

In the Supreme Court of Georgia

Decided: June 1, 2020

S20A0483. HAMILTON v. THE STATE.

BOGGS, Justice.

At a 2018 jury trial, Rodney Hamilton was convicted of felony murder based upon aggravated battery, arising out of the death of his three-year-old adopted daughter, Tamia. He appeals, asserting insufficiency of the evidence and error in the admission of expert testimony from Dr. Mary Case regarding Tamia's brain injury. For the reasons stated below, we affirm.¹

¹ The crimes occurred on January 30, 2015. On July 22, 2015, a Gwinnett County grand jury indicted Hamilton for felony murder and aggravated battery. At a trial from January 29 to February 2, 2018, a jury found Hamilton guilty of both charges. The trial court sentenced Hamilton to life imprisonment without the possibility of parole for felony murder and merged the aggravated battery count. On March 5, 2018, Hamilton's trial counsel filed a motion for new trial, which subsequent counsel amended on December 17, 2018. A hearing on the amended motion for new trial was held on December 18, 2018, and the motion was denied on January 15, 2019. Hamilton filed a timely notice of appeal on February 13, 2019, and the case was docketed in this Court for the

1. Construed in the light most favorable to the jury's verdicts,² the evidence presented at trial showed that Hamilton was a stay-at-home husband and father with two sons and two adopted daughters, who were his biological nieces. At approximately 4:25 p.m. on Friday, January 30, 2015, a 911 operator received a call from Hamilton, who reported that Tamia was unconscious. Hamilton did not call 911 immediately upon discovering Tamia. He called his wife at 4:08 and 4:10 p.m., but she did not answer, and although she did not call him back until 4:21 p.m., he did not call 911 in the intervening time. Hamilton was on the phone with his wife for 2 minutes and 43 seconds and only then called 911.

Emergency medical personnel were dispatched at 4:26 p.m. and arrived approximately 3 minutes later. Hamilton met the EMT at the door and told him that Tamia "wouldn't wake up." The EMT went upstairs and made an "extremely quick assessment" of Tamia. She was lying on her back, her jaw was clenched, she was biting her

term beginning in December 2019 and orally argued on April 21, 2020.

² See *Jackson v. Virginia*, 443 U. S. 307, 319 (III) (B) (99 SCt 2781, 61 LE2d 560) (1979).

tongue, and her pupils were unreactive to light, which indicated to the EMT that there was “not a whole lot of brain activity.” Her body was limp except for her clenched jaw, and her skin was pale blue. Upon questioning, Hamilton indicated that Tamia had fallen and hit her head four days earlier but had been acting normally. Based on Tamia’s condition, the EMT carried Tamia to the ambulance to administer an IV and oxygen and transported her to the Gwinnett Medical Center. On the way to the hospital, Tamia’s color improved with the administration of oxygen, but as the ambulance arrived at the hospital, she began “posturing,” a condition in which the limbs stiffen involuntarily, indicating an absence of brain activity or lack of oxygen to the brain. At the hospital, doctors inserted a breathing tube, administered anti-seizure medication, and performed a CT scan of Tamia’s head.

Tamia was airlifted to Children’s Healthcare of Atlanta, Scottish Rite Hospital. Dr. Greg Melnikoff, the treating emergency room physician at Scottish Rite, determined that the earlier CT scan showed catastrophic damage to Tamia’s brain. Tamia had a large

subdural hematoma from a torn vein that caused her brain to shift inside her skull; the hematoma caused an “infarction,” or brain death, in part of the brain due to interrupted blood flow. The CT scan also showed a missing ventricle from damage and blood accumulation, as well as an uncal herniation, which occurs when swelling forces the brain stem out of the skull through the small opening at the spinal column. Dr. Melnikoff concluded that Tamia’s injuries were so severe that there was very little that could be done to help her. A craniectomy did not improve Tamia’s condition, and she was kept on life support for six days so that her organs could be donated before her death on February 5.

Dr. Melnikoff testified that Tamia’s injury was a “major force injury . . . something massive” and that Tamia could not have been behaving normally after it occurred. The lack of external injuries was not unusual, in Dr. Melnikoff’s opinion, as Tamia’s injury was consistent with a “very rapid acceleration and deceleration or kind of rotational force” injury – for example, a fall from a second-story railing to the floor below, or a car crash in which a person was

wearing a seatbelt but suffered rapid deceleration. Dr. Melnikoff testified that nothing that Hamilton told him about Tamia's history, including his report that "about a week earlier she had fallen down . . . a flight of stairs," explained her severe injury and that it would be abnormal for Tamia to have suffered this type of injury, be fine for a week, and then have a sudden onset of symptoms. He acknowledged that rebleeding of an old bleed could occur but explained that rebleeding was generally asymptomatic and non-life-threatening and would not produce severe symptoms without "a new, separate event."

Dr. Melnikoff was the first physician to speak with Hamilton at Scottish Rite, and he testified that their conversation seemed so unusual to him that he made a record of it. Instead of asking how Tamia was doing, as most parents did in such circumstances, Hamilton immediately launched, unsolicited, into a detailed account of everything that had happened since Tamia allegedly fell down the stairs. Dr. Melnikoff had to interrupt Hamilton to talk to him about Tamia's condition, and Hamilton did not interact with, question, or

comment on the doctor's explanation about how critical her condition was. The doctor testified that he had never seen anyone react to bad news in this "flat" and emotionless way, and he felt that Hamilton's reaction was "kind of off." As a result of Hamilton's odd behavior and lack of a reasonable explanation for Tamia's severe injury, Dr. Melnikoff referred Tamia's case to the hospital's child abuse team.

Dr. Tamika Bryant, a Scottish Rite physician specializing in child abuse pediatrics, examined Tamia and reviewed her medical records in response to the request from Dr. Melnikoff. She concluded that Tamia's injury was caused by "a violent, very significant force" to her head. Hamilton's account that Tamia was behaving normally when he laid her down for her nap at 1:45 p.m. and was suddenly in critical condition two hours later did not make sense to Dr. Bryant, "without any sort of intervening event happening." In her opinion, a fall down the stairs a week earlier could not have produced the traumatic effects noted if the child were acting normally two hours earlier. Dr. Bryant also did not believe that Tamia's brain injury was

due to “rebleeding” of an older injury, which is typically not life-threatening.

Dr. Carol Terry, the chief medical examiner for Gwinnett County, performed the autopsy on Tamia’s body and prepared specimens of brain, eye, and spinal cord tissue for microscopic examination. Dr. Terry noted no external injuries or injuries to the spine or neck. She observed swelling of the brain and consequent brain death due to deprivation of blood flow and oxygen, hemorrhaging in the retinas, and a torn area of the retina, consistent with trauma. Dr. Terry saw no evidence of a chronic bleed with an acute component. She concluded that Tamia suffered a traumatic head injury and closed head trauma, either through impact or inertia, and that her death was a homicide. Like Dr. Melnikoff and Dr. Bryant, Dr. Terry concluded that Tamia’s injuries were inconsistent with either a fall down a staircase, as Hamilton claimed, or any other sort of incident, including a fall, occurring a week prior to symptoms developing. Dr. Terry also concluded that Hamilton’s story that Tamia was fine when put down for a nap and

later woke up in a tremendously deteriorated state was not a reasonable explanation for Tamia's brain injuries.

Dr. Mary Case, a forensic pathologist and neuropathologist who testified for the State at Hamilton's trial, stated that she reviewed Tamia's file, including all her medical records from birth forward and all other records associated with the case. She testified to the presence of hemorrhages in Tamia's brain and eyes, which Dr. Case said were typical of injuries inflicted by "very severe" forces on the head. Dr. Case also tested the brain sections preserved by the medical examiner with a "beta amyloid precursor protein stain" ("BAPP stain") to look for damaged "axons" or nerve fibers in the brain. Dr. Case testified that with this test, she discovered two types of axonal damage: traumatic and hypoxic (lack of oxygen). The right side of Tamia's brain showed traumatic damage, while the left side showed only hypoxic damage. Based upon all this information, Dr. Case concluded that Tamia suffered a closed-head injury or inertial brain injury, and that the manner of death was homicide. She further testified that the BAPP stain procedure was not necessary

to make the diagnosis, but illustrated the process of injury. Dr. Case discounted the possibility of “re-bleeding” of an older injury. She also testified that the retinal hemorrhages she observed were due to trauma, that Tamia could not have had a “lucid interval” after the fatal injury, and that the injury could not have been caused by a fall down the stairs.

Hamilton testified in his own defense and recounted that Tamia fell down a staircase on January 23 but did not cry and did not appear to be injured. He further testified that on the day of Tamia’s fatal injury, nothing seemed to be wrong with her. He stated that when he put her down for her nap she was “weepy and moaning” and did not want to go to sleep, but he convinced her to take a nap. Hamilton said that when he went to wake her after the two older children returned from school, he saw that she had one arm in the air, was biting her tongue, and would not wake up. Hamilton stated that he told the doctors on multiple occasions that he knew of nothing that had happened to Tamia other than her fall down the stairs.

Hamilton's wife testified for the defense that when she was home for a short time two days before Tamia's fatal injury, "everything was fine at the house." She also testified that Hamilton had told her about Tamia's fall down the stairs at the time it occurred.³

Hamilton also presented the testimony of Dr. Jonathan Arden, an expert in forensic pathology. Dr. Arden testified that his examination of the medical records, including CT scans and microscopic slides, showed not only an acute subdural hemorrhage that was very recent, within hours or a day of Tamia's hospitalization, but also an older hemorrhage that Dr. Arden concluded could have occurred up to a week earlier, as well as "old membrane" that was at least several weeks or months old. He testified that a fall down a staircase might "on occasion" cause injuries like Tamia's, and that the cause of Tamia's death was "the totality of blunt head trauma." Dr. Arden disagreed that Tamia's

³ In addition, during the State's case, a day-care worker testified that Tamia was behaving normally in the days after Hamilton told the worker that Tamia had fallen down the stairs.

retinal hemorrhages were caused by trauma, concluding that they were caused by increased cranial pressure.

Dr. Arden admitted on cross-examination that his “first consideration” was homicide and that he did not “have enough evidence to say definitively one way or the other.” Dr. Arden acknowledged that he had not interviewed Hamilton but relied upon the medical records and police reports, including Hamilton’s statement to police, and he agreed that his opinion could change if Hamilton’s account of the circumstances of Tamia’s injury was inaccurate. Dr. Arden also agreed that Tamia’s brain injuries were the result of trauma and that he would not expect someone with such injuries to be up and walking around for any period of time subsequent to sustaining them. Dr. Arden acknowledged that he had “no explanation in terms of history for [any subsequent] injury” and that the fall down a staircase probably “would not be the only thing” to cause Tamia’s injuries, although he also testified that it was “possible but much less likely” that the earlier fall down the stairs was the only trauma that Tamia had suffered.

2. Hamilton challenges the sufficiency of the evidence to support his conviction, noting that because the evidence against him was circumstantial, the State was required to exclude every reasonable hypothesis other than his guilt. He contends that the State failed to exclude his hypothesis that Tamia suffered an injury in her fall down the stairs a week earlier and that, as shown by Dr. Arden's testimony, her death could have resulted from rebleeding of a "subacute" injury approximately a week old or an even earlier membrane injury.

OCGA § 24-14-6 provides: "To warrant a conviction on circumstantial evidence, the proved facts shall not only be consistent with the hypothesis of guilt, but shall exclude every other reasonable hypothesis save that of the guilt of the accused." But

[n]ot every hypothesis is reasonable, and the evidence does not have to exclude every conceivable inference or hypothesis; it need rule out only those that are reasonable. The reasonableness of an alternative hypothesis raised by a defendant is a question principally for the jury, and when the jury is authorized to find that the evidence, though circumstantial, is sufficient to exclude every reasonable hypothesis save that of the accused's guilt, this Court will not disturb that finding

unless it is insupportable as a matter of law.

(Citation and punctuation omitted.) *Cochran v. State*, 305 Ga. 827, 829 (1) (828 SE2d 338) (2019). “[I]t was for the jury to determine the credibility of the witnesses and to resolve any conflicts or inconsistencies in the evidence. Likewise, it was for the jury to decide whether the defense theory . . . was reasonable and not excluded by the other evidence.” (Citations and punctuation omitted.) *Bamberg v. State*, ___ Ga. ___ (1) (a) (839 SE2d 640, 644) (2020).

Here, evidence was presented that Hamilton was the only adult in the home in the time leading up to Tamia’s injuries; that the child’s injury was profound and would have immediately incapacitated her; and that Hamilton’s account of events did not explain the severity of the injury, which could only have resulted from massive trauma inconsistent with a typical fall down a staircase, and certainly not from a fall approximately one week earlier. Several expert witnesses testified that “rebleeding” could not account for the severe injury to Tamia without another

intervening event, as to which no reasonable alternative hypothesis was offered by Hamilton. “Accordingly, the jury was not required to conclude that the hypothesis [proposed by Hamilton] was reasonable.” (Citation omitted.) *Cochran*, 305 Ga. at 829 (1).

As Hamilton notes, this Court reversed a conviction for felony murder predicated upon cruelty to children in *Johnson v. State*, 269 Ga. 840 (506 SE2d 374) (1998), based largely upon the State’s failure to eliminate a reasonable hypothesis consistent with Johnson’s innocence. While Hamilton cites this case as “highly instructive,” it is distinguished by its facts. Johnson was jointly tried with the five-month-old victim’s mother and the mother’s boyfriend and convicted of felony murder based upon cruelty to children. Similar to the facts of this case, Johnson’s actions and statements after the victim’s death were somewhat unusual, and the evidence suggested that he failed to call 911 in a timely fashion. See *id.* at 842. Other evidence, however, showed that Johnson was downstairs, where he usually slept, while the mother and boyfriend were upstairs with the baby at 3:00 a.m. when a neighbor heard the baby crying through the

upstairs wall and then the sound of a heavy blow, after which the crying ceased. See *id.* at 841. We held that the State failed to exclude the reasonable hypothesis that Johnson was downstairs at the time of the murder and had no knowledge of the attack on the baby by one or both of his co-defendants until after it was complete. See *id.* at 842-843.

Here, by contrast, no other adults were present in the home before Hamilton called 911, evidence was presented that Tamia suffered a catastrophic injury that would have immediately incapacitated her, and the only alternative explanation offered for her condition was the sudden onset of severe symptoms as a result of an injury the week before or even earlier, with that explanation being discounted by expert witnesses for the State and conceded as “less likely” by Hamilton’s own expert witness. The jury, as the trier of fact, therefore was authorized to find that the evidence, though circumstantial, was sufficient to exclude every reasonable hypothesis other than that of Hamilton’s guilt. See *id.* See also *Walker v. State*, __ Ga. __ (1) (838 SE2d 792, 796-797) (2020); *Spence*

v. State, 307 Ga. 520, 524 (1) (837 SE2d 334) (2019). The evidence also was sufficient as a matter of constitutional due process to authorize a rational finder of fact to find beyond a reasonable doubt that Hamilton was guilty of the crime for which he was convicted. See *Jackson v. Virginia*, 443 U. S. 307, 319 (III) (B) (99 SCt 2781, 61 LE2d 560) (1979).

3. In his second enumeration of error, Hamilton contends that the trial court erred in admitting Dr. Case’s testimony regarding the beta amyloid precursor protein, or “BAPP”, stain testing, asserting that the State failed to show that it was scientifically reliable or that it had been developed using proper standards and protocols. We disagree.⁴

The determination of whether a scientific principle or technique is competent evidence in a criminal case is guided by *Harper v. State*, 249 Ga. 519 (292 SE2d 389) (1982):

⁴ The District Attorney contends that Hamilton waived this enumeration of error by failing to challenge directly the scientific validity of the BAPP test at the hearing on Hamilton’s motion to exclude Dr. Case’s testimony. But even assuming, without deciding, that Hamilton preserved this issue for appeal, his enumeration of error nevertheless lacks merit.

It is proper for the trial judge to decide whether the procedure or technique in question has reached a scientific stage of verifiable certainty, or in the words of Professor Irving Younger, whether the procedure “rests upon the laws of nature.” The trial court may make this determination from evidence presented to it at trial by the parties; in this regard expert testimony may be of value. Or the trial court may base its determination on exhibits, treatises or the rationale of cases in other jurisdictions. The significant point is that the trial court makes this determination based on the evidence available to him rather than by simply calculating the consensus in the scientific community.

(Citations and footnote omitted.) *Id.* at 525-526 (1). And

[t]he foundation for evidence based on a scientific principle or technique requires two findings regarding the evidence’s reliability: such evidence is admissible upon a showing by the party offering the evidence that (1) the general scientific principles and techniques involved are valid and capable of producing reliable results, and (2) the person performing the test substantially performed the scientific procedures in an acceptable manner.

(Citations and punctuation omitted.) *Walsh v. State*, 303 Ga. 276, 279 (811 SE2d 353) (2018).⁵ We review the trial court’s decision for an abuse of discretion. See *Winters v. State*, 305 Ga. 226, 228 (2) (824

⁵ As we have previously noted, *Harper* remains good law under the current Evidence Code. See OCGA § 24-7-707; *Winters v. State*, 305 Ga. 226, 227 n.2 (2) (824 SE2d 306) (2019).

SE2d 306) (2019).

On June 30, 2017, Hamilton filed a pleading styled as a *Daubert* motion seeking to exclude the testimony of Dr. Case.⁶ In the motion, Hamilton contended that the mechanism of “shaken baby syndrome” had been called into question by the literature; that the use by Dr. Case of evidence of axonal damage in distinguishing impact from inertial injury or for assessing the timing of an injury had been called into question; and that Dr. Case had failed to explore the possibility of other causes for Tamia’s head injury. Hamilton also challenged generally the use “of axonal damage, retinal hemorrhage, and subdural hematoma to draw inferences concerning the manner of infliction, the timing, and the cause of the injuries suffered by the alleged victim in this case.”

The trial court held a hearing on Hamilton’s motion on

⁶ See *Daubert v. Merrell-Dow Pharmaceuticals*, 509 U. S. 579 (113 SCt. 2786, 125 LE2d 469) (1993). When the State noted in its response to Hamilton’s motion that under Georgia law *Harper*, rather than *Daubert*, applies to criminal cases, Hamilton filed a reply brief asserting that *Harper* is unconstitutional. In its order denying Hamilton’s motion, the trial court declined to find the *Harper* standard unconstitutional, and Hamilton has not enumerated that ruling as error.

September 15, 2017. Dr. Case was the only witness, and the only exhibit was her curriculum vitae, introduced by the State. Hamilton's defense counsel cross-examined Dr. Case but presented no evidence at the hearing. Dr. Case testified at length regarding her education and her experience as a pathologist, chief medical examiner, and professor at St. Louis University, as well as her studies of child abuse head injuries as a neuropathologist beginning in the 1970s, her research into BAPP stain testing since the early 1990s, and her service as a consultant to forensic pathologists in head injury cases. She was admitted as an expert in anatomic forensics and neuropathology without objection.

Dr. Case then testified to her procedures in consulting on a head injury case and her method of producing a report, as well as her procedure specifically in investigating Tamia's case. She testified to her work in the examination of brains for axonal injury by the use of BAPP stain testing. She described the methods used in BAPP stain testing and the basis for its findings, and testified that results of BAPP stain testing are accepted in the medical

community, reliable and reproducible, and based upon valid scientific principles. Dr. Case noted that other experts perform BAPP stain testing to find axonal injury and use a scoring method similar to her own. She testified to her findings in her investigation of Tamia's case, including not only the BAPP stain testing but the multiple specific injuries to Tamia's brain. Finally, Dr. Case testified that her conclusions would have remained the same even if she had not considered the BAPP stain test results.

On November 8, 2017, the trial court entered an order, finding that

the State's proposed expert, Dr. Mary Case is qualified and has shown the requisite skill, knowledge, training and expertise to give her opinion in this case. Furthermore, it appears that the testimony she is prepared to offer is beyond the ken of the average layperson. Lastly, the Court finds that Dr. Case's opinion is based upon proven science and has reached a scientific stage of verifiable certainty and is thus admissible.

While Hamilton asserts that Dr. Case "acknowledged . . . that 'most' medical examiners do not use" the BAPP staining test," Dr. Case testified that this is because most laboratories do not have the

equipment to perform it. She also testified that as a consultant she performs such tests for pathologists throughout the country. Moreover, Hamilton did not present expert testimony or documentary evidence to challenge Dr. Case's testimony about the scientific validity of BAPP stain testing. See *Sharp v. State*, 286 Ga. 799, 804-805 (7) (692 SE2d 325) (2010) (concluding no abuse of discretion in admitting testimony under *Harper* when appellant "presented no expert testimony or other evidence to undermine [the expert's] testimony, the theory it discussed, or the application of that theory in this case.")⁷

In any event, given the other evidence presented at trial, any error in admitting Dr. Case's testimony with regard to the BAPP stain testing was cumulative and thus harmless.

The test for determining nonconstitutional harmless error is whether it is highly probable that the error did not contribute to the verdict. When applying harmless error analysis, we review the evidence de novo and weigh

⁷ Hamilton's reliance upon *Jefferson v. State*, 312 Ga. App. 842 (720 SE2d 184) (2011), is inapposite because in that case the witness failed to testify that the technique at issue had reached a verifiable level of scientific certainty. See *id.* at 845 (2).

it as a reasonable juror would, rather than reviewing it in a light most favorable to upholding the jury's verdicts of guilty.

(Citations and punctuation omitted.) *Taylor v. State*, 306 Ga. 277, 283 (2) (830 SE2d 90) (2019).

As noted above, Dr. Terry testified that while performing the autopsy, she observed a closed-head traumatic injury with hemorrhaging, swelling of the brain, and brain death due to deprivation of blood and oxygen. Similarly, Dr. Melnikoff and Dr. Bryant testified that Tamia's brain injuries were catastrophic and consistent with a closed-head injury and described the severe injuries depicted on the CT scan as being consistent with abusive head trauma. Finally, at trial, Hamilton's expert acknowledged that he had previously relied upon BAPP staining analysis and was familiar with the research on the process. Hamilton's expert challenged Dr. Case's opinion not based on the reliability or scientific verifiability of the BAPP analysis itself, but on the ground that the results in this case may have been altered by Tamia having been on life support before her death. Under these circumstances, it

is highly probable that the admission of Dr. Case's testimony regarding BAPP stain testing did not contribute to the jury's verdict. See *Bulloch v. State*, 293 Ga. 179, 186 (3) (a) (744 SE2d 763) (2013) (challenged testimony merely cumulative of other evidence sufficient to show appellant's guilt beyond a reasonable doubt).

Judgment affirmed. All the Justices concur.