel concurred in the judgment only and another dissented from the court's judgment," the outcome "is not a majority decision" but "a state court *result*" and the traditional deference conferred under AEDPA is unwarranted. *Ayers v. Hudson*, 623 F.3d 301, 308 (6th Cir. 2010).

150. In such circumstances, the court must conduct "'an independent review of the record and applicable law to determine' if the state court's result 'is contrary to federal law, unreasonably applies clearly established law, or is based on an unreasonable determination of the facts in light of the evidence presented.'" *Id.* (quoting *Harris v. Stovall*, 212 F.3d 940, 943 (6th Cir. 2000)). This review "is not a full, de novo review of the claims," however, "but remains deferential because [the court] cannot grant relief unless the state court's result is not in keeping with the strictures of the AEDPA." *Id.*

GROUND FOR RELIEF

The Trial Court Violated Mr. Hill's Fourteenth Amendment Right to Due Process When it Failed to Conduct a Materiality Review of the New Evidence As Required Under Ohio Rule of Criminal Procedure 33.

A. Introduction

151. The previous paragraphs are incorporated into this ground for relief as if repeated. The trial court violated Mr. Hill's Fourteenth Amendment right to due process when it refused to assess the materiality of his original conviction and sentence, given the new evidence.

152. In 1986, Danny Lee Hill was convicted of the murder of Raymond Fife and sentenced to death. Mr. Hill has consistently denied participation in the assault on Fife. The State presented no direct evidence of Mr. Hill's participation in the attack, and instead relied heavily on the expert testimony of Dr. Curtis Mertz, a forensic odontologist. Dr. Mertz testified that a pattern injury found on the penis of the victim, Raymond Fife, was a bitemark—and that Mr. Hill, and

only Mr. Hill, could have made it.

153. According to prosecutors, Dr. Mertz's testimony was the State's "best evidence" and a conclusive, scientific link between Mr. Hill and the violence perpetrated against the victim. On direct appeal, the Ohio courts relied on the testimony to rebut Mr. Hill's assertion he was, at most, a passive observer to the attack.

154. At the time of the trial, bitemark comparison was considered valid scientific evidence. Now though, it has been clearly established and accepted that such testimony is not admissible as it lacks any validated or verifiable and methodological basis. This is not a point of dispute; it is universally acknowledged that testimony like that relied on to convict Mr. Hill—purporting to identify Mr. Hill as Fife's "biter," to the exclusion of anyone else—lacks any scientific validity. Moreover, the bitemark evidence against Mr. Hill was particularly baseless relying on gross speculation and likely springing from the racist beliefs of Dr. Mertz, and the pressure put upon him to convict Mr. Hill.

155. Citing these developments, Mr. Hill sought a new trial in state court pursuant to Ohio Criminal Rule 33, asserting a federal due process claim based on the debunked bitemark evidence relied on to convict him.

156. The trial court denied his motion without mentioning or addressing his federal constitutional claim. What analysis the court did provide was rife with factual and legal error. A comparison of the court's order with the trial record confirms the unreasonableness of the trial court's analysis. For instance, specific facts the trial court treated as dispositive are directly contradicted by the actual evidence adduced at Mr. Hill's trial. More generally, the court refused to independently assess the record, erroneously invoking principles of "preclusion." In doing so, and in adopting purported "facts" from Mr. Hill's decades-old direct appeal, the court repeatedly

mis-cited and mischaracterized the very opinions it deemed "binding."

157. Mr. Hill appealed the trial court's order to the Eleventh District Court of Appeals, which affirmed the trial court's order. It did so without an opinion of "the court," however. Instead, one judge filed an opinion on her own behalf, one judge concurred in the judgment only, and one judge dissented. The sole written opinion repeats many of the trial court's errors.

158. The non-binding opinion from the appellate court acknowledged the trial court's factual errors and conceded the remaining evidence against Mr. Hill was exclusively inferential. But it asserted that the remaining evidence would sustain his conviction. This was not the proper analysis of the federal due process claims.

159. To determine whether Mr. Hill's trial and conviction were "fundamentally unfair," a court must analyze whether this evidence was a "crucial, critical, highly significant factor" in his conviction and sentencing. *Brown v. O'Dea*, 227 F.3d 642, 645 (6th Cir. 2000). The only "reasonable" conclusion based on the trial record is that Dr. Mertz's testimony was essential to Mr. Hill's conviction. This is further confirmed by the State's own characterization of the bitemark opinion as its "best evidence." Given the inferential nature of the non-bitemark case against Mr. Hill, any determination that Dr. Mertz's testimony was not unconstitutionally prejudicial would be facially unreasonable.

160. Mr. Hill's conviction and sentence are predicated on fabricated scientific evidence, violating his due process rights. The crucial importance of Dr. Mertz's testimony is obvious from the trial record, from the prosecution's characterization, and from the opinions denying Mr. Hill's direct appeal. Viewed as a whole, it is inarguable that Dr. Mertz's testimony played a "crucial, critical, highly significant factor," in Mr. Hill's conviction and sentencing. *Brown*, 227 F.3d at 645.

161. The trial and appellate courts erred by not recognizing the clear violation of Mr. Hill's rights. Their decisions are unreasonable—the product of misconstrued and mischaracterized facts, inapposite legal principles, and outright error. The errors by the trial and appellate court were so great, so egregious, and so concerted, that the denial of Mr. Hill's motion for new trial was, itself, fundamentally unfair and constitutionally infirm.

B. Clearly Established Federal Authority

162. Generally, "the Due Process Clause guarantees the fundamental elements of fairness in a criminal trial," *Spencer v. Texas*, 385 U.S. 554, 563–64 (1967), and requires that a defendant be given "a fair opportunity to defend against the State's accusations." *Chambers v. Mississippi*, 410 U.S. 284, 302–03 (1973). This right does not end with the trial's conclusion.

163. While the violation of a state rule or law rarely implicates a federal constitutional right, the United States Supreme Court has held that once a state creates a procedure or right, it must conduct any procedure in accordance with the Due Process, even if the state had no constitutional obligation to enact those procedures in the first place. The Court has held, for instance, that once a state establishes the right to appeal, constitutional protections apply to the appellate process. *See Griffin* v. *Illinois*, 351 U.S. 12, 19 (1956) (right of indigent defendants to trial transcript); *Douglas* v. *California*, 372 U.S. 353, 356-358 (1963) (right to counsel on first appeal granted as a matter of right); *Morrissey* v. *Brewer*, 408 U.S. 471, 482 (1972) (parole revocation implicates protections of the Due Process Clause); *Evitts* v. *Lucey*, 469 U.S. 387, 396 (1985) (right to effective assistance of counsel on first appeal granted as a matter of right); cf. *Superintendent, Massachusetts Correctional Inst.* v. *Hill*, 472 U.S. 445, 455 (1985) (Due Process Clause requires that good time prison credits can be taken away only upon showing "some evidence" to justify the revocation). It is now firmly established that a Due Process liberty interest

"may arise from an expectation or interest created by state law or policies." *Wilkinson v. Austin*, 545 U.S. 209, 221 (2005).

164. Here, Ohio Rule Criminal Procedure 33 has created a liberty interest implicating the Fourteenth Amendment and is therefore properly presented as a claim for federal habeas review. If a Rule 33 applicant meets the timeliness requirements, he or she may present new evidence at an evidentiary hearing so the trial court can conduct its materiality analysis to determine whether the applicant is entitled to a new trial. By creating this right to present new evidence and obtain a court's concomitant materiality review, the state has built an expectation or interest grounded in federal Due Process. Because the state trial court afforded Mr. Hill neither a hearing nor a materiality review, even though it acknowledged that Mr. Hill timely presented new evidence, the state violated his Fourteenth Amendment rights.

C. Denial of an Evidentiary Hearing

165. Initially, the trial court had granted Mr. Hill's request for an evidentiary hearing and had scheduled a date for it. Then without explanation, the trial court retracted the hearing. The court denied the motion for new trial without conducting a robust and thorough review of the State's evidence against Mr. Hill.

166. Dr. Wright would have testified at the evidentiary hearing that not only was the mark on the victim not a human bitemark, but also "that even the ABFO Board-Certified Diplomates cannot reliably identify a pattern injury as a human bite mark." Exhibit 11, Wright Decl. ¶ 16. Dr. Wright would have also testified about the implicit bias that negatively affected Dr. Mertz's conclusions and testimony at Mr. Hill's trial. Wright ¶ 30-39.

167. A full and robust hearing would have included a detailed review of the prosecution's case against Mr. Hill sans the bitemark. This would include testimony that the

"stick" was not and could not be linked to the assault on Fife. Only one witness supposedly saw Mr. Hill with a stick, but did not testify the one introduced was "the" stick. Then Dr. Adelman's implied medical opinion that the "stick" fit like a "key in a lock" to the wounds suffered by Fife was not scientifically sound. Exhibit 6, Hua Aff.

168. Although the Sixth Circuit could not grant habeas relief on the *Miranda* claim, the Court did agree that Mr. Hill's statements to the police resulted from coerced interrogations. *Hill v. Anderson*, 2020 WL 2551881 * 22-23. Dr. Debra Davis was prepared to testify at the evidentiary hearing about her research and training into coerced confessions. She would opine that Mr. Hill's statements were clearly the result of improper tactics by the police and not reliable. Exhibit 7, Davis Aff.

D. Trumbull County Prosecutor Should Have Been Disqualified

169. Dennis Watkins has been the Trumbull County Prosecutor since 1984. He has built his career around his prosecution of Danny Hill and his efforts to see him executed at all costs. A motion to have him and his office recused from the case was denied by the trial court.

170. Mr. Hill's initial trial counsel, James Lewis, had been the Trumbull County Public Defender for many years. But when he retired in 2013, the Trumbull County Prosecutor hired him to be an attorney in the office. Mr. Lewis was working at the prosecutor's office during the time Mr. Hill was litigating his Motion for New Trial. Mr. Lewis's employment with the prosecutor's office created a real and substantial conflict of interest that warranted disqualification of the entire prosecutor's office.

171. Besides Mr. Lewis's employment with the prosecutor's office, Mr. Hill asserted the close relationship between the victim's mother, Miriam Fife, and the prosecutor's office made it impossible for the prosecutor to review the case with any objective lens. Right after the co-

defendant's trial, Mrs. Fife went to work for the Trumbull County Prosecutor's Office, first as a volunteer, then finally as a full time employee as the victim-witness advocate. Mrs. Fife retired in March 2015, but she has continued to volunteer at the office.

172. After the trial court denied the Motion for New Trial, Mr. Hill appealed the denial of the motion to the Eleventh District Court of Appeals. Mr. Hill also filed in the Court of Appeals a motion to disqualify the prosecutor's office from litigating the appeal. Mr. Hill requested that a special prosecutor be appointed. The appeals court denied the motion, but Judge O'Toole dissented and agreed a special prosecutor should have been appointed. Exhibit 15, Journal Entry 5/27/2017.

173. The Supreme Court has held:

> The [prosecutor] is the representative not of an ordinary party to a controversy, but of a sovereignty whose obligation to govern impartially is as compelling as its obligation to govern at all; and whose interest, therefore, in a criminal prosecution is not that it shall win a case, but that justice shall be done. As such, he is in a peculiar and very definite sense the servant of the law, the twofold aim of which is that guilt shall not escape or innocence suffer. He may prosecute with earnestness and vigor - indeed, he should do so. But, while he may strike hard blows, he is not at liberty to strike foul ones. It is as much his duty to refrain from improper methods calculated to produce a wrongful conviction as it is to use every legitimate means to bring about a just one.

Berger v. *United States,* 295 U.S. 78, 88 (1935). *See also Cone* v. *Bell,* 556 U.S. 449, 469 (2009).

174. The Ohio Supreme court established a three-part inquiry for determining whether a prosecutor's office should be disqualified when a conflict of interest exists because of the. employment of an attorney who previously represented the defendant. That test asks:

> 1. Is there a substantial relationship between the matter at issue and the matter of the former attorney's prior representation?
> 2. If there is a substantial relationship, is the presumption of shared confidences rebutted?
> 3. If the attorney did have personal contact or knowledge of the related matter, are there sufficient screens to rebut the presumption of shared confidences as to avoid imputed disqualification?

Kala v. Aluminum Smelting & Refining Co., Inc., 81 Ohio St. 3d 1, 11, 688 N.E.2d 258, 266 (1998).

"[A]ny doubts as to the existence of an asserted conflict of interest must be resolved in favor of disqualification in order to dispel any appearance of impropriety." *Id.* When the factors are applied to Mr. Hill's case the result is abundantly clear that an actual conflict of interest exists, both primary and imputed, and disqualification of the prosecutor from Mr. Hill's case is necessary to remedy such a conflict.

175. First, there is a substantial relationship; Mr. Lewis represented Mr. Hill in 1985-1986. When Mr. Hill returned to Trumbull County to litigate his *Atkins* claim in 2003, it was revealed that Mr. Lewis had hired Mr. Hill's uncle, Morris Hill, as an investigator with the public defender office. Morris Hill retired as a detective with the Warren City Police Department in 1997; he had been one of the detectives involved in coercing an incriminating statement from Mr. Hill during several hours of interrogations in 1985.

176. Second, it is presumed there are shared confidences that the non-moving party must rebut. The Trumbull County Prosecutor's Office is small in number, employing only 16 attorneys. In their response to the motion, the State cited to an order from *State v. Mason*, Cuyahoga County Case No. CR14-588061, wherein the court denied the defendant's request for disqualification of the Cuyahoga County Prosecutor's Office because the elected prosecutor had been a judicial official along with the defendant. But, in that case, the court found the size of Cuyahoga County prosecutor's office was sufficiently large enough to rebut the presumption of shared confidences and that effective screening was possible under those particular circumstances.

177. The State asserted that Mr. Lewis had no input on Mr. Hill's post-conviction litigation, but that statement was not an adequate rebuttal to the presumption of shared confidences. The prosecutor also objected to the request for an evidentiary hearing.

178. As Judge O'Toole stated in her dissent:

> One of Mr. Hill's main concerns here is that his former trial attorney was later hired by the prosecutor's office, following his retirement from the Trumbull County Public Defender. Mr. Hill aptly asserts this "creates a real and significant conflict of interest that, by itself, warrants disqualification of the office."
>
> The ongoing record in this case is long and hard fought. It is clear, based upon the record, that the prosecutor's office as well as Mr. Hill's prior attorney's involvement implicates a conflict of interest as specified in *Kala v. Aluminum Smelting* & *Refining* Co., *Inc.*, 81 Ohio St.3d 1 (1998). In addition, the Ohio Rules of Professional Conduct further support the disqualification of the prosecutor's office. See *Dickens v. J* & *E Custom Homes, Inc.*, 187 Ohio App.3d 627, 2010-Ohio-2634, ¶¶ 2, 4 (2d Dist); Prof.Cond.R. 1.9; Prof.Cond.R. 1, 10.

179. Failing to disqualify the prosecutor's office from the motion for new trial litigation contributed to the state court's flawed analysis and is another factor that renders that decision unfit for any deference under §2254(d)(1) and (2).

E. Conclusion

180. At the time of Mr. Hill's trial, there was an assumption that bitemark comparison expert testimony was valid and reliable. That assumption has been turned on its head and revealed to that bitemark comparison is not scientifically based and never has been. The bitemark comparison testimony was critical to Mr. Hill's conviction and death sentence and has been justification for appellate courts to uphold his conviction and sentence at every appeal. The failure of the state court to follow the established process for reviewing the claim violated Mr. Hill's constitutional right to due process and a fair proceeding and was an unreasonable application of clearly established federal authority, and unreasonable application of the facts. §2254(d)(1) and (d)(2).

PRAYER FOR RELIEF

Mr. Hill requests the following relief from this court:

1. Request the Court order the Warden to file the state court record pursuant to Rule 5.

2. Grant discovery as may be necessary to develop the factual record more thoroughly.

3. Grant an evidentiary hearing or remand to the Ohio courts for a full and fair evidentiary hearing.

4. Grant habeas relief by directing a new trial sans the bitemark comparison testimony.

5. Any other relief deemed appropriate by the Court.

Respectfully submitted,

STEPHEN C. NEWMAN
Federal Public Defender
Ohio Bar: 0051928

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE (0088560)
Assistant Federal Public Defender

/s/ Lori Riga
LORI RIGA (0066994)
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CERTIFICATE OF SERVICE

I certify that on June 12, 2020, a copy of the foregoing **PETITION FOR WRIT OF HABEAS CORPUS** was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic filing receipt. Parties may access this filing through the Court's system.

*/s/ Vicki Ruth Adams Werneke*_____
VICKI RUTH ADAMS WERNEKE

FILED
Aug 30, 2022
DEBORAH S. HUNT, Clerk

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

No. 20-3863

In re: DANNY HILL,

Movant.

Before: MOORE, CLAY, and STRANCH, Circuit Judges.

JUDGMENT

THIS MATTER came before the court upon the motion by Danny Hill to authorize the district court to consider a second or successive 28 U.S.C. § 2254 petition for a writ of habeas corpus.

UPON FULL REVIEW of the record and any submissions by the parties,

IT IS ORDERED that the motion for authorization to file a second or successive 28 U.S.C. § 2254 petition is DISMISSED and TRANSFERRED to the district court for further proceedings.

ENTERED BY ORDER OF THE COURT

Deborah S. Hunt, Clerk

NOT RECOMMENDED FOR PUBLICATION

No. 20-3863

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

FILED
Aug 30, 2022
DEBORAH S. HUNT, Clerk

In re: DANNY HILL,

Movant.

ORDER

Before: MOORE, CLAY, and STRANCH, Circuit Judges.

Danny Hill, an Ohio prisoner under sentence of death, filed a petition for habeas corpus relief under 28 U.S.C. § 2254 in June 2020. His petition alleges that the state trial court violated his due-process rights when it failed to conduct a materiality review of the evidence he submitted with his motion for a new trial, and that his convictions and sentence violated his due-process rights because they relied on now-discredited bite-mark evidence. The district court transferred the case to this court as a second or successive petition by opinion and order entered August 14, 2020. Hill now moves for leave to file a second or successive habeas corpus petition under 28 U.S.C. § 2244. Hill argues that his petition is second in time but not second or successive, and the gatekeeping restrictions of § 2244 do not apply because he could not have raised the claims earlier. We agree, dismiss Hill's motion for authorization as unnecessary, and transfer Hill's petition to the district court for further proceedings.

Factual Background

Hill was convicted of the 1985 kidnapping, rape, aggravated arson, felonious sexual penetration, and aggravated murder with specifications of twelve-year-old Raymond Fife. Part of the prosecution's case was testimony from a forensic odontologist who testified that, in his professional opinion and with a reasonable degree of medical certainty, Hill left bite marks on Fife's penis. The three-judge state-court panel convicted Hill of all charges except an aggravated

robbery count and the specification of aggravated robbery to the aggravated murder count and sentenced him to death. *State v. Hill* ("*Hill II*"), 595 N.E.2d 884, 886–89 (Ohio 1992).

Procedural History

First Habeas Petition

Hill filed his first federal habeas petition in April 1996. The district court denied the petition, and this court remanded the case for consideration of Hill's claim under *Atkins v. Virginia*, 536 U.S. 304 (2002). *Hill v. Anderson* ("*Hill III*"), 300 F.3d 679, 683 (6th Cir. 2002). The district court issued a stay and abeyance pending the state court's adjudication of Hill's *Atkins* claim. *See* No. 4:96-cv-00795, R. 63 (Mot. to Reactivate) (Page ID #1–2). The state trial court held an evidentiary hearing and concluded that Hill was not intellectually disabled. The Ohio Court of Appeals affirmed the trial court's decision, *State v. Hill* ("*Hill IV*"), 894 N.E.2d 108 (Ohio Ct. App. 2008), and the Ohio Supreme Court denied review, *State v. Hill*, 912 N.E.2d 107 (Ohio 2009) (table). The district court reopened Hill's habeas case in October 2009 and denied relief. This court affirmed the district court's denial of Hill's claims relating to his conviction and sentence and reversed the denial of Hill's *Atkins* claim. *Hill v. Anderson* ("*Hill V*"), 881 F.3d 483 (6th Cir. 2018). The Supreme Court vacated and remanded. *Shoop v. Hill* ("*Hill VII*"), 139 S. Ct. 504 (2019) (per curiam). In May 2020, this court again reversed the district court's decision to deny Hill's *Atkins* claim and remanded the case with instructions to grant the petition and issue the writ of habeas corpus with respect to Hill's death sentence. *Hill v. Anderson* ("*Hill IX*"), 960 F.3d 260 (6th Cir. 2020) (per curiam). The en banc court vacated the panel opinion and affirmed the district court's denial of Hill's habeas petition. *Hill v. Shoop* ("*Hill X*"), 11 F.4th 373 (6th Cir. 2021) (en banc). The Supreme Court denied Hill's petition for a writ of certiorari. *Hill v. Shoop* ("*Hill XI*"), 142 S. Ct. 2579 (2022) (Mem.).

Motion for a New Trial

In November 2014, Hill moved in the state trial court for leave to file a delayed motion for a new trial under Ohio Criminal Rule 33(B). He alleged that he had new evidence that the bite-mark identification evidence used at trial was invalid and that he was convicted in violation of his

Fifth, Eighth, and Fourteenth Amendment rights. According to Hill, the 2013 American Board of Forensic Odontology (ABFO) guidelines stated for the first time that open-population identification was no longer sanctioned. Forensic odontologist Dr. Franklin Wright reviewed the evidence from Hill's trial and concluded in an affidavit that Fife's injury was not a human bite mark, and, even if it were, it was not scientifically supportable to conclude that the injury was from Hill to the exclusion of anyone else. The state trial court found that Hill was unavoidably delayed in discovering his new evidence because the ABFO guidelines were not in existence at the time of his trial and granted Hill permission to file a motion for a new trial.

Hill filed his motion for a new trial in June 2016. He relied on the 2013 and 2016 ABFO Guidelines and affidavits from forensic odontologists.

The state trial court analyzed Hill's new evidence under *State v. Petro*, 76 N.E.2d 370 (Ohio 1947), and due process principles to decide whether the evidence could serve as the basis for a new trial. It compared Hill's affidavits and the ABFO guidelines with the testimony given at trial. The trial court found that advances in forensic odontology impeached and contradicted the trial testimony that marks on Fife could be linked to Hill. It held that it was bound by the Ohio Supreme Court's findings on the sufficiency of the evidence of aggravated murder and its independent weighing of the sufficiency of the rape, kidnapping, and aggravated arson specifications. The trial court found that the bite-mark evidence was only one of many factors in determining whether Hill was a principal offender of Fife's rape. It concluded that Hill's new evidence did nothing to vitiate the sufficiency of the overwhelming evidence against Hill for the kidnapping specification and that kidnapping was an independent basis for imposing the death penalty. The trial court held that, if the bite-mark evidence were excluded, there was no probability of a different outcome in a new trial because there was overwhelming evidence in support of Hill's convictions for the kidnapping specification.

The Ohio Court of Appeals affirmed the trial court's decision. *State v. Hill* ("*Hill VI*"), 125 N.E.3d 158 (Ohio Ct. App. 2018). The appellate court held that the evidence supported the trial court's conclusion that, even if the bite-mark evidence could not be introduced in a new trial,

there was no probability of a different outcome. *Id.* at 173. It agreed that the new bite-mark evidence did not vitiate the overwhelming evidence against Hill on the kidnapping specification and added that the same could be said of the aggravated arson charge. *Id.* at 168. The Ohio Supreme Court denied further review. *State v. Hill* ("*Hill VIII*"), 123 N.E.3d 1040 (Ohio 2019) (table), *cert. denied*, 140 S. Ct. 884 (2020).

Second Habeas Petition

Hill filed his second habeas petition in June 2020. As his ground for relief, Hill alleged that the state trial court violated his Fourteenth Amendment right to due process when it failed to conduct a materiality review of his new evidence as required under Ohio Rule of Criminal Procedure 33. He also asserted that his trial and conviction were fundamentally unfair because the bite-mark evidence was essential to his conviction. Hill alleged that the Ohio Court of Appeals did not properly analyze his due-process claims and made factual and legal errors. He asserted that Ohio Rule of Criminal Procedure 33 created a liberty interest under the Fourteenth Amendment. Hill concluded by asserting that the state court's failure to follow the established process for reviewing his claim violated his constitutional right to due process and a fair proceeding and was an unreasonable application of clearly established federal law and an unreasonable application of the facts.

The Warden moved to transfer Hill's habeas petition to this court as a second petition under 28 U.S.C. § 2244(b). The Warden argued that the petition was second in time and attacked the same state-court judgment that Hill attacked in his first application and that the district court lacked jurisdiction to consider his second petition without authorization by the Sixth Circuit. The district court granted the Warden's motion to transfer Hill's petition to this court on August 14, 2020. R. 9 (Order) (Page ID #546–47). The district court, relying on *In re Wogenstahl*, 902 F.3d 621, 627 (6th Cir. 2018), held that Hill's petition had to meet the gatekeeping procedures in § 2244(b)(2)(B) because Hill relied on new facts that he was unable to raise previously.

Analysis

The Anti-Terrorism and Effective Death Penalty Act restricts a prisoner's ability to file a second or successive habeas petition to challenge a judgment of conviction and sentence. 28 U.S.C. § 2244(b). Section 2244(b)(3) requires petitioners to request authorization from the court of appeals before a second or successive petition may be filed in the district court. This gatekeeping function, however, applies only to petitions that are "second or successive."

"[N]ot all second-in-time petitions are 'second or successive.'" *Wogenstahl*, 902 F.3d at 627 (quoting *In re Coley*, 871 F.3d 455, 457 (6th Cir. 2017) (per curiam)). Instead, "[t]he phrase 'second or successive petition' is a term of art," *Slack v. McDaniel*, 529 U.S. 473, 486 (2000), and the Supreme Court "has declined to interpret 'second or successive' as referring to all § 2254 applications filed second or successively in time, even when the later filings address a state-court judgment already challenged in a prior § 2254 application." *Panetti v. Quarterman*, 551 U.S. 930, 944 (2007).

We rely on the abuse-of-the-writ doctrine to determine whether a petition is second or successive. *See Stewart v. Martinez-Villareal*, 523 U.S. 637, 645 (1998); *In re Bowen*, 436 F.3d 699, 704 (6th Cir. 2006). A numerically second petition abuses the writ and is "second" when it raises a claim that could have been raised in the first petition but was not, due to abandonment or neglect. *McCleskey v. Zant*, 499 U.S. 467, 489 (1991); *Bowen*, 436 F.3d at 704. A petition that is second in time, challenges the same judgment of conviction as the first petition, and relies on newly discovered facts is also second or successive and must meet the gatekeeping provisions of § 2244(b)(2)(B). *Wogenstahl*, 902 F.3d at 627–28. The same is true of a petition that relies on a new legal rule. *Coley*, 871 F.3d at 457–58. But an application is not second or successive if it presents a claim that would have been unripe if it had been presented in an earlier application. *Panetti*, 551 U.S. at 945. And, relevant here, "a numerically second petition is not properly termed 'second or successive' to the extent it asserts claims whose predicates arose after the filing of the original petition." *In re Jones*, 652 F.3d 603, 605 (6th Cir. 2010). "In other words, if 'the events giving rise to the claim had not yet occurred' when the petitioner filed his original habeas petition,

his subsequent petition raising this claim need not meet § 2244(b)'s requirements." *Wogenstahl*, 902 F.3d at 627 (quoting *Jones*, 652 F.3d at 605).

In short, the issue before us is how to classify the 2013 and 2016 ABFO Reports. If "the predicates underlying [Hill's] current claims[] had already occurred when he filed his [first] petition," then this petition is second or successive, and § 2244(b)'s gatekeeping requirements apply. *Id*. at 627–28. But if these new reports are "predicates [that] arose after the filing of the original petition," then Hill's petition is merely second in time, not second or successive, and § 2244(b) does not apply. *Jones*, 652 F.3d at 605.

The factual basis of Hill's claim is that the bite-mark comparison has been debunked. At the time of Hill's previous petition, "the events giving rise to the claim had not yet occurred." *Id*. The events that gave rise to Hill's claims are the 2013 and 2016 ABFO Guidelines. Before these new guidelines, bite-mark comparison was considered scientifically valid. *See* R. 1-12 (2012 ABFO Reference Manual at 1–3) (Page ID #430–32). The new guidelines changed that: this bite-mark comparison is no longer scientifically acceptable. *See* R. 1-12 (2013 ABFO Reference Manual at 5) (Page ID #435) ("The ABFO does not support a conclusion of 'The Biter' in an open population case(s).").

Hill could not have brought this same claim in his earlier petition because the predicate facts had not happened yet. Just like a petitioner cannot challenge an execution that has not yet been set, *Martinez-Villareal*, 523 U.S. at 644–45, or laws that have not yet been passed, *Jones*, 652 F.3d at 605, Hill could not have challenged the bite-mark evidence as failing to comply with guidelines that had not yet been issued. This case is unlike *Wogenstahl*, 902 F.3d at 627–28, in which a *Brady* violation had occurred but the petitioner did not learn of it until later. Here, the facts underlying Hill's claim *had not happened* at the time he filed his first habeas petition: it was not until the ABFO manual was later reissued that bite mark identification was no longer an approved scientific methodology. In other words, if Wogenstahl had access to all then-available information at the time of his first habeas petition, he could have brought a *Brady* claim. In contrast, if Hill had access to all then-available information at the time of his first habeas petition,

he still could not have brought a viable claim that the bite-mark evidence was invalid because the prior ABFO guidelines still controlled.

The Supreme Court has reasoned that a second-in-time petition is not second or successive when a habeas petitioner could not have "receive[d] an adjudication of his claim." *Martinez-Villareal*, 523 U.S. at 645. "Instructing prisoners to file premature claims, particularly when many of these claims will not be colorable even at a later date" does not serve any purpose of federal habeas law. *Panetti*, 551 U.S. at 946; *see also Jones*, 652 F.3d at 605. This logic applies here. As in *Panetti* and *Jones*, "no useful purpose would be served" by requiring Hill to file this type of claim in his initial petition simply "in order to leave open the chance of reviving [his] challenge[] in the event [of] subsequent changes" to the ABFO standards. *Jones*, 652 F.3d at 605. It would be nonsensical to demand that Hill argue that bite-mark identification fails to comply with ABFO standards at a time when bite-mark identification still complied with the standards, solely on the off chance that the standards may eventually change.

The Warden's counterargument is unavailing. The Warden argues that Hill could have challenged the admissibility of the bite-mark evidence in his first habeas petition. But that is not Hill's claim. Instead, his claim is that the trial court violated his due-process rights when it failed to conduct a materiality review of the new evidence. R. 1 (Habeas Petition at 41) (Page ID #293). We have previously distinguished between new evidence that supported already-presented claims and new evidence that supports new claims. *See In re Hanna*, 987 F.3d 605, 608–09 (6th Cir. 2021). Hill's case fits into the latter category: the claim is new and could not have been brought earlier.

For the foregoing reasons, we **DISMISS** Hill's motion for authorization as unnecessary, and **TRANSFER** Hill's petition to the district court for further proceedings.

ENTERED BY ORDER OF THE COURT

Deborah S. Hunt, Clerk

RECOMMENDED FOR PUBLICATION
Pursuant to Sixth Circuit I.O.P. 32.1(b)

File Name: 23a0049p.06

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

IN RE: DANNY HILL,

Petitioner.

No. 20-3863

On Petition for Leave to File a Second or Successive Petition for a Writ of Habeas Corpus.
United States District Court for the Northern District of Ohio at Youngstown.
No. 4:20-cv-01294—John R. Adams, District Judge.

Decided and Filed: March 20, 2023

Before: SUTTON, Chief Judge; MOORE, CLAY, GIBBONS, GRIFFIN, KETHLEDGE, STRANCH, THAPAR, BUSH, LARSEN, NALBANDIAN, READLER, DAVIS, and MATHIS, Circuit Judges.*

COUNSEL

ON PETITION FOR REHEARING EN BANC: Benjamin M. Flowers, Zachery P. Keller, OFFICE OF THE OHIO ATTORNEY GENERAL, Columbus, Ohio, for Respondent State of Ohio. **ON RESPONSE:** Sharon A. Hicks, OFFICE OF THE FEDERAL PUBLIC DEFENDER, Cleveland, Ohio, for Petitioner.

ORDER

A majority of the Judges of this Court in regular active service has voted for rehearing en banc of this case. Sixth Circuit Rule 35(b) provides as follows:

> The effect of the granting of a hearing en banc shall be to vacate the previous opinion and judgment of this court, to stay the mandate and to restore the case on the docket sheet as a pending appeal.

---

* Judge Murphy recused himself from participation in this decision.

Accordingly, it is ORDERED, that the previous decision and judgment of this court are vacated, the mandate is stayed, and this case is restored to the docket as a pending appeal.

The Clerk will direct the parties to file supplemental briefs and will schedule this case for oral argument as soon as possible.

ENTERED BY ORDER OF THE COURT

Deborah S. Hunt, Clerk

(5) **Additional Time.** The court rarely permits additional time for oral argument.

(d) **Absence of Quorum; Adjournment.** If less than a quorum is present, a judge in attendance may adjourn the court. If no judge is present, the clerk may adjourn the court.

FRAP 35 En Banc Determination

(a) **When Hearing or Rehearing En Banc May Be Ordered.** A majority of the circuit judges who are in regular active service and who are not disqualified may order that an appeal or other proceeding be heard or reheard by the court of appeals en banc. An en banc hearing or rehearing is not favored and ordinarily will not be ordered unless:

(1) en banc consideration is necessary to secure or maintain uniformity of the court's decisions; or

(2) the proceeding involves a question of exceptional importance.

(b) **Petition for Hearing or Rehearing En Banc.** A party may petition for a hearing or rehearing en banc.

(1) The petition must begin with a statement that either:

(A) the panel decision conflicts with a decision of the United States Supreme Court or of the court to which the petition is addressed (with citation to the conflicting case or cases) and consideration by the full court is therefore necessary to secure and maintain uniformity of the court's decisions; or

(B) the proceeding involves one or more questions of exceptional importance, each of which must be concisely stated; for example, a petition may assert that a proceeding presents a question of exceptional importance if it involves an issue on which the panel decision conflicts with the authoritative decisions of other United States Courts of Appeals that have addressed the issue.

(2) Except by the court's permission:

(A) a petition for an en banc hearing or rehearing produced using a computer must not exceed 3,900 words; and

(B) a handwritten or typewritten petition for an en banc hearing or rehearing must not exceed 15 pages.

(3) For purposes of the limits in Rule 35(b)(2), if a party files both a petition for panel rehearing and a petition for rehearing en banc, they are considered a single document even if they are filed separately, unless separate filing is required by local rule.

(c) **Time for Petition for Hearing or Rehearing En Banc.** A petition that an appeal be heard initially en banc must be filed by the date when the appellee's brief is due. A petition for a rehearing en banc must be filed within the time prescribed by Rule 40 for filing a petition for rehearing.

(d) **Number of Copies.** The number of copies to be filed must be prescribed by local rule and may be altered by order in a particular case.

(e) **Response.** No response may be filed to a petition for an en banc consideration unless the court orders a response. The length limits in Rule 35(b)(2) apply to a response.

(f) **Call for a Vote.** A vote need not be taken to determine whether the case will be heard or reheard en banc unless a judge calls for a vote.

6 Cir. R. 35 Petition for Rehearing En Banc

(a) **Petition Content.** A petition for rehearing containing a petition for rehearing en banc must so state plainly on the cover and in the title of the document. A copy of the opinion or final order sought to be reviewed must accompany the petition.

(b) **Effect of Granting the Petition.** A decision to grant rehearing en banc vacates the previous opinion and judgment of the court, stays the mandate, and restores the case on the docket as a pending appeal.

(c) **Counsel Not Obligated to File.** Counsel fully discharges his or her duty in a case without filing a petition for rehearing en banc unless the case meets the rigid standards of Fed. R. App. P. 35(a).

6 Cir. I.O.P. 35 En Banc Determination

(a) **Extraordinary Nature of Petition for Rehearing En Banc.** A petition for rehearing en banc is an extraordinary procedure intended to bring to the attention of the entire court a precedent-setting error of exceptional public importance or an opinion that directly conflicts with Supreme Court or Sixth Circuit precedent. Alleged errors in the determination of state law or in the facts of the case (including sufficient evidence), or errors in the application of correct precedent to the facts of the case, are matters for panel rehearing but not for rehearing en banc.

IN THE COURT OF COMMON PLEAS
TRUMBULL COUNTY, OHIO

STATE OF OHIO,	)	
	)	
PLAINTIFF,	)	
	)	
v.	)	Case No. 85-CR-317
	)	
DANNY LEE HILL,	)	
	)	
DEFENDANT.	)	

AFFIDAVIT OF ZHONGXUE HUA, M.D., Ph.D.

I, Dr. Zhongxue Hua, being duly sworn under oath, hereby state to the best of my knowledge and belief as follows:

1. I am a forensic pathologist and neuropathological consultant; an assistant clinical professor of pathology at Albert Einstein College of Medicine, Bronx, New York; and an attending neuropathologist and assistant laboratory director at Jacobi Medical Center and North Central Bronx Hospital, New York. Previously, I served as Chief County Medical Examiner, Union County, New Jersey (9/2007 to 9/2012); Chief Regional Medical Examiner, counties of Essex, Hudson, Passaic and Somerset, New Jersey (7/2005 to 9/2007), and Assistant State Medical Examiner, State of New Jersey (2004-2007). I obtained my medical degree from Peking Union Medical College, Beijing, China (1989 M.D.), and a doctorate degree in biochemistry from the University of Rochester, Rochester, New York (1995 Ph.D.). I was a resident in pathology at the Albert Einstein College of Medicine, Bronx, New York (7/1995 to 6/1998), a fellow in neuropathology at Columbia Presbyterian Medical Center, Columbia University, New York, NY (7/1998 to 6/2000), and worked with the City Medical Examiner, Office of the Chief Medical

Examiner, New York, New York (7/2000 to 6/2001). A full list of my educational background, work history, publications, and professional credentials is contained in my annexed curriculum vitae.

2. I submit this Affidavit in support of the Motion for New Trial for Danny Lee Hill at the request of his attorneys. Mr. Hill was convicted and sentenced to death in 1986 for the murder of Raymond Fife, a 12 year old boy.

3. I have been asked to review the scientific and medical opinions, conclusions and testimony proffered by pathologist Dr. Howard Adelman and forensic odontologist Dr. Curtis Mertz concerning the cause and nature of Raymond Fife's injuries and death. I am qualified to comment on these matters because of my training and experience.

4. The victim Raymond Fife was attacked on September 10, 1985, and his death two days later was undisputedly caused by that attack. However, the testimony and opinions of Dr. Adelman and Dr. Mertz about the source, extent, cause and/or mechanism of Raymond Fife's injuries are not based on sound scientific principles. Indeed, the theories advanced by these experts at trial were based on unsupportable assumptions and gross inaccuracies. They do not constitute reliable, objective scientific testimony.

5. There was, and is, no scientific basis for three significant areas of the testimony and conclusions of Drs. Adelman and Mertz. First, there existed no scientific basis at the time of trial which would have supported the conclusions about the varying size of the child's penis in a flaccid or erect state. Second, there was no scientific basis at the time of trial that could have supported the conclusion that the child would have had an erect penis as a result of being strangled. Third, Dr. Adelman's testimony that a stick introduced into evidence fit the injuries to the child's rectum and bladder like a "key in a

lock" was entirely without scientific support. None of these conclusions have any more scientific support today than they did when originally given.

6. I have reviewed the following materials: 11/4/1985 Letter from Curtis Mertz to Dennis Watkins re: Bitemark; 12/19/1985 Curtis Mertz, Notes on Fife Bite Mark; Trial Testimony of Dr. Adelman; Trial Testimony of Dr. Mertz; Autopsy Report; Coroner's Verdict; St. Joseph Riverside Hospital Records on Victim; Photographs of the Victim Raymond Fife; Affidavit of Dr. Deborah Davis re: Hill; Affidavit of Dr. Franklin Wright; *Grandwohl's Legal Medicine; Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas.

THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN

7. At no point, including at the time the opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony regarding the nature of the wounds to Raymond Fife's rectum, or any object purportedly used to create those wounds.

8. There is no reliable scientific basis for Dr. Adelman's opinion and testimony that the piece of wood entered into evidence as Exhibit 47 at trial fit Raymond Fife's anus and/or wounds like a "key in a lock." Most importantly, it is not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Raymond Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock. The absence of blood or other biological material tying the object to Fife's injuries strongly indicates that it was not the object used to inflict the injuries. Dr.

Adelman's testimony on this point is unsupported speculation, and his comparison to a key and lock is unscientific and inflammatory pseudo-science.

9. At no point, including at the time Dr. Adelman's opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony that strangulation like that sustained by Raymond Fife causes penile erection to a specific degree.

10. As Dr. Adelmen testified, there have been historical observations that judicial hanging can cause erection and/or ejaculation in its victims. Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion is likewise inappropriate and renders his opinions in this specific case speculative and unreliable.

11. Although he claimed that there existed medical articles supporting his opinions, Dr. Adelman did not cite any of those articles. At trial, he conceded that he was "not exactly sure of the mechanism" through which asphyxiation caused penile erection. Dr. Adelman's admission of ignorance was the only part of his testimony regarding asphyxia and erection that was not unscientific or speculative.

12. Even setting aside the absence of a scientific foundation for his opinions, however, the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects of one to the others is baseless.

13. It is entirely speculative to conclude from such limited observations that the asphyxiation of a prone 12-year-old boy would result in an erection to a very specific degree or that it did so in this case. I am not aware of a single scientific study to support this theory, much less am I aware of any that include children the age of the victim in this

case. Put simply, there is no sound science to support the conclusion that asphyxia under these circumstances causes erection to a specific degree.

14. In sum, Dr. Adelman's testimony analogizing autoerotic asphyxiation and judicial hanging to Raymond Fife's strangulation is wholly without reliable, scientific basis.

OPINION AND TESTIMONY OF DR. CURTIS MERTZ

15. Dr. Curtis Mertz testified that the "probability that [Raymond Fife's] penis was in an erected state" was the basis for his opinion that the pattern injury on his penis matched the teeth of Danny Lee Hill.

16. At no point – including at the time Dr. Mertz proffered his opinions and testimony, in 1985-86, or today – has there been a scientifically reliable method of determining through post-mortem examination the probability that an erection may have occurred during an assault.

17. Dr. Mertz's review of the literature was cursory and inadequate, and the texts he relied upon were inapposite and outdated.

18. Dr. Mertz's reliance on *Grandwohl's Legal Medicine*, edited by Franci Camp, to support his opinion that it was probable Raymond Fife had an erection is misplaced and in error. Dr. Mertz selectively ignored the qualifications provided by his own authority, including the fact that there is "undoubtedly great variation" and there are "many factors [that] may interfere" with the symptoms listed, as well as the statement that "it is usually difficult or impossible to predict the physiological results" of asphyxia "with an accuracy at all." No reliable opinion that a penile erection was "probable" during strangulation could be based upon these limited findings.

19. Dr. Mertz testified that "the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state." He further testified that "this explains the difference in the measured size of approximately a third less" when comparing the purported bite marks on Raymond Fife's penis and the teeth of Danny Lee Hill.

20. Dr. Mertz's claim that there are scientific studies that supported his calculation that the erect penis of a 12-year-old boy is one-third larger than a flaccid penis is unfounded. As far as I am aware, there have never been any such studies, medical or forensic, to support such a theory.

21. The sole study that Dr. Mertz cited, *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas does not support his opinion. First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault. As a result, Dr. Mertz ignores both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed.

22. Dr. Mertz's opinions regarding Raymond Fife and the "probability" of his penile erection, as well as any resulting specific size differences between flaccid and erect states, are unsupported and speculative. They are post-hoc guesswork and do not constitute reliable scientific opinion.

Dr. Zhongxue Hua

Sworn to this 16th day of October, 2014

STEFANOPOULOS VITENTIA
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01ST6099670
Qualified in Queens County
Commission Expires 10/06/2015

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1989 WL 142761
Only the Westlaw citation is currently available.

CHECK OHIO SUPREME COURT RULES FOR REPORTING OF OPINIONS AND WEIGHT OF LEGAL AUTHORITY.

Court of Appeals of Ohio, Eleventh District, Trumbull County.

STATE of Ohio, Plaintiff-Appellee,
v.
Danny Lee HILL, Defendant-Appellant.

Nos. 3720, 3745.
|
Nov. 27, 1989.

Criminal Appeal from the Court of Common Pleas, Case No. 85 CR 317.

Attorneys and Law Firms

Dennis Watkins, County Prosecutor, Peter Kontos, Assistant Prosecutor, Warren, for plaintiff-appellee.

Roger Warner, Columbus, for defendant-appellant.

Before CHRISTLEY, P.J., and MAHONEY and FORD, JJ.

OPINION

FORD, Judge.

***1** On September 10, 1985, at approximately 5:15 p.m., Raymond Fife, age twelve, left the home of his parents in Warren, Ohio to visit his friend, Billy Simmons. He was to return home by 6:30 p.m. to attend a scout meeting. The victim decided to take a shortcut through a large field which was overgrown with thick woods, dense brush and trees and was located behind the nearby Value King. This area, which was crisscrossed by numerous dirt paths, was used by local residents as a shortcut between streets and as an area in which to ride bicycles.

At 5:50 p.m., Billy Simmons telephoned the victim's parents to ask why Raymond had not arrived. Concerned, the Fifes, along with some relatives and friends, began to search for Raymond. About three hours later, Raymond's father found him in the field directly behind the supermarket. At the time he was found, Raymond was alive, but unconscious. His body was nude, except that his shoes and socks were still on his feet, and his underwear had been tied around his neck. Two days later, Raymond died from the injuries he sustained on the evening of September 10.

The autopsy report revealed multiple injuries. In addition to numerous bruises and abrasions on his arms, neck, and upper torso, the victim had sustained second and third degree burns on his face, neck and shoulders. There was a ligature mark around the neck, indicating that the victim had been choked. Examination of the skull revealed a subdural hemorrhage, suggesting that the victim had sustained severe blows to the head. Inspection of the lower body disclosed teeth marks on his penis and substantial damage to the anus. The victim's rectum and urinary bladder had been perforated.

On September 12, 1985, appellant, Danny Lee Hill, voluntarily went to the police station and inquired about a reward offered for information regarding the Fife homicide. Appellant spoke with Sergeant Stewart, who was not then actively involved in the investigation. However, Stewart made note of appellant's conversation. It was later discovered that appellant's statement contained knowledge of facts which had not been made available to the general public.

The next day, after reading Stewart's note regarding the conversation with appellant, Sergeant Steinbeck, who was directly involved with the investigation, went to the appellant's residence. (Steinbeck, a detective in the juvenile division, became involved in the case when he was asked to take a missing person's report from the victim's parents. After the victim's death, he remained active in the investigation.) Appellant voluntarily accompanied Sergeant Steinbeck to the police station where he received a rights statement, executed a waiver of his rights, and was again interviewed. During the questioning, appellant offered an alibi. Appellant's mother arrived at the station later and corroborated his statement. This statement was typed by Steinbeck; but appellant, before signing it, departed with his mother.

Over the course of the weekend, the police investigation uncovered additional information which tended to refute the appellant's alibi. On Monday, September 16, 1985, Steinbeck, accompanied by Detective Morris Hill, appellant's uncle, traveled to appellant's abode to request that he go to the police station to sign the September 13 statement. The officers also asked appellant's mother to accompany them to

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police headquarters to give a written statement detailing her corroboration of his alibi. At the prompting of his mother, appellant consented to the request. Appellant was advised of his *Miranda* rights upon his arrival at the station.

***2** After receiving his rights, appellant signed the typewritten form of the statement he made on September 13. Appellant was questioned by Officers Hill, Steinbeck and Stewart about the extent of his participation with the murder. Appellant denied any involvement. Finally, Detective Hill stated categorically that he believed appellant had been involved in the homicide. The detective suggested to the appellant that the two of them talk privately. Detective Hill testified that, during the private conversation, he urged appellant to tell the truth. At that point, appellant informed Hill that he had been present during the murder of Raymond Fife. The other officers returned to the interrogation room, and appellant was asked to give a statement to the police.

Appellant's statements were recorded on audio and video tape. Although appellant admitted being present during the perpetration of the offenses, he denied having any involvement. Instead, he implicated Timothy Combs. (Combs was subsequently charged and convicted as a co-principal. His conviction was affirmed by this court in *State v. Combs* [Dec. 2, 1988], Portage App. No. 1725, unreported, and is presently pending before the Ohio Supreme Court). Appellant stated that Combs had inserted "a stick, like a broom handle" into the victim's rectum. Appellant was re-advised of his constitutional rights during the audio taping and before the video recording session. He executed a waiver after each of these statements of rights.

Appellant was indicted for kidnapping, rape, aggravated arson, felonious sexual penetration, aggravated robbery and aggravated murder with specifications on September 17, 1985.

Between the date of the indictment on September 17 and December 11, appellant filed a number of motions, including: motions to suppress, for closure, for discovery, for an appointment of an expert, for change of venue, to include licensed drivers in the pool of prospective jurors, to insulate, motion for individual sequestered voir dire, and motion to prohibit death qualification for the venire. On December 16, 1985, a pretrial suppression hearing was held on appellant's motion to suppress statements he made to law enforcement officers on September 12, 13 and 16, 1985.

On January 7, 1986, appellant appeared before the court and executed a waiver of his right to a jury trial. Prior to executing this waiver, the trial court informed appellant that objections that appellant had to the manner in which juries had been selected would "in all probability" be overruled. Appellant waived his right to a jury trial cognizant of the trial court's intentions with respect to the pending motions. Immediately following appellant's waiver, the motions were overruled.

The trial began on January 21, 1986 and was heard by a three judge panel. At trial, a number of witnesses testified, including one who had seen appellant walking in the field and throwing a stick into the brush; two who had observed the co-defendant standing near the path at the same time that they heard a scream of twenty to thirty seconds; one who saw appellant washing a red substance from his pants some time after the assault; a pathologist who indicated the stick fit the area of penetration like a "key in a lock;" a criminalist who could not find blood on appellant's pants or the stick; two females who had been sexually assaulted by appellant; two males who had been sexually solicited by him; and a forensic odontologist who, based upon some unique characterists of appellant's teeth, concluded that appellant inflicted the bite marks on the victim's penis.

***3** Appellant presented a number of witnesses including those who were familiar with appellant's low level of intelligence, and a forensic odontologist who found that the dental evidence was generally inconclusive to show that appellant had made the bite marks on the victim's penis. However, based on defendant's exhibit "L", he did testify by way of qualification, as to one distinctive bite mark that: "What I'm saying is either Hill or Combs, both, could have left some of the marks, but the one mark that's consistent with the particular area most likely was left by Hill."

Other items admitted into evidence were the stick, the tape recorded conversation, the video tapes, and multiple photographs.

After hearing the evidence and deliberating for five hours, the court unanimously found appellant guilty on all counts, except aggravated robbery.

Pursuant to the dictates of R.C. 2929.04(B), a mitigation hearing began on February 26, 1986, before the judicial tribune. Again, after hearing the testimony and arguments, and weighing the aggravating circumstances against the mitigating factors, the court sentenced appellant to ten to

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twenty five years for both aggravated arson and kidnapping, life imprisonment for rape and felonious sexual penetration, and death for aggravated murder with specifications.

Appellant has appealed that decision raising the following nineteen assignments of error.

ASSIGNMENT # 1

THE TRIAL COURT ERRED IN ADMITTING INTO EVIDENCE STATEMENTS OF THE APPELLANT.

ASSIGNMENT # 7

THE TRIAL COURT ERRED IN ALLOWING THE APPELLANT TO WAIVE HIS RIGHT TO JURY IN WRITING PURSUANT TO CRIM. R. 23.

Appellant's assignments of error one and seven address substantially similar issues of law and will therefore be discussed concurrently. Both assignments present the issues of the validity of the waiver of appellant's constitutional rights to counsel, to remain silent, and to a jury trial, predicated upon the appellant's mental capacity and illiteracy.

Although not expressly argued by appellant, these assignments contain, as a subtext, the contention that, given appellant's mental retardation and inability to understand these legal proceedings, the sentence rendered in this case constitutes cruel and unusual punishment and is therefore violative of the Eighth Amendment to the United States Constitution. This argument was extensively addressed in the recent landmark United States Supreme Court case of *Penry v. Lynaugh* (June 26, 1989), 492 U.S. 302, 106 L.Ed.2d 256, in which the Supreme Court upheld the constitutionality of the death penalty sentence given to petitioner, John Paul Penry, (although remanding for failure to consider mitigation evidence).

Petitioner, in *Penry, supra,* had been diagnosed as mildly to moderately retarded and was described as having the mental age of a six and one-half year old. (By contrast, appellant has been diagnosed as having anywhere from a fifty-five to seventy-one full scale I.Q., which would cause him to be characterized as mildly to moderately retarded. The record does not indicate that a finding was made as to appellant's mental age, although some reference was made in evidence on this subject indicating a mental age of seven to nine years.) Petitioner Penry was charged with capital murder and found competent to stand trial. (As used in this context, competency means that petitioner was able to have a rational understanding of the proceedings against him and was able to participate in the preparation of his own defense. See, *e.g., Dusky v. United States* (1960), 362 U.S. 402.)

***4** Despite this finding of competency, petitioner argued that his reduced reasoning abilities made the potential death sentence disproportionate to his personal culpability. "In essence, Penry argue[d] that because of his diminished ability to control his impulses, to think in long-range terms, and to learn from his mistakes, he was not capable of acting with the degree of culpability that can justify the ultimate penalty." *Penry,* 492 U.S. 302, 106 L.Ed.2d at 290-91, citing *Thompson v. Oklahoma* (1988), 487 U.S. 815, 101 L.Ed.2d 702. After consideration of the mitigating factors permitted under Texas law, the trial court found petitioner guilty and sentenced him to death.

Petitioner's sentence was ultimately appealed to the United States Supreme Court. He argued that the imposition of a death sentence on someone with limited mental capabilities violated the "evolving standards of decency that mark the progress of a maturing society" and would therefore be unconstitutional under the Eighth Amendment. *Penry,* 492 U.S. 302, 106 L.Ed.2d at 288. See, also, *Trop v. Dulles* (1958), 356 U.S. 86, 101. Petitioner further argued that the execution of a mentally retarded person was cruel and unusual punishment because it was "disproportionate to his degree of personal culpability." *Penry,* 492 U.S. 302, 106 L.Ed.2d at 289.

The Court, in response, stated that courts have long been opposed to utilizing the concept of mental age as a basis for relieving a defendant from criminal responsibility. *Penry,* 492 U.S. 302, 106 L.Ed.2d at 292. The Court noted that a finding of a lack of capability, based on the diminished mental age of a party, would disenfranchise the mildly retarded from a right to contract or a right to marry. In *Penry,* the Court concluded:

" * * * [M]ental retardation is a factor that may well lessen a defendant's culpability for a capital offense. But we cannot

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conclude today that the Eighth Amendment precludes the execution of any mentally retarded person of Penry's ability convicted of a capital offense simply by virtue of their mental retardation alone." *Ibid.*

As long as the court takes into consideration mitigating evidence of mental retardation, and the court addresses each case on an individualized basis, it is not cruel and unusual to impose a sentence of death on a convicted perpetrator who is mentally retarded. *Penry* was ultimately remanded for resentencing, as Texas law did not permit the consideration of petitioner's mitigating evidence. (*Penry* addresses only cases in which the perpetrator is borderline or mildly mentally retarded. The United States Supreme Court in *Penry,* and this court here, offer no opinion as to the constitutionality of executing an offender whose handicap is more severe.)

The individualized basis mandated by the United States Supreme Court, in determining the constitutionality of the imposition of the death penalty on mentally retarded persons, also serves as the basis of analysis for determining the sufficiency of the waiver of constitutional rights by one who is mentally retarded.

***5** In the first sub-argument of appellant's first assignment of error (there are seven sub-arguments in all), appellant challenges the validity of his waiver of his Sixth Amendment right to counsel. Appellant argues that his Sixth Amendment rights were violated because he could not "knowingly" and "intelligently" waive his rights, due to him being essentially illiterate and mentally retarded.

The standard used to assess the validity of the appellant's waiver of his Sixth Amendment rights was enunciated in *Johnson v. Zerbst* (1938), 304 U.S. 458, 464, which stated that "[t]he determination of whether there has been an intelligent waiver * * * must depend, in each case, upon the particular facts and circumstances surrounding that case, including the background, experience, and conduct of the accused." Subsequent decisions of the United States Supreme Court have focused on the separate nature of the "voluntary" and "knowing and intelligent" aspects of the accused's waiver. The court is required to make "discrete inquiries" into both the voluntariness of the waiver and the question of whether the waiver was "knowingly and intelligently" made. *Edwards v. Arizona* (1981), 451 U.S. 477, 484; *Schneckloth v. Bustamonte* (1973), 412 U.S. 218; *Miranda v. Arizona* (1966), 384 U.S. 436.

There is little doubt that lack of mental acuity, or mental illness, can interfere with an accused's ability to give a knowing and intelligent waiver of his Sixth Amendment right to counsel. However, "[t]his is not a field for inflexible rules" delineating the bright line that distinguishes those capable of an intelligent waiver from those who lack the ability to do so. *Miller v. Dugger* (C.A. 11, 1988), 838 F.2d 1530, 1539, citing *North Carolina v. Butler* (1979), 441 U.S. 369, 375. This court is aware that an accused who cannot comprehend his rights, cannot waive them intelligently. *Miller, supra.* (See, *e.g., Fare v. Michael C.,* 442 U.S. 707, 725 [youth and inexperience militating against intelligent waiver]; *Cooper v. Griffin* (C.A. 5, 1972), 455 F.2d 1442, 1145 [mental retardation]; *United States v. Short* (C.A. 6, 1986), 790 F.2d 464, 469 [language difficulties]).

This does not mean, however, that an accused's mental condition, by itself, will universally prevent the accused from ever effectively waiving a constitutional right. See, *e.g., Colorado v. Connelly* (1986), 479 U.S. 157. If, under the facts and circumstances present in this case, the court can determine that the defendant made a "knowing and intelligent waiver," the waiver will stand.

This court has recently considered the issue of whether a person with diminished mental capacity could "knowingly and intelligently" waive his rights in *State v. Mitzel* (Sept. 22, 1989), Trumbull App. No. 3917, unreported. *Mitzel, supra,* cites with approval *State v. Nichols* (1965), 3 Ohio App.2d 182, which states that "subnormal mentality" may be considered in determining whether the confession was "knowingly" and "intelligently" made, but that diminished I.Q. will not, in and of itself, negate the waiver and preclude admission. Examination of all the facts and circumstances in *Mitzel* revealed that the defendant was sufficiently aware of the time, space, geography and environment of his confession, as well as the fact that the persons to whom he was confessing were policemen. The defendant-appellant there was found to be capable of making a "knowing" and "intelligent" waiver of his rights because the totality of the circumstances examined (including the videotaped confession) indicated that defendant-appellant had sufficient understanding to execute a valid waiver, even given the fact that he was of diminished mental capacity.

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***6** Appellant, in the case at bar, admittedly suffers from some mental retardation (although the evidence presented is divergent as to the severity of the handicap) and has had concommitant difficulties in language comprehension throughout his formal education. Appellant is categorized as being mildly to moderately retarded. Evidence was presented which indicates that appellant is illiterate and this court acknowledges that literal recognition of each word contained in the "*Miranda* Rights" and/or "waiver form" may be beyond appellant's mental comprehensive capacity.

However, from the record here, particularly during the suppression hearing, this court is also aware (as was the trial court below) of the long and multi-faceted exposure appellant has had with the state's criminal justice system. The evidential table in this case also demonstrates that appellant exhibited a functional capacity to understand these rights, including the right to appointed counsel. This was evident from the exchange that occurred during the audio and video tape sessions. The officers who interrogated appellant had either significant contact with him and/or had questioned him on prior occassions and had developed informed estimates as to appellant's ability to understand, albeit in a vernacular sense, all aspects of the *Miranda* warning. The audio and video tapes of appellant's interrogations disclose that appellant was capable of understanding the questions put to him and of responding intelligently.

Moreover, the behavior of the appellant during the police investigation belies the notion that he was no more than a malleable victim of police suggestion. Appellant possessed the requisite intelligence to implicate other persons in the murder and was capable of modifying his story when inconsistencies were demonstrated to him. Additionally, appellant qualified and corrected the police officers's misstatements of the factual scenario which he had related to them. He also was able to follow "verbal concepting," displaying an understanding of the officers direction of questioning and the dialogue utilized during the interrogation.

In determining the existence of any waiver, appellee carries the burden of proving that the waiver was knowing and intelligent (*Miranda, supra*) and voluntary (*Lego v. Twomey* [1972], 404 U.S. 477), by a preponderance of the evidence. See, *Miranda.* Once the trial court, as the trier of fact, has determined that the state has carried its burden, the decision will not be overruled unless found to be against the manifest weight of the evidence. Appellant has not demonstrated that the trial court's decision, specifically, that the waiver was knowingly and intelligently made, was against the manifest weight of the evidence and, consequently, his first argument is without merit.

Appellant next contends that, as a result of his mental affirmities and the coercive action of the police, his waiver of his constitutional right was not voluntary. Appellant states that "*any* criminal trial use against a defendant of his *involuntary* statement is a denial of due process of law * * *." *Mincey v. Arizona* (1977), 437 U.S. 385, 398. Appellee directs this court's attention to a number of cases, from various jurisdictions, which provide that low intelligence of the confessor does not necessarily exclude statements voluntarily made to police. See, *e.g., State v. Sisneros* (1968), 79 N.M. 600, 446 P.2d 875; *United States v. Glover* (C.A. 9, 1979), 596 F.2d 857. *Glover, supra,* cites *United States v. Young* (E.D.Pa., 1973), 355 F.Supp. 103, a case which is similar to that *sub judice. Young, supra,* considered the question of whether a defendant with an I.Q. of fifty-seven could voluntarily waive his *Miranda* rights. The court determined that he could do so, relying extensively on the defendant's "extensive dealings with the criminal process." *Id.* at 111.

***7** Ohio law has noted that a waiver of *Miranda* rights is only valid when it is intelligent, knowing and voluntary. (See, *e.g., State v. Scott* (1980), 61 Ohio St.2d 155) and states that failure to prove these elements by a preponderance of the evidence is a violation of due process. *State v. Jenkins* (1984), 15 Ohio St.3d 164, 231.

In *Jenkins, supra,* the Ohio Supreme Court, confronted with a scenario similar to the case at bar, was obligated to determine the voluntariness of a mentally retarded accused's waiver of his *Miranda* rights. The court noted that, although the police officers were not medical experts, they were able to observe and converse with the accused. "While the explanation of rights and their waiver must be weighed with the individual's * * * mental capacity, the totality of the evidence (including the police observations) supports the trial court's judgment to admit the statement in this case." *Id.* at 233.

This court is further cognizant of the United States Supreme Court's decision in *Connelly, supra,* which substantially limited the areas in which a court can examine the voluntariness of the waiver and subsequent statement. "*Miranda* protects defendants against government coercion

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leading them to surrender rights protected by the Fifth Amendment; it goes no further than that." *Connelly,* at 170.

In *Connelly,* the United States Supreme Court was confronted with the claim of defendant-respondent that his mental illness compelled him to confess to the murder of a girl. Defendant-respondent was a chronic schizophrenic who believed that the "voice of God" had compelled him to confess. Defendant-respondent argued that his mental condition interferred with his volitional ability and kept him from rendering a rational decision. The Court did not accept defendant-respondent's contentions, holding instead that "coercive police activity (was) a necessary predicate to the finding that a confession (was) not 'voluntary' within the meaning of the Due Process Clause of the Fourteenth Amendment." *Connelly,* at 167. As the police did not, in any way, coerce the statement, the Court said that the statement was voluntarily given, and that the mental state of the confessor was immaterial for a determination of voluntariness.

As this court stated in addressing appellant's first argument, the evidence adduced indicates that appellant had the requisite intelligence to "knowingly, voluntarily and intellengently" waive his *Miranda* rights, rights to which he had been exposed numerous times. Moreover, the evidence does not demonstrate any inappropriate coercion being applied to appellant beyond some suggestive interrogations advanced by the officers in the statement sessions. Appellant's second argument is without merit.

Appellant next states that his statements were taken in violation of the dictates of *Miranda.* This argument essentially reiterates contentions voiced in appellant's first two arguments. The crux of appellant's position can be seen in *Moran v. Burbine* (1986), 475 U.S. 412, 421, which states:

***8** "The inquiry has two distinct dimensions. *Edwards v. Arizona, supra,* at 482, 68 LEd2d 378, 101 SCt 1880; *Brewer v. Williams,* 430 US 387, 404, 51 LEd2d 424, 97 SCt 1232 (1977). First, the relinquishment of the right must have been voluntary in the sense that it was the product of a free and deliberate choice rather than intimidation, coercion, or deception. Second, the waiver must have been made with a full awareness both of the nature of the right being abandoned and the consequences of the decision to abandon it. Only if the 'totality of the circumstances surrounding the interrogation' reveal both an uncoerced choice and the requisite level of comprehension may a court properly conclude that the *Miranda* rights have been waived. *Fare v. Michael C.,* 442 US 707, 725, 61 LEd2d 197, 99 SCt 2560 (1979). See also *North Carolina v. Butler,* 441 US 369, 374-375, 60 LEd2d 286, 99 SCt 1755 (1979)."

Appellant argues that not only did he not possess this requisite awareness, but the police took advantage of this lack of mental acumen by applying several psychological ploys.

Appellee argues that appellant received his *Miranda* rights on at least four occasions over a four-day period and, as evidenced by the audio and video tape, appeared articulate and coherent as he answered questions. Moreover, the State refers to a multiplicity of cases which allow for the admissibility of the statements when rendered hours or even days after *Miranda* rights were administered. See, *e.g., United States, ex rel. Henne, v. Fike* (7th Cir., 1977), 563 F.2d 809; *State v. Gilreath* (Ariz., 1971), 107 Ariz. 318, 487 P.2d 385, *cert. denied,* 406 U.S. 921, (1972).

This court finds, after examination of the evidence, that appellant was able to "knowingly, intelligently, and voluntarily" waive his *Miranda* rights and, in fact, did so. While, as *Mitzel* notes, a more thorough explication of appellant's understanding of the concepts embodied in *Miranda* would make our determination unequivocal, the officers present at the investigation appeared to ascertain the adequate quality of appellant's understanding of his rights. (This is particularly true where, as in this case, the officers had *Mirandized* the appellant on several previous occasions; and where appellant was apparently able to knowingly, voluntarily and intelligently waive his *Miranda* rights on each prior occasion. The record reveals that appellant's frequent brushes with the legal system include convictions for the rape of two women in 1984. Further, Detective Hill testified that appellant had been arrested fifteen to twenty times and that he had personally administered *Miranda* rights to appellant four or five times.) Appellant's third argument is without merit.

In his fourth sub-argument under the first assignment of error, appellant contends that his Fourth and Fourteenth Amendment rights were violated when he was "seized from his home and placed into custodial interrogation without probable cause, proper judicial authorization, or his consent." Appellant argues correctly that the administration of *Miranda* rights will not cure a Fourth Amendment violation. "[A]lthough a confession after proper *Miranda* warnings may be found 'voluntary' for purposes of the

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Fifth Amendment, this type of 'voluntariness' is merely a 'threshhold requirement' for Fourth Amendment analysis." *Dunaway v. New York* (1979), 442 U.S. 200, 216. See, also, *State v. Fickes* (Mar. 29, 1985), Trumbull App. No. 3419, unreported (concurring opinion).

***9** The United States Supreme Court has consistently held that custodial interrogations, conducted without probable cause, constitute violations of the accused's Fourth and Fourteenth Amendment rights. *Dunaway, supra.* The state may not, without probable cause, judicial authorization or consent, bring an accused to the police station for fingerprinting or for questioning. *Davis v. Mississippi* (1969), 394 U.S. 721; *Brown v. Illinois* (1975), 422 U.S. 590; *Hayes v. Florida* (1985), 470 U.S. 811. Nor will the police be able to shield an improper "seizure" under the "good faith" exception announced in *United States v. Leon* (1984), 468 U.S. 897; *Fickes, supra.*

This court finds that the record of this case is devoid of evidence indicating that the custodial interrogation of appellant violated his constitutional rights. When appellant first traveled to the Warren Police Department on September 12, 1985, he did so voluntarily and without prompting from anyone, police authority or otherwise. Appellant's reason for this visit was ostensibly to collect a reward (of which he had heard rumors) by implicating other persons in the attack of the victim. Appellant even accompanied Sergeant Stewart of the Warren police in an attempt to find the victim's bicycle.

Appellant returned to the police station the following day at the request of Sergeant Steinbeck. Steinbeck had read the note, left by Stewart (after his original meeting with appellant), which stated that appellant was aware of some of the facts of the homicide. Steinbeck went to appellant's home and asked if appellant would accompany him to the station to answer further questions. Appellant agreed. Although appellant was not under arrest, he was given his *Miranda* rights by Steinbeck.

Steinbeck prepared a written statement, based on the questioning conducted with appellant. However, he neglected to have appellant sign the statement on that day. Instead, appellant (who was free to leave throughout the interrogation) left the police station with his mother. Steinbeck, along with Detective Morris Hill, went to appellant's home on Monday, September 16, for the avowed purposes of getting appellant to accompany them to the station to sign the written statement and to obtain a formal statement from his mother regarding his alibi. The evidence is divergent as to the extent of appellant's initial voluntariness to return to the police station. There is some testimony that appellant became mildly recalcitrant to the idea of returning to the police station, only to change his mind at his mother's behest, and agreed to accompany the officers. On this point, there was sufficient evidence before the trial court, in its role of determining credibility, from which it could conclude that the appellant was not inappropriately coerced in accompanying the officer to the station again.

It is not necessary for this court to determine whether appellant "consented" to the final custodial interrogation as it appears from the evidence that the police had probable cause to interrogate the appellant on September 16. Probable cause is found, in the context of custodial interrogations, when the focus of the inquiry narrows itself sufficiently to the suspect being questioned. In this case, appellant provided some of the basis for probable cause in his initial conversation with Stewart, when he divulged information which was not known to the general public. Over the next three days, the Warren police received further information from appellant which focused suspicion on him. The police also spoke with witnesses who stated that appellant was around the scene of the crime at the time the murder had taken place.

***10** Examination of the record reveals that all questioning of appellant occurred either with his consent and/or after the police had established probable cause to question him. Consequently, the interrogation of appellant satisfies the tests set forth in *Hayes* and *Dunaway, supra.*

Appellant also alleges, in both the third and fourth sub-arguments to his first assignment of error, that the police improperly coerced him into confessing by means of psychological ploys. Appellant specifically refers to language used during the interrogations, such as simplistic juvenile or infantile terminology and obscenities, which allegedly underscores his mental retardation and suggestability. Appellant also states that the police coerced a confession by threatening to use the statements of Timothy Combs as a means of showing that appellant had committed the crime.

Appellant's arguments are without merit. It seems ironic that, after contesting his ability to knowingly waive his constitutional rights, appellant would now object to the simplicity of the language used to question him. The recorded conversations alluded to by appellant do not suggest the use

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of any improprieties by the police. Appellant's allegations as to threats purportedly made by police as to the use of Combs' statements are similar to those raised, and rejected, in *State v. Jackson* (1977), 50 Ohio St.2d 253, 256. Appellant's fourth argument is without merit.

Appellant's fifth sub-argument of the first assignment of error asserts that appellant was denied due process of law when he was denied his statutory right to counsel. Appellant premises his argument upon R.C. 120.16(F) which states: "Information as to the right to legal representation by the county public defender or assigned counsel shall be afforded to an accused person immediately upon arrest, when brought before a magistrate, or when formally charged, whichever occurs first." Appellant argues that he was not specifically informed of the right to a public defender and therefore was denied due process.

The argument put forth by appellant has been considered by the Fourth Appellate District in *State v. Semenchuk* (Mar. 10, 1982), Athens App. No. 1036, unreported. In *Semenchuk, supra,* the appellant made a similar claim that the county public defender was not specifically mentioned when the appellant was given his *Miranda* rights. The Fourth Appellate District held:

"Rather obviously, compliance with the dictates of Miranda (sic) does not *specifically* inform a defendant of the availability of the county public defender as mandated by R.C. 120.16(F). Even so, we conclude such failure does not require exclusion of the confession for the reason that the exclusionary rules under the federal constitution are applicable in Ohio only to violations of constitutional rights. A default in state law alone is not a ground for exclusion of material evidence. See *Kettering v. Hollen* (1980), 64 Ohio St.2d 232; *State v. Meyers* (1971), 26 Ohio St.2d 190." *Semenchuk,* at 8. (Emphasis in original.)

***11** Appellant further asserts that his right to counsel was denied when Detective Hill told appellant's mother that there was no need to hire an attorney, as a public defender would be appointed during the trial. Appellant argues that, but for the detective's statements, appellant's mother would have hired an attorney and, appellant would have been represented during the September 16, 1985 interrogation.

Appellant's arguments are reminiscent of those propounded by respondent in *Moran, supra.* In *Moran,* respondent was in custody and had waived his *Miranda* rights. Concurrent with petitioner's waiver, his attorney telephoned the police station and inquired as to the whereabouts of her client. The police did not tell counsel that respondent would be questioned that night and, further, did not tell respondent that counsel had been appointed for him. The United States Supreme Court held that "[e]vents occurring outside the presence of the suspect and entirely unknown to him surely can have no bearing on the capacity to comprehend and knowingly relinquish a constitutional right. * * * [T]he state of mind of the police is irrelevant to the question of the intelligence and voluntariness of respondent's election to abandon his rights." *Id.* at 422-423.

The rationale expressed in *Moran* is equally applicable to the case *sub judice.* Appellant was not aware of his mother's inquiries as to the need for an attorney. The propriety, or lack thereof, of Detective Hill's answer to appellant's mother (his sister) are irrelevant to the issue of whether appellant gave a knowing, voluntary and intelligent waiver of his *Miranda* rights. Since, as discussed above, this court has determined that appellant did adequately waive his rights, the fifth argument is without merit.

In the sixth sub-argument of his first assignment, appellant argues that his recorded statements (both audio and video) should have been suppressed, as this evidence was obtained without compliance with R.C. 2935.05. The statute in question reads as follows:

"When a person named in section 2935.03 of the Revised Code has arrested a person without a warrant, he shall, without unnecessary delay, take the person arrested before a court or magistrate having jurisdiction of the offense, and shall file or cause to be filed an affidavit describing the offense for which the person was arrested. Such affidavit shall be filed either with the court or magistrate, or with the prosecuting attorney or other attorney charged by law with prosecution of crimes before such court or magistrate and if filed with such attorney he shall forthwith file with such court or magistrate a complaint, based on such affidavit."

The facts reveal that appellant was arrested by the Warren police on September 16. At the time of his arrest, appellant was in the process of being questioned by the police, a fact finding exercise that took the better part of the afternoon, and

included a visit to the crime scene. The state did not file its complaint until September 17.

***12** Appellant asserts that this twenty-four hour delay in the filing of criminal charges necessitates the exclusion of the taped statements made during that time period. The conceptual basis behind appellant's argument is based upon federal law. Cases such as *McNabb v. United States* (1943), 318 U.S. 332, and *Mallory v. United States* (1957), 354 U.S. 449, stand for the proposition that where federal officers interrogate a person, arrested without a warrant, instead of taking him to a federal judge, as required by Fed.R.Crim.P. 5(a), the statements of the defendant are excluded from testimony. This rationale was not premised on any provision of the Bill of Rights, and few states specifically adopted the *McNabb-Mallory* doctrine. In 1968, Congress abridged the doctrine, replacing it with the Omnibus Crime Control and Safe Street Act, which contained essentially the same provisions.

Ohio has expressly refused to adopt *McNabb, supra,* (*State v. Cowans* [1967], 10 Ohio St.2d 96) and has never held that failure to comply with R.C. 2935.05 is grounds for exclusion of statements made during the interim. To the contrary, this court held, in *State v. Mackey* (Feb. 18, 1982), Portage App. No. 1142, unreported, that "a confession, which is otherwise voluntary, is admissible despite the fact the defendant was not taken before a court for arraignment without unnecessary delay." *Mackey, supra,* at 8. Even *In re Thompson* (1974), 4 O.O.3d 359, relied upon heavily by appellant, does not suggest that the sanction for failure to comply with R.C. 2935.05 should be the exclusion of the statements. Moreover, *Thompson, supra,* states that the phrase "without unreasonable delay" should be interpreted to mean "within a reasonable time." *Thompson,* at 362.

This court does not conclude that the state waited an unreasonable amount of time before filing its complaint with the trial court. Nor, even were a violation of the statute found, would this court be empowered to grant the remedy requested by appellant, as Ohio courts will only apply the exclusionary rule when the violation committed by the police concerns a constitutional right. (Failure to comply with R.C. 2935.05 would constitute only a statutory violation.) See *Cowans, supra.* Consequently, appellant's sixth sub-argument is without merit.

In the final sub-argument to the first assignment of error, appellant challenges the validity of the admission of statements made during questioning which were allegedly procured during plea bargaining negotiations. The statements alluded to by appellant are those in which appellant was told that Timothy Combs was going to implicate him as the perpetrator unless appellant cooperated. The taped confessions also reveal that appellant was told that the trial court would be informed if he cooperated. Appellant argues that the state impliedly promised appellant leniency if he were to cooperate. (Appellant does not categorize what, if any, promise the state made in exchange for his cooperation.)

***13** Appellant correctly asserts that statements made during plea bargain negotiations are not admissible as evidence. *State v. Davis,* (1980), 70 Ohio App.2d 48. However, the factual scenario described (and witnessed on tape) does not portray a plea bargain negotiation. As the state asserts, "[a] promise merely to bring any cooperation on the part of the defendant to the prosecuting attorney's attention does not constitute a coercive promise sufficient to render any subsequent statements involuntary and inadmissible." *United States v. Fera* (C.A. 1, 1980), 616 F.2d 590, 594, (Citations omitted); (*United States v. Posey* (C.A. 5, 1980), 611 F.2d 1389; *United States v. Frazier* (C.A. 5, 1970), 434 F.2d 994; *United States v. Arcediano* (1974), 371 F.Supp. 457, 469, quoted in *State v. Edwards* (1976), 49 Ohio St.2d 31, 40. The alleged plea negotiations which occurred in this case fit squarely within the rule enunciated in *Edwards, supra.* Consequently, appellant cannot, as a matter of law, have his statements excluded on the basis that the statements were coerced during plea bargain negotiations.

Appellant's first assignment of error is without merit.

Appellant's seventh assignment of error raises arguments similar to those raised in the first assignment. The seventh assignment challenges appellant's ability to waive his Seventh Amendment right to a jury trial, under Crim.R. 23(A). Appellant cites *State v. Kehoe* (1976), 59 Ohio App.2d 315, as requiring that a waiver of a jury trial must be (as with the waiver of all constitutional rights) "knowing, intelligent and voluntary."

In the case *sub judice,* appellant was afforded a separate hearing on January 7, 1986 for the purpose of determining whether appellant was making a voluntary, knowing and intelligent waiver. The trial court spoke with appellant for approximately forty-five minutes about the differences between a jury trial and a trial to a three judge panel. The

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trial court explained to the appellant that a panel of judges would hear evidence inadmissible before a jury; would not be subject to voir dire; would, in all probability, not grant appellant's request for a change of venue; and would already be privy to Timothy Combs' statements. Appellant stated that he understood these differences.

Following its explanation to appellant about the distinctions between bench trials and jury trials, the trial court presented appellant with a written waiver. Appellant was then permitted to discuss this waiver form with his attorney and his mother. Only after appellant returned from this discussion (which lasted approximately twenty-five minutes) and specifically asked for a three judge panel did the trial court accept appellant's waiver of this right to a jury trial.

There is no evidence in the record indicating that the trial court accepted the waiver without scrupulously ascertaining appellant's ability to understand the impact of his actions. Further, there is enough competent evidence to determine that the trial court's decision was not against the manifest weight of the evidence. In so holding, this court does not express any opinion as to the ability of other mentally retarded persons to waive their constitutional rights. Such a decision will have to be made on an individual case by case basis, considering all appropriate facts and the totality of the circumstances of each case. This court does, however, hold that sufficient evidence exists in this matter to determine that appellant effectively (knowingly, intelligently and voluntarily) waived these constitutional rights.

***14** Appellant's first and seventh assignments of error are without merit.

ASSIGNMENT # 2

THE TRIAL COURT ERRED IN THE ADMISSION OF "OTHER ACTS" TESTIMONY.

In his second assignment of error, appellant asserts that the trial court erred by admitting evidence of "other acts" into the trial. He claims that this was a violation of R.C. 2945.59, Evid. R. 404(B), and the Due Process clause of the United States Constitution's Fourteenth Amendment.

The trial court permitted the state to introduce evidence of two prior rapes committed by the appellant when he was seventeen. This evidence was offered to prove motive, intent and the appellant's scheme for committing sexual assaults.

R.C. 2945.59 states that:

"In any criminal case in which the defendant's motive or intent, the absence of mistake or accident on his part, or the defendant's scheme, plan, or system in doing an act is material, any acts of the defendant which tend to show his motive or intent, the absence of mistake or accident on his part, or the defendant's scheme, plan, or system in doing the act in question may be proved, whether they are contemporaneous with or prior or subsequent thereto, notwithstanding that such proof may show or tend to show the commission of another crime by the defendant."

Evid. R. 404(B) provides that:

"Evidence of other crimes, wrongs, or acts is not admissible to prove the character of a person in order to show that he acted in conformity therewith. It may, however, be admissible for other purposes, such as proof of motive, opportunity, intent, preparation, plan, knowledge, identity, or absence of mistake or accident."

R.C. 2945.59 is to be strictly construed against the state and conservatively applied by a trial court. *State v. DeMarco* (1987), 31 Ohio St.3d 191. Evidence of other acts of a defendant is admissible pursuant to R.C. 2945.59 *only* when it tends to show one of the matters enumerated in that statute and when it is relevant to prove the defendant's guilt of the offense in question." *DeMarco, supra,* paragraph one of the syllabus. (Emphasis added.)

The admission of the other acts of the appellant was proper because they tended to show the trial court that the appellant intended to rape the victim. See *State v. Gardner* (1979), 59 Ohio St.2d 14; *State v. Flonnory* (1972), 31 Ohio St.2d 124.

Additionally, the appellee claims that even if the admission of the prior acts was erroneous, it was not prejudicial. In *State v. White* (1968), 15 Ohio St.2d 146, the court stated that improperly used testimony which could be cause for reversal at a jury trial would not necessarily be so at a bench trial. It must affirmatively appear on the record in a bench trial that the court relied on this improper testimony in arriving at

its verdict in order for the error to be a ground for reversal. Accord *State v. Post* (1987), 32 Ohio St.3d 380.

The trial court stated in its opinion that "no prior crimes were considered by the court in any way in reaching its verdict."

***15** The second assignment of error is without merit.

ASSIGNMENT # 3

THE TRIAL COURT IMPROPERLY ADMITTED CERTAIN EVIDENCE.

In his third assignment of error, the appellant contends that the trial court improperly admitted certain testimony of Raleigh C. Hughes, III, an ambulance attendant who saw the body at the site of the homicide, and certain testimony of Dr. Adelman. The appellant also claims that exhibit forty-seven, which the state asserts was the implement used by appellant to impale the victim, was improperly admitted. We will address the propriety of the admission of this exhibit in appellant's fourth assignment of error.

Evid. R. 402 provides that all relevant evidence is admissible, unless otherwise excluded. Evid. R. 401 states that relevant evidence "means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." However, Evid. R. 403 expressly precludes the admission of relevant evidence if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or of misleading the jury. Additionally, that rule also provides that relevant evidence *may* be excluded if its probative value is substantially outweighed by consideration of undue delay or needless presentation of cumulative evidence.

At the close of the direct examination of Hughes, the appellee asked him to state his opinion regarding the victim's condition relative to other people he had treated. After overruling appellant's objection, Hughes replied that "this is probably one of the most gruesome things I've ever seen." Appellant claims that this had no bearing on the evidence and was elicited to inflame the passion of the three judges and to shift the focus of the case from provable facts to the horrible nature of the crime and appellant's character.

In *White, supra,* the Ohio Supreme Court stated that they "indulge in the usual presumption that in a bench trial in a criminal case the [trial] court considered only the relevant, material, and competent evidence in arriving at its judgment unless it affirmatively appears to the contrary." *Id.* at 151. (Citations ommited.)

There is nothing in the record to show that this statement had any effect on the trial court's determination of appellant's guilt. We, too, indulge in the same presumption and conclude that the admission of this statement, although perhaps prejudicially erroneous in a jury trial, was not so here. See, also, *State v. Eubank* (1979), 60 Ohio St.2d 183.

Parenthetically, it should be noted in assignments nine, eleven and twelve appellant alleges error, which if tried before a jury would require greater analysis by this court. However, this cause was tried before a three judge tribunal and, unless the record clearly shows otherwise, this court will assume regularity and/or lack of prejudicial error.

Dr. Adelman testified that strangulation can cause the penis to become erect and that asphyxiation is often used by people to enhance their sexual orgasms.

***16** Appellant states that this testimony was of no probative value, and that there was an insufficient basis for the testimony. As to the latter contention, appellant does not explain why the basis for the testimony was insufficient.

Bite marks on the victim's penis were later identified by Dr. Mertz, a dentist and forensic odontologist, as those of the appellant's. The appellee maintains that the victim could have been asphyxiated in order to cause an erection for purposes of oral sex. Since the teeth marks on the victim's penis, when measured by Dr. Mertz at the morgue, were consistently smaller than the actual size of the impression of appellant's teeth, Dr. Mertz stated that the victim's penis was probably erect at the time it was bitten. If this were true, then the marks on the victim's penis would be proportionately smaller when measured by Dr. Mertz. Therefore, the testimony that the strangulation, *i.e.,* asphyxiation, can cause a penis to become erect was probative testimony, shedding light on precisely what occurred that fateful day.

The third assignment of error is without merit.

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ASSIGNMENT # 4

THE TRIAL COURT ERRED IN ADMITTING EXHIBIT 47, A "STICK".

In appellant's fourth assignment of error and part of his third, he contends that the trial court erred by admitting into evidence a piece of wood, which looked like the end of the handle of a household broom or mop. This piece of wood was identified as state's exhibit forty-seven. According to the appellee, it was forcibly inserted into the victim's rectum, causing internal damage and bleeding.

This handle was found in the thick brush of a field approximately six feet from a bicycle path. Donald Allgood, sixteen at the time of the trial, testified that from a distance of about thirty yards, he saw the appellant walking on the bicycle path and toss a stick into the field with a flick of his wrist. Although Allgood stated that the stick was about twelve inches long, he also indicated that it could have been a branch. After a search of the area was conducted by the police, the end of the broken handle was found.

Appellant states that the exhibit should not have been admitted because Dr. Adelman could not positively say that the broom handle was the item which caused the damage to the victim's rectum and bladder. An examination of the victim's damaged internal organs revealed that plant material was present but this cellular material could not be positively identified as originating from the broom handle introduced as exhibit forty-seven.

Mr. Dehus, a criminologist and forensic science analyst, testified for the appellant. He stated that he tested the stick for blood and did not find any traces. He indicated that a pourous object such as exhibit forty-seven, if used in the manner claimed by the state, would normally absorb fluids, and traces of blood should have been found when it was tested. However, on cross-examination, he qualified this response by noting that he had been involved in cases in which the weapon did not have blood on it. He also agreed that an object could be "wiped" or "washed clean" eliminating the traces of blood.

***17** Appellant, in the fourth assignment of error, states that the trial court improperly drew an inference from another inference.

During the course of a statement appellant made to the police shortly after the incident, a Warren police officer asked the appellant what another individual had inserted into the victim's rectum. Appellant responded, "A stick. Like a broom handle thing * * *."

Dr. Adelman performed the autopsy on the victim and took several photographs of the damaged organs. He compared exhibit forty-seven with the tears in the victim's internal organs and concluded that the size and shape of the point of the stick were very compatible with the size and shape of the opening in the rectum. He described the "fit" as similar to a key in a lock. Dr. Adelman also testified that both ends of the broom handle had probably been inserted into the victim's rectum. He stated on direct examination:

"The sharp end of the stick is-would have made the penetration through the rectum and the urinary bladder that I've described. The blunt end of the stick would have made the mark on the rectum that did not penetrate; just a contusion, and the size relationships are quite consistent."

James Wurster, a criminalist employed by the Ohio Bureau of Criminal Identification and Investigation who specializes in the detection and identification of blood, stated that rain or dirt could have removed blood on a stick such as exhibit forty-seven.

The admissions of exhibit forty-seven was not improper based on the statement of the appellant and the testimony of Dr. Adelman and Messrs. Dehus and Wurster. Additionally, there was no attempt to draw one inference upon another. The testimony elicited showed that appellant stated that "a broom handle thing" was inserted into the victim's rectum, that appellant was observed throwing a stick into the brush of a field near the homicide site, that the end of a broom or mop handle was found in the area where a witness saw the appellant throw a stick, and that the "jagged edge" of exhibit forty-seven fit the opening in the victim's rectum like a key in a lock. These direct facts were presented in evidence in order for the court to make one inference-that exhibit forty-seven was the object which was inserted into the rectum of the victim. The admission of exhibit forty-seven, based on these facts, was not improper.

Appellant's portion of his third assignment of error relating to exhibit forty-seven and his fourth assignment of error are without merit.

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ASSIGNMENT # 5

THE RIGHT TO CONFRONT WITNESSES WAS VIOLATED.

In his fifth assignment of error, appellant contends that his right to confront a witness was improperly denied. A seventeen year old boy who had been incarcerated at the Juvenile Justice Center testified that, while he was in one of the cells, the appellant tried to have sex with him.

Appellant claims that the appellee called Stephen Melius to the stand without prior disclosure to the appellant. Appellant also claims that when the witness was later recalled, it became "quite apparent that the witness's potential further testimony had been thoroughly reviewed with the prosecutor". Appellant asserts that he was effectively denied the right to full cross-examination of this witness, and relies on *State v. Prater* (1983), 13 Ohio App.3d 98, for the proposition that a state's witness may not have his memory refreshed during a recess when still subject to cross-examination.

***18** The appellee's position was that it did not know about the witness until the previous afternoon. The trial court indicated that if the appellant wished to cross-examine the witness later, it would order him to remain in the county and that it would consider a request for a continuance so that appellant could investigate the witness.

The right to cross-examine a witness is a fundamental right applicable to the states. *Pointer v. Texas* (1965), 380 U.S. 400. Appellant was afforded this right, as well as the right to further cross-examination after investigation. In *Davis v. Alaska* (1974), 415 U.S. 308, the Supreme Court stated that the improper limitation on the right to cross-examination was an effective denial of the right to confront a witness.

In the case at bar, no restrictions were placed on appellant's right to cross-examine Melius; therefore, we cannot say that appellant's right to confront this witness was violated in any way. See *Prater, supra.* It should be noted that counsel did not request a continuance, but the witness was required to be available for recall by the defense. He was indeed subpoenaed and recalled by appellant. As such, the appellant was afforded an opportunity to prepare for and cross-examine Melius.

Second, appellant objects to the alleged "coaching" by the prosecution of this witness. The transcript reveals that an assistant prosecutor had spoken with the witness prior to being recalled. Melius, when questioned by appellant's counsel during recall, stated that he was informed that the defense was:

"Going to subpoena me back into court, and he told me some of the questions that you might ask me."

" * * *

"He said that you might-that you might ask me if that I gave some of the wrong dates and stuff like that."

Then when questioned by the state, the following occurred.

"Q. Steven when I talked to you this morning, I told you that Jim Lewis [appellant's trial counsel] subpoenaed you, did I tell you to make any kind of story up?"

"A. No, sir.

"Q. Did I tell you to tell the truth?

"A. Yes, sir."

This exerpted language represents the sum of the evidence before this court of appellee's alleged wrongdoings. As such, the evidence is insufficient to show that the state "coached" the witness beyond simply urging him to tell the truth. Moreover, as noted by the state, the witness' testimony "after coaching" did not differ from the prior day's narration on the witness stand. From this evidential table, this court is unable to conclude that the state engaged in any improprieties of a prejudicial nature.

In *Prater,* the trial court specifically instructed the prosecution not to talk to a witness during a break in the trial. Although the prosecutor disobeyed the order, the trial court concluded that even this "flagrant violation" of the court's effort to afford the defense a fair opportunity for effective cross-examination, did not deny the appellant the opportunity for full and effective cross-examination, in light of all of the evidence offered. The court in *Prater* also stated that the prosecution cannot use a trial recess to coach a witness before defense counsel has finished his cross-examination of that witness. Since there was no such order, by the trial court, for the prosecutor in the case at bar to refrain from discussing the case with Melius,

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and it appeared that cross-examination had terminated, the assignment of error is without merit.

ASSIGNMENT # 6

***19** THE TRIAL COURT ERRED IN DENYING THE APPELLANT'S MOTION TO INCLUDE LICENSED DRIVERS IN THE POOL OF LICENSED DRIVERS. [*SIC*]

Appellant asserts in his sixth assignment of error that the trial court erred by denying his motion to include licensed drivers in the pool of prospective jurors. He states that the selection of potential jurors from voter registration lists did not adequately reflect a fair cross-section of the community.

In the case at bar, appellant waived his right to a trial by jury. The trial was heard before a three judge panel, therefore, the denial of this motion could not possibly have had any effect on the trial.

This assignment of error is without merit.

ASSIGNMENT # 8

THE TRIAL COURT ERRED IN DENYING THE APPELLANT FUNDS TO EMPLOY AN EXPERT WITNESS FOR A MOTION HEARING.

In his eighth assignment of error, appellant asserts that the trial court erred by denying him the necessary funds to employ an expert witness to show that appellant's motion for closure of the pretrial hearings was necessary to preserve a fair and impartial jury. He states that closure is an effective means of ensuring an impartial jury, and that an indigent defendant should be provided at all times with the reasonably necessary means of obtaining proper representation.

As it was stated in the sixth assignment of error, appellant waived his right to a trial by jury and was tried by three judges, not a jury of his peers. This court cannot help thinking that appellant's counsel upon appeal is slightly misplaced. The fact that appellant waived his right to trial by jury renders this assignment of error moot. Prior to executing his waiver of a jury trial, appellant was informed that the pre-trial motions addressed in assignments six and eight would, "in all probability," be overruled if appellant waiver his rights to a jury trial. The trial court correctly concluded that appellant's motions would be anamolous in a trial to a three judge tribunal. Appellant indicated that he understood the effect of his waiver, and that it would result in the motions being overruled.

This court will not indulge appellant and analyze this assignment of error as if there *had* been a trial by jury.

The eighth assignment of error is without merit.

ASSIGNMENT # 9

THE ADMISSION OF EXHIBIT 3 (A PHOTOGRAPH OF RAYMOND FIFE) WAS ERROR.

Appellant maintains in his ninth assignment of error that the admission of exhibit three, a school photograph of the victim taken prior to the assult in question, was error. Also, appellant claims that it was improper to permit the victim's mother to testify about family matters, and that it was wrong to permit the prosecutor to comment on the victim's good character during closing argument.

We find this assignment to be without merit.

First, appellant's counsel failed to object to the admission of the photograph, testimony or prosecutor's comments at trial. This failure precludes appellant from objecting now. *State v. Wade* (1978), 53 Ohio St.2d 182, at paragraph one of the syllabus.

***20** Appellant's argument would be more persuasive in a jury trial. The admission of the photo before a three judge panel, however, was, at best, harmless error. There is no evidence that the court was swayed by testimony of the victim's mother or the claimed erroneous comments of the prosecutor.

The assignment of error is overruled.

ASSIGNMENT # 10

THE APPELLEE DID NOT GIVE THE APPELLANT COMPLETE DISCOVERY.

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The tenth assignment deals with the extent of discovery provided by the state to the appellant. Appellant objects that the following were not provided to him:

"1. Allgood identified appellant from a photo array.

2. That photo array.

3. Exhibits 103-109.

4. Oral statements of appellant concerning those exhibits.

5. The statement of Stephen Melius.

6. The photographs used by Dr. Levine."

Appellant recognizes the foregoing lapses in discovery here, when viewed in a bifurcated context, are not detrimental, but argues the cumulative impact of all these items reaches plain error.

The state contends that there was sufficient other evidence to convict appellant. Also, the court afforded appellant additional time to prepare for both witnesses, Stephen Melius and Dr. Levine, indicating it was willing to grant a continuance. However, appellant's counsel deigned not to request the time and continued forward wih the proceeding. Further, the specific photographs were supplemental, and, in some instances, duplicative of pictures that were already in evidence.

Appellant failed to show that the state did not make a good faith effort to supply all relevant materials. No plain error is found.

Appellant's tenth assignment is meritless.

ASSIGNMENT # 11

ADMISSION OF CERTAIN PHOTOGRAPHS WAS AN ABUSE OF DISCRETION.

Appellant objects to the admission of exhibits which show the stick in relation to the cavity of the victim. He alleges this prejudiced the outcome.

Appellant notes the proper standard for admissibility of photographs from *State v. Woodards* (1966), 6 Ohio St.2d 14. The court noted:

" * * * The rule is well settled that photographs and color transparencies are not objectionable so long as they are properly identified, are relevant and competent and are accurate representations of the scene which they purport to portray. Indeed, photographs frequently convey information to the court and jury more accurately than words.

"Although a photograph may be rendered inadmissible by its inflammatory nature, the mere fact that it is gruesome or horrendous is not sufficient to render it inadmissible if the trial court, in the exercise of its discretion, feels that it would prove useful to the jury.

"The real question is whether the probative value of such photographs is outweighed by the danger of prejudice to the defendant." *Woodards, supra,* at 24-25. (Citations omitted.)

Appellant also cites *State v. Luft* (Dec. 26, 1978), Franklin App. No. 78AP-302, unreported. It, as well as *Woodards,* recognized the objectionable nature of some photographs, but nonetheless found harmless error with their admission.

***21** In this cause, admission of the photographs does not rise to the crest of prejudicial error. There was sufficient other evidence as to the guilt of the defendant. Further, the exhibits were used to show the penetration of the stick and the "lock and key" fit of the stick to the injuries. Finally, the proceeding was had before a three judge panel rather than a jury, and the presumption remains that they only considered relevant evidence.

This assignment is overruled.

ASSIGNMENT # 12

THE STATE MADE IMPROPER CLOSING ARGUMENTS AT BOTH THE GUILT AND MITIGATION PHASES OF THIS CASE.

Appellant alleges the prosecutor made improper remarks during closing arguments. He lists fourteen separate instances

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during both closing at trial and closing at the mitigation stage of the proceedings.

The assignment is without merit.

Initially, it should be noted that appellant's attorney failed to object at the time to any of the statements. Appellant is precluded from raising it as error now. *Wade, supra.*

Further, a prosecutor is granted great leeway during closing argument, but there still are bounds within which he must operate. However, error will only be found if the remarks affected the verdict. See *State v. Wiggins* (Sept. 30, 1988), Lake App. No. 12-258, unreported.

Given the nature of the offense involved, the circumstances surrounding the death of the victim, and the length of the closing argument, it does not appear this would constitute prejudicial error, but merely harmless error, at best.

Finally, as noted previously, the trial was conducted before a three judge panel and not a jury, and the record fails to disclose any prejudice.

ASSIGNMENT # 13

THE APPELLANT WAS DENIED THE EFFECTIVE ASSISTANCE OF COUNSEL.

Appellant alleges ineffective assistance of counsel. He lists seven means by which counsel at trial was ineffective. These include:

"(1) counsel should have had hearings on the pre-trial motions that were filed;

"(2) counsel should have attempted to seat a jury before waiving that right;

"(3) counsel failed to fully advise the appellant of his legal rights concerning appellant's waiver of a jury trial so that he could voluntarily, knowingly and intelligently make such a decision;

"(4) counsel should have continuously objected to an officer's belief that the appellant was lying;

"(5) counsel's failure to timely file a a motion for new trial with a hearing;

"(6) counsel's failure to object to appellee's improperly closing argument; and

"(7) counsel's failure to preserve the record or otherwise object on any issue that this court or any future court deems waived by such omission."

Appellant prefaces his argument by suggesting that he simply is preserving his right to appeal on this issue. As such, he just merely asserts how counsel was ineffective.

However, the Ohio Supreme Court has developed the proper framework to determine ineffective assistance of counsel. In *State v. Lytle* (1976), 48 Ohio St.2d 391, the court indicated:

" * * * [T]here must be a determination as to whether there has been a substantial violation of any of defense counsel's essential duties as to his client. Next and analytically separate from the question of whether the defendant's sixth amendment rights were violated, there must be a determination as to whether the defense was prejudiced by counsel's ineffectiveness." *Id.* at 396-7.

***22** This was interpreted in *State v. Smith* (1981), 3 Ohio App.3d 115, where the court held:

"In order to establish prejudice to defendant resulting from a lack of effective assistance of counsel, defendant must establish upon appeal a substantial violation by counsel of an essential duty to his client. The defendant must then establish his defense was prejudiced by the violation of any such duty. *State v. Lytle* (1976), 48 Ohio St.2d 391 [2 O.O.2d 495]. In light of the presumption of competency attributed to counsel in Ohio, the burden upon a defendant to establish ineffective assistance of counsel is a heavy one. *Vaughn v. Maxwell* (1965), 2 Ohio St.2d 299 [31 O.O.2d 567]." *Id.* at 120.

Independent review of the record fails to disclose where the second prong of the *Lytle* test has been met in connection with the seven claimed deficiencies of trial counsel. In other words, the record fails to demonstrate where appellant was expressly prejudiced by the alleged omissions and/or comissions of trial counsel.

In this cause, many of the alleged deficiencies of trial counsel more aptly challenge counsel's strategies and tactics. " * * * [M]any trial tactics may be questioned after an unfavorable result. A fair assessment of attorney performance requires us to eliminate the distorting effect of hindsight." *Post,* at 388. Moreover, *Strickland v. Washington* (1984), 466 U.S. 668, states that tactical decisions may not be the basis of demonstration of ineffective assistance of counsel, absent a showing of prejudice. See, also, *State v. Peine* (July 21, 1989), Lake App. No. 13-088, unreported, at 14-15. As stated, there is no showing of prejudice here. This court will not indulge in speculation regarding counsel's motivation in waiving a jury trial and his subsequent strategies and tactics employed before the three judge panel, including any judgmental exercise appellant's counsel may have considered to the effect that a gruesome factual scenario is less apt to influence emotionally a panel composed of judges than a jury of lay people.

In addition, appellant's assignment is deficient for failing to comply with the Appellate Rules. Specifically, appellant, in his brief, fails to fully develop his argument as required by App.R. 16(A)(4), and pursuant to App.R. 12, this court may disregard "[e]rrors not specifically pointed out in the record and separately argued by brief * * *."

Appellant's thirteenth assignment is without merit.

ASSIGNMENT # 14

IT WAS ERROR FOR THE TRIAL COURT TO SENTENCE APPELLANT ON THE KIDNAPPING CHARGE AND THE KIDNAPPING SPECIFICATION.

Appellant alleges that the rape and kidnapping were offenses of similar import and appellant should have only been convicted of one. As such, only one should have been used for the aggravating specification during the mitigation phase. He argues the cause should be remanded for new sentencing without the kidnapping specification.

Appellant relies upon *State v. Logan* (1979), 60 Ohio St.2d 126, where the court found that rape and kidnapping were of similar import and thus it was error for the court to convict on both counts. The reason was that the court could not find " * * * that appellant had a separate animus to commit kidnapping." *Logan, supra* at 135. The *Logan* court continued:

***23** "Within this pronounced rule we adopt the policy that where murder, the taking of a hostage, or extortion is the underlying crime, a kidnapping in facilitation thereof would generally constitute a separately cognizable offense." *Logan,* at 135.

Clearly, the court noted the exception in situations which a murder is committed.

More recently, courts have focused upon the requirement of "separate animus" when analyzing rape and kidnapping. The court in *State v. Henry* (1987), 37 Ohio App.3d 3, found separate animus.

"When the *Logan* standard is applied to the facts in the instant case, it is apparent that a separate animus does in fact exist and, therefore, separate convictions are proper. First, the restraint was prolonged. The victim was abducted at approximately 1:30 a.m. and was not released until approximately 4:04 a.m. Second, the confinement was secretive. The abductors kept the victim's head down so that she would not be seen in the automobile. Moreover, when a police officer approached the automobile the victim was threatened and told not to let the officer know that she was in the automobile. Third, the movement involved was substantial. The victim was abducted in Bowling Green, driven to Toledo and then returned to Bowling Green. Fourth, there was a substantial increase in risk of harm to the victim. The farther the victim was removed from Bowling Green and the longer she was restrained, the less likely it was that she would be returned safely. The victim was taken on country roads and could have been killed or abandoned without encountering assistance nearby. Since the victim was taken in an automobile and driven a substantial distance, she was subjected to a risk of injury from the operation of the motor vehicle which was separate and distinct from the injury she was exposed to from the rapes." *Henry, supra* at 9.

In this cause we have similar facts except for the distance of the asportation and the exact length of time. The restraint was long. The evidence supports the conclusion that the restraint lasted approximately forty-five minutes. The confinement here was also secretive. The victim was dragged off the traveled path. Third, after awakening and attempting to flee, the victim was again grabbed and dragged back into the woods. His mouth was covered to prevent pleas for help. The appellant remained with the victim while the co-defendant

left to obtain the lighter fluid. These facts demonstrate the separate animus for the kidnapping and the rape.

The assignment is without merit.

ASSIGNMENT # 15

THE MOTION FOR NEW TRIAL SHOULD HAVE BEEN GRANTED.

Appellant asserts that the trial court erred in denying his motion for a new trial without first holding a hearing to determine the merits of the motion. On February 14, 1986, appellant filed a motion for a new trial without any supporting materials. In that motion, appellant requested an extension of time to file the supporting evidence. However, on March 31, 1986, the court overruled appellant's new trial motion.

***24** On April 7, 1986, appellant filed a motion to set aside the March 31, 1986 entry. Appellant filed an affidavit on April 7, 1986 in which Raymond Vaughn, appellant's half-brother, recanted his trial testimony. In the affidavit, hedenied seeing appellant washing blood out of his pants. He further averred that he so testified at trial because of the coercion of the prosecutor.

The trial court set the matter for hearing on May 8, 1986. However, apparently without holding the hearing, the court overruled the appellant's motion to vacate. Though not specifically articulated, appellant alleges that the court abused its discretion by denying the motion without conducting a hearing.

This assignment is without merit.

Initially it should be noted Crim.R. 35 provides the basis upon which a new trial can be granted. It is incumbent upon the moving party to identify the basis for his motion and provide support for the allegation by material of evidential quality.

In *Toledo v. Stuart* (1983), 11 Ohio App.3d 292, the court in the syllabus held:

"1. Motions for new trials, made pursuant to Crim.R. 33, are not to be granted lightly. When such a motion is made pursuant to Crim.R. 33(A)(2), in which misconduct by jurors, prosecution witnesses or the prosecuting attorney is alleged, affidavits in support thereof must be submitted with the motion as further required by, and specified in, Crim.R. 33(C). If the defendant fails to produce supporting affidavits, the trial court, in its discretion, may deny the motion summarily without a hearing. (Crim.R. 33 [A] [2] and [C], construed.)

"2. Neither the trial court's ruling on the new trial motion nor its decision on whether to hold a hearing thereon, will be disturbed on appeal in the absence of a clear showing that the court abused its discretion." (Emphasis in original.)

Furthermore, nothing in the Criminal Rules requires that a hearing be held. To the contrary, case law has endorsed the proposition that the decision to grant a hearing rests with the discretion of the court. This was noted in *State v. Williams* (1975), 45 Ohio St.2d 88.

" 'The granting of a motion for a new trial upon the ground of newly discovered evidence is necessarily committed to the wise discretion of the court, and a court of error cannot reverse unless there has been a gross abuse of that discretion. And whether that discretion has been abused must be disclosed from the entire record.' *State v. Lopa* (1917), 96 Ohio St. 410, 411." *Williams,* *supra,* at 93.

This was also noted in *United States v. Kearney* (C.A. D.C., 1982) 682 F.2d 214.

"A motion for a new trial may be decided on the basis of affidavits without an evidentiary hearing. * * * "

" * * * '*Moreover, the necessity for a hearing is diminished in cases involving challenged testimony where the trial judge has an opportunity to observe the demeanor and weigh the credibility of the witness at trial.*' " *Kearney, supra,* at 219. (Citations omitted.) (Emphasis in original.)

***25** In the original motion for new trial and the motion to vacate, appellant itemizes a number of reasons for new trial. However, appellant filed only one affidavit in support of the motion, and it was only applicable to one of the bases for new trial. As such, appellant has failed to fulfill the evidential requirements of Crim.R. 33. Therefore, the court did not abuse its discretion in denying the motion without a hearing.

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Further, it should be noted appellant's grounds for a new trial, though not in response to the new trial motion, had been considered and reviewed by the trial court. In addition, appellant's theories of innocence have been reviewed by this court and rejected in other assignments of error.

Finally, no error obtains where the evidence is such that the outcome of the trial would not be different. See, *e.g., State v. Duling* (1970), 21 Ohio St.2d 13. In this cause, the evidential table is sufficient, even excluding the testimony in question, which was recanted in Vaughn's affidavit, that was filed with the motion to vacate, to support a conviction. Furthermore, the testimony by the witness, in this cause, is not pivotal to appellant's conviction because it has little, if any, probative value in determining his guilt or innocence.

The fifteen assignment is rejected.

ASSIGNMENT # 16

THE TRIAL COURT WAS IMPROPERLY PREVENTED BY (sic) DECIDING WHETHER DEATH WAS THE APPROPRIATE PUNISHMENT.

Appellant's sixteenth assignment of error alleges that the death penalty statute prevents the court from deciding whether the death penalty is appropriate. He argues because the statute mandates imposition of the death penalty if the aggravating circumstances outweigh the mitigating factors, the court is not permitted to determine if the death penalty is appropriate. He suggests that the court is "bound by the weighing process and [is] prohibited from deciding whether nevertheless death is inappropriate."

Appellant theorizes that the court is precluded from imposing life imprisonment out of a desire for mercy or simply because it feels the death penalty is inappropriate.

However, this has been rejected in *Jenkins, supra,* and *State v. Buell* (1986), 22 Ohio St.3d 124. Further the statute provides that the court may consider not only the six specified mitigating factors, but "any other factors that are relevant to the issue of whether the offender should be sentenced to death." R.C. 2929.04(B)(7). As such, the court does have discretion to consider " * * * a broad range of specified and unspecified factors in mitigation of the imposition of a death sentence." *Jenkins,* at 174.

This assignment is denied.

ASSIGNMENT # 17

THE TRIAL COURT FAILED TO CONSIDER ALL OF THE EVIDENCE IN SUPPORT OF MITIGATING A DEATH SENTENCE.

In this assignment, appellant alleges that the court failed to consider all of the mitigating factors in sentencing appellant to be executed. Specifically, appellant argues that the court failed to consider the possible brain damage he suffered from injuries, his low mental age, and his good institutional record.

***26** The first two are fairly similar in nature in that the injuries may have contributed to his low intelligence level or low mental age. However, the court clearly did consider this when it noted:

"The court considered the following factors in possible mitigation:

" * * *

"2) The low intelligence of the defendant.

" * * *

"Neither low intelligence nor impaired judgment were given significant weight since no high degree of intelligence was necessary to understand the events of rape, kidnapping, arson and murder as committed on the night of the crime, and to classify participation in such events as poor judgment seems ridiculous."

Generally, the court did consider appellant's low mental age.

Appellant's mother during mitigation also testified that appellant had fallen off a swing and, on another occasion, had been hit by an automobile. However, no express evidence was offered which indicated appellant's retardation was the result of the physical traumas. To the contrary, evidence was offered which suggested that seventy-five percent of the time, the cause of the retardation is unknown. Furthermore, Dr. Crusin indicated that neither of the injury reports indicated brain damage. As such, there was no evidence before the court which it could consider during mitigation on this subject.

Though not specifically identified by the trial court, it had before it the evidence of appellant's good institutional record. At the mitigation hearing, the appellant presented a number of witnesses who testified about appellant's activities at Brinkhaven and TCY. This testimony tended to suggest that appellant was a follower, not a leader. This, too, was considered by the court where it noted:

"The court considered the following factors in possible mitigation:

" * * *

"6) Whether or not he was a leader or follower."

Independently, though the court may not have expressly listed appellant's good institutional record as an item of mitigation, that evidence was before the court. Further, it appears that the court considered it in making its determination. Simply because the court did not identify it specifically is not grounds for reversal. To permit such would open the door for reversal of every sentence because the courts fail to list and discount every possible mitigating factor. This is clearly unreasonable.

The constitutionality of the weighing process employed by the trial court in this case can be seen by contrast to that employed by the Texas court in *Penry* (which was found to be constitutionally deficient). Under Texas law, the jury was restricted in its application of mitigation evidence by the statutory requirement which dictated that the jury answer three specific questions. These questions were whether the defendant acted deliberately with the reasonable expectation that death would result; whether there was a probability that the defendant would continue to commit criminal acts of violence; and, whether the conduct of the defendant was unreasonable in response to the provocation. *Penry,* 492 U.S. 302, 106 L.Ed.2d at 272.

***27** The Supreme Court held that the Texas statutory scheme was flawed because the jury was not informed that it could give effect to mitigating evidence of petitioner Penry's mental retardation and abused background. Further, a trier of fact who attempted to give effect to petitioner's mitigating evidence of failure to learn from his mistakes, would be forced to conclude that petitioner would continue to commit violent crimes. The court held that the trier of fact must be allowed to express a "reasoned moral response" and remanded the case for resentencing. *Penry,* 492, U.S. ----, 106 L.Ed.2d at 284; see, also, *Lockett v. Ohio* (1978), 438 Ohio St. 586, 605438 Ohio St. 586, 605.

By contrast, R.C. 2929.04(B) allows for the consideration of several mitigating factors, including "any factors that are relevant to the issue of whether the defendant should be sentenced to death." 2929.04(B)(f). Further, the statute dictates that "the defendant shall be given great latitude in the presentation of evidence of the "mitigating factors * * *." 2929.04(C). Therefore, it can be seen that, under Ohio law, the trier of fact is not precluded from considering mitigating factors and the weighing process cannot be found to violate due process.

Appellant's seventeenth assignment is without merit.

ASSIGNMENT # 18

A SENTENCE OF DEATH IS UNCONSTITUTIONAL.

Appellant's eighteenth assignment of error challenges the constitutionality of the death penalty on numerous grounds. However, as he notes, the issues that he raises have been previously addressed and rejected by the Ohio Supreme Court and/or the United States Supreme Court.

First, appellant alleges that the death penalty is cruel and unusual punishment because it is: 1) degrading to the dignity of human beings; 2) arbitrarily, freakishly and discriminatorily inflicted; and 3) applied at the uncontrolled discretion of the prosecutor. These arguments have been rejected in *Jenkins, supra,* and *State v. Zuern* (1987), 32 Ohio St.3d 56.

Second, appellant argues the death penalty violates the due process clause because: 1) it is not the least restrictive means to serve a compelling state interest; 2) it is not an effective deterrent; and 3) incarceration is the more appropriate means.

In *Jenkins,* at 168, the court noted that the United States Supreme Court has repeatedly rejected the "least restrictive means" argument. In *Gregg v. Georgia* (1976), 428 U.S. 153, the court rejected the deterrence theory leaving the resolution of that particular issue with the state legislatures. The court in *Spanzio v. Florida* (1984), 468 U.S. 447, in

rejecting appellant's final position, cited *Gregg, supra,* and noted that the death penalty may be the only appropriate sanction for certain criminal acts which are so grievous "an affront to humanity." *Spanzio, supra,* at 184.

Appellant next takes issue with the state's statutory framework under which the death penalty may be imposed. The challenges include 1) execution may be had without proof of intent (rejected in *Jenkins,* at 171); 2) failure to establish a stringent standard of proof (rejected in *Jenkins* and *State v. Maurer* [1984], 15 Ohio St.3d 239); 3) the jury is not permitted to consider its own doubt as to the defendant's guilt (rejected in *State v. Roe* [1989], 41 Ohio St.3d 18); 4) the state is not required to prove the absence of mitigating factors (overruled in *State v. Lawrence* [1989], 44 Ohio St.3d 24, *rev'd.* on other grounds); 5) the sentencing scheme requires mandatory imposition of the death penalty (overruled in *Buell, supra*); 6) the bifurcated process does not sufficiently narrow the category of defendant's eligibility for the death penalty (rejected in *Jenkins*); and 7) the appellate review process (rejected in *Buell* and *Jenkins*).

***28** Fourth, appellant argues that the sentencing hearing conducted before the same body which tried him denies his right to effective assistance of counsel. He maintains defense counsel is unable to fully argue all elements of a case utilizing two separate defenses: one during the guilt phase and a different one during mitigation. The exact argument was rejected in *State v. Mapes* (1985), 19 Ohio St.3d 108, at 117, and *State v. Hicks* (1984), 43 Ohio St.3d 72.

Next, appellant hypothesizes that the state's capital punishment statutes are unconstitutional because they subject appellant to double jeopardy. In essence, appellant suggests that by permitting the state to use the underlying aggravating felony associated during the sentencing stage violates the Constitutional provision prohibiting double jeopardy. This argument was overruled in *State v. Brown* (1988), 38 Ohio St.3d 305, and *State v. Barnes* (1986), 25 Ohio St.3d 203.

In the sixth constitutional attack, appellant alleges that the death penalty statutes are overly broad. Appellant's specific challenge was rejected in *Buell.*

The eighteenth assignment is without merit.

ASSIGNMENT # 19

THIS COURT CANNOT FIND THAT AFTER REVIEWING ALL OF THE FACTORS OF R.C. 2929.05(A) THAT DEATH WAS THE APPROPRIATE SENTENCE FOR DANNY LEE HILL.

The nineteenth assignment essentially is an overview of the mandatory review procedure imposed upon this court by statute.

Initially, appellant suggests that the evidence was insufficient to support the conviction. Appellant attempts to identify the conflicting evidence which would tend to create reasonable doubt as to his guilt. He further suggests that the evidence "is almost entirely circumstantial" and would be insufficient to support the imposition of the death penalty. However, a more thorough review of the evidence which was before the trial court indicates that the evidential table is more than sufficient to permit a finding of guilt.

First, appellant, who voluntarily went to the police station, noted that the victim was choked with his underwear. This information could only have been known then by the investigators and the perpetrators.

Appellant was identified by a witness as the individual who tossed aside an object like a stick in the field. The state's expert identified the stick as the probable cause of the perforation of the rectum and urinary bladder. Further, there is evidence which suggests that the co-defendant was acting as a look out while appellant assaulted the boy.

The state also presented the testimony of a forensic odontologist who stated:

"It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and the photographs that I had, made the bite marks on [the victim's] penis."

He also "excluded Combs altogether" as the source of the bite marks, concluding, "I'm sure on the exclusion [of Combs] as well as the identification" of Hill as the source of the bite marks. Similarly, appellant's own witness on this subject concluded that it was likely that one of the bite marks belonged to appellant.

***29** Next, appellant alleges that the aggravating circumstances do not outweigh the mitigating factors. Appellant alleges that the mitigating factors which include his low I.Q., his family background and his institutional record justify life imprisonment.

However, the trial court's analysis of the aggravating circumstances weighed against the mitigating factors support its conclusion. The court indicated it considered the underlying facts of each of the specifications in the weighing process. The evidence of the rape included the biting of the penis, leaving teeth marks; the pulling of the genitalia, bruising the pelvic area; and the penetrating of the anus with the broom stick, perforating the rectum and rupturing the urinary bladder. The underlying facts regarding the arson indicate the victim was burned about his face and shoulders. The kidnapping evidence suggested the appellant was tackled off his bicycle, slammed on the bicycle pedal, kicked about and then moved to conceal the other crimes.

Further, appellant, after being involved in these acts, went to the police station to inquire about the reward. At the same time, appellant was attempting to implicate others to divert attention from himself. This evidence indicates a lack of remorse, a callous attitude and the heinous nature of his character. All are appropriately considered by the court and are against the fabric of mitigation.

Appellant suggests that the death penalty is inappropriate and argues that the sentence is the result of passion and prejudice. The record does not reflect this. Rather, the judges listened to the evidence and properly convicted appellant. Then, the court, after the mitigation hearing, determined that the death penalty was appropriate.

Next, appellant maintains that the death penalty is disproportionate to other capital cases. As required by statute, this court is required to compare this case against other aggravated murder cases in this district. To date, in only two other cases *State v. Glenn* (Feb. 15, 1985), Portage App. No. 1286, unreported, and *State v. Wiles* (June 3, 1988), Portage App. No. 1675, unreported, did this court affirm the imposition of the death penality.

In *Glenn, supra,* the defendant had devised a plan to effectuate the escape of his half-brother from the Mahoning County Jail. During the escape attempt, the defendant shot and killed a reserve deputy sheriff who was transporting the prisoner from the jail to a doctor's office. During mitigation, appellant called two witnesses who testified about the defendant's upbringing and environment. However, the jury recommended the death penalty, finding that the aggravated circumstances outweighed the mitigating factors. *Glenn,* at 1-3.

In *Wiles, supra,* the defendant was burglarizing the home of his former employers. He thought that the home was unoccupied but was confronted by the son of the owners. The defendant proceeded to stab the victim at least eleven times and left the knife in the victim's back. The victim died as a result of the stab wounds. This court affirmed the conviction and imposition of the death penalty.

***30** By comparison, the sentence in the present cause is not disproportionate. The facts in this cause, including the sexual assult and physical beating, the torture, the burning, the strangulation, and method of death, the attempted concealment of the body, and appellant's callous lack of remorse constitute criminal acts which are so grievous an "affront to humanity" to justify the death penalty. *Spanzio,* at 184. Further, nothing suggests that this sentence was imposed arbitrarily, capriciously or indiscriminately. The sentence is appropriate under these circumstances. See *Jenkins* and *Zuern, supra.*

Pursuant to statutory law, this court is required to weigh the aggravating circumstances against the mitigating factors. This court in *Glenn* analyzed the weighing process.

"From a review of the mitigating factors disclosed by the evidence, it is also shown that the aggravating circumstances outweigh those mitigating factors and, thus, the death penalty was appropriate. The Ohio Supreme Court has cited with approval the following definition of 'outweigh':

'Outweigh. *To outweigh means to weigh more than, to be more important than. The existence of mitigating factors does not preclude or prevent the death sentence if the aggravating circumstances outweigh the mitigating factors.*

'*It is the quality of the evidence that must be given primary consideration by you. The quality of the evidence may or may not be commensurate with the quantity of the evidence, that is, the number of witnesses or exhibits presented in this case.* (Emphasis added). *Jenkins, supra,* at 172, fn. 9.' " *Glenn,* at 43-44.

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Initially, it should be noted that the exact sequence and extent of appellant's actual direct involvement is not specifically detailed in the evidence. However, based upon the direct evidence of the degrees of his actual involvement and the circumstantial evidence implicating appellant in his conjunctive role in the co-defendant's action, we agree with the trial court's verdicts in this cause.

Upon examination of the evidence presented, this court presents its weighing analysis of the aggravating circumstances and mitigating factors in this case.

First, the trial court found beyond a reasonable doubt that appellant committed rape, kidnapping and aggravated arson, each of which is sufficient to constitute the specification for the purposes of aggravated murder under which capital punishment may be imposed. We have previously indicated that we agreed that there was a proper basis for the trial court's verdicts based on the record before us. Each specification shall be analyzed independently.

The evidence which supported the rape conviction indicated that the victim was subjected to a significant amount of force. This is consistent with the relative size and age differences between the appellant and the victim. Initially, the victim was restrained and his mouth covered, but as the various sexual acts were performed, he was rendered unconscious. The physical attacks perpetrated on the deceased caused him to vomit and also cause extensive physical damage. Specifically, during the assault, which lasted approximately forty-five minutes, the victim was repeatedly bitten on the penis, which was evidenced by the bite marks. In addition, the autopsy revealed that the deceased had suffered multiple contusions, abrasions, and lacerations on his back, face, and thigh. Furthermore, his genitalia was pulled with egregious force. He was impaled repeatedly with both the blunt end and sharp end of an instrument which was long enough to perforate the rectum and rupture the victim's urinary bladder. As an apparent result of the agony of the cumulative torture, the victim was heard screaming continuously, for a period of twenty to thirty seconds, by passersby. At this time, witnesses observed Combs on the path behind Valu-King. Additionally, appellant's own statement indicated he remained with the victim while Combs absented himself from the scene, and that he did not go for help. This direct evidence base provides, at the very least, that appellant was the only other person when the victim was experiencing the pinnacle of excruciating pain from these egregious assaults.

***31** The evidence of the kidnapping discloses that the victim was violently assaulted since he was grabbed from his bicycle, was lifted by his neck and was choked as he dangled in the air. He was also being stripped of his clothing at this point. Next, his head and upper torso was slammed against the bicycle pedal. Apparently, he managed to slip free and run a short distance before being recaptured. He was slammed to the ground several times. He was also repeatedly kicked, suffered multiple blows to the body, and he sustained severe head injuries, which resulted in a subdural hemorrhage. He was strangled with his underwear, almost in a "hanging fashion", as his feet were again lifted off the ground as he was being choked. This action left ligature marks around the decedent's neck. Finally, the victim had been assaulted and was left while still alive in a secluded area where early medical attention was not likely.

The testimony at trial likewise reveals the following in relation to the aggravated arson. After the assailants completed their sexual assaults, the appellant remained with the victim while the co-defendant departed the area and found a container of charcoal lighter fluid at the back of the Valu King store. When the co-defendant returned to the scene of the crime, the fluid was poured on the victim's face and shoulder. Parts of his clothing were ignited and the victim was set afire. As a result, he suffered third degree burns to his face and neck.

The net effect of this brutalization is that this court has before it three sets of aggravating specifications which include the rape, kidnapping and aggravated arson to weigh against the mitigating factors. Each of these, the arson, the anal penetration and the assaults accompanying the kidnapping could have indepently caused death.

Prior to the imposition of the death penalty, however, R.C. 2929.04 requires the consideration of a number of statutory mitigating factors and mandates that these factors be weighed against the aggravating circumstances. These mitigating factors are as follows:

"(1) Whether the victim of the offense induced or facilitated it;

"(2) Whether it is unlikely that the offense would have been committed, but for the fact that the offender was under duress, coercion, or strong provocation;

"(3) Whether, at the time of committing the offense, the offender, because of a mental disease or defect, lacked

substantial capacity to appreciate the criminality of his conduct or to conform his conduct to the requirements of the law;

"(4) The youth of the offender;

"(5) The offender's lack of a significant history of prior criminal convictions and deliquency adjudications;

"(6) If the offender was a participant in the offense but not the principal offender, the degree of the offender's participation in the offense and the degree of the offender's participation in the acts that led to the death of the victim;

"(7) Any other factors that are relevant to the issue of whether th offender should be sentenced to death."

***32** R.C. 2929.04(C) allows a defendant great latitude in the presentation of evidence at the penalty hearing. The sentencing body must weigh these mitigating factors against the aggravating circumstances; the history, character and background of the perpetrator; and the nature and circumstances of the crime. R.C. 2929.04(B)

Items one and two are inapposite to the case *sub judice.* Under no characterization of the evidence can the victim be considered to have induced or facilitated this offense in any way other than by simply being young and helpless and incapable of escape. The evidential table is similarly devoid of evidence suggesting that the victim provoked appellant or that appellant was under duress to commit or participate in these violent acts.

The record is replete with competent, credible evidence which states that appellant has a diminished mental capacity. He is essentially illiterate, displays poor word and concept recognition and, allegedly, has deficient motor skills. Appellant is characterized as being mildly to moderately retarded. There is some suggestion that appellant's "mental age" is that of a seven to nine year old boy. Testimony places appellant's I.Q. between 55 and 71, which would cause him to be categorized as mildly to moderately retarded.

Other factors which are demonstrated by the evidence, however, include appellant's ability to conform his conduct to the requirements of the law and appellant's understanding of the criminality of the acts committed. Appellant's own witness, Doctor Darnall, testified that appellant possessed an intellectual understanding of right and wrong and further stated that appellant's crimes cannot be attributed to the fact that he was mentally retarded. Appellant's ability to differentiate between right and wrong can also be gleaned from his statement to Sergeant Stewart during the interview process on September 12, in which appellant indicated that he abstained from participating in the alleged theft of the victim's bicycle because such an act would cause him to return to confinement. This evidence demonstrates that appellant understands the difference between right and wrong and could appreciate that the attacks perpetrated on the victim were "wrong." This knowledge of the distinction between correct and criminal conduct is further demonstrated in appellant's audio and video taped statements, in which he alleges that he remained uninvolved with the assaults on the victim because he knew such acts carried criminal penalties and that he did not want to return to confinement. Appellant himself further urges that, under proper structured supervision, such as that received at Brinkhaven and TCY, he is capable of conforming his conduct to societal standards.

Consideration of evidence delineating appellant's mental retardation is more properly applied when evaluating his ability to knowingly, intelligently and voluntarily waive his constitutional rights. There is no evidence presented that requires the conclusion that this crime was committed because a mental defect precluded appellant from making the correct moral or legal choice.

***33** The fourth mitigating factor is the age of the defendant. R.C. 2929.03 requires that the death penalty be applied only to persons who were eighteen years of age or older at the time of the commission of the aggravated murder. Appellant was eighteen and one-half years of age at the time of the commission of the offense. Implicit in appellant's mitigation evidence is the argument that appellant's mental age is such that he, *de facto* (if not *de jure*) falls below the requisite age limit for imposition of the death penalty.

As previously stated, courts are reluctant to exculpate persons from their wrongful acts on the basis of mental age. The evidence in this case indicates that appellant understood that the acts committed were criminal and further demonstrates that he attempted to shift blame to others through his statements to the police. Appellant's acts of exculpation were calculated, cunning and showed no sign of a childlike intellect. Other evidence presented indicates that appellant is "street-wise" and that, although he is handicapped in formal educational settings, he is slick and functional in

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his environment. Moreover, this is scarcely appellant's first brush with the criminal justice system. In sum, there is insufficient evidence for this court to conclude that the age of the appellant, mental or chronological, is too young for the imposition of the death penalty.

The fifth mitigating factor to be considered is the lack of criminal convictions and delinquency adjudications appellant has had prior to the present conviction. An examination of appellant's criminal record indicates that this particular factor is of no help to him whatsoever. The record manifests that one year prior to the murder, appellant was convicted of the rapes of two women. These crimes were somewhat reminiscent of the crime which appellant is presently appealing, as all were violent sexual assaults. Various persons in the trial alluded to other acts of violence in appellant's past, noting that appellant had been arrested ten to fifteen times.

Application of the sixth statutory factor turns on the question of whether the perpetrator of the crime was a participant, rather than a co-principal offender. The trial court, in its review of the mitigation evidence, felt that regardless of which defendant first attacked the victim, both appellant and Timothy Combs engaged in conduct characterized by torture, rape and murder. This court agrees with that assessment. The evidential table indicates the involvement of appellant in the slaying of the victim. Appellant's contention suggesting that he merely observed while co-defendant Timothy Combs tortured and assaulted the victim is overwhelmingly negated by his personal odontological “signature” on the penis of the victim. Again, the record indicates that appellant remained in the field with the victim while Timothy Combs was observed standing on the path. By appellant's own admission, he remained with the victim while Combs procured the lighter fluid. At neither time did appellant seek help for the victim. This mitigating factor is inapplicable in this case.

***34** The final mitigating factor is a “catch-all” factor which assimilates all other mitigating evidence. Appellant has adduced several factors for consideration. The first of these is the poor family environment in which appellant grew up. Appellant was raised by his mother, who herself is mentally retarded. He is an illegitimate child. There has generally been no male authority figure in appellant's household, as each of his siblings was sired by a different father, most of whom did not marry appellant's mother.

This court is cognizant of the difficulties which may arise when growing up in an unstable and impoverished family environment. However, there is no evidence which suggests a logical nexus between appellant's childhood and this crime. Incidents of single-parent families in the United States is increasingly common. However, crimes of this savagery are characterized by a fundamental lack of human decency which does not necessarily arise from the condition of one's family life. Although no one would argue that an upbringing in this environment is often detrimental, there is no demonstrable connection between appellant's family life and the murder of the victim. Moreover, the record before this court does not indicate that appellant's home life caused his siblings to perpetrate violent crimes.

Appellant also argues that the state was deleterious in its duties to him while he was under their supervision and care. The record shows that appellant was sent to several juvenile facilities which were presumably intended to have treatment, educational and penal consequences. Appellant has presented considerable evidence as to the insufficiency of psychological care at these institutions. Nevertheless, appellant maintains that he was making rehabilitative progress at the institutions, progress that was abruptly terminated when appellant was released prematurely. There is testimony from various staff personnel that indicates that appellant was released from the juvenile facilities against the staff's recommendation.

This court notes that it is distressing when someone who is mentally handicapped is not afforded the support necessary to lead a more full and complete lifestyle. Similarly, it is unfortunate that appellant, for whatever reason, was discharged prematurely from the juvenile facility. However, there is no evidence which suggests that appellant would have not committed this crime if he had been afforded further treatment or that the converse would be true. There is no evidence presented which demonstrates that appellant's treatment would have been any more effective had he stayed at Brinkhaven for another year. Perhaps the only real inference that can be drawn from appellant's arguments is that appellant would not have been able to commit the murder had he remained at the institution. If this court accepted that argument, we would be obligated to find the state culpable every time a released criminal perpetrated a new offense. Considerations of due process do not permit, nor would society tolerate, life imprisonment for every offense on the grounds that the perpetrator might commit another crime upon release.

***35** Appellant also introduced considerable evidence as to his passive nature. This evidence suggests that appellant

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is a "follower," easily led (because of his handicap) and influenced by any person with a dominant personality. The inference which appellant intends this court to draw from this evidence is that appellant was misled into the commission of the murder by co-defendant Timothy Combs.

Several factors, however, militate against this inference. First, this court is aware of the two rapes appellant committed one year before the killing of Raymond Fife. These rapes, which were committed by appellant alone, were accompanied by death threats (both rapes were committed at knife point), both contained forced sexual intercourse (in one instance, anal intercourse), and were accompanied by beatings, and, in one attack, the biting of the victim. Clearly, appellant needed no promptings from a "dominant" person in order to engage in savage and bestial behavior. Additionally, appellant is accused of making homosexual advances toward one youth in the Trumbull County Juvenile Center and threatening to do the same to another child while at TCY.

Further, appellant demonstrated a functional understanding of right and wrong which is incongruous with the portrayal of him as a mere puppet. Appellant's actions, in going on his own to the police and attempting to implicate other persons in the murder of Raymond Fife, are scarcely those of a person with no independent will. Although this court does not dispute that appellant may have aspects of a "follower" in his personality makeup on occasions, the evidence suggests enough personal will, and a consistent *modus operandi,* which belies the notion that appellant's will was being subsumed by another.

Finally, appellant alleges that a childhood fall caused organic brain trauma which, along with a subsequent bicycle accident, promoted his moral deficiencies, and is a mitigating factor in appellant's behavior. This court notes that almost no evidence of organic brain damage is demonstrated by appellant. Dr. Darnall, who adduced the only credible evidence on this subject, indicated that any evidence of organic brain disease was slight and that no evidence of psychosis was discovered. This court also recognizes that many children fall during childhood and hit their heads. Contrary to appellant's argument, however, the vast majority do not become sadists and murderers.

The evidence as to appellant's mental and physical condition, age, family, treatment history and passive nature does not outweigh the aggravating circumstances. The record demonstrates that appellant and co-defendant Timothy Combs kidnapped the victim, beat him violently, sexually assaulted him, impaled him with a long wooden instrument, and burned his face and body by pouring lighter fluid on the boy's face and shoulder and igniting it. Appellant's guilt is demonstrated by direct physical evidence, circumstantial evidence, and the appellant's own statements to the police. There is no question as to the appellant's involvement in the murder.

***36** R.C. 2929.05(A) mandates that an appellate court, upon review, is to consider whether the sentence imposed was excessive or disproportionate to the penalty imposed in similar cases. This court has undertaken the weighing of the proportionality in the discussion of appellant's nineteenth assignment of error. In doing so, this court compared this case with *State v. Glenn, supra,* and *State v. Wiles, supra,* which were cases from this district in which the death penalty was imposed.

The comparison of the case *sub judice* with *Glenn* and *Wiles,* as indicated, demonstrates that the sentence in the present cause is not disproportionate. The facts of this case indicate that appellant committed acts on the victim, Raymond Fife, that not only go beyond the bounds of acceptible human behavior, but also move beyond this court's understanding of behavior which is human at all.

An extensive review of each assignment of error manifests that they are without merit. After an independent review of the evidence, we conclude that appellant was found guilty of the specifications of kidnapping, rape, and arson beyond a reasonable doubt; the aggravating circumstances outweigh the mitigating factors; and that imposition of the death penalty is proper. In this case, the death penalty was appropriate as the sentence was not excessive or disproportionate to sentences imposed in similar cases.

Accordingly, the judgment of the trial court is affirmed.

Judgment affirmed.

A certified copy of this document shall constitute the separate opinion as to findings of the court in this case within the meaning of R.C. 2929.05(A) and the Clerk of this Court shall immediately make and file such certified copy with the Clerk of the Supreme Court of Ohio.

Pursuant to R.C. 2953.07, this court having affirmed the trial court and the date for execution having passed, this court

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sets the date of February 26, 1990 for the execution of the death sentence.

CHRISTLEY, P.J., and MAHONEY, J., concur.

All Citations

Not Reported in N.E.2d, 1989 WL 142761

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G14 Construct Validity of Bitemark Assessments Using the ABFO Bitemark Decision Tree

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The goals of this presentation are to help attendees understand both the nature of agreement with respect to decision making and the importance of construct validity in the assessment of bitemarks.

This presentation will impact the forensic science community by informing attendees that bitemarks are currently under considerable scrutiny from judicial and scientific communities and by providing the result of an assessment of 100 injuries to determine the degree of agreement.

Since the criticisms within the 2009 National Academy of Sciences Report, Strengthening Forensic Science in the United States: A Path Forward, bitemarks have been an area of odontological practice that continue to be under considerable scrutiny.

The American Board of Forensic Odontology (ABFO) has developed a decision tree to help odontologists navigate the assessment, analysis, and conclusion levels that should be applied to bitemarks. The first portion of the decision tree is to assess a patterned injury to determine if it is a bitemark, suggestive of a bitemark, or if biting can be excluded as a cause. If the injury is determined to be a bitemark, then the next step is to determine if individual arches and tooth marks are identifiable within the injury. Following this, the decision tree goes on to assess the analysis and comparison of the injury.

This research study was concerned with the first two stages of the pathway — if these are not reliable or valid then the rest of the decision tree is rendered invalid. In order to assess the level of agreement using the decision tree, the following was undertaken: 100 injuries, comprised of suspect bitemarks and other patterned injuries, were presented, using a web-based system, to ABFO diplomates. Each image set included at least one scaled and one orientation image. No contextual information was provided. Respondents were asked to rate each image as either a bitemark, suggestive of a bitemark, or not a human bitemark. For those responses where the injury was determined to be a bitemark, an additional question was asked concerning the identification of individual arches and tooth marks.

In total, 39 diplomates completed all 100 questions out of 103 diplomates contacted. As there is no established reference standard for these data, a modal approach was adopted with percentage agreement established between the respondents. Data will be presented on the each of the decision elements, including the dichotomous decision to render an opinion, the three options for stating if the injury was a bitemark, and the level of forensic significance associated with the injury.

Bitemark, Agreement, Reliability

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Construct validity of Bitemark assessments using the ABFO decision tree

Adam Freeman
Iain Pretty*



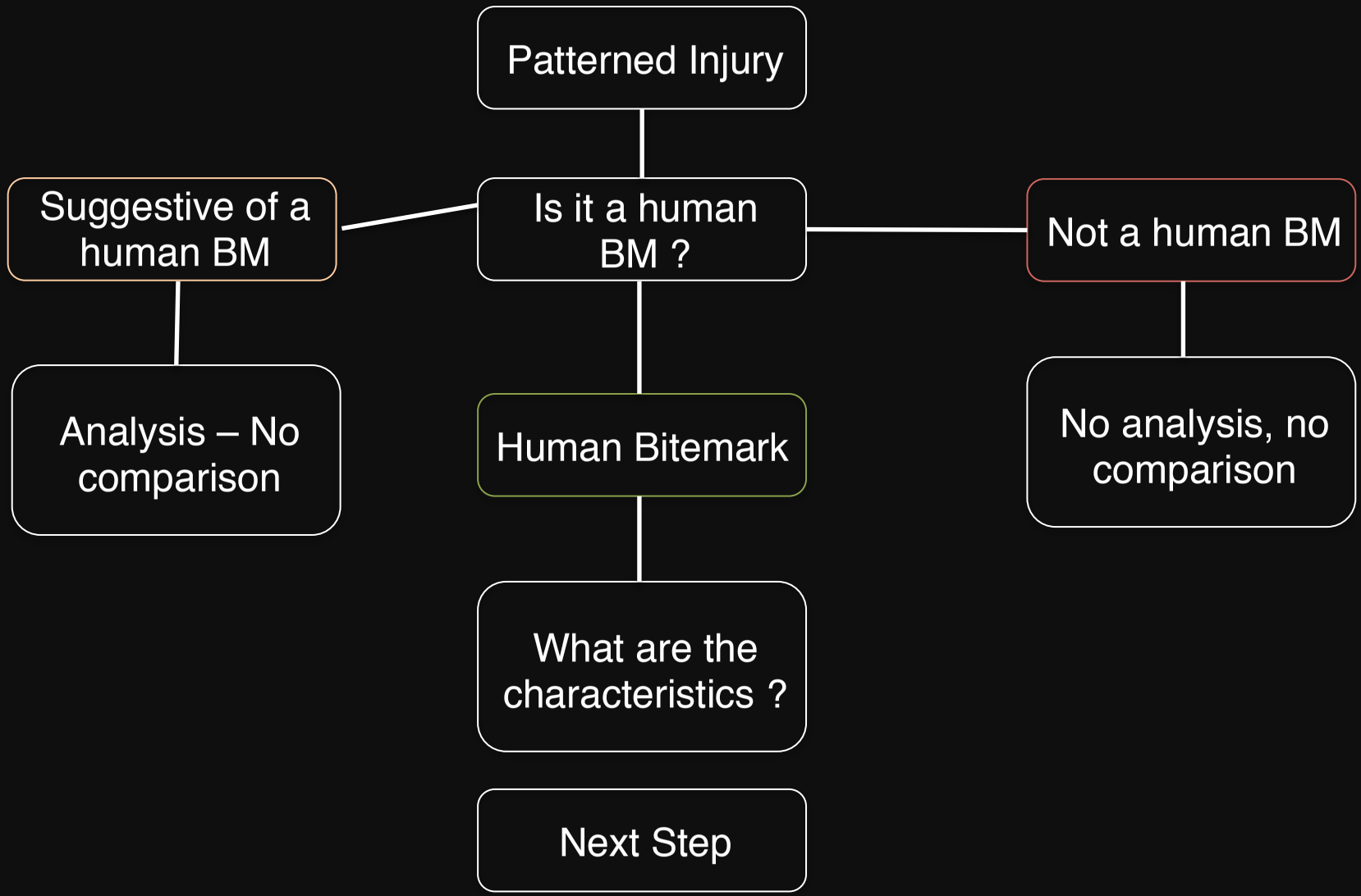
Overview of presentation

- Background
- Scientific approach
- Methods
- Results
- Impact and suggestions

Background

The decision tree is a means of formalizing the approach to bitemark analysis by taking the assessor through a series of stages and decisions that aim to ensure that the decisions made are consistent with the level of forensic evidence available.

Background – Schematic of tree



Background

This study examined Step 1 – the evaluation of the injury, is the injury a bitemark and if so, what are the bitemark's characteristics?

Today presenting data on the assessment of the injury as a bitemark only

Scientific approach

Several methods being applied to BM research:

- Mechanistic approach
- Decision making approach

In the absence of truth we are using construct validity – through reliability testing - if its not reliable its not valid.

Methods

250 cases submitted by DABFO – included an orientation shot and a close up with scale

Selected 100 cases to represent a wide spread of anatomical location, presentation, evidence quality

Presented to DABFO on an online system with anonymity of decisions

Asked if there was sufficient evidence to render any opinion, and if so, what is it?

Methods

Data collected

Demographics reported

Kappa used to measure agreement

Descriptive statistics to assess the spread of decisions and understand the reasons for disagreement

Results

38 Diplomates completed the whole study, 44 completed partially.

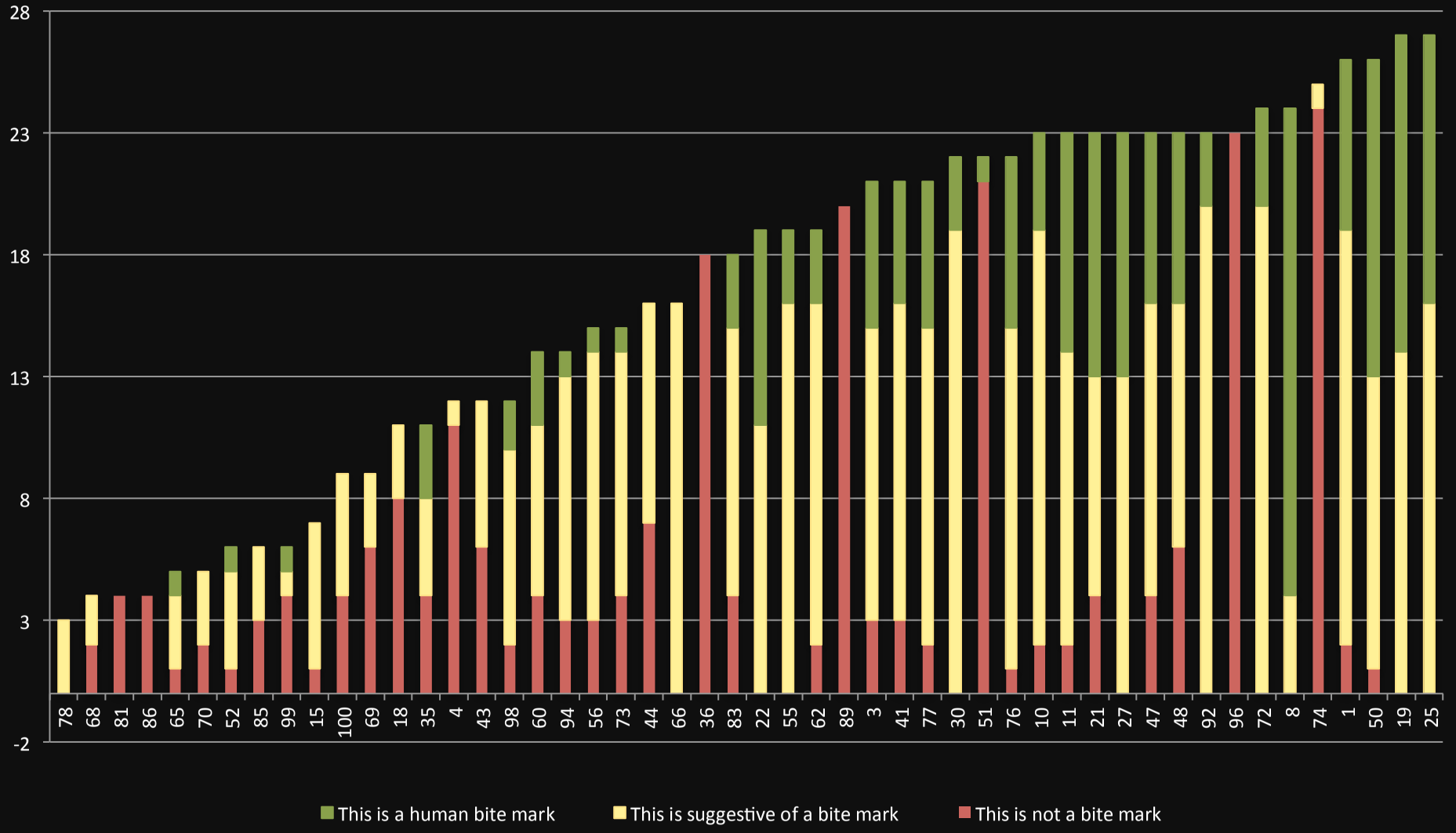
Represents a total of 3924 decisions on bitemark cases

Range of experience measured in three ways:

How many cases in past 5 years – 18.58
How many years have you been active – 19.87
How many times have you testified in the past five years? – 2.05

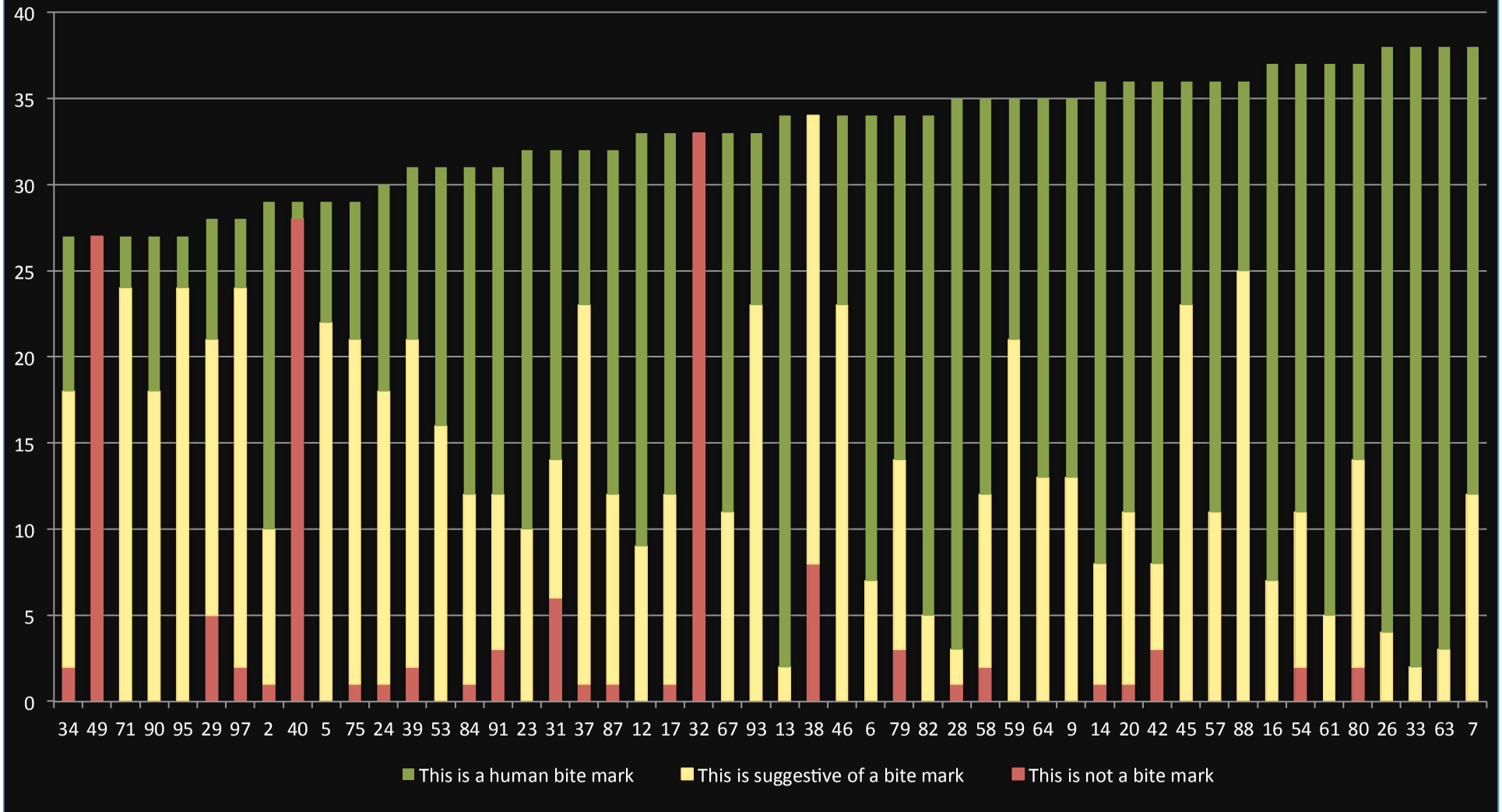
Results – decision spread

Look at the spread of decisions for individual cases.



Results – decision spread

Look at the spread of decisions for individual cases.



Impact and suggestions

All research has strengths and weaknesses

- Good number of decisions
- A lot of work – not all diplomates completed
- Some argued that not realistic approach

The study suggests level of reliability of injury assessment for bitemarks is *not currently satisfactory* from the population of assessors studied

The impact of *three choices* from the decision model has decreased reliability– removal of “suggestive” combined with greater detail on the identification of bitemarks within the decision model should be considered. The use of a simpler, dichotomous decision, should lead to increased reliability – although the decision direction of the “suggestives” is unknown.

Impact and suggestions

We need to undertake further examination of those cases where there *was higher levels of agreement* to determine how the decision tree can capture these elements to improve reliability, both for bites and non-bites.

The first step of BM analysis is determining if the presented injury is a bitemark – the current data suggest that agreement levels observed require significant improvement and means of achieving this have been proposed. A further assessment following the introduction of these changes will be required.

Thank you

We would like to thank those Diplomates who submitted their cases for inclusion in the study and for those who took the time to complete the exercise.

Thank Dr Peter Loomis, and the ABFO, for supporting this work through design, implementation and reporting of findings.

IN THE COURT OF COMMON PLEAS
TRUMBULL COUNTY, OHIO

STATE OF OHIO	**CASE NO, 85-CR-317** **CAPITAL CASE)**
Plaintiff-Respondent,	
v.	**JUDGE PATRICIA A. COSGROVE** **(Sitting by Assignment)**
DANNY LEE HILL	
Defendant-Petitioner.	**ORDER ON PETIONER'S MOTION FOR EVIDENTIARY HEARING ON MOTION FOR NEW TRIAL**

On June 7, 2016, this Court granted leave to Petitioner to file a motion for a new trial based on newly discovered evidence relating to expert testimony that was not in existence in 1986 at the time of Petitioner's death penalty trial in 1986. On June 13, 2016, the Petitioner filed his motion for new trial and requested an evidentiary hearing. On June 16, 2016, the Respondent ("hereinafter referred to as the State") filed a motion to strike pursuant to Civ. R. 12 (F), on the basis that the additional claims were barred by res judicata and added without leave of court. In order to give context to the arguments of Petitioner and the State, it is necessary to discuss the evidence in this case that was presented at trial.

PROCEDURAL HISTORY

On January 31, 1986, after a trial presided over by a three-judge panel, Danny Lee Hill (hereinafter referred to as Petitioner), was found guilty of Aggravated Murder with four separate death penalty specifications. The Petitioner, indicted as a principal offender, and was found guilty of Aggravated Murder with specifications of Aggravating Circumstances under R.C.

2903.01 (B) for committing the crime during the commission of Kidnapping or Rape, or Aggravated Arson. Hill was also found guilty of Count 2, Kidnapping (R.C. 2905.01), Count 3, Rape (R.C. 2907.02), Count 4, Aggravated Arson (R.C. 2909.02), and Count 6, Felonious Sexual Penetration. (R.C. 2907.12 (A) (1) (3). Hill was acquitted on Count 5, Aggravated Robbery under R.C. 2911.01.

On February 28, 1986, the three-judge panel unanimously found that the aggravating circumstances of the crimes outweighed the mitigating factors beyond a reasonable doubt. One of the aggravating circumstances cited by the trial court in the sentencing entry referenced bite marks on the victim's penis. The three-judge panel, after hearing the evidence, opined in its judgment entry that both Danny Lee Hill and the Co-Defendant, Timothy Combs, jointly participated in the torture, rape, and murder of the minor victim, Raymond Fife, who at the time was twelve (12) years old.

On March 5, 1986, the three-judge panel imposed the sentence of death on Danny Lee Hill. The convictions and sentences were affirmed on direct appeal. *State v. Hill*, 11th Dist. Nos. 3720, 3745, 1989 WL 142761 (Nov. 27, 1989), 1989 Ohio App. LEXIS 4461* 1); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (1992); Rehearing denied by *State v. Hill*, 65 Ohio St. 3d 1421, 598 N.E. 2d 1172, 1992 Ohio *LEXIS* 2122 (1992), Writ of certiorari denied *Hill v. Ohio*, 507 U.S. 1007, 113 S. Ct. 1651, 123 L.Ed. 2d 272 (1993); Writ of habeas corpus denied, Dismissed by *Hill v. Anderson*, 1999 U.S. Dist. *LEXIS* 23332 N.D. Ohio, Sept. 29, 1999).

The Petitioner filed a Petition to Vacate or Set Aside Judgment and/or Sentence pursuant to Crim. R. 33 (B). The trial court denied the petition and the decision was affirmed by the 11th District Court of Appeals. *State v. Hill*, 11th Dist. No. 94-T-5116, 1995 WL 418683 (June 16,

1995). The Ohio Supreme Court declined to accept jurisdiction. *State v. Hill*, 74 Ohio St. 3d 1456, 656 N.E.2d 951 (1995).

Petitioner has filed subsequent motions in state court to have his death sentence vacated based upon claims of reduced mental capacity or retardation under *Adkins v. Virginia*, 536 U.S. 304 (2002). On November 27, 2002, the Petitioner filed an amended *Atkins* claim in Trumbull County Common Pleas Court which was later denied. The 11th District Court of Appeals affirmed the denial on July 11, 2008, *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509, 894 N.E. 2d 108, and on August 26, 2009, the Ohio Supreme Court declined to review the case. *State v. Hill,* 122 Ohio St.3d 1502, 2009-Ohio-4233, 912 N.E. 2d 107.

The Petitioner filed a habeas corpus petition in the Northern District of Ohio on March 15, 2010. On June 25, 2014, the Northern District of Ohio denied Hill's habeas petition. This decision is currently on appeal to the United States Court of Appeals for the Sixth Circuit. *Hill v. Anderson*, Case No. 99-4317.

MOTION FOR LEAVE TO FILE A MOTION FOR NEW TRIAL

On November 14, 2014, the Petitioner filed a request for leave to file a motion for a new trial pursuant to Ohio Crim. R. 33 (B). On November 20, 2014, the State filed a brief in opposition. On February 12, 2015, the Petitioner filed a reply brief. On March 19, 2015, the judges in the Trumbull County Common Pleas Court voluntarily recused themselves from hearing the Petitioner's motion for leave to file a motion for new trial. Thereafter, the Ohio Supreme Court appointed Judge Patricia A. Cosgrove to preside over this case. On May 14, 2015, the Petitioner, without leave of court (and opposed by the State) filed a brief citing supplemental authority in support of its request to file a motion for a new trial. Later, this Court granted leave to Petitioner to file the supplemental brief.

This Court conducted several pretrial conferences by telephone with the attorneys in this case. On December 21, 2015, this Court, in an abundance of caution and in its discretion, conducted an evidentiary hearing on the Petitioner's motion for leave to file a motion for a new trial under Crim. R. 33. The *sole basis* of Petitioner's motion for leave to file a motion for a new trial is predicated on "newly discovered" bite mark evidence that did not exist in 1985.

On June 7, 2016, this Court, in its discretion granted leave to Petitioner to file a motion for new trial, finding that the Petitioner was "unavoidably prevented" from discovering new evidence relating to "bite mark" evidence that was not in existence at the time of Petitioner's trial. The Court also based its decision, in part, on the testimony of Dennis Terez, the Federal Public Defender for the Northern District of Ohio. Attorney Terez testified regarding the complex and protracted process of obtaining leave from the federal court to file a motion for a new trial in state court.

On June 13, 2016, the Petitioner filed his motion for new trial. Without seeking leave of court, Petitioner's motion expanded the grounds for his motion to include arguments regarding interrogation techniques used by police in questioning Hill, mental capacity claims, and arguments regarding the admission of a stick found at the crime scene that was believed to be used in the assault on the victim.

On June 16, 2016, the State filed a motion to strike Petitioner's motion for a new trial. The State posits that an evidentiary hearing on the Petitioner's motion for new trial is not warranted based upon the case law. On July 5, 2016, the State filed its motion in opposition to Petitioner's motion for a new trial. On July 19, 2016, the Petitioner filed a reply brief.

ISSUES PRESENTED

There are four salient issues before this Court:

(I) First, the Court will address the State's Civ. R. 12 (F) motion to strike portions of the Petitioner's motion for a new trial that were filed without leave of Court.

(II) Second, the Court will discuss whether the bite mark evidence is contradictory or impeaching evidence under *State v. Petro*, (1947), 148 Ohio St. 505, 76 N.E.2d 370, and its progeny.

(III) Third, the Court discuss the application of *"the- law- of- the- case"* and *"res judicata"* to issue preclusion.

(IV) The Court will determine whether the Petitioner has shown that the bite mark evidence discloses a "strong probability" that the outcome would change if a new trial is granted.

Before rendering an opinion in this case, the Court has considered the following documents and information. The Court has reviewed the entire transcript (four volumes) from the 1986 trial, totaling 1,275 pages. The Court has considered the testimony and exhibits presented by Petitioner at the December 21, 2015 hearing. The Court has read and considered all the briefs (with attached exhibits) filed by the Petitioner and the State throughout the course of these proceedings. This includes the Petitioner's motion for a new trial filed on July 13, 2016, (48 pages including 369 pages of exhibits). The Court has reviewed case law from Ohio, as well as from other jurisdictions, on the legal issues presented in this case.

EVIDENCE IN THE CASE

The key facts surrounding this case can be found in *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E. 2d 884 (1992). The Ohio Supreme Court, after reviewing the sufficiency of the evidence, including the testimony of Dr. Mertz, the State's dental expert, who identified Hill as the person

who bit the victim on the penis, affirmed the Petitioner's convictions and death sentence. The following facts discussed in the next six pages of this opinion are gleaned directly from this decision. *Hill, supra.*

On September 10, 1985, at approximately 5:15 p.m., twelve-year old Raymond Fife left his home on his bicycle to visit a friend, Billy Simmons. According to Billy, Raymond would usually get to Billy's residence by cutting through a wooded field with bicycle paths located behind the Valu-King Store on Palmyra Road in Warren. Both Billy and Raymond were planning on attending a Boy Scouts meeting scheduled after school.

Mathew Hunter, a Western Reserve High School student, testified that he went to the Valu-King on the same date, shortly before 5:00 p.m. When he reached the front of the store, Hunter saw Danny Hill and Timothy Combs standing in front of a nearby laundromat. Hunter testified that he saw Raymond Fife at that time riding his bike into the Valu-King Parking lot.

Timothy Combs was convicted in a separate trial of aggravated murder with specifications of aggravating circumstances, including rape and kidnapping. Combs, a juvenile at the time of the crimes, had his case bound over to the Portage County Common Pleas Court. Combs, was convicted in a jury trial of Aggravated Murder with aggravating circumstances specifications. He was sentenced to life in prison with parole eligibility after serving 30 years.

Darren Ball, another student at the high school testified that he and Tony Cree left football practice at approximately 5:15 p.m. on September 10, and walked to a trail behind the Valu-King. Ball said that he saw Combs walking on the trail in the opposite direction from the Valu-King. Ball testified that he heard a child's scream, "like, somebody needed help or something."

Donald Allgood, another student from the high school, testified that he and a friend were walking in the vicinity of the wooded field behind the Valu-King between 5:30 p.m. and 6:00

p.m. on the date in question. Allgood noticed Hill and Combs and two other persons walking out of the field. Allgood testified that he saw Danny Hill throw a stick back into the woods. He observed Combs pull up the zipper of his pants. Combs put his head down when he saw Allgood.

At approximately 5:50 p.m. on September 10, 1985, Billy Simmons called Raymond's home trying to locate him because they were going to attend a Boy Scouts meeting. Simmons rode his bicycle to the Fife's residence around 6:10 p.m. When he found that Fife was not there, Simmons proceeded to his Boy Scouts meeting. Members of the Fife family began searching for Raymond.

At approximately 9:30 p.m., Raymond's father found his son in the wooded field behind the Valu-King. He testified that Raymond was naked and appeared to have been severely beaten with burns on his face. One of the medics at the scene testified that Raymond's groin was swollen and bruised, and it appeared that his rectum had been torn. The medic found Raymond's underwear tied around his neck and he appeared to have been lit on fire.

Raymond died in the hospital two days later. The coroner ruled Raymond's death a homicide. The cause of death was found to be cardiorespiratory arrest secondary to asphyxiation, subdural hematoma and multiple trauma. The coroner testified that the victim had been choked and had a hemorrhage in his brain, which normally occurs after trauma or injury to the brain.

The coroner testified that Raymond sustained multiple burns, damage to his rectal-bladder area and had bite marks on his penis. The victim also sustained numerous external injuries and abrasions. Dr. Adelman, the pathologist who performed the autopsy, noticed profuse bleeding from the victim's anus and rectum. He testified that the victim had been impaled with an object

that had been inserted through the anus and penetrated through the rectum into the urinary bladder.

On September 12, 1985, Hill went to the Warren Police Station to inquire about a $5,000 reward that was being offered for information concerning the murder of Raymond Fife. Hill met with Sergeant Thomas Stewart of the Warren Police Department and told him that he had "just seen Reecie Lowery riding the boy's bike who was beat up." When Stewart asked Hill how he knew the bike belonged to the victim, Hill replied "I know it is." Detective Stewart noted that Hill "knew a lot about the bike and about the underwear around the victim's neck." When Stewart asked him whether he knew Tim Combs, Hill responded that "yeah, I know Tim Combs. * * * I ain't seen him since he has been out of the joint. He likes boys. He could have *** done it too."

On September 13, 1985, after Sergeant Dennis Steinbeck of the Warren Police Department read the summary of Stewart's interview with Hill the day before, he went to Hill's residence and requested that he come to the police station to make a statement. Hill voluntarily went with Steinbeck to the police station whereupon Hill was advised of his *Miranda* rights and signed a waiver of rights form. Hill made a statement that was transcribed but the sergeant forgot to have him sign the statement. Subsequently Steinbeck discovered some eyewitnesses had seen the defendant at the Valu-King on the date of the murder.

On September 16, 1985, Steinbeck went to Hill's residence, accompanied by the defendant's uncle, Detective Morris Hill of the Warren Police Department. Hill again voluntarily went to the police station with his mother. Hill was given his *Miranda* rights, which he again waived. After further questioning by Sergeants Stewart and Steinbeck and Detective Hill, the defendant indicated that he wanted to speak alone to his uncle, Detective Hill. After

several minutes, Detective Hill stated that the defendant told him that he was "in the field behind Valu-King when the young Fife boy got murdered."

Hill, once more, was again given and waived his *Miranda* rights, and made two more voluntary statements, one on audiotape and the other on videotape. In both statements, Hill admitted that he was present during the beating and sexual assault of Raymond Fife, but that Combs did everything to the victim. Hill told police that Combs had knocked the Fife off the bicycle and threw him onto the bike several times. Hill stated that he saw Combs rape the victim anally and pull on his penis so hard he thought it came off. Hill admitted to police that he stayed with Raymond when Combs left the area of the attack to get the broomstick and lighter fluid that was used to burn the victim. Hill denied that he caused any injuries to Raymond after Combs went to the Valu-King to get lighter fluid.

Upon further investigation by authorities, Hill was indicted on Aggravated Murder with aggravating circumstances (committed in the course of Kidnapping or Rape). Hill was also indicted on charges of Kidnapping; Rape, Aggravated Arson, Felonious Sexual Penetration, and Aggravated Robbery.

On December 16, 1985, a suppression hearing was conducted by the trial court. The Defendant's motion to suppress all statements to police was denied on January 17, 1986. The trial court found no Fourth or Fifth Amendment violations and denied the motion. The Court also considered the defendant's claim that he was mental impaired or retarded to the extent that he was incapable of given a knowing or voluntary statement to police. The trial court reviewed the defendant's in statements, in particular, Hill's audio and video taped interviews with the Warren Police detectives and found no merit in these arguments.

In the videotaped statement given to police on September 16, 1985, and provided by the State to this Court, Hill described the murder and torture of Raymond Fife in graphic detail. (State's Exhibit M). Petitioner, in this statement, as well as in his other statements to police, denied that he participated in the attack on Fife. In all of his interviews with the Warren Police Department the Petitioner denied any involvement in the attack on Fife. While, Hill admitted that he was in the field when Raymond was tortured and murdered by Combs, he has maintained that he had no part in the attack on the victim.

On January 21, 1986, the defendant's trial commenced in front of a three-judge panel. Among the voluminous testimony from the witnesses and the numerous exhibits, the following evidence was adduced.

At trial, Petitioner's brother, Raymond Vaughn testified that he saw the Hill wash his gray pants on the night of the murder as well as on the following two days. Vaughn testified that it looked like Hill was washing out "something red. * * * It looked like blood to me * * *." In the September 16, 1985 interview with Warren Police investigators, Hill, denied, at least four times that he got any blood on him since he did not participate in the crimes. (State's Exhibit M). Sometime after the trial, Raymond Vaughn recanted his testimony that he saw his brother wash what appeared to be blood out of his pants.

Detective William Carnahan of the Warren Police Department testified that on September 15, 1985, he and Dennis Allgood went to the place where Allgood saw Hill and Combs come out of the wooded area when he observed Hill toss a stick into the woods. Carnahan testified that he returned to the area with workers from the Warren Parks Department, and that he and Detective James Teeple found a stick about 6-10 six feet from the path where Allgood saw Hill throw a stick.

Dr. Curtis Mertz, a dentist and oral surgeon testified at trial on behalf of the State that one of the injuries found on Raymond Fife's penis could be linked definitely to the dentition of Mr. Hill, to the exclusion of any possible contributors.

Dr. Lowell Levine, a forensic odontologist testified on behalf of the Petitioner at trial. According to Dr. Levine, he could not determine with any reasonable degree of medical certainty whether Hill or Combs made the injuries on the victim's penis. Dr. Levine testified that at least one of the marks was most likely made by Hill.

Dr. Howard Adelman, the pathologist who performed the autopsy on the victim's body, testified that the size and shape of the point of the stick found by Detective Carnahan was "very" compatible" with the size and shape of the opening through the victim's rectum. Adelman described the fit of the stick in the victim's rectum as "very similar to a key in a lock."

At the close of trial, the three-judge panel, unanimously found Danny Lee Hill guilty on all counts, except the aggravated robbery count and the specification of aggravated robbery to the aggravated murder count. The convictions of the Defendant and imposition of the death sentence was affirmed by the Ohio Supreme Court. *Hill, supra.*

CIVIL RULE 12 (F) MOTION TO STRIKE

Prior to filing a responsive pleading in opposition to Petitioner's motion for new trial, the State filed a motion, pursuant to Civ. R 12 (F), to strike all or portions of his motion for new trial. Civ. R. 12 (F) provides that upon "motion made by a party before responding to a pleading * * *, the court may order stricken from any pleading any insufficient claim or defense or any redundant, immaterial, impertinent, or scandalous matter." Crim. R. 57 (B) provides that the Court may look to the rules of civil procedure where no comparable criminal rule exists.

Courts have broad discretion in ruling on a motion to strike. *Squire v. Geer*, 117 Ohio St. 3d 506, 508 (2008). A motion to strike will be granted when a party fails to follow procedural requirements enforced by a court. *State ex rel. Ebbing v. Ricketts*, 133 Ohio St. 3d 339, 342, (2012). In *Ebbing,* the trial court did not abuse its discretion in striking a reply brief from the record since party did not first obtain the court's permission to file the same.

On June 7, 2016, after previously conducting an evidentiary hearing on Petitioner's motion for leave to file a new trial, this Court determined that the Petitioner was "unavoidably prevented" from filing the motion within the time parameters of Crim. R. 33 (B). The Court's decision granting leave to file a motion for new trial was based in large measure on the guidelines enacted in 2013 by of the American Board of Forensic Dentistry ("ABFO"). The 2013 ABFO guidelines did not recognize the identification of a specific individual as a "biter" in the open population.

Dr. Franklin Wright, a respected forensic odontologist, testified at the prior hearing in December 2015 that the 2013 ABFO guidelines were not widely disseminated beyond the forensic odontology field in 2013. In April, 2016, ABFO, placed further limitations on the parameters of expert opinions in relation to questioned detention claimed to be a bite mark.

The Court also found that the Petitioner was "unavoidably prevented" from filing the motion earlier within the time frame of Crim. R. 33 (B) based on the testimony of Dennis Terez, the Public Defender for the Northern District of Ohio. Attorney Terez testified regarding the complex and protracted procedure that was necessary in this case to obtain leave from the federal court to file a motion for new trial in state court. The Court incorporates by reference the findings in its June 7, 2016 order into this decision.

The Court unequivocally stated in its June 7, 2016 order granting leave to Petitioner to file a motion for new trial that the new trial motion should be confined solely to the issue of the bite mark evidence.

"Since the (ABFO) guidelines were not in existence in 1986 at the time of Petitioner's trial, no amount of due diligence by Petitioner's counsel, could have discovered the information that was not in existence. (Court's Order on Petitioner's Request for Leave to File a Motion for New Trial, June 7, 2016, pg. 9).

However, when the Petitioner filed his motion for a new trial on June 13, 2016, without any attempt to seek leave from this Court, he included issues that were never raised in his prior motion for leave to file a new trial motion. Pursuant to Civ. R. 12 (F), the State filed a motion to strike the Petitioner's motion for a new trial.

The first claim unilaterally added to Petitioner's motion for new trial attempts to resurrect claims that have been considered and rejected by the Ohio Supreme Court regarding the voluntariness of Hill's statements given to the Warren Police Department after the murder of Raymond Fife in 1985. Hill continues to argue that his statements to law enforcement were not knowingly and volunteered rendered. Petitioner alleges that the interrogation tactics used in 1985 by law enforcement are now "disfavored" "based upon mounting empirical evidence" that people give false confessions under the "pressure of custodial interrogation." (Petitioner's motion, at pg. 35).

The highest court in this state, the Ohio Supreme Court, has previously reviewed and rejected Petitioner's claim that his statements to police were not voluntarily given and/or were the result of impaired mental capacity. *State v. Hill, supra*, 64 Ohio St.3d 313, 318-320. The Ohio Supreme Court ruled that Petitioner's statements to the Warren Police Department were

given of his own volition and free will, and the statements were either volunteered by Hill or given with appropriate *Miranda* admonitions. *Hill, supra*, at 317-320.

As part of this Court's review of this case, it watched Hill's interview with the Warren Police Department that was video-taped on September 16, 1985, days after Raymond Fife was murdered. (State's Exhibit M). In the videotaped interview with police, Petitioner is lucid and coherent, as he calmly answered questions and volunteered details about the murder and protracted torture of Raymond Fife, conduct that he attributed to the Co-Defendant Timothy Combs. During the interview, Hill even demonstrated the location of the parties during the attack on a chalkboard.

What this Court found most striking about the videotaped interview is the calm, detached manner that Hill described the struggle of Raymond Fife during the brutal attack. Hill, without any emotion in his voice, described the boy's struggle to run, and at times, Fife's attempts to crawl away from the scene several times. Hill told police that at one point he looked into Raymond's eyes and "the boy looked back at him." The Petitioner stayed with the victim while Combs got the stick that was used to impale the victim. By Hill's own admission, he continued to stay with the boy while Combs went to Valu-King to obtain lighter fluid that was used to set the victim on fire.

There is good reason that the Ohio Supreme Court, the U.S. District Court, the 11th District Court of Appeals, and the Trumbull County Common Pleas Court, have all concluded that Petitioner's statements were voluntarily and intelligently given to law enforcement. Likewise, these same courts have consistently rejected claims that Hill's statements were affected by any claims of limited mental capacity. The common thread in all of the above opinions was that the Petitioner clearly knew right from wrong.

"Upon careful review of the testimony and the audiotape and videotape statements, we do not find that the interrogation tactics used by the police officers, even in light of defendant's mental capacity, rendered the statements involuntary, or that officers improperly induced the defendant to make incriminating statements. *State v. Hill*, supra., 64 Ohio St. at 319 (direct appeal).

The second issue raised by Petitioner, without leave of Court in his motion for new trial, involved the stick or broomstick handle that was introduced by the State in Hill's trial. (State's Tr. Ex. 47). Dr. Zhongxue Hua, a pathologist, takes issue with Dr. Adelman's trial testimony regarding the stick or broken broom handle. (Petitioner's Exhibit E). At trial, Dr. Adelman compared the dimensions and configuration of the State's Trial Exhibit 47 with the anal and rectal injuries suffered by the victim.

Dr. Adelman testified that the he found two different types of injuries to the rectal area, one penetrating the anus, rectum and urinary bladder and one none-penetrating injury that reached, but did not penetrate the rectum wall. Dr. Adelman testified that the one of the injuries was a "circular" injury that measured slightly under an inch that penetrated the anus and left an imprint on the wall of the rectum. (Tr. TOP -359).

The other rectal injury was made by an object with a sharp pointed end that perforated the rectum, through the urinary bladder and went through the urinary bladder. (Tr. TOP – 355). In order to penetrate these organs, the object inserted had to be at least six (6) to eight (8) inches to reach the urinary bladder. (Tr. TOP -355). Dr. Adelman testified after that these penetrating injuries were partially circular and similar in diameter to the other injury except the point of the object inserted had a sharp pointed edge. (Tr. TOP – 359). The insertion of the object would have caused a "terrible amount of pain" to the victim. (Tr. TOP – 356).

Dr. Hua is critical of Dr. Adelman's conclusions that the stick was compatible with the victim's injuries and "very similar to a key in a lock." (Tr. TOP at 418).

In Dr. Hua's affidavit, he opines "it [was] not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Fife by Adelman – let alone, to identify the instrument to the level of certainty necessary to describe it through the analogy of a key. (Hua affidavit, at para. 12).

The irony in Dr. Hua's affidavit is that it ignores the other evidence in this case that tends to corroborate the findings of Dr. Adelman. It is the Petitioner, himself, who provided some of the best corroborating evidence of the description of the stick or broom handle used by Combs on the victim. Unlike, Dr. Adelman, who had the stick or broken broom handle to compare with the injuries at the time of the autopsy, Dr. Hua was not present during the autopsy and did not have the opportunity to actually compare the injuries with the stick.

In Hill's videotaped interview with police on September 16, 1985, Hill described the item used by Combs to penetrate the victim's rectum as a stick or "broom handle thing." Hill told police that it was "smooth on one end with ridges on the other end." (State's Exhibit M). Hill's description to investigators appears to be an accurate description of the stick introduced at trial (State's Tr. Exhibit 47).

A microscopic examination of State's Exhibit 47 was conducted by Dr. Adelman. He testified that the stick was made of wood and contained plant cells. (Tr. TOP – 377-338). The same type of plant cells were similar to the plant cells found in the anal tissue of Fife. (Tr. TOP – 378). Dr. Adelman testified that the size and shape of the point of the stick were "very compatible" with the size and shape of the openings of the wound, similar to a "lock in a key." (Tr. TOP – 382-383).

In addition to the similarities in the description of the injuries when compared with the stick or broom handle provided by Dr. Adelman and the Petitioner, the trial testimony of Donald Allgood further corroborated that a stick was used in the attack of Fife. Donald Allgood testified that he saw Hill "throw a "stick" back into the woods at the time and near the place where the homicide occurred. *State v. Hill*, supra, 64 Ohio St.3d, at 313, 324. The stick or broom handle (State's Exhibit 47) was found six to ten feet from the path where Allgood saw Hill throw the stick. This was contrary to Hill's contention that he never had the stick.

In the final analysis, while there was strong evidence that the stick or broken broom handle (State' Exhibit 47) that was found approximately 6 to 10 feet from where Allgood saw Hill throw a stick, is of little import. The fact remains that an object or objects that had a jagged end and a smooth end was used to impale the victim. Dr. Hua's testimony merely impeaches the trial testimony and has no effect on the totality of the sufficiency of the evidence in this case.

The Court's order filed on June 7, 2016, granting leave to Petitioner to file a new trial motion, was limited only to the issue of the scientific reliability of bite mark evidence based upon the scientific advances in field of forensic dentistry and the 2013 ABFO guidelines.

The Court finds the additional claims unilaterally added by Petitioner in his motion for new trial are redundant, impertinent, and immaterial under Civ. R. 12 (F), and are hereby ordered stricken. In addition, any further discussion of these claims is barred by the "*law of the case*" doctrine and "*res judicata.*" State v. Ketterer, 126 Ohio St.3d 448, 2010-Ohio 331, State v. Gray, 8th Dist. No. 85677, 2004-Ohio7030, jurisdiction declined, 105 Ohio St.3d 1363.

II. NEW EVIDENCE v. NEW THEORY & THE "*PETRO*" DOCTRINE

The State argues that the Petitioner's request for an evidentiary hearing on his motion as well as the motion for new trial itself should be denied because the bite mark evidence

contradicts or impeaches prior trial testimony which cannot serve as the basis for a new trial. *State v. Petro*, (1947), 148 Ohio St. 505, 76 N.E.2d 370. *Petro* remains good law. Conversely, the Petitioner maintains that the bite mark evidence does not merely impeach the opinions of the testimony of the trial experts, it demonstrates there was no reliable scientific basis for the testimony and therefore Hill is entitled to a new trial.

This Court has examined the definition of "newly discovered" evidence as utilized in state and federal courts in criminal as well as civil cases. There is a plethora of case law defining the term "newly discovered evidence" both in the context of a motion for a new trial made pursuant to Crim. R. 33, and a motion to set aside a judgment under Civ. R. 60 (b).

In *U.S. v. Olender*, 338 F.2d 629 (2003), the Defendant was found guilty of being a felon in possession of a weapon based upon a 200l conviction of Felonious Assault. In 2003 it was determined that the Defendant had previously pled guilty to a misdemeanor, not a felony. The Sixth Circuit Court of Appeals upheld the ruling of the Federal District Court, Northern District, finding that the State produced evidence beyond a reasonable doubt that he was a convicted felon. Any information discovered after trial could not be used to retroactively change the facts presented at trial.

> "Newly discovered evidence does not include new legal theories or new interpretations of the legal significance of the evidence." *U.S. v. Olender, supra* at 635-636. See, *U.S. v. Seago*, 930 F.2d 482, 489 (6th Cir. 1991).

> "Evidence will not be deemed "newly discovered" simply because it appears in a different light under a new theory. A party who desires to present his case under a different theory in which facts available at the original trial now first become important, will not be granted a new trial." *U.S. Olender, supra* at 636. *U.S. v. Hamling*, 525 F.2d 758-759 (9th Cir. 1975).

> "An attempt to relitigate the case on a new theory is not considered newly discovered evidence but is merely a newly discovered issue

law. *U.S. v. Olender, supra* at 636, citing *U.S. v. Shelton*, 459 F.2d 1005 (9th Cir. 1972).

It is settled practice that the phrase "newly discovered evidence" refers to evidence that existed at the time of trial but of which the moving party was ignorant. *Brown v. Penn R.R.*, 282 F.2d 522 (3rd Cir. 1960), cert denied 365 U.S. 818 (1961). The majority of courts have concurred with this reasoning in a myriad of factual scenarios.

In *Swope v. Siegel-Robert, Inc.*, 243 F,3d, 486, para. 35, (8th Cir. 20011), held that an IRS appraisal report that did not exist at the time of trial but was prepared, afterwards, is not "newly discovered evidence." See also, *Lapiczak v.Zaist*, 54 F.R.D. 546, 548 (D. Vt. 1972) (witness opinions developed after trial were not permitted under Civ. R. 60 (b) (2), *Ryan v. U.S. Lines Co.*, 303 F.2d 430 (2nd Cir. 1962) (result of new physical examination was not "newly discovered evidence"), *Corex Corp. v. United States*, 638 F.2d 119 (9th Cir. 1981) (fact that the district court considered after-occurring events in granting a Civ. R. 60 (b) (2) motion was grounds for reversal).

In *Foley v. Kentucky*, 425 S.W. 3d 380 (2014), the Kentucky Supreme Court denied the defendant's request for a new trial based upon a ballistics report prepared by a forensic firearm specialist compiled eighteen (18) years after the defendant was convicted of murder. In *Foley*, as in the instant case, the expert had reviewed the trial testimony, autopsy report, and other information, in arriving at his conclusions. The forensic firearm expert concluded that based on his analysis the trajectory of the bullets supported the claim of self-defense. "An opinion consisting simply of a reexamination and reinterpretation of previously known facts cannot be regarded as "newly discovered evidence,"

In State v. Unsworth, 2010-Ohio-398, the Defendant argued that he was entitled to a new trial under Crim. R. 33 (b), since post-trial a new DNA database became available through the

National Center for Forensic Science ("NCFS") that cast doubt that the race of the perpetrator. contradict the trial testimony.

In *State v. Johnson*, 2010-Ohio-4117; 2010 Ohio App LEXIS 3486, ** 1, the Defendant sought a new trial based on new evidence that challenged the scientific accuracy of the gunshot residue (Atomic Absorption Spectrometry or "AAS") test introduced in his trial. Johnson presented expert testimony at a hearing that the AAS method of testing was no longer accepted in the scientific community, and therefore he was entitled to a new trial. Relying on *Petro*, the Court denied Johnson's motion for a new trial, holding that the gunshot residue evidence was not "newly discovered" evidence and the expert's testimony "would do nothing more than impeach the trial testimony of the coroner relating to the gunshot residue testing." *Id.*, at 5-19.

While, the "*Petro*" doctrine paints with a broad brush a general statement that contradictory or impeaching evidence can never serve as the basis to grant a motion for new trial, this Court will determine from a due process analysis, whether the new evidence even if contradictory and impeaching , can serve as the basis for a new trial in this case.

In *Dayton v. Martin* (1987), 43 Ohio App. 3d. 87, 539N.E.2d 646, the court rejected a per se interpretation of *Petro* that would exclude all newly discovered evidence as a basis for a new trial simply because that evidence is in the nature of impeaching or contradicting evidence. *Dayton* held that the primary focus should be on whether the newly discovered evidence would create a "strong probability" of a different result at trial, or whether the impeaching or contradicting evidence would be "insufficient to create a strong probability" of a different result. *Id.* at 90; *State v. Beavers*, 2d Dist. Montgomery No. 22588, 2009-Ohio-5604.

Petitioner's Affidavits Critical of the 1986 Trial Testimony

The crux of Petitioner's basis for a new trial pivots on the scientific advances in forensic odontology made since 1986. The Court previously conducted an evidentiary hearing on December 21, 2015, in which Petitioner introduced the 2013 guidelines of the American Board of Forensic Odontology (ABFO) Reference Manual. The guidelines were established by the "Diplomates" of the American Board of Forensic Odontology for the analysis of bite mark evidence. The 2013 guidelines did not recognize the identification of a specific biter in the open population.

In March 16, 2016, as the result of continued scientific study, and empirical and peer review, the 2013 ABFO guidelines, were amended. The 2016 ABFO guidelines restricted, even further, the scientifically accepted standards relating to the identification of a pattern injury as a human bite mark.

The 2016 ABFO guidelines provide that "terms assuring unconditional identification of a perpetrator, or identification "without doubt", are not sanctioned as a final conclusion in an open population case." (Petitioner's Exhibit S). The 2016 ABFO guidelines recognize that even where a patterned injury is determined to be "human", only the following terms should be used as they relate to questioned dentition to a bite mark: A) Excluded as Having Made the Bitemark, B) Not Excluded as Having Made the Bitemark, C) Inconclusive.

The Petitioner's motion for an evidentiary hearing on the motion for new trial is based on the enactment of the ABFO guidelines in 2013 and 2016, and upon sworn affidavits from nationally recognized forensic odontologists that are attached as exhibits to his motion.

Petitioner submits an affidavit of Dr. Franklin Wright as an exhibit to his motion. Based upon his review of the materials from the 1986 trial, Dr. Wright concluded that Dr. Mertz's

testimony was not based upon any reliable scientific principles, much less, the ABFO-approved methodology, that was not in existence at the time of trial. Dr. Wright avers in his affidavit that the patterned injury on the victim's penis..."is not a human bite mark." (Wright affidavit at pg. 3).

Dr. Iain Pretty, a widely published British forensic odontologist and former chair of the American Academy of Forensic Science's Odontology Section, also concluded that there was insufficient evidence to determine whether the marks on the penis were human in origin. (Pretty affidavit at pg. 5).

Dr. Pretty avers that there is insufficient evidence to reach a conclusion at any level of scientific certainty regarding the causation of the small circular wounds to portions of the glans penis of the victim. (Pretty affidavit, at 3-4). The Petitioner submitted additional affidavits echoing the findings of Dr. Wright and Dr. Pretty.

The Petitioner submitted an affidavit from Dr. Zhongxue Hua. Dr. Hua criticized the testimony of Dr. Adelman and Dr. Mertz and concluded that there was no scientific basis to support their conclusions that Fife's penis was erect at the time the patterned injuries occurred. (Hua affidavit, pgs. 2-6, Petitioner's Exhibit E).

Trial Testimony of Dr. Curtis Mertz, Dr. Howard Adelman & Dr. Lowell Levine

In the Petitioner's 1986 trial, Dr. Curtis Mertz, a forensic odontologist testified for the State. Mertz, a board certified forensic odontologist, was a past president of the American Society of Forensic Odontology (forerunner organization of ABFO) and a founder of ABFO. (Tr. TOP – 908-909).

Dr. Mertz viewed the victim's body at the morgue. At trial, he testified "I saw what I felt was a human bite mark." (Tr. TOP – 920). Dental impressions were later made of the lower

and upper teeth of Danny Lee Hill and Co-Defendant Timothy Combs. Photographs and x-rays were also taken of the suspects' teeth. (Tr. TOP – 932). The doctor found the models or dental impressions to be of "excellent quality." (Tr. TOP – 933).

Dr. Mertz testified that based on the photographs and dental impressions, he found to a reasonable degree of professional certainty that Hill made at least some of the bite marks on the victim's penis. (Tr. TOP -937-960). Dr. Mertz testified, "My opinion is very strong that you can exclude Combs, and in my opinion is, if you want to put it on a varying scale, slightly stronger that it is Hill's bite." (Tr. TOP – 952).

Dr. Mertz not only identified Hill as the biter, but testified that the victim's penis was erect at the time the marks were inflicted. This testimony was necessitated in part to explain the discrepancy between the measurements of Hill's teeth when compared to the size of the "teeth" marks on the penis. (Tr. TOP – 946-947, 956).

In arriving at the conclusion that the victim's penis was erect, Dr. Mertz testified that he relied on data gathered from textbooks and studies. (Tr. TOP – 955 - 957).

On cross-examination, Dr. Mertz admitted that he had involved in approximately 35 bite mark cases, but only one of the cases dealt with a claimed bite mark on a penis. (Tr. TOP – 964).

Dr. Howard Adelman, the pathologist who performed the autopsy on Raymond Fife on September 13, 1985, testified that as the result of the attack, Raymond Fife suffered several life-threatening injuries, any one of which, or in combination with the others, could have resulted in his death. The fatal injuries included, a subdural hemorrhage, penetration and perforation of the rectum and urinary bladder, strangulation (ligature marks were found on the victim's throat) burns, and contusions that were indicative of a severe beating of the victim. (Tr. TOP – 370).

Dr. Adelman also addressed the issue as to whether the victim's penis was erect or flaccid at the time of the attack. Dr. Adelman testified that he was familiar with certain medical articles (no citations were provided in court), including one study that discussed a known connection between asphyxia during a legal hanging and the cause of an erection (Tr. TOP – 418).

Dr. Lowell Levine, a dentist and forensic odontologist, testified for Petitioner at trial that he had been involved in hundreds of bite mark cases over the years, although he had "rarely" seen a case involving a bite mark on a penis. (Tr. TOP -113).

After reviewing the same information as Dr. Mertz, Dr. Levine concluded that the marks on the penis were human in origin and could have been made by either Hill or Combs. (Tr. TOP 1145 – 1148). Dr. Mertz testified that there was one mark on the victim's penis "that was most likely made by Hill" (Tr. TOP – 1153).

2013 & 2016 ABFO Guidelines

Although there have been concerns over the years calling into question the reliability of bite mark evidence, it is only during the period 2013-2016, that forensic odontologists, including the Diplomates of ABFO, have almost universally recognized that any expert opinion on bite evidence that purports to identify a specific biter from the open population is without any scientific basis. However, the science of bite mark evidence continues to evolve and be in flux.

The scientific validation of the 2013 ABFO guidelines that Petitioner relied on so heavily in his motion for a new trial have been severely questioned by the Diplomates of the ABFO. In 2015, Dr. Ian Pretty (one of Petitioner's experts in this case) and Dr. Adam Freeman, another forensic odontologist, conducted a study entitled, *Construct Validity Bitemark Assessments Study Using the ABFO Bitemark Decision Tree ("Construct Validity Study")*. (See, Petitioner's brief at 18-20). Using 100 photographs of patterned injuries, 103 ABFO board-certified Diplomates

were asked to decide 1) whether there was sufficient evidence to render an opinion whether the patterned injury was a human bite mark; 2) whether, consistent with the 2013 ABFO guidelines, the injury could be determined to be either a human bite mark, not a human bite mark, or suggestive of a human bite mark, and; 3) if a human bite mark, whether it had distinct, identifiable arches and individual tooth marks.

The results of the study were shocking to say the least. On the most basic question as to whether they could determine the origin of the mark based upon the on the information provided, only 39 analysts came to unanimous agreement on just 4 of the 100 case studies. By the time the analysts finished question three of the study, the experts were significantly fractionalized on nearly all the cases. Of the initial 100 cases, there remained just 8 case studies in which at least 90 percent of the analysts were still in agreement.

Considering the inability of top forensic odontologists to arrive at a consensus as to whether a patterned injury constituted a bite mark, much less a human one, it is no wonder that the ABFO scrapped the 2013 guidelines in 2016.

The import of this study as it applies to this case is that even respected scientists, such as Iain Pretty, have recommend further study on the reliability of the scientific methodology and constructs recommended in the ABFO guidelines. The 2013 ABFO guidelines that Petitioner relied on his motion for leave for a new trial have been discredited. Now, Petitioner argues that this Court should apply the 2016 ABFO guidelines which have not been subjected to controlled studies or peer review.

There is no question that the advancements in forensic odontology impeach and contradict the trial testimony of the experts. However, this determination alone, does not resolve the

question as to whether the bite mark evidence creates a "strong probability" that there would be a different outcome in a future trial.

III. DOCTRINE OF "*THE-LAW-OF-THE CASE*" & "*RES JUDICATA*" AS APPLIED TO THE EVIDENCE IN THIS CASE

The "*law-of-the case doctrine*" provides that the "decision of a reviewing court in a case remains the law of the case on the legal questions involved in all subsequent proceedings in the case at both the trial and reviewing levels." *Hubbard ex. rel Creed v. Sauline*, 74 Ohio ST.3d 402, 404, 659 N.E.2d 781 (1996), quoting *Nolan v. Nolan*, 11 Ohio St.3d 1, 3, 462 N.E.2d 410 (1984). The rule is necessary to ensure consistency of results and avoid endless litigation.

"*Res judicata*" operates in a similar way. A final judgment of conviction bars a convicted defendant, who was represented from counsel from raising any defense or claimed lack of due process that could have been raised at trial or in an earlier appeal. State v. Szefcyk, 77 Ohio St.3d 93, 95, 671 N.E.2d 233 (1996).

The Petitioner claims that the doctrines of "*law-of-the case*" and "*res judicata*" are inapplicable to this case because the unreliability of the bite mark evidence did not become apparent until recent years. However, the Ohio Supreme Court decision affirming Petitioner's convictions only briefly mentioned the bite mark testimony as one of many factors supporting the sufficiency of the totality of the evidence.

This Court is bound by the decision of the Ohio Supreme Court (*State v. Hill*, 1989 Ohio App. LEXIS 4462) that weighed the sufficiency of the evidence on the Aggravated Murder count and independently weighed the sufficiency of the Rape, Kidnapping, and Aggravated Arson specifications.

The Petitioner was indicted on Aggravated Murder and charged that Danny Lee Hill did purposely cause the death of Raymond C. Fife, * * * while committing Kidnapping or Rape, or Aggravated Arson. Imposition of a death sentence in Hill's case was triggered by the unanimous verdict of the three-judge panel that found Hill guilty on the Aggravated Murder with the specifications that the crime was committed during the commission of Kidnapping (specification 1), Rape (specification 2) or Aggravated Arson (specification 3). A conviction any one of the specifications made Hill eligible to receive a death sentence. R.C. 2941.14 and R.C. 2929.04 (A) (7).

On February 28, 1986, the three-judge panel unanimously found the above statutory aggravating circumstances outweighed the mitigating factors beyond any reasonable doubt and sentenced the Petitioner to death.

Dr. Adelman who performed the autopsy in this case testified that Raymond Fife's death was due to cardiorespiratory arrest secondary to asphyxiation, subdural hematoma, and multiple trauma. At no time, did Dr. Adelman testify that the victim died from being bitten on the penis.

Under Ohio law, there can be more than one principal offender in the commission of a crime. "Principal offender" means the "actual" killer and not the "sole offender. As there can be more than one actual killer, there can be more than one principal offender. *State v. Skatzes*, 104 Ohio St.3d 195; 2004-Ohio-6391; 819bN.E. 2d 215; 2004 Ohio LEXIS 2859.

The bite mark evidence was one factor, of many, in determining whether Hill was a principal offender in the commission of the Rape. The Ohio Supreme Court not only affirmed Petitioner's Aggravated Murder conviction but analyzed the evidence on each specification, independently. Even without taking into account the bite mark evidence, the Ohio Supreme

Court discussed in detail the totality of the evidence in the case that supported Hill's conviction on the Rape specification.

> "The evidence which supported the rape conviction indicated the victim was subjected to a significant amount of force. This is consistent with the relative size and age differences between the appellant and the victim. Initially, the victim was restrained and his mouth covered, but as the various sexual acts were performed, he was rendered unconscious. The physical attacks perpetrated on the deceased caused him to vomit and also caused extensive physical damage.
>
> Specifically, during the assault, which lasted approximately forty-five minutes, the victim was repeatedly bitten on the penis, which was evidenced by the bite marks. In addition, the autopsy revealed that the deceased had suffered multiple contusions, abrasions, and lacerations on his back, face, and thigh. Furthermore, his genitalia was pulled with egregious force.
>
> He was impaled repeatedly with both the blunt end and sharp end of an instrument which was long enough to perforate the rectum and rupture the victim's urinary bladder. As an apparent result of the agony of the cumulative torture, the victim was heard screaming continuously, for a period of twenty to thirty seconds, by a passersby. At this time, witnesses observed Combs on the path behind the Valu-King.
>
> Additionally, appellant's own statement indicated he remained with the victim while Combs absented himself from the scene, and he did not go for help. This direct evidence base provides, at the very least, that appellant was the only other person {present}when the victim was experiencing the pinnacle of excruciating pain from these egregious assaults."
>
> *State v. Hill*, 1989 Ohio App. LEXIS 4462, at 84-85.

The reasoning in the Supreme Court decision evinced a detailed understanding of the trial record. For instance, the Supreme Court noted that Hill continued to stay with the victim while Combs went to the Valu-King to obtain lighter fluid. At trial, Troy Cree, testified that he and his friend Darren Ball were returning home from football practice around 5:30 p.m. when they saw Timothy Combs walking toward the Valu-King. Cree testified at the same time

he saw Combs, he heard a "kid" scream that lasted approximately 30 seconds. (Tr. TOP -860-862). Cree's testimony was corroborated by Darren Ball, who testified he heard a "child" scream at the time he saw Combs near the Valu-King. (Tr. TOP -847-849).

In Hill's initial statement to Warren police made on September 10, 1985, as well as in subsequent statements, Hill admitted that he stayed with the victim while Combs went to Valu-King. Hill denied raping the victim either orally or anally or inserting the broom handle into the victim's rectum in Combs' absence. However, Hill admitted to police that Raymond was still alive when Combs went to Valu-King.

> "The boy was laying down –He was on his back. He was still moving." (Petitioner's Exhibit L at 2).

The Ohio Supreme Court independently weighed all of the trial evidence and found that Petitioner's conviction for Aggravated Murder and the rape specification; as well the kidnapping and aggravated arson specifications, were supported by evidence beyond a reasonable doubt. Even when the Supreme Court discussed the bite mark testimony, because both Hill and Combs were principal offenders acting in concert with one another, the Court made no conclusion as to whether Hill or Combs made the bite marks. This decision of the Ohio Supreme Court is binding on this Court and constitutes *"the law of the case."*

IV. DOES THE BITE MARK EVIDENCE SHOW A "STRONG PROBABILITY" THATTHE OUTCOME WOULD CHANGE IF A NEW TRIAL IS GRANTED?

A Crim. R. 33 (A)(6) motion for a new trial on the ground of newly discovered evidence may be granted only if the evidence shows all of the following:

> (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and does not merely impeach or contradict the former

evidence. *State v. Petro*, (1947) 148 Ohio St. 505, 76 N.E.2d 370, syllabus.

The entire underpinning of Petitioner's argument for a new trial is predicated on the changes in forensic dentistry made in the last several years. Hill contends that without the bite mark evidence there is a "strong probability" that a new trial would yield a different outcome. There are several legal impediments to Petitioner's position.

The Petitioner was convicted of Aggravated Murder as a principal offender with three (3) separate specifications of aggravating circumstances. (R.C. 2903.01(B). Hill was convicted of Aggravated Murder count with the following specifications; (Kidnapping – R.C. 2905.01, specification 1), (Rape – R.C. 2907.02, specification 2), (Aggravated Arson) – R.C. 2929.04, specification 3). A conviction on Aggravated Murder with one of the above aggravated circumstances triggered the imposition of the death penalty.

On February 28, 1986, after a mitigation hearing, the three-judge panel found the aggravating circumstances outweighed any mitigating factors. Hill was sentenced to death for Aggravated Murder with specifications that the crime was committed during the commission of Kidnapping, Rape, or Aggravated Arson.

In Count three of the indictment, Hill was charged with Rape, in violation of R.C. 2907.02, stating "Danny Lee Hill, did, engage in **sexual conduct** with Raymond C. Fife…, the said Danny Lee Hill having purposely compelled Raymond C. Fife to submit by force or threat of force, and the said Raymond C. Fife being less than thirteen (13) years of age.) R.C. 2907.01 defines sexual conduct to include all of the following; anal intercourse, fellatio, and cunnilingus between persons regardless of sex. R.C. 2907.01. The pertinent essential element of Rape is sexual conduct, not the exact type of sexual conduct. *State v. Himes*, 7th Dist. No. 08MA 146 at para. 30.

The relevancy of bite-mark testimony was a factor in proving whether Hill's mouth came into contact with the victim's penis (oral sex). The bite mark evidence had no relevance on the question of whether Hill had anal intercourse with Fife. In one of Hill's statements made to police, he admitted that one point during the attack, he turned the victim over to see if "he was still breathing." (Petitioner's Exhibit M, pg. 25). This statement is somewhat incredulous considering that by Hill's own admissions he did nothing to help the boy escape, did not seek medical attention for Fife, even when he was alone with him, and never attempted to intervene in the protracted torture of the victim.

Most importantly, the bite mark evidence does nothing to vitiate the sufficiency of the overwhelming evidence against the Petitioner on the Kidnapping specification to the Aggravated Murder count. The Kidnapping specification provides a separate and independent basis for imposition of the death penalty in this case.

According to evidence at trial, cited previously in this opinion, Hill refused to help Fife as he repeatedly attempted to run or crawl away from the attack. He watched over or kept Fife in the secluded wooded area while Combs got the lighter or charcoal fluid. Although Hill denied he ever inflicted any injuries on Fife (who was still alive at that time) when Combs went to Valu-King, passersby heard screams of "pain" from a "child" that lasted 20 to 30 seconds during the time Combs was at Valu-King.

Even if this Court were to conclude based on today's advances in forensic odontology and the ABFO guidelines, that the bite-mark evidence is unreliable and could not be introduced in a future trial, there is no probability, much less a strong probability that a new trial would result in different outcome. This is especially true considering the overwhelming evidence supporting the

Petitioner's conviction on the Kidnapping specification. Much of this evidence came from the Petitioner admissions and observations from passersby.

Petitioner, in his brief refers to cases on the "Project Innocence" website that purport to "exonerate" individuals based on new bite mark evidence. (Petitioner's brief at pg. 35). The vast majority of these "exonerations" are based on cases that involved new DNA evidence. Many of the reversals also involve egregious misconduct on the part of prosecutors such as withholding exculpatory evidence or suborning perjury. (See, Petitioner's brief at p. 35, case involving Steven Mark Chaney).

It is important to emphasize that while the results of new DNA testing can be "outcome determinative" pursuant to R.C. 2953.73 and positively identify or exclude the perpetrator; no ABFO guideline, now or in the future, will ever be able to identify the person who made the bite mark on Fife's penis or whether it was a bite mark.

For all of the above reasons, the Court finds that even if the bite mark evidence is excluded, considering the totality of the evidence against the Petitioner, particularly on the Kidnapping specification, Petitioner has failed to demonstrate a "strong probability" that there would be a different outcome if a new trial were granted in this case.

CONCLUSION

This Court cannot consider the bite mark evidence in a jurisprudential vacuum. Although, the Court has serious concerns about the scientific reliability of bite mark evidence, this does automatically translate into a conclusion that the Petitioner is entitled to a new trial pursuant to Crim. R. 33. The granting of a new trial based on newly discovered evidence by its obvious terms involves consideration of newly discovered evidence. What is less obvious, is that the Court, should determine is there exists is a strong probability of a different result, less

consideration of the evidence adduced at trial. *State v. Gillespie*, 2nd Dist. No. 24456, para. 36, 2012-Ohio1656.

Although Petitioner believes that without the bite mark evidence the outcome of a new trial would be different or Hill would be "exonerated" this conclusion is not based in law or fact. Petitioner's asserts that the evidence supporting Hill's convictions was weak. To the contrary, considering the evidence "adduced" at trial, there is more than sufficient evidence to support Hill's conviction on Aggravated Murder and three death penalty specifications. *Compare, Gillespie, supra* (conviction based on identification of suspect made two years after crime).

The Ohio Supreme Court thoroughly reviewed the sufficiency of the evidence in this case when it affirmed the Petitioner's convictions. This Court previously recounted some of the salient findings of the Ohio Supreme Court in when it affirmed Hill's convictions. The majority of the Court's findings on sufficiency had nothing to do with the bite mark evidence.

The Supreme Court honed in on Hill's claim that he never participated in the assault and torture of Raymond Fife. The Court determined that the victim had been impaled repeatedly with both the blunt and sharp end of an instrument that was long enough to perforate the rectum and rupture the urinary bladder.

"**As an apparent result of the agony of the cumulative torture, the victim was heard screaming continuously, for a period of twenty to thirty seconds, by a passerby. At this time witnesses observed Combs on the path behind the Valu-King.**"

The Supreme Court discussed the issue of causation citing to Hill's incriminating admissions made to law enforcement on several occasions.

"Additionally, appellant's own statement indicated he remained with the victim while Combs absented himself from the scene, and he did not go for help. This direct evidence

base provides, at the very least, that appellant was the only other person {present} when the victim was experiencing the pinnacle of excruciating pain from these egregious assaults" *State v. Hill*, 1989 Ohio App. LEXIS 4462, at 84-85. (emphasis added).

The Court finds that the bite mark evidence contradicts and impeaches the trial evidence. *State v. Petro.* More significantly, however, when considering the sufficiency of the evidence on the Aggravated Murder count and the death penalty pecifications, in particular, the Kidnapping specification, the evidence does not create a strong possibility that the outcome would be any different if a new trial were granted pursuant to Crim. R. 33. *Dayton, supra.*

The Court grants the State's Civ. R. 12 (F) motion to strike the portions of Petitioner's motion for a new trial that added without leave of court.

The decision to conduct an evidentiary hearing , as with the decision whether to grant a motion for new trial is entrusted to the sound discretion of the trial court. *State v. Smith*, 30 Ohio App. 3d 138, 139, 506 N.E.2d 1205 (9th Dist. 1986); *Toledo v. Stuart*, 11 Ohio App.2d 292, 293, 11 OBR 557, 456 N.E.2d 474 (6th Dist. 1983).

For all of the foregoing reasons, the Petitioner's motion for a new trial is DENIED.

This is a final and appealable order. There is no just cause for delay.

IT IS SO ORDERED.

Patricia A. Cosgrove

JUDGE PATRICIA A. COSGROVE

(Sitting by Assignment)
Ohio Constitution
Art. IV, Sec. 6
15JA-0843

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KAREN INFANTE ALLEN, CLERK

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