No. _____

IN THE

Supreme Court of the United States

RIGOBERTO AVILA, JR.,

Petitioner,

V.

THE STATE OF TEXAS,

Respondent.

ON PETITION FOR WRIT OF CERTIORARI TO
THE COURT OF CRIMINAL APPEALS OF TEXAS

PETITIONER'S APPENDIX

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41ST DISTRICT COURT
EL PASO COUNTY, TEXAS

Ex parte	§	
	§	
Rigoberto Avila, Jr.,	§	**CAUSE NO. 20000D01342-41-2**
	§	**(CCA Writ. No. WR-59,662-02)**
Applicant	§	
	§	

TRIAL COURT'S FINDINGS OF FACT AND CONCLUSIONS OF LAW RELATING TO APPLICANT'S SUBSEQUENT APPLICATION FOR POST-CONVICTION WRIT OF HABEAS CORPUS

Pursuant to authorization granted by the Court of Criminal Appeals of Texas on March 9, 2016, and as required by Tex. Code Crim. Proc. art. 11.071, § 9, the Court makes the following Findings of Fact and Conclusions of Law.

I. PROCEDURAL HISTORY

Applicant Rigoberto Avila, Jr., is confined under a sentence of death pursuant to the judgment of the District Court of El Paso County, Texas, 41st Judicial District. The Hon. Woody Densen, Visiting Judge, presided at trial. The trial court cause number was 20000D01342, and the judgment was entered on May 7, 2001. Dkt. 151.[1]

[1] Pleadings from the trial are cited by docket number ("Dkt. ___"). The Reporter's Record is cited as "RR," preceded by the volume number and followed by the page number ("__ RR __"). Citations to trial exhibits are to the volume in which the exhibit appears, with the offering party and exhibit number in parenthesis: "__RR (State / Defense Tr. Ex.__)". The Writ Hearing Record is cited as "WR," preceded by the volume number and followed by the page number ("__WR__"). Applicant's writ hearing exhibits are cited as "Ex. A__," with "A" followed by the exhibit number; the State's writ hearing exhibits are cited as "Ex. S__," with "S" followed by the exhibit number. Vol. 28 of the Reporter's Record of Mr. Avila's trial contains "Appellate

Mr. Avila was indicted on March 20, 2000, for capital murder in connection with the February 29, 2000 death of nineteen-month-old N.M. Dkt. 1. On May 3, 2001, after a three-day trial, the jury returned its verdict finding Mr. Avila guilty of capital murder. *See* 23 RR 85. Four days later, after a separate hearing on punishment, the jury returned answers to the special issue questions that required a death sentence. Dkt. 151.

On July 2, 2003, the Court of Criminal Appeals of Texas ("CCA") affirmed the judgment on direct appeal.[2]

Represented by El Paso attorney Robin Norris, who was appointed on May 24, 2001, Mr. Avila thereafter sought post-conviction relief under Tex. Code Crim. Proc. art. 11.071. His application was timely filed on May 19, 2003. The trial court entered findings recommending that relief be denied, and those findings were adopted by the CCA in denying relief.[3]

Mr. Avila then pursued federal habeas review.[4] The federal district court granted sentencing relief, but its judgment was reversed on appeal.[5]

Exhibits and Trial Bill Exhibits;" items from that volume are cited as "Defense App. Ex.," followed by the exhibit number and the page number, if the exhibit is separately page-numbered.

[2] *Avila v. State*, No. AP-74,142 (Tex. Crim. App. 2003) (not designated for publication), *cert. denied*, *Avila v. Texas*, 541 U.S. 935 (2004).

[3] *Ex parte Avila*, No. 2000D01342-41-1 (41st Dist. Ct. of El Paso County, Texas, March 10, 2004); *Ex parte Avila*, No. WR-59,662-01 (Tex. Crim. App. 2004) (not designated for publication).

[4] *See Avila v. Dretke*, No. EP-04-CA-419-FM (Docket Entry #16), filed Aug. 10, 2005.

[5] *See Avila v. Quarterman*, 499 F.Supp.2d 713 (W.D. Tex. 2007), *rev'd, Avila v. Quarterman*, 560 F.3d 299 (5th Cir. 2009), *cert. denied*, *Avila v. Thaler*, 558 U.S. 993 (2009).

In July 2012, in response to a request from the State, the trial court entered an order setting Mr. Avila's execution for December 12, 2012. The Court later reset that date to April 10, 2013.[6]

On March 26, 2013, Mr. Avila moved to withdraw or modify the April 10 execution date, to which the State objected.[7] After hearing argument, this Court denied the motion.[8] Mr. Avila moved for reconsideration. After argument, the Court agreed to reset Mr. Avila's execution for July 10, 2013, to allow him to prepare and file a subsequent application for post-conviction relief pursuant to Tex. Code Crim. Proc. art. 11.073.[9]

On June 17, 2013, Mr. Avila requested that the Court to withdraw or modify the pending execution date and set a filing date for his application under art. 11.073 because the new statute would not take effect until September 1, three months after his scheduled execution. The Court reset Mr. Avila's execution for January 15, 2014, and directed Mr. Avila to file his art. 11.073 writ application no later than September 6, 2013 (the second business day after the new statute would go into effect).[10]

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[6] *See* Execution Order, 7/30/12; Order Modifying Execution Date, 10/23/12.

[7] Mr. Avila was now represented in this Court by attorneys Cathryn Crawford and Kathryn Kase. They had been appointed to represent Mr. Avila on February 19, 2013, by the United States District Court for the Western District of Texas, which allowed prior federal habeas counsel Robin Norris and Chris K. Gober to withdraw. *Avila v. Thaler*, No. EP-04-CV-419-FM (Docket Entry #46).

[8] *See* Order on Petitioner's Motion to Withdraw or Modify Execution Date, 3/27/13

[9] Order Withdrawing and Resetting Execution Date, 4/2/13.

[10] Order, 6/18/13.

On September 6, 2013, Mr. Avila filed a *First Subsequent Application for Post-Conviction Writ of Habeas Corpus* ("Subsequent Application"). The Subsequent Application asserted the following claims:

> Claim One: Mr. Avila is entitled to relief under the newly enacted Article 11.073 of the Texas Code of Criminal Procedure because newly available scientific evidence contradicts the medical testimony the State relied upon at trial.
>
> Claim Two: Mr. Avila's conviction was based on the presentation of false / misleading testimony by the State, in violation of his due process rights. *Ex parte Chabot* 300 S.W. 3d 768, 771 (Tex. Crim. App. 2009).[11]
>
> Claim Three: Mr. Avila's execution would violate the United States Constitution because he is innocent. U.S. Const. Am XIV; *Herrera v. Collins*, 506 U.S. 390 (1993); *State ex. rel. Holmes v. Court of Appeals*, 885 S.W.2d 389, 397 (Tex. Crim. App. 1994).

On September 11, 2013, the Subsequent Application was forwarded to the CCA. *See* Tex. Code Crim. Proc. art. 11.071, § 5(b)(1).[12] That same day, in response to a motion from Mr. Avila, the Court withdrew the pending January 15, 2014 execution date.[13]

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[11] Claim Two presented three distinct *Chabot* claims alleging false or misleading testimony from (1) the State's medical experts; (2) multiple witnesses asserting that the bruise on N.M.'s body was a shoe print; and (3) D.S., N.M.'s older brother.

[12] Order to Send Subsequent Writ to Court of Criminal Appeals, 9/11/13.

[13] Order, 9/11/13.

On October 10, 2013, the State moved to dismiss Mr. Avila's subsequent application in the CCA; Mr. Avila responded on October 22, 2013.[14] On March 9, 2016, the CCA found that Mr. Avila's subsequent application satisfied the requirements of Tex. Code Crim. Proc. art. 11.071, §5(a), and remanded the application to this Court "for consideration on the merits," citing art. 11.071, §5(c).[15]

On May 19, 2016, the parties appeared for the first status hearing in this Court.[16]

On September 9, 2016, the State filed its Answer. On October 21, 2016, Mr. Avila replied.

On October 27, 2016, the Court granted Mr. Avila's motion to depose expert witness John Plunkett, M.D., to preserve his testimony. The video-recorded deposition was taken in the 41st District Court on November 18, 2016; the Court presided and the court reporter was present.

On November 18, 2016, the Court also directed the parties to answer the following questions: (1) whether the CCA had remanded all three claims in Mr. Avila's Subsequent Application for consideration on the merits and (2) whether, under art. 11.073, Mr. Avila was required to prove that the newly available evidence had been unavailable in 2001 or

[14] On November 5, 2013, Ms. Crawford and Chicago, Illinois attorney Robert C. Owen filed a Notice of Substitution in the CCA, entering Mr. Owen's appearance in place of Ms. Kase. Ms. Crawford remained lead counsel. She and Mr. Owen continue to represent Mr. Avila in this proceeding.

[15] *Ex parte Avila*, No. WR-59,662-02 (Tex. Crim. App. 2016) (not designated for publication).

[16] The parties appeared in court for various preliminary hearings related to discovery, evidentiary and other matters over the course of the next several months.

2003. The parties addressed these questions during that hearing; Mr. Avila also filed a *Supplemental Response to Court Queries* three days later.

On February 7, 2017, after receiving proposed orders from the parties designating issues for resolution, the Court issued its Order Designating Factual Issues to be Resolved, and ordered that an evidentiary hearing would be scheduled. The Court designated the following issues for resolution:

1. Whether the field of scientific knowledge as it relates to the biomechanical-analysis evidence proffered by the Applicant was ascertainable through the exercise of reasonable diligence on or before the time of his trial in 2001.

2. Whether the scientific method on which the Applicant's proffered biomechanical- analysis evidence is based has changed since the time of his trial in 2001;

3. Whether the scientific knowledge of the experts who testified in Applicant's trial, namely, Dr. Juan Contin, Dr. George Raschbaum, and Dr. Fausto Rodriguez, as it relates to the biomechanical-analysis evidence proffered by the Applicant has changed since the time of trial in 2001.

4. Whether the field of scientific knowledge as it relates to the biomechanical-analysis evidence proffered by the Applicant has changed since the time of his trial in 2001;

5. Whether the field of scientific knowledge as it relates to the biomechanical-analysis evidence proffered by the Applicant was ascertainable through the exercise of reasonable diligence on or before the time of his initial application in 2003;

6. Whether the scientific method on which the Applicant's proffered biomechanical- analysis evidence is based has changed since the time of his initial application in 2003;

7. Whether the scientific knowledge of the experts who testified in Applicant's trial, namely, Dr. Juan Contin, Dr. George Raschbaum, and

Dr. Fausto Rodriguez, as it relates to the biomechanical-analysis evidence proffered by the Applicant has changed since the time of his initial application in 2003;

8. Whether the field of scientific knowledge as it relates to the biomechanical-analysis evidence proffered by the pplicant has changed since the time of his initial application in 2003;

9. Whether the field of scientific knowledge as it relates to the biomechanical-analysis evidence contradicts scientific evidence relied on by the State at trial to explain the victim's fatal injury;

10. Whether the field of scientific knowledge as it relates to the biomechanical-analysis evidence would be admissible under the Texas Rules of Evidence at a trial;

11. Whether the evidence proffered by Applicant as it relates to the biomechanical analysis explaining the nature of the victim's fatal injury qualifies as "new scientific evidence";

12. Whether on preponderance of the evidence, the Applicant would not have been convicted had the biomechanical-analysis evidence been presented at trial;

13. Whether newly available scientific evidence establishes that the State presented false or misleading expert testimony regarding the amount and quality of force that could have caused the victim's fatal injury;

14. Whether newly available scientific evidence establishes that Applicant is actually innocent of the crime for which he was convicted by clear and convincing evidence that no reasonable juror would have convicted him.

That same date, after conducting an *in camera* review of documents in the State's possession, the Court also entered an order denying Applicant's Motion for Disclosure of

Documentary Evidence and Leave to Depose Witnesses.[17] The documents have been placed under seal in the court file and will be made part of the court's record.

On February 8, 2017, the parties appeared for the purpose of addressing various issues related to the Order Designating Issues and the evidentiary hearing. The Court advised the parties that based in part on a conversation with the CCA's general counsel, it was deeming the remand to be limited to the art. 11.073 claim (Claim One), as well as the part of Claim Two alleging that the State had presented false or misleading testimony by its medical experts at trial. The Court stated that it would not consider the two other false testimony allegations contained in Claim Two, and that it would consider Mr. Avila's actual innocence claim only within the limited scope of the new scientific evidence. Record of Proceedings of February 8, 2017, at 5-8, 12.[18] Mr. Avila's counsel noted their objection. *Id.* at 8-12.

On February 6 and March 2, 2017, appearing before the Court to argue motions related to the evidentiary hearing, Mr. Avila's counsel sought leave to admit the transcript from the March 16, 2000 "Chapter 262" (Child Protective Services) hearing at which N.M.'s mother and uncle had testified that N.M. and D.S. had wrestled

[17] The motion had been filed on November 14, 2016, followed by a supporting memorandum of law seven days later.

[18] Accordingly, this Court did not accept evidence relating to those claims and makes no findings of facts or conclusions of law relating thereto.

aggressively with one another.[19] The State objected. The Court reserved ruling and ultimately denied the motion during the evidentiary hearing. 2 WR 4.

From March 20 to March 22, 2017, the Court heard evidence on the issues designated for resolution in its order of February 7.

On June 19, 2017, Mr. Avila moved the Court to reconsider its ruling admitting State's Exhibit 13 (Affidavit of George Raschbaum, M.D.). The State responded on August 17 and Mr. Avila replied on August 31. The Court heard argument on September 7, and reserved its ruling.

The parties submitted their Proposed Findings of Fact and Conclusions of Law on December 15, 2017

II. THE EVIDENCE IN THE 2001 TRIAL

1. Avila was represented at trial by attorneys Matthew DeKoatz and Peter Escobar**.**

2. The State was represented at trial by the 34th Judicial District Attorney Jaime Esparza and Assistant District Attorneys George R. Locke and Gerald Cichon.

3. Avila was charged with the capital murder of N.M., the 19-month-old son of Avila's girlfriend, Marcelina Macias.

4. The evidence presented to the jury at trial showed that Marcelina Macias left N.M., along with his then-four-year-old brother D.S., alone with Avila while she (Macias) left to attend a college class. (22 RR at 116, 138); (24 RR at 47-53).

[19] This request was part of Applicant's Motion for Preliminary Ruling Permitting the Introduction of Affidavits and Transcripts in Lieu of Live Testimony, filed on February 24. The State filed its response to this motion on February 28.

5. Marcelina Macias testified that N.M. was fine when she left him in Avila's care. (22 RR at 138-41).

6. Approximately one hour after Marcelina Macias left N.M. and D.S. with Avila, Avila called 911 and told the operator that N.M. was not breathing. (19 RR at 227-29); (24 RR at 26-27).

7. When the paramedics arrived, Avila told them that N.M. and D.S. had been playing in another room and that D.S. came to tell him that he (D.S.) had covered N.M.'s mouth and that N.M. was not breathing. (19 RR at 157-65, 225-28).

8. N.M. was transported to the hospital, but surgical attempts by Dr. George Rashbaum, M.D. to repair N.M.'s internal injuries were unsuccessful, and N.M. died. (19 RR at 18-42).

9. Avila repeated his account that he had been sitting in the living room while the boys played in the bedroom when the four-year-old came to tell him that N.M. was not breathing multiple times on the night of N.M.'s death to the 911 operator, to the EMTs, to hospital personnel, and to the police.

10. Avila gave two written statements to the police.

11. In his first written statement, Avila denied causing N.M.'s injuries and described that D.S. told him that he (D.S.) and N.M. were wrestling, that he (D.S.) put his hand over N.M.'s mouth, and that N.M. fainted. (State Trial Ex -1).

12. In his second written statement, Avila stated that he stomped on N.M. because his girlfriend Macias was paying more attention to the child than him and that D.S. did not cause N.M.'s injuries. (State Trial Ex -2).

13. Prior to trial, Avila filed a motion to suppress his two written statements to the police, challenging various aspects of the voluntariness of those statements. Dkt. at 38-40).

14. The trial court denied Avila's motion to suppress his written statements, finding that the police followed proper procedures in obtaining the statements and that the statements were freely and voluntarily made without compulsion or persuasion. (Dkt. at 106,112).

15. Both of Avila's written statements were admitted into evidence at trial. (19 RR at 25-47); (State Trial Ex. l); (State Trial Ex-2).

16. At trial, Avila testified in his own defense. *See* 22 RR 111-125.

17. Avila repudiated the accuracy and voluntariness of his second statement, describing that he did not read it before signing it and that it was false. (22 RR at 122-25, 143).

18. Avila's trial testimony was fairly consistent with his first written statement to the police, in that he testified that after their mother left N.M. and D.S. alone with him, N.M. and D.S. were playing in another room, and D.S. came and told him (Avila) that N.M. was not breathing. (22 RR at 116). Avila testified that he then rushed to N.M. and called 911. (22 RR at 116-17).

19. Avila further testified that he asked D.S. what had happened, but D.S. did not answer. (22 RR at 116-17)

20. D.S. was five years old at the time of trial. (19 RR at 125-26).

21. Prior to his testimony, defense counsel, pursuant to Rule 601 of the Texas Rules of Evidence, objected to D.S.'s competency to testify on grounds that D.S. did not have sufficient intellect to testify. (19 RR at 112-20).

22. After conducting a hearing out of the jury's presence, the trial court found D.S. competent to testify. (19 RR at 112-20).

23. D.S. then testified before the jury that he remembered when N.M. got hurt and, with the aid of wrestling-figure dolls, testified that Avila had stepped on N.M. (19 RR at 128-38).

24. Examination of 5-year old D.S. as a trial witness appears on the record to have been challenging as the child lacked sufficient focus and attention to the questions and preferred to play on the witness stand.

25. D.S. demonstrated for the jury the stomping motion of Avila and specifically testified that N.M. was on his back when Avila stepped on N.M.'s stomach. (19 RR at 136-37).

26. D.S. made statements to various adults after the incident that he had been wrestling with N.M. and had put his hand over the infant’s mouth because N.M. was crying. *See* 19 RR 89, 93; 161, 165, 198; 24 RR 63; State Tr. Ex. 1

27. Evidence before the jury showed that D.S. and N.M. had wrestled together. *See* 19 RR 144-45; 205-07; 213-215.

28. On cross-examination by defense counsel, D.S. testified that he watched wrestling on television and that the wrestlers throw each other down. (19 RR at 144).

29. D.S. also testified on cross-examination by defense counsel that the wrestling-figure dolls he used to demonstrate what Avila did to N.M. belonged to him (D.S.) and N.M. and that he (D.S.) played "wrestling" with those dolls. (19 RR at 144).

30. Evidence was presented at the trial in 2001 that the children D.S. and N.M. had a history of play wrestling, that they sometimes played rough and that it was not uncommon for N.M. to have some bruising as a result.

31. Evidence was presented at the trial in 2001 that Avila described to responding paramedics, Detective Tony Tabullo of the El Paso Police Department, and Detective Brian Fuller at the El Paso Child Advocacy Center that D.S. and N.M. had been playing and wrestling in another room just before the injuries.

32. Evidence was presented at trial in 2001 that D.S. described, “I was wrestling with him.” (Defense Tr. Bill Ex. 2: recording and transcript of interview; transcript at 18-19)

33. D.S. testified at trial that he played “wrestling or Dragon Ballsy” with his brother, and also that he had watched wrestling on TV. 19 RR 144; *see also* n. 26, *supra* (describing the animated television series “Dragon Ball Z”). D.S. also agreed with defense counsel’s description of wrestling as involving “throw[ing] each other down and that sort of thing.” *Id*. at 145.

34. Paramedic Marco Villalobos testified at trial that when he arrived at the scene to treat N.M., he (Villalobos) observed a bruise on N.M.'s stomach in the shape of a shoeprint, but Avila denied any knowledge of that injury. (19 RR at 170-74).

35. Dr. George Raschbaum, the surgeon who operated on N.M., testified at trial that the bruise on N.M.'s abdomen was consistent with a shoe. (21 RR at 78).

36. Dr. Juan Contin, the medical examiner who performed the autopsy on N.M., testified at trial that upon visual examination of N.M., he observed a large, oval-shaped bruise on N.M.'s abdomen that was consistent with a shoe. (20 RR at 28-30).

37. On cross-examination by defense counsel, Dr. Contin agreed that he could not specifically identify the bruise pattern on N.M.'s abdomen as being a shoeprint, but that it was generally consistent with the shape of a shoe. (20 RR at 53-57).

38. Dr. Fausto Rodriguez, the defense's expert pathologist, testified at trial that although he did not know what caused the bruising on N .M.s abdomen, the bruise resembled a shoeprint. (22 RR at 24).

39. On cross-examination by the prosecutor, Dr. Rodriguez agreed with the prosecutor that, although it was possible that it (the bruise) was something else, "We know it's a footprint," and that, "It's a footprint." (22 RR at 48).

40. Juan Rojas, a criminalist with the DPS lab in Austin trained in footwear comparison and qualified by the trial court as an expert thereon, testified for the defense that Avila's shoes did not match the "impression" on N.M.'s body. (21 RR at 154, 173).

41. On cross-examination by the prosecutor, Rojas acknowledged that he had never before compared footwear to bruises or markings on a human body, that he was not an expert on the formation of bruises on the human body or the effects of elasticity on such bruising, and that his agency typically referred such comparisons to another expert. (21 RR at 161-64).

42. The testifying doctors made it clear that N.M.'s injuries could only have been inflicted by an adult because a four-year-old boy was incapable of generating the large amount of force that would be necessary to cause them.

43. The prosecution's medical experts had the effect of endorsing as true the inculpatory statement Avila had signed while in police custody, (*see* State Tr. Ex. 2) because their testimony left that scenario as the only one that was plausible from a medical perspective.

44. The State made precisely this argument to the jury in closing:

> "All the doctors say a little four year old with his weight is incapable of doing it unless he's jumping off a 20 foot height on to the stomach of the child. So we know D.S. can't do it. That leaves him. *Now they're saying, well, don't believe my confession. Well, how can you not believe it when there's no other way the kid could have died.* How else could - how else could it have happened except for the way that it says in the confession." Trial R 57 (*emphasis added*).

45. The evidence before the Court now suggests that Avila was not the only person in the home capable of inflicting N.M.'s fatal injuries. The infant's four-year-old brother, D.S., may have been physically capable of doing so.

46. The defensive theory whether a four-year-old child could have caused N.M.'s injuries was included, in part, in the investigation conducted by the El Paso Police Department and the Texas Child Protective Services and the theory was suggested during the 2001 trial.

47. There is no evidence on the record that the investigating agencies, namely the El Paso Police Department and the Texas Child Protective Services consulted with biomechanical experts.

48. There is no evidence on the record that the investigating agencies, namely the El Paso Police Department and the Texas Child Protective Services were aware of biomechanical analysis in the area of child injury and fatalities.

49. The defense theory whether a four-year-old child could have caused N.M.'s injuries was restricted at the trial in 2001 by the lack of medical or scientific evidence to support it.

50. The only scientific evidence before the jury at the trial in 2001 was that Avila's account of what had occurred was scientifically impossible.

51. Indeed, the State argued to the jury that "All the doctors say a little four year old with his weight is incapable of doing it unless he's jumping off a 20 foot height on to the stomach of the child. So we know D.S. can't do it. That leaves him. *Now they're saying, well, don't believe my confession. Well, how can you not believe it when there's no other way the kid could have died.* How else could - how else could it have happened except for the way that it says in the confession." 23 RR 56-57 (*emphasis added*).

52. No evidence was presented at trial by any medical expert purporting to quantify the amount of force required to cause N.M.'s injuries.

III. BIOMECHANICS

1. Impact biomechanics is "the study of the human body and how it responds to impact or forces that act upon the body." 2 WR 23 (Testimony of Dr. Chris Van Ee). Impact biomechanics is a sub-specialty of biomedical or biomechanical engineering, which broadly refers to the applications of engineering to biology or medicine. *Id*.

2. Impact biomechanics addresses itself to questions such as how force is distributed when it acts upon the body, and how much force is necessary to cause particular traumatic injuries such as breaking or disruption of soft tissues, dislocation of bone joints, or fractures of bones. *Id*.

3. Biomechanical analysis requires application of both biological and medical knowledge on the one hand, and principles of physics and engineering on the other; it is thus a "cross-disciplinary domain [that] deals with the study of injury mechanics, which spans the interface between mechanics and biology." Exhibit A23B, Reference Manual on Scientific Evidence (Third Edition), at 901; *see also id*. (While "[t]he traditional role of the physician is the diagnosis (identification) of injuries and their treatment, not necessarily a detailed assessment of the physical forces and motions that created injuries during a specific event," biomechanics "involves the application of mechanical principles to biological systems, and is well suited to answering questions pertaining to injury mechanics"); Exhibit A38, Deposition of John Plunkett, M.D., at 39 (biomechanics and

traditional medicine represent "two different disciplines with two different approaches to injury").

4. While the basic principles of physics have been recognized since the seventeenth century, (*see* Ex. A38 at 93, physics has been around "since [Isaac] Newton"), biomechanical engineering as applied to impacts and traumatic injury emerged in the years after World War II as a part of efforts to improve military equipment. 2 WR 28 (early biomechanical research into improving airplane ejector seats in the 1940s and 1950s).

5. Automotive safety research followed, focusing on strategies for reducing the impact of crashes on human passengers, such as seat belts and airbags. *Id*. at 29-30. In those applications, however, biomechanical analysis was focused primarily on "looking at the [human] body where there's the threat of trauma and trying to understand that and mitigate it," *id*. at 29, and the relevant research activity was undertaken by "large government institutions that [were] fairly well resourced." *Id*. at 29-30.

6. By 2017, biomechanical science has been employed in forensic settings, including in making cause-of-death determinations in cases involving the deaths of infants. Ex. A38 at 38 (reliance on biomechanical experts in making infant cause-of-death determinations is now "the standard practice of a number of forensic pathologists," although "not all forensic pathologists attempt to do reconstructions [like the one undertaken by Dr. Van Ee in this case]," and such consultation by medical experts with biomechanical scientists is "a relatively new phenomenon"); Ex.A1 at 7 (2013 affidavit

from Dr. Plunkett, stating that a biomechanical analysis or reconstruction of a hypothetical event was "rarely if ever performed prior to 2004 but is mandatory in 2013"); Ex. A16 (Affidavit of Janice Ophoven, M.D.) ¶ 6 ("[M]edical experts today [in 2013] have much more information and potential biomechanical analytical tools to address the question" of "what could or could not have happened" in a case involving a fatal abdominal injury to a child); *see also* Ex. A23B at 901 (Reference Manual on Scientific Evidence calling it "increasingly" common in 2011 for biomechanical experts to be called as expert witnesses to give the trier of fact "a thorough understanding of the mechanics that created an injury"); 3 WR 9 (2017 testimony of Dr. Juan Contin that applying biomechanics "to analyze injuries" is "more common nowadays").

7. Forensic pathologist John Plunkett, M.D., testified at length about the changes in his field, relative to the application of biomechanical science to evaluating potential injury causation. *See generally* Ex. A38; *see also id*. at 8 (Dr. Plunkett's testimony addressed, *inter alia*, "the changes in scientific methodology in assessing infant injury evaluation … that have occurred since 2001, since Mr. Avila was tried and convicted").

8. In 2001, Dr. Plunkett published his first article that specifically addressed biomechanical evaluation of infant head injury, "Fatal Pediatric Head Injuries Caused by Short-Distance Falls." Ex. 38A at 53; *see also* Ex. A6 (article).

9. In 2004, there was relatively little development of biomechanical analysis to injuries in infants other than head or neck injuries.

10. Scientists in 2004 were beginning to conduct biomechanical analyses of pediatric head injuries in criminal cases Ex. A1 at 6.

11. In 2001 when Avila was tried, there was no significant discussion within the broader scientific community for collaboration between medical doctors and biomechanicians in infant cause-of-death determinations. *See Def Ex. A38 at 68-69*

12. Incorporating a biomechanical analysis is now accepted forensic medical practice in cases where the child patient's history appears inconsistent with the injury and has become more common over the last five to six years.

IV. FINDINGS OF FACT REGARDING CLAIM ONE AND TWO

1. Biomechanics is "relevant scientific evidence currently available" within the meaning of Tex. Code Crim. Proc. art. 11.073(b)(1)(A).

2. The scientific method on which Avila's proffered biomechanical-analysis evidence is based changed since the time of his trial in 2001.

3. The scientific method on which Avila's proffered biomechanical-analysis evidence is based changed since the time of his initial application for post-conviction writ of habeas corpus in 2003.

4. The field of scientific knowledge as it relates to the biomechanical-analysis evidence proffered by Avila changed since the time of his trial in 2001.

5. The field of scientific knowledge as it relates to the biomechanical-analysis evidence proffered by Avila changed since the time of his initial application for post-conviction writ of habeas corpus in 2003.

6. The evidence proffered by Avila as it relates to the biomechanical analysis explaining the nature of the victim's fatal injury qualifies as "new scientific evidence".

7. At the time of Avila's trial in 2001, physicians were unaware of ongoing developments in biomechanics or their potential relevance to medical fields like forensic pathology. When Avila was tried, biomechanical experts and physicians "simply did not communicate with each other".

8. The Court finds that Dr. John Plunkett M.D. is a board-certified in anatomic, clinical, and forensic pathology and an expert in biomechanical analysis as it applies to child injuries and fatalities.

9. Dr. Plunkett's testimony that biomechanical analysis or reconstruction of a hypothetical event was "rarely if ever performed prior to 2004 but is mandatory in 2013" is credible.

10. The Court finds that Janice Ophoven, M.D is a qualified expert in pediatric forensic pathology and biomechanical analysis as it applies to child injuries and fatalities.

11. According to Dr. Ophoven, Dr. Van Ee's testing and report establishes to a reasonable medical certainty, that D.S. could have caused N.M. 's injuries by jumping onto N.M. (Writ RR 3 at 92-94).

12. Dr. Ophoven's testimony that as of 2001 when Avila's case was tried, not only was it not widely understood by medical professionals such as pathologists and treating physicians that biomechanical science should be used in making injury-causation determinations, but that it was "absolutely unknown" by such medical professionals and

that biomechanical principles had not yet crossed over into the medical/legal field is credible. (Writ RR 3 at 83)

13. Dr. Ophoven;s testimony that the collaboration between medical and biomechanical experts in making injury-causation determinations, along with consultations with and for criminal defense attorneys, was still not common or routine and did not become prevalent before the last 5-6 years is credible. (Writ RR 3 at 90-97, 120-21).

14. The Court finds that the testimony of Dr. Plunkett and Dr. Ophoven credible with regard to the evolution of the utility of biomechanical analysis in pediatric forensic evaluations.

14. Credible and respected scientific articles, journals, data, manuals and other documents corroborate the testimony of Drs. Plunkett and Ophoven that the forensic application of biomechanical analysis began to emerge only after 2000 and took a decade to significantly emerge.

15. The Court finds that Dr. Chris Van Ee, Ph.D. is a biomechanical engineer and qualified expert in biomedical and biomechanical engineering.

16. Dr. Van Ee's conclusion that the "[i]mpact forces produced by a 45-lb. child jumping off of the 18" bed and onto the abdominal target far exceed injury thresholds for serious and critical abdominal injuries" is credible.

17. Dr. Van Ee's conclusion that when those impact forces are scaled to account for the body weight of a 37-lb. child, the impact forces are still consistent with serious and critical injury is credible.

18. Dr. Van Ee's conclusion that based on this analysis the level of force that can be generated when a 36-39 pound child jumps onto a younger child laying on a floor 18" below is sufficient to result in the abdominal injuries reported for N.M. is credible.

19. The Court had the opportunity to view Dr. Van Ee's actual test runs on video, and to question Dr. Van Ee directly. *See, e.g.*, 2 WR 150-53. The State's cross-examination of Dr. Van Ee did little to illustrate any flaws in Dr. Van Ee's research design or in the execution of the test, and the State presented no affirmative evidence to rebut or challenge its results.

20. The test performed by Dr. Van Ee establishes a credible circumstance that would make it possible for a child the size of D.S. to have produced force sufficient to cause N.M.'s fatal injuries.

21. Dr. Juan Contin M.D. is the former El Paso County Medical Examiner who performed an autopsy on N.M., the child decedent on March 1, 2000.

22. Dr. Juan Contin M.D. is an expert in forensic pathology qualified to render opinions on cause of death in this case.

23. Dr. Contin's opinion that "the application [of biomechanics] is more common nowadays," and that while he "couldn't tell you exactly" when biomechanical analysis

became "used to analyze injuries," it was in "[t]he last several years" since the time of Mr. Avila's trial in 2001 is credible.

24. Dr. Contin's testified that he accepts Dr. Chris Van Ee test to measure whether D.S. could have created the force necessary to cause N.M.'s injuries by jumping onto N.M.'s abdomen from atop a bed eighteen inches high. 2 WR 7-30

25. Dr. Contin's opinion that concepts of biomechanics and their application to injury analysis were not utilized at the time of Mr. Avila's trial or even prior to 2004 because physicians responsible for diagnosis and treatment did not interact with biomechanicians responsible for injury analysis is credible.

26. After reviewing the affidavits and reports of Avila's experts in forensic pathology and biomechanics, Dr. Contin's opinion and conclusions regarding the cause and manner of N.M.'s death did not change from his stated conclusions in 2001: that in his view the blow that caused N.M.'s injuries was intentional, and that N.M.'s death thus was a homicide.

27. Avila's new scientific evidence is directed to the question of what quantity of force would have been necessary to inflict N.M.'s injuries, and whether his brother D.S. was capable of generating that force by jumping from a height of 18 inches.

28. Dr. Contin's statement that his testimony from 2001 would remain unchanged is not responsive to the issues designated for resolution.

29. Despite his causation opinion in 2001 and his affirmation of it in 2017, Dr. Contin's testimony in 2017 nonetheless demonstrates that his scientific knowledge as it relates to the biomechanical-analysis evidence proffered by the Avila has in fact changed.

30. Dr. Contin's testimony in 2017 referring to his ultimate conclusion in this case (that the blow was intentionally delivered and the manner of death thus "homicide") is not reliable in light of Dr. Contin's unqualified statement that he accepts the validity of Dr. Van Ee's report and conclusions.

31. Dr. Contin's testimony in 2017 referring to his ultimate conclusion in this case (that the blow was intentionally delivered and the manner of death thus "homicide") is not reliable in light of Dr. Contin's acknowledgment that the use of biomechanical evidence in the area of child injury and fatality analysis is a more present-day practice that was not utilized in 2000 at the time of N.M's death and 2001 at the time of Avila's trial.

32. Dr. Fausto Rodriguez M.D. is an expert in anatomical and clinical pathology and qualified to render opinions in forensic pathology.

33. Dr. Rodriguez performed a second autopsy on N.M. about a year after N.M.'s death. Dr. Rodriguez testified for the defense that all the injuries to Nicholas could be explained by a single trauma, which could have been caused by an adult falling on top of the child's abdomen.

34. Dr. Rodriguez stated that his scientific knowledge regarding the amount of force that would have been necessary to cause N.M.'s injuries has changed since the time of his testimony at trial in 2001. 2 WR 241-270.

35. In 2001, Dr. Rodriguez did not believe it was physically possible for a four-year-old child to cause injuries as severe as those sustained by N.M.; in 2017 he does.

36. Dr. Rodriguez accepted the reliability of Dr. Van Ee's 2013 finding that D.S. could have generated the force necessary to cause N.M.'s injuries, and agreed that the medical community's understanding of the role of biomechanical analysis in assessing infant injuries has changed substantially since the time of Mr. Avila's trial.

37. Dr. Rodriguez's statement that in 2001 members of Dr. Rodriguez's professional community, including those at the medical examiner's office, did not conduct biomechanical experiments and testing because the resources and knowledge of biomechanics was not available is credible.

38. Dr. Rodriguez stated that in 2003, based on his own clinical training, his opinion would have been the same as in 2001: that a four-year-old child would not have been physically capable of inflicting N.M.'s injuries.

39. The evidence supports that clinical training for forensic experts prior to 2003 did not routinely assess injury by using "specific measurements and quantity of force;" instead, they employed "anecdotal" language and their conclusions were "scientifically untested.

40. Dr. Rodriguez's testimony in 2017 shows that since 2003, his scientific knowledge as it relates to the biomechanical-analysis evidence proffered by the Avila has changed.

41. Dr. George Raschbaum M.D. is the pediatric surgeon who operated on N.M. on the night he was injured in an effort to save his life.

42. Dr. Raschbaum was not produced as a witness in 2017.

43. By affidavit testimony in 2017, Dr. Raschbaum does not accept the application of biomechanical science to assessing the injury potential in this case.

44. Dr. Raschbaum testified in 2001 that for a four-year-old to generate the necessary force to cause N.M.'s injuries, he would have to drop onto N.M.'s abdomen "from a height of 20 feet," and thus that N.M.'s injuries would have been impossible to cause via "normal playing in a household."

45. Dr. Raschbaum's opinion in 2001 was consistent with the prevailing beliefs within the medical community at the time.

46. Dr. Raschbaum's own scientific knowledge as it relates to biomechanical-analysis evidence" remains unchanged since 2001.

47. Dr. Raschbaum's affidavit does not state that he actually reviewed the proffered evidence or has any interest in doing so. Rather, Dr. Raschbaum stated, "I do not consult with physicians or biomechanical engineers as part of my medical practice and do not consult literature on the physics or biomechanics of injuries."

48. There is no evidence of Dr. Raschbaum's qualifications, education, specialized training, or practical experience in biomechanics, biomechanical engineering, physics, or any related discipline that touches on the mechanisms of injury causation before the court.

49. Nothing in the record establishes that Dr. Raschbaum possesses the relevant expertise necessary to express an opinion on the "amount of force" question. Dr. Raschbaum is not a pathologist or a biomechanical engineer.

50. The new scientific evidence presented by Avila contradicts Dr. Raschbaum's professional opinion and his testimony at the time of trial.

51. Dr. Raschbaum's unexplained refusal to consider, whether favorably or unfavorably, the biomechanical-analysis evidence in this case compels the Court to place little to no weight on his opinions in his 2017 affidavit.

52. The Court finds that a medical practitioner whose experience spans the interface between mechanics (*i.e.*, engineering) and biology (*i.e.*, science)" could assist courts and juries by providing opinions regarding the mechanics that create an injury.

53. The evidence at the March 2017 writ hearing established that the central premise of the State's case – that Mr. Avila was the only person who could have caused N.M.'s injuries – could scientifically be refuted with present-day biomechanical science.

54. Had the new scientific evidence that D.S. could have physically been capable of causing N.M.'s fatal injuries been admitted at trial, it is more likely than not that the jury would have harbored reasonable doubt about Mr. Avila's guilt, resulting in his acquittal.

55. Avila presented the testimony of the following attorneys:

- **Alma Trejo** has served as Judge of County Criminal Court Number One for approximately 14 years. Before taking the bench, she worked in the District Attorney's Office of El Paso County from 1993 to 2002, first as a misdemeanor prosecutor, then as a felony prosecutor, then as Felony Trial Chief and Chief of the Child Abuse Unit. 3 WR 146. This Court is personally familiar with Judge Trejo and found her testimony credible. This Court finds that Judge Trejo, by virtue of her position as a prosecutor and later as a judge, was familiar with the types of experts used by and available to prosecutors and criminal defense attorneys in El Paso, as well as with the local practices of those attorneys, in 2000-2003.

- **Michael R. Gibson** worked at the District Attorney's Office of El Paso County from 1969 to 1973 and has been practicing as a criminal defense lawyer in El Paso County for the last 25-30 years. 3 WR 179-180. He is also licensed to practice law in New Mexico and Colorado. *Id.* at 180. For the past fifteen years, Mr. Gibson has been certified as a specialist in criminal law by the Texas Board of Legal Specialization. For the past 7 or 8 years, he has been certified as a criminal trial specialist by the New Mexico Board of Legal Specialization. *Id.* He has been listed in Best Lawyers of America for the past 12 years and in *Texas Monthly* magazine's "Super Lawyers" for the past 9 or 10 years. *Id.* at 180-81.

  Mr. Gibson has conducted several trainings for criminal defense lawyers over the course of his career, serving as a regular speaker in seminars presented by the Texas Criminal Defense Lawyers Association ("TCDLA") and through the annual seminar of the El Paso Criminal Law Group, an organization created 27 years ago to provide high-quality local training to criminal defense lawyers, prosecutors, judges and investigators. *Id.* at 183-186.

  Mr. Gibson estimates that he has tried over 400 cases, including capital and death penalty cases. *Id.* at 183. This Court is personally aware of Mr. Gibson's excellent reputation in El Paso as a criminal defense attorney and notes that he is well-respected in his field. This Court finds that Mr. Gibson testified credibly and that he was familiar with the types of experts used by and available to criminal defense attorneys in El Paso, as well as with the local practices of those attorneys, in 2000-2003.

- **Peter R. Escobar**'s testimony was received via affidavit (Ex. A39). Mr. Escobar has been a licensed attorney in Texas since 1990 and is engaged in private practice in El Paso. He served as second chair to Matthew DeKoatz in the defense of Mr. Avila at trial. This Court has no reason to doubt his credibility.

- **Robin Norris**'s testimony was received via affidavit (Ex. A33). Mr. Norris, who has appeared before, and is known to, this Court, has been practicing criminal law for over forty years. He handles cases at trial, on appeal, and in post-conviction proceedings. He served as a staff attorney for the Court of Criminal Appeals of Texas for ten years (until 1997) and since then has been engaged in private criminal defense practice. Mr. Norris served as Mr. Avila's counsel in his initial state habeas proceedings. This Court finds that Mr. Norris was familiar with the types of experts used by and available to criminal defense attorneys, as well as the practices of criminal defense lawyers, in El Paso in 2000-2003. In addition, based on this Court's experience with Mr. Norris in the courtroom, the Court finds his testimony credible.

- **Philip Wischkaemper**'s testimony was received via affidavit (Ex. A31). Mr. Wischkaemper has been a member of the Texas criminal defense community since 1990. He handled his first capital case in the mid-1990s and by the end of the decade was almost exclusively representing capital defendants, at trial and in post-conviction proceedings. From 2001-2010, he served as the Capital Assistance Attorney for TCDLA, providing training and support for defense attorneys statewide involved in capital litigation. Based on his breadth of experience in representing capital defendants and providing training to lawyers across the State of Texas, this Court finds that Mr. Wischkaemper was familiar with the types of experts and trainings available to capital defense lawyers in the late 1990's and early 2000s (up to and including 2003). This Court also finds that, from his own experience and from holding a position that brought him regularly into contact with capital defense attorneys across Texas, Mr. Wischkaemper was aware of the general knowledge of the capital defense community in Texas with respect to the application of biomechanics to infant cause of death determinations in 2001-2003. The Court finds Mr. Wischkaemper credible by virtue of his experience and his standing in the criminal defense community, as reflected by TCDLA's having trusted him to lead its capital defense efforts for almost a decade.

- **John Niland**'s testimony was received via affidavit (Ex. A30). Mr. Niland is an El Paso native and a retired criminal defense attorney; he represented criminal defendants, including those charged with capital crimes, from 1992-2000. In May, 2000, he became the inaugural director of the Capital Trial Project of the Texas Defender Service, a non-profit law office. In that capacity, Mr. Niland furnished training and direct case support to capital defenders across Texas, including making referrals to experts. He first began providing training to Texas capital defense lawyers in 2001, ultimately teaming up with Philip Wischkaemper of TCDLA. This Court finds that Mr. Niland was familiar with the types of experts and trainings available to Texas capital defense lawyers in 2000-2003. This Court also finds that, by virtue of his position and experience, Mr. Niland was aware of the general knowledge of the capital defense community with respect to the application of biomechanics to infant cause of death determinations in 2001-2003. The Court finds Mr. Niland credible based on the years he spent advising and training capital defense attorneys across Texas.

56. Avila also presented testimony by affidavit from attorney **Barry Scheck**, professor of law and the founder of the Innocence Project (1992). (Ex. A32) Mr. Scheck, whose extensive experience is summarized in his affidavit, has received many honors and recognitions, and has served on a variety of commissions related specifically to forensic science. This Court is familiar with Mr. Scheck's standing in the criminal justice field, especially as it relates to the application of forensic science in criminal cases and efforts to improve the reliability of forensic science generally, and finds his testimony credible.

57. Avila also presented testimony and supporting exhibits from the following Texas lawyers:

- **William H "Bill" Beardall**, Executive Director of the Equal Justice Center, and former Legal Director for Texas Appleseed, a non-profit public interest justice center, testified via affidavit (Ex. A24). From 2000-01, in his capacity as Legal Director for the non-profit public interest justice

center Texas Appleseed, Mr. Beardall led a team of researchers in compiling a comprehensive study of county-level indigent defense practices in Texas. The team released its findings, *The Fair Defense Report: Analysis of Indigent Defense Practices in Texas*, in December 2000. Ex. A24a. Part II of the Report, "Representation of Indigent Defendants Charged with Capital Offenses" is attached to Mr. Beardall's affidavit as Exhibit 1.

- **Joseph Martinez**, the Executive Director of TCDLA, which is the primary organization for criminal defense lawyers in Texas, testified via affidavit (Ex. A29). TCDLA is one of the main providers of trainings for Texas criminal defense lawyers.

- **Mark P Smith**, Vice-President of the Center for American and International Law ("CAIL"), which was founded in 1947, testified via affidavit (Ex. A26). In 2002, at the urging of Judge Patrick Higginbotham of the federal Fifth Circuit Court of Appeals, CAIL provided its first comprehensive training for capital defenders. It has continued to provide such trainings in the years since.

58. Finally, the Court also received Business Records Affidavits and supporting documents from:

- The State Bar of Texas, Professional Development Division, with agendas for the Annual Advanced Criminal Law Course (1998-2016) (Ex. A25);

- The State Bar of Texas, Minimum Continuing Legal Education, with records relating to Matthew DeKoatz and Peter R. Escobar (Ex. A27, Ex. A28); and

- The El Paso County Auditor's Office, relating to payments made to court-appointed experts in homicide cases from 1998-2004 (Ex. A34).

59. The unrebutted evidence presented by Avila establishes that in 2001 and 2003 practicing criminal defense lawyers in El Paso County were unaware of the possibility of applying biomechanical analysis to infant cause of death determinations.

60. The testimony of every El Paso lawyer was consistent that no one had ever heard of a lawyer presenting expert testimony by a biomechanical engineer or other biomechanical expert in a criminal case. *See* Ex. A39, ¶9 (Peter R. Escobar: "When I served as co-counsel to Mr. DeKoatz in the Avila case in 2000-2001, I was not aware of the notion of applying biomechanical analysis to infant cause of death determinations. To my knowledge, neither were other El Paso criminal defense lawyers at that time."); Ex. A33, ¶11 (Robin Norris: "At no time [between May 24, 2001 and May 19, 2003] was I acquainted with the notion of applying biomechanical analysis to infant cause of death determinations."); 3 WR 153-54; 157-58 (testimony of Judge Trejo that she had never presented the testimony of a biomechanical expert, and was unaware of any other El Paso lawyers having done so: "I don't think that word [biomechanics] was even used while I was prosecuting"); *Id.* at 212 (Michael R. Gibson has never heard of any criminal defense lawyer using a biomechanical engineer as a witness in a case in El Paso or elsewhere in Texas.)

61. The State did not present any evidence to rebut this testimony.

62. There is no evidence that either the defense trial expert or the State's trial experts consulted with biomechanical engineers during that time period.

63. Trial counsel Peter R. Escobar affidavit testimony that neither their defense expert Dr. Rodriguez nor anyone else with whom trial counsel consulted suggested that it was "either possible or appropriate to consult a biomechanical engineer to evaluate the possible causes of [N.M.'s] fatal injuries" is credible.

64. Avila's habeas counsel Robin Norris' affidavit testimony that the subject of a biomechanical engineer or other biomechanical expert never came up in any conversations with Dr. Harry Wilson, the consulting expert at the time of the habeas proceedings, is credible.

65. Avila has established that in Texas there were no known trainings relating to this topic, or even to infant cause of death determinations in general, until 2003.

66. None of the El Paso attorneys who testified, whether live or by affidavit, had ever attended a training at which biomechanical engineering or biomechanical analysis was discussed.

67. None of the State Bar of Texas Advanced Criminal Law Course sessions from 1999-2003 addressed infant cause of death determinations or the application of biomechanical engineering in criminal cases.

68. Prior to 2002, the Texas Criminal Defense Lawyers Association only sporadically conducted trainings for lawyers representing capital defendants. The limited training that TCDLA made available to capital defenders was focused on post-conviction representation, jury selection, resolving cases through pleas, and investigating and presenting mitigation.

69. Testimony of attorneys Wischkaemper and Niland that there were no trainings for capital defense lawyers offered before late 2003 that related to using expert witnesses to challenge cause of death determinations by State experts in cases involving infant fatalities is credible.

70. Before at least August 2003, neither Niland nor Wischkaemper, who were the only statewide experts available to assist and consult with capital defense lawyers in the early 2000s, ever recommended to a lawyer that he consult with a biomechanical engineer.

71. The training agendas for conferences planned by the El Paso Criminal Law Group, which was created 27 years ago by judges and defense lawyers to provide local training in criminal law to all El Paso lawyers, reflect presentations on a variety of scientific issues and evidence; none of those presentations concern biomechanical evidence or the application of biomechanical engineering to child or infant death cases.

72. The Court finds that use of expert witnesses by defense counsel in general was not common practice in El Paso County in 2001.

73. Based on all of the testimony and supporting exhibits, this Court finds that a reasonable lawyer in El Paso prior to 2003 could not have been expected to know that it was feasible or advisable to request the appointment of an expert to conduct a biomechanical analysis in an infant death case.

74. Attorney and law professor Barry Scheck is an expert qualified to render opinions on the application of forensic sciences in criminal cases and competent to testify regarding the general knowledge of criminal defense lawyers at various times regarding the application of biomechanical analysis to infant cause of death determinations.

75. This Court finds that Mr. Scheck is also familiar with the prevailing standards of practice of criminal defense lawyers in Texas in 2001 and 2003.

76. Mr. Scheck first explored the mechanisms of infant head injuries in the late 1990s, when he was hired to defend Louise Woodward, an 18-year-old English nanny accused in Boston of having killed an eight-month-old child in her care, It was alleged that the infant had died after being shaken violently for 1½ minutes and then having his head strike a surface at 26 mph.

77. Mr. Scheck and his defense team consulted with at least 15 scientific experts; they presented testimony from seven of these at trial. Mr. Scheck's testimony that the total bill for the defense was approximately $1 million is credible.

78. This Court finds that Mr. Avila's trial counsel had nowhere near the resources that Mr. Scheck was provided in *Woodward*, and could not reasonably have been expected to undertake a similar systemic and far-reaching review of all potentially relevant scientific evidence.

79. This Court finds Mr. Scheck's statement that in 2001 and 2003, defense attorneys across the country were not "well-informed about the utility and availability of biomechanical experts" and that there were "relatively few qualified experts who could opine about its application" credible.

80. There is no evidence that any reported decisions from the Texas Court of Criminal Appeals or the El Paso Court of Appeals in the years before and including 2003 mentioned biomechanical evidence at all, much less reflect testimony by a biomechanical expert in a criminal case.

81. The evidence supports the conclusion that lead counsel, Matthew DeKoatz, was well qualified as a criminal defense attorney in trials and appeals of complex cases and well respected in the legal community, and if known to him, would have utilized available scientific expertise to further the defense's theory in trial.

82. The Court finds that the scientific knowledge of two of the three testifying medical experts, Dr. Contin and Dr. Rodriguez, has changed since the date of trial.

V. CONCLUSIONS OF LAW

1. The Court rejects the State's previously asserted argument that Avila cannot prevail on his claim of new scientific evidence unless he proves that the State's testifying experts have recanted the relevant portion of their trial testimony. No such requirement appears in the text of 11.073 or court authority interpreting the statute.

2. Given the nature of the 2015 amendment to art. 11.073, the Court will not adopt the view that a "recanting expert" is an indispensable element of any claim under the statute.

3. A change in either "the field of scientific knowledge" or "a scientific method" is sufficient to support a finding that the new scientific evidence was not previously "ascertainable," and the Court finds that each of those conditions is met here.

4. The scope of the issues designated by this court upon which Avila makes his claim for relief rest on Tex. Code Crim. Proc. art. 11.073, which took effect on September 1, 2013.

5. Article 11.073 is a relatively new legal basis that was unavailable when Avila filed his initial writ application in May 2003.

6. The Court of Criminal Appeals has already held in this case that Avila has satisfied Article 11.071 § 5(a)(1). *Ex parte Avila,* No. WR-59,662-02 (Tex. Crim. App. March 9, 2016) (not designated for publication), slip op. at 3 ("[T]he application satisfies the requirements of Article 11.071, Section 5(a), and the cause is remanded … for consideration on the merits").

7. Because Article 11.073 went into effect after Mr. Avila's initial writ application was filed, the relevant date for determining the ascertainably of the new science is the date of his trial (May 2001), not the date of his original state habeas application (2003).

8. Art. 11.073 (c) does require an applicant seeking relief via a subsequent application to establish that his new scientific evidence was unavailable at the time of his initial writ application, but the statute should not be construed to apply that section retroactively to defeat Mr. Avila's claim.

9. Art. 11.073(c) is directed to the situation where a claimant files his first writ application after September 1, 2013, and thus has the option of raising a "new science" claim in his first writ application. If he chooses not to do so, and later tries to bring such a claim in a subsequent application, art. 11.073(c) will require him to show that the relevant new science was unavailable when he filed his first application.

10. Avila could not allege a "new science" claim in May 2003 when he filed his initial writ application, because the legal basis for such claims created by art. 11.073 did not yet exist and thus was legally unavailable. *See* art. 11.071, § 5.

11. Because Avila never had the opportunity to advance a claim under art. 11.073 in his original writ application, applying art. 11.073 (c) does not bar him from raising such a claim now as it would frustrate the intention of the Legislature when it adopted art. 11.073.

12. Consequently, the Court will assess the ascertainably of Mr. Avila's new scientific evidence as of the time of trial, not the time of his initial writ application.

13. In the present case, however, the choice between the two potentially applicable dates (May 2001 and May 2003) does not control the outcome, because the evidence establishes that the relevant new scientific evidence was not available even by the later date.

14. The Court concludes that relevant scientific biomechanical evidence for the analysis of the injuries that caused the death of the N.M. was not available at the time of Mr. Avila's trial.

15. The Court concludes that such relevant scientific biomechanical evidence is "currently available"

16. The Court concludes that application of biomechanical analysis to abdominal injuries in infant cause-of-death determinations was not ascertainable through the exercise of reasonable diligence in 2001 or 2003.

17. The Court concludes that the evidence establishes a change since 201/2003 in relevant "field[s] of scientific knowledge", namely pediatric forensic pathology and biomechanical analysis

18. The Court concludes that the scientific knowledge of two testifying experts, Dr. Contin and Dr. Rodriguez, has changed since 2001/2003.

19. The Court concludes that "a scientific method on which the relevant scientific evidence is based has changed." The relevant "scientific method" is that forensic pathologists now have the ability to consult with biomechanical experts in order to apply biomechanical analysis to infant cause-of-death determinations.

20. "Reasonable diligence" describes the level of care that a reasonable attorney would exercise, under the prevailing norms of the relevant professional community; it is the same thing as "due diligence." To act with reasonable diligence is to investigate the relevant facts and circumstances sufficiently to make an informed decision (for example, in selecting a theory of defense in a criminal case).

21. "Reasonable diligence" requires only reasonable efforts.

22. The Court concludes that the relevant new science at issue in this case – the application of biomechanics to the assessment of serious or fatal abdominal injuries in infants – was not ascertainable through the exercise of reasonable diligence in either 2001, when Avila was tried, or in May 2003, when his initial writ application was filed.

23. The Court concludes that Avila's new relevant scientific evidence contradicts scientific evidence relied on by the State at trial, namely, the testimony of Drs. Contin and Raschbaum describing the types of events that would be necessary to generate the force necessary to cause N.M.'s fatal injuries and Dr. Raschbaum's testimony that it was

not physically possible for D.S. to have inflicted N.M.'s severe injuries through "normal playing in a household."

24. The State has conceded that the scientific knowledge and methodology upon which Avila's claim rests would be admissible under the Texas Rules of Evidence, as contemplated by Tex. Code Crim. Proc. art.11.073(b)(1)(B). *See* State's Answer at 40 n.13 (acknowledging that Avila's biomechanics evidence would be admissible at a new trial).

25. The State's concession is sufficient to support the Court's finding that Avila's new scientific evidence in this case would be admissible under the Texas Rules of Evidence in a trial held on the date of the application (September 6, 2013).

26. Notwithstanding the State's concession, however, the Court independently finds and concludes that the new scientific evidence in this case would be admissible under the Texas Rules of Evidence in a trial held on the date of the application (September 6, 2013).

27. Art. 11.073(b)(2) requires Claimant to show by a preponderance of the evidence that had the new scientific evidence been presented at trial, he would not have been convicted.

28. The Court rejects the States argument that the Art. 11.073(b)(2) standard should be analyzed in essentially the same as the one set by the Court of Criminal Appeals for prevailing on a pure actual innocence claim. Given the difference in language, intent and interpretation of the controlling legal authority, the question for this Court is not whether

the newly available scientific evidence proves that Mr. Avila is innocent, but instead whether the scientific evidence, presented at trial, would have left jurors with reasonable doubt about his guilt.

29. The Court concludes that an applicant can satisfy art. 11.073(b)(2) even if his new scientific evidence does not render the State's case legally insufficient to convict.

30. The Court concludes that had Dr. Van Ee's biomechanical analysis been presented at trial, jurors would have had a reason to credit Avila's initial account of what occurred on February 29, 2000.

31. The Court concludes that the new scientific evidence here is material under art. 11.073(b)(2).

32. The Court concludes that the question of the amount of force required to result in the injury suffered by N.M was outside the expertise of Dr. Raschbaum.

33. The Court concludes by a preponderance of the evidence that the newly available scientific evidence in this case, against the backdrop of the remainder of the evidence as a whole and the credibility concerns with D.S.'s testimony (FOF Trial Evidence 23), would have left the jury with reasonable doubt about Mr. Avila's guilt.[20]

[20] Because the Court concludes based solely on the trial evidence that the new scientific evidence is sufficiently material to warrant relief under art. 11.073, it need not address Applicant's argument that a court may look beyond the trial record in assessing materiality. *See, e.g., Thomas v. State*, 841 S.W.2d 399, 406 (Tex. Crim. App. 1992) (considering, in deciding materiality, how the absence of certain evidence might have "affected the preparation and presentation" of the defense case); *Ex parte Mares*, No. 76,219, 2010 WL 2006771 (Tex. Crim. App. May 19, 2010) (not designated for publication) at *8 (deciding whether *Brady* violation was material by considering, *inter alia*, whether "applicant would have adopted a different defense strategy" if the suppressed evidence had been disclosed).

34. The State has attempted to draw a distinction between what it terms "qualitative" and "quantitative" expert opinions offered in this matter. *See* State's Answer at 63. The State has argued that an expert opinion regarding "the amount of force that can be generated by an approximately 40-pound object or child falling or jumping from a certain height, is an objective, black-or white type of scientific evidence (like a mathematical equation) where there is a right-or-wrong answer," whereas an expert's answer to the question whether that much force could have caused the specific injuries suffered by N.M. is a "qualitative opinion" that leaves room for disagreement. *Id*. The purported distinction does not withstand scrutiny.

35. First, these two opinions cannot be so easily separated, however, as one necessarily flows from the other. Moreover, there is an objective scientific answer to both questions. Deriving an answer to the question, "How much force could a boy of D.S.'s weight generate in jumping from a height of 18 inches?" may be time-consuming and complex, but it is certainly possible – as demonstrated by the testimony of Dr. Van Ee and reflected in his final report. *See* Ex. A3 at 6 ("Results from the testing indicate that a child approximately the size of [D.S.], jumping off of a bed landing feet first onto another child's abdomen, could produce abdominal impact forces as large as 400-500 lbs."). In the same fashion, there exists objective scientific evidence in the form of peer-reviewed, published, empirical research which shows that the level of force that could have been generated in the circumstances of this case can cause severe or fatal injuries like the ones N.M. suffered (severed pancreas). *Id*. ("These impact forces [400-500 lbs.]

are in excess of those that are known to result in serious abdominal trauma"). Neither of these opinions is "qualitative." Both reflect quantitative measurement – of forces on the one hand, and degree of injury from a particular level of force on the other. Contrary to the State's assertion, the latter is just as "black and white" as the former.

36. In this same vein, citing *Robbins I*, the State attempts to reframe this claim as a "battle of the experts," arguing that "the Court of Criminal Appeals has never held that the mere existence of differing expert opinions necessarily renders one opinion or the other as false." State's Answer at 65. However, *Robbins* has little bearing on this case for two reasons: first, although the testifying expert had "reevaluated" her ultimate opinion on manner of death (changing it from "homicide" to "undetermined"), she did not renounce her entire testimony. More important, unlike here, the testifying expert's trial testimony in *Robbins* was not rendered scientifically suspect, if not false. The *Robbins* Court noted that although various experts had testified in the habeas proceeding that the autopsy findings did not support the testifying expert's conclusion that the death was homicide by asphyxiation, "none of the experts … stated that [the victim] could not have been intentionally asphyxiated" and neither the testifying expert's "conclusions nor the autopsy evidence on which she relied [was thereafter] entirely refuted by any expert." *Robbins*, 360 S.W. 3d at 461-46.

37. In the instant case, the testimony of the State's experts that a child D.S.'s size was not physically capable of causing N.M.'s injuries has been fundamentally and scientifically challenged and arguably refuted. Using analogies that have been shown to

be scientifically invalid, the State's medical experts testified at trial that the only way N.M.'s injuries could have been accidentally caused was by a high speed traffic accident or if D.S. had dropped onto N.M. from a height of 20 feet. Dr. Van Ee's tests, backed by the testimony of every expert who testified in Mr. Avila's habeas proceeding, could support a factual conclusion that this claim was objectively false.

38. The State also cites *Ex parte De La Cruz,* 466 S.W.3d 855 (Tex. Crim. App. 2015), as supporting its contention that Mr. Avila's new scientific evidence does not show that the State's expert testimony at trial was false or misleading within the meaning of *Chabot* and its progeny. State's Answer at 66.

39. *De La Cruz* differs sharply from Mr. Avila's case, however, because De La Cruz's "new evidence" did not introduce a new theory to the case at all. In fact, the "new evidence" in *De La Cruz* simply served to reinforce the very same defense theory that had been fully developed at trial (that medical evidence contradicted an eyewitness's statement regarding the location of the fatal shooting), its only "new" aspect being that it came from a second pathologist who largely reiterated the conclusions to which the original pathologist had testified at trial. *De La Cruz,* 466 S.W.3d at 860-63. In rejecting the claim, the CCA concluded that "the new evidence serve[d] only to bolster the primary assertions that were passed upon by the jury at Avila's trial;" accordingly, it held that, "*under these particular circumstances,* a habeas court owes deference to the jury's determination with respect to the weight and credibility of the evidence that was presented at trial." *Id.* at 870 (emphasis supplied).

40. The "particular circumstances" of Mr. Avila's case are distinguishable to those in *De La Cruz*.

a. None of the factual disputes implicated by the instances of false testimony by the State's medical experts in Mr. Avila's case were fully aired before the jury.

b. There was no expert testimony to show that D.S. was capable of creating the force necessary to cause N.M.'s injuries, so only one "side" of that potential dispute – represented by the testimony of the State's medical experts that it was physically impossible for D.S. to have generated that much force – was before the jury.

c. On this record, it cannot be said that those issues were among the "primary assertions … passed upon by the jury at [his] trial," or that the jury's guilty verdict "reconciled" any such disputes.

41. Although the State has argued that, as in *De La Cruz*, the jury here was presented with, and rejected, the theory advanced by Avila in this proceeding (that D.S. must have caused the injuries), this contention stretches *De La Cruz* beyond its bounds. To be sure, the parties in Mr. Avila's trial clashed over whether D.S. could have caused N.M.'s injuries. Mr. Avila testified in his own defense and denied harming N.M.; because no one other than D.S. and Mr. Avila had access to N.M. during the time the injuries must have been inflicted, that testimony squarely put before the jury the question of whether D.S. had been responsible. But that is a far cry from saying that there was conflicting

scientific evidence before the jury in Mr. Avila's case about D.S.'s capacity to have caused N.M.'s injuries. On that question, the evidence was entirely one-sided.

42. In the "particular circumstances" of this case, this Court concludes that the jury never passed on the truth or falsity of this aspect of the testimony of the State's medical experts, and *De La Cruz* does not bar this Court from determining in this proceeding that their trial testimony was false or misleading within the meaning of *Chabot* and its progeny.

43. Newly available scientific evidence establishes that the State presented false or misleading expert medical testimony regarding the amount and quality of force that could have caused the victim's fatal injury.

44. The Court does not conclude that the newly available scientific evidence establishes that Avila is actually innocent of the crime for which he was convicted by clear and convincing evidence that no reasonable juror would have convicted him.

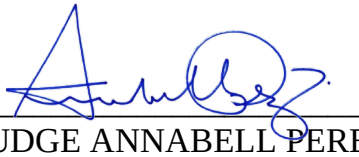
VI. RECOMMENDATION

In the Court's view, Mr. Avila has shown that he is entitled to a new trial on two separate and distinct grounds. First, he has proven that there is new relevant scientific evidence which could not have been ascertained through reasonable diligence in 2001 or 2003 and which, had it been introduced at trial, probably would have led jurors to harbor reasonable doubt about his guilt. See art. 11.073. Second, he has proven that the State presented false and misleading evidence and argument, and that there is a reasonable

likelihood that the false and misleading testimony affected the judgment of the jury. *Chavez*, 371 S.W.3d at 208 (reciting materiality standard for *Chabot* claims).

Having heard the testimony, reviewed all relevant evidence, and considered the arguments of counsel, the Court recommends to the Court of Criminal Appeals that it grant post-conviction habeas corpus relief from Mr. Avila's capital murder conviction on Claims I and/or II, set aside the judgment in Cause No. 20000D01342, and remand Mr. Avila to the custody of the Sheriff of El Paso County to answer the charges in the indictment.

Signed this 6th day of October, 2018.



JUDGE ANNABELL PEREZ

IN THE COURT OF CRIMINAL APPEALS
OF TEXAS

NO. WR-59,662-02

EX PARTE RIGOBERTO AVILA

ON APPLICATION FOR WRIT OF HABEAS CORPUS
CAUSE NO. 2000D01342 IN THE 41ST JUDICIAL DISTRICT COURT
EL PASO COUNTY

***Per curiam*.**

O R D E R

This is a subsequent application for a writ of habeas corpus filed pursuant to the provisions of Texas Code of Criminal Procedure Article 11.071, § 5.[1]

Applicant was convicted in May 2001 of the capital murder of N. M., a nineteen-month-old child. The offense occurred when Applicant was babysitting N. M. and his

[1] Unless otherwise indicated, all references to Articles are to the Texas Code of Criminal Procedure.

four-year-old brother, D. S., in February 2000. An autopsy revealed that major organs in N. M.'s body had been split in two by considerable blunt-force trauma. The medical examiner reported that N. M. "died of internal bleeding due to massive abdominal trauma resulting from blunt force injury." The evidence at trial showed that N. M. had an abdominal bruise which resembled a shoeprint.

Applicant gave two written statements to police which were introduced at trial. In his first statement, Applicant said that he was in the living room and the boys were in the bedroom when the injury occurred. Applicant said he discovered N. M. lying face-up on the bedroom floor after D. S. called to him and told him that N. M. was not breathing. Applicant then called 911 and performed CPR on N. M. until the paramedics arrived. Applicant said that D. S. later told him that D. S. and N. M. were "wrestling" and D. S. "put his hand over [N. M.'s] mouth and [N. M.] fainted."

In his second statement, Applicant admitted that he went into the bedroom and "stamped on [N. M.] hard" with his foot while N. M. was lying on the floor. Applicant said that "[D. S.] never put his hand on [N. M.'s] mouth and made him stop breathing." Applicant admitted that he "told [D. S.] to say that[.]" Applicant denied this story at trial and claimed that he did not read this statement before he signed it.

Applicant testified at trial that he discovered N. M. was injured after D. S. informed him that N. M. was not breathing. Applicant explained that D. S. did not answer him when Applicant asked him what happened.

D. S. testified at trial that Applicant "stepped on" N. M. "[w]ith his shoe." D. S. also used dolls to demonstrate for the jury how that occurred.

Dr. Juan Contin, the medical examiner who conducted N. M.'s autopsy, and Dr. George Raschbaum, the pediatric surgeon who operated on N. M., testified for the State. Both Contin and Raschbaum testified that they did not think N. M.'s injury was accidentally inflicted. They testified that it would take "strong" or "considerable" force to cause the injury, which was the type of injury they had previously seen in "traffic accidents" or "high speed accidents." When Raschbaum was asked if a four-year-old child was capable of causing the injury, he replied that it would be "unlikely," but "if you go from a height of 20 feet and you drop somebody, I guess it's a possibility."

Dr. Fausto Rodriguez, a forensic pathologist who conducted a second autopsy of N. M.'s body, testified for the defense. He testified that N. M. died from "[m]assive injuries to the abdominal organs secondary to the blunt force trauma to the abdomen." He opined that the injuries "could be explained by a single traumatic event." However, he could not determine whether or not it was an accident.

The jury convicted Applicant of the offense of capital murder. The jury answered the special issues submitted under Article 37.071, and the trial court, accordingly, set punishment at death. Art. 37.071, § 2(g). This Court affirmed applicant's conviction and sentence on direct appeal. *Avila v. State,* No. AP-74,142 (Tex. Crim. App. July 2, 2003) (not designated for publication).

Applicant filed his initial post-conviction application for writ of habeas corpus in the convicting court on May 19, 2003. This Court denied relief. *Ex parte Avila,* No. WR-59,662-01 (Tex. Crim. App. Sept. 29, 2004) (not designated for publication). Applicant then petitioned for a federal writ of habeas corpus, which was ultimately denied. *Avila v. Quarterman,* 499 F. Supp. 2d 713, 775 (W.D. Tex. 2007), *affirmed in part and reversed in part, certificate of appealability denied,* 560 F.3d 299 (5th Cir. 2009).

On September 6, 2013, Applicant filed in the trial court this subsequent habeas application, in which he raised three claims:

1. Applicant has newly available scientific evidence entitling him to relief.

2. Applicant was convicted on the basis of false and misleading scientific evidence at trial, in violation of due process.

3. Applicant is actually innocent of capital murder.

Specifically, Applicant has presented evidence from a biomechanical engineer, a physicist, and forensic pathologists as "newly available scientific evidence" to show that D. S. could have caused N. M.'s injury by jumping from a height of eighteen inches and landing on N. M.'s abdomen.[2] *See* Art. 11.073. Applicant asserts that this evidence proves that Contin and Raschbaum gave false or misleading trial testimony regarding "the level of force necessary to cause the infant's fatal injuries." Finally, Applicant asserts

[2] Dr. Chris Van Ee, a biomechanical engineer, conducted an experiment to simulate what would have happened if D. S. had jumped from a bed and landed on N. M.'s abdomen. Using crime scene photos and measurements provided by apartment complex employees, Van Ee estimated that the bed in the room where the injury occurred was eighteen inches high.

that he is actually innocent of capital murder in light of the "newly available scientific evidence."

On March 9, 2016, we held that Applicant "alleged prima facie facts sufficient to invoke Article 11.073." Therefore, we held that the application "satisfie[d] the requirements of Article 11.071, Section 5(a)," and we remanded the cause to the convicting court "for consideration on the merits." After holding a hearing in March 2017, the trial court signed findings of fact and conclusions of law recommending that relief be granted on Claims 1 and 2. We disagree.

With regard to Claim 1, Article 11.073 provides that an applicant is entitled to post-conviction writ relief if he can prove that:

> (1) Relevant scientific evidence is currently available and was not available at the time of the convicted person's trial because the evidence was not ascertainable through the exercise of reasonable diligence by the convicted person before the date of or during the convicted person's trial;
>
> (2) The scientific evidence would be admissible under the Texas Rules of Evidence at a trial held on the date of the application; and
>
> (3) The court must make findings of the foregoing and also find that, had the scientific evidence been presented at trial, on the preponderance of the evidence the person would not have been convicted.

Art. 11.073(b)(1) & (2). When assessing reasonable diligence, "the court shall consider whether the scientific knowledge or method on which the relevant scientific evidence is based" has changed since the date of trial (for a determination with respect to an original application) or the date upon which a previous application was filed (for a determination

made with respect to a subsequent application).[3] Art. 11.073(d).

Under the circumstances presented in this case, Applicant has not demonstrated that, "had the scientific evidence been presented at trial, on the preponderance of the evidence [he] would not have been convicted." Art. 11.073(b)(2). When Contin testified at the habeas hearing and Raschbaum responded in an affidavit, they both stood by their trial testimony. As discussed above, Applicant told police that he "stamped on" N. M., witnesses testified that N. M.'s abdominal bruise resembled a shoeprint, and D. S. testified that Applicant "stepped on" N. M. "[w]ith his shoe." Therefore, based upon our own review, we deny relief on Claim 1.

With regard to Claim 2, Applicant must show by a preponderance of the evidence that (1) false evidence was presented at his trial and (2) the false evidence was material to the jury's verdict. *See Ex parte De La Cruz,* 466 S.W.3d 855, 866 (Tex. Crim. App. 2015), *citing Ex parte Weinstein,* 421 S.W.3d 656, 659, 665 (Tex. Crim. App. 2014). We review factual findings concerning whether a witness's testimony is false under a deferential standard, but we review *de novo* the ultimate legal conclusion of whether such testimony was "material." *See Weinstein,* 421 S.W.3d at 664. False testimony is "material" only if there is a "reasonable likelihood" that it affected the judgment of the jury. *Id.* at 665.

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[3] Applicant filed this subsequent application in 2013, when the original version of Article 11.073 was in effect. In 2015, Article 11.073(d) was amended to read that "the court shall consider whether the field of scientific knowledge, a testifying expert's scientific knowledge, or a scientific method on which the relevant scientific evidence is based has changed[.]"

Both Contin and Raschbaum opined at trial that N. M.'s fatal injury was not the result of an accident, and they continue to stand by their trial testimony. Applicant's habeas experts did not refute the possibility that the injury could have been intentionally inflicted by Applicant. *See Ex parte Robbins,* 360 S.W.3d 446, 460-462 (Tex. Crim. App. 2011)(holding that medical examiner's trial testimony was not false "when neither she nor any other medical expert [could] exclude her original opinion as the possible cause and manner of death"). However, even if we assume that the complained-of testimony was false or misleading, it was not material. Even if the boys had been "wrestling" in the bedroom, that does not necessarily mean that D. S. jumped from the bed onto N. M. Applicant did not tell police that D. S. jumped from the bed, nor did D. S. testify to that effect. Applicant admitted to police that he "stamped on" N. M., and D. S.'s trial testimony and other evidence supported that verison of events. Based upon our own review, we deny relief on Claim 2.

Finally, we turn to Applicant's actual innocence claim. To obtain relief, Applicant has a "Herculean" burden to prove by clear and convincing evidence that no reasonable juror would have convicted him based on the new evidence. *Ex parte Elizondo,* 947 S.W.2d 202, 210 (Tex. Crim. App. 1996); *Ex parte Brown,* 205 S.W.3d 538, 545 (Tex. Crim. App. 2006). The trial court concluded that Applicant failed to meet this burden. We adopt the trial court's conclusion that Applicant is not entitled to relief on Claim 3. Based upon the trial court's findings and conclusions and our own review, we deny relief

on Claim 3.

IT IS SO ORDERED THIS THE 11th DAY OF MARCH, 2020.

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IN THE COURT OF CRIMINAL APPEALS
OF TEXAS

NO. WR-59,662-02

EX PARTE RIGOBERTO AVILA

ON APPLICATION FOR WRIT OF HABEAS CORPUS
CAUSE NO. 2000D01342 IN THE 41ST JUDICIAL DISTRICT COURT
EL PASO COUNTY

***Per curiam*.**

O R D E R

This is a subsequent post-conviction application for writ of habeas corpus filed pursuant to the provisions of Texas Code of Criminal Procedure Article 11.071, § 5.[1]

In May 2001, a jury convicted applicant of the offense of capital murder. The jury answered the special issues submitted under Article 37.071, and the trial court, accordingly,

[1] Unless otherwise indicated, all references to Articles are to the Texas Code of Criminal Procedure.

set punishment at death. Art. 37.071, § 2(g). This Court affirmed applicant's conviction and sentence on direct appeal. *Avila v. State,* No. AP-74,142 (Tex. Crim. App. July 2, 2003) (not designated for publication).

Applicant filed his initial post-conviction application for writ of habeas corpus in the convicting court on May 19, 2003. This Court denied relief. *Ex parte Avila,* No. WR-59,662-01 (Tex. Crim. App. Sept. 29, 2004) (not designated for publication). Applicant then petitioned for a federal writ of habeas corpus, which was ultimately denied. *Avila v. Quarterman,* 499 F. Supp. 2d 713, 775 (W.D. Tex. 2007), *affirmed in part and reversed in part, certificate of appealability denied,* 560 F.3d 299 (5th Cir. 2009).

Applicant then filed this subsequent habeas application in the convicting court on September 6, 2013. In compliance with Article 11.071, § 5(b)(1), the convicting court forwarded this application to this Court.

Applicant alleges that this subsequent application should be considered on the merits. He argues that the factual or legal basis for his claims was unavailable on the date he filed the previous application. Art. 11.071, § 5(a). He also argues that Article 11.073 creates an avenue for relief for individuals convicted of crimes based on outdated science.

To satisfy Article 11.071, § 5(a), the legal or factual basis must have been unavailable as to all previous applications. We have held that Article 11.073 provides a new legal basis for habeas relief in the small number of cases where an applicant can show by a preponderance of the evidence that he would not have been convicted if the newly available

scientific evidence had been presented at trial. *Ex parte Robbins,* No. WR-73,484-02, slip op. at 16, __ S.W.3d __ (Tex. Crim. App. November 26, 2014), *reh'g denied,* __ S.W.3d __ (Tex. Crim. App. Jan. 27, 2016). "An applicant also must establish that the facts he alleges are at least minimally sufficient to bring him within the ambit" of Article 11.073. *Id.* at 16-17.

Article 11.073 applies to relevant scientific evidence that was not available to be offered by the defendant at trial, or that contradicts scientific evidence relied on by the State at trial. Art. 11.073(a). In this case, applicant has provided affidavits from experts in the science of biomechanics and the report of a physicist indicating that, contrary to the State's experts' testimony at trial, the victim's fatal injury was not necessarily caused by an adult's intentional "stomp." Thus, the applicant has alleged prima facie facts sufficient to invoke Article 11.073. Therefore the application satisfies the requirements of Article 11.071, Section 5(a), and the cause is remanded to the convicting court for consideration on the merits. *See* Art. 11.071, § 5(c); *Robbins,* slip op. at 17.

IT IS SO ORDERED THIS THE 9TH DAY OF MARCH, 2016.

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