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Jul 27 2022

SC Court of Appeals

STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

Appeal from Horry County

Honorable Benjamin H. Culbertson, Circuit Court Judge

THE STATE,

RESPONDENT,

V.

DERRICK JAJUAN RIVERA,

APPELLANT.

APPELLATE CASE NO. 2021-001285

ANDERS BRIEF OF APPELLANT

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STATEMENT OF ISSUE ON APPEAL

Did the trial court err in admitting computer-generated statistical probabilities regarding DNA evidence in violation of Rules 702 and 403 of the South Carolina Rules of Evidence?

STATEMENT OF THE CASE

Appellant was indicted in Horry County on two counts of murder and one count of armed robbery and on October 18, 2021, appellant was tried before the Honorable Benjamin H. Culbertson and a jury. R. 1. Scott R. Hixson represented the State and William S. McGuire represented appellant. R. 1. The jury convicted appellant. R. 802, 1. 20 – 803, 1. 9. Judge Culbertson sentenced appellant to concurrent terms of life imprisonment for the murder charges and thirty years' imprisonment for armed robbery. R. 813, 1. 14 – 21. This appeal follows.

STANDARD OF REVIEW

This Court's review of the trial court's admission of scientific evidence is governed by the abuse of discretion standard. Graves v. CAS Medical Sys., 401 S.C. 63, 74, 735 S.E.2d 650, 655 (2012).

ARGUMENT

The trial court erred in admitting computer-generated statistical probabilities regarding DNA evidence in violation of Rules 702 and 403 of the South Carolina Rules of Evidence.

Admitted liar Bradford Britton (“Britton”) robbed a bingo parlor in Myrtle Beach, South Carolina with at least one accomplice. R. 522, l. 22 – 523, l. 12. The father-and-son owners of the bingo parlor were shot and killed by one of the robbers. R. 345, l. 19 – 346, l. 10. After telling numerous lies to the police about his involvement and the identity of his accomplice, Britton finally settled on blaming appellant for the robbery and the shootings. R. 475, l. 13 – 477, l. 6. But for improperly admitted DNA statistics, no reasonable jury could have believed Britton and appellant would have been acquitted.

On the night of July 26, 2019, an armed man burst into Waccamaw Bingo. R. 164, l. 6 – 168, l. 21. The man ran to the office. R. 169, l. 5 – 17. An employee heard a struggle inside the office. R. 172, l. 4 – 18. The robber left through the back door. R. 179, l. 3 – 7. The employee found Stephen Johnson, Jr. and Stephen Johnson, Sr. injured inside the office. R. 179, l. 5 – 181, l. 2. Both men died from gunshot wounds. R. 345, l. 19 – 346, l. 10.

Surveillance video inside the bingo hall captured portions of the crime. State’s Ex. 12. A Black man wearing a gray long-sleeved shirt, long gray pants, a black cap, and a white covering over his face runs into the bingo hall. State’s Ex. 12. The robber also has a black string backpack. State’s Ex. 12. Stephen Jr. runs into the office holding a gun to help his father. State’s Ex. 12. Both men had guns, but the bullets recovered from their bodies at the autopsies were either a .357 or .38 special and did not match the owners’ guns. R. 681, l. - 684, l. 4. The police never recovered the firearm used to shoot the Johnsons. R. 681, l. - 684, l. 4.

Surveillance video from other businesses and an alert security guard working in an adjoining neighborhood led police to a silver Volkswagen Jetta they tied to Britton. R. 361, l. 9 – 365, l. 8. R. 336, l. 6 – 338, l. 13. R. 414, l. 2 – 415, l. 15. The neighborhood had a license plate reader. R. 399, l. 9 – 403, l. 9. The police arrested Britton and interviewed him multiple times. R. 415, l. 12 – 15. R. 415, l. 13 – 427, l. 21.

Britton repeatedly lied to the police. Britton first denied any involvement and told the police he loaned his car to somebody. R. 420, l. 1 – 7. The officers could hear Britton’s guts churning and Britton had to go to the bathroom. R. 420, l. 8 – 16. Britton then lied about the involvement of men named “G” and “Trey.” R. 420, l. 17 – 424, l. 12. Britton eventually settled on naming “Mug” as his accomplice and “Mug” turned out to be appellant. Tr. 424, l. 10 – 426, l. 20.

The police agreed on cross-examination that whenever Britton made a statement that could be proved or disproved, it turned out to be a lie. R. 455, l. 15 – 19. The police told Britton that if he did not “give somebody up” that he would “eat this murder charge.” R. 496, l. 12 – 16. The police also told him they could not count the number of lies he told. R. 455, l. 2 – 8. When asked by defense counsel to rate himself on a scale from one-to-ten for honesty, Britton told the jury he was a “Ten.” R. 504, l. 1 – 5. Despite telling multiple lies and making up people who were involved, Britton rated his honesty with the police “a nine.” R. 504, l. 7 – 13. Britton was the only person to identify Rivera as the robber.

The police found items the robber left behind at the bingo hall. R. 237, l. 8 – 241, l. 7. They found a Nike sneaker, a string black bag, and a cap that had fake dreadlocks. R. 237, l. 8 – 248, l. 17. The shoe found in the office was size 9.5. R. 250, l. 10 – 15. The police also found clothing in the adjoining neighborhood that matched the clothing worn by the robber. R. 229, l.

18 – 230, l. 17. R. 261, l. 22 – 262, l. 6. The police obtained the other sneaker, a white t-shirt, a gray shirt, and gray pants. R. 229, l. 18 – 230, l. 17. R. 261, l. 22 – 262, l. 6.

When the police arrested appellant, he was wearing a size 11.5 shoe. R. 460, l. 10 – 461, l. 15. A police officer said he was not aware whether anyone measured appellant’s foot. R. 663, l. 15 – 16. Defense counsel gave the officer a measuring tool and offered to let him measure appellant’s foot in the courtroom, but the solicitor objected. R. 664, l. 3 – 19.

The police tested the items found at the bingo hall and the neighborhood for DNA. R. 536, l. 5 – 577, l. 15. Prior to trial, the court heard appellant’s motion to suppress the DNA evidence. R. 51, l. 16 – 118, l. 9. Appellant argued that under State v. Jones, 273 S.C. 723, 259 S.E.2d 120 (1979), State v. Council, 335 S.C. 1, 515 S.E.2d 508 (1999) and Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993), the state’s use of an algorithm called STRMix to determine the probabilities of a person’s DNA being part of a mixture of DNA was unreliable. R. 51, l. 21 – 52, l. 6. The State argued the STRMix probabilities were admissible under State v. Phillips, 430 S.C. 319, 844 S.E.2d 651 (2020), and proffered the testimony of three witnesses on the DNA procedure used. R. 52, l. 9 – 53, l. 20. The trial judge ruled the STRMix testimony was reliable and admissible under Daubert, Council, and Rule 403 per the analysis in Phillips. R. 117, l. 19 – 118, l. 9.

The State’s experts, using STRMix, testified that DNA found on the crotch of the gray pants was “single source” and 210 million times more likely to be appellant’s than an unrelated unidentified individual. R. 551, l. 1 – 24. DNA from the thigh of the gray pants was a mixture of two individuals and STRMix said it was 13 million times more likely to be appellant and an unknown individual than two unknown individuals. R. 552, l. 21, - 553, l. 24. The knee area of

the pants was a mixture of two people and STRMix said it was 180 septillion times more likely to be appellant than two unknowns. R. 554, l. 4 – 555, l. 2.

The strings from the black bookbag produced DNA from three individuals. R. 567, l. 22 – 568, l. 19. The computer algorithm calculated a probability that appellant and two unknowns contributed to the mixture as 31 trillion times more likely. R. 567, l. 22 – 568, l. 19. Mixtures and similar probabilities with gigantic numbers including appellant were also given by STRMix on the dreadlocks hat and shoe found at the bingo hall. R. 568, l. 20 – 574, l. 20.

Defense counsel asked Britton whether he ever let appellant use his house to “entertain a lady” and Britton denied it, stating his honesty was a “ten” on this point before the jury. R. 528, l. 12 – 19. After being confronted with transcripts of his interviews with police, Britton admitted he told them that appellant had “the run of” his house. R. 528, l. 22 – 529, l. 13. Britton denied that he and his accomplices used appellant’s clothing that appellant left behind at Britton’s house to commit the robbery. R. 530, l. 21 – 531, l. 2. Britton was a “ten” on this answer. R. 531, l. 3 – 4. The State’s DNA experts candidly admitted that this scenario, called transference, was a possible explanation for the DNA results. R. 556, l. 22 – 557, l. 4. R. 575, l. 17 – 576, l. 15. One of the experts admitted it was possible appellant never touched any of the items. R. 577, l. 13 – 15.

The trial court erred in admitting the highly prejudicial and unreliable STRMix testimony. In order to be admissible, scientific evidence must be evaluated to determine “(1) the publications and peer review of the technique; (2) prior application of the method to the type of evidence involved in the case; (3) the quality control procedures used to ensure reliability; and (4) the consistency of the method with recognized scientific laws and procedures.” Council at 19, 515 S.E.2d at 517. After Phillips, also relevant is the inquiry from Daubert. Phillips at 343, 844 S.E.2d

at 663 (referring to a “Daubert/Council hearing”). The Council Court listed the Daubert factors as: “(1) scientific methodology; (2) peer review; (3) consideration of general acceptance; and (4) the rate of error of a particular technique.” Council at 20, 515 S.E.2d at 518. The trial court must be the gatekeeper to prevent unreliable, confusing, and misleading scientific evidence from reaching the jury. Watson v. Ford Motor Co., 389 S.C. 434, 445, 699 S.E.2d 169, 174 (2010).

The State’s proffer did not satisfy these requirements regarding how STRMix works. The State’s experts described STRMix as software with algorithms that compute DNA probabilities for mixtures after the analyst develops the DNA profiles. R. 91, l. 4 – 8. While one of the experts said he learned the math for the algorithm, he admitted he had not reviewed the code for the software. R. 91, l. 19 – 24. He assumed that no one at SLED had reviewed the code. R. 91, l. 25 – 92, l. 12. Furthermore, the experts could not provide the exact reliability statistics verifying STRMix’s calculations. R. 112, l. 15 – 115, l. 25.

STRMix has never been approved by a South Carolina appellate court. A federal district judge in Michigan ruled that STRMix did not satisfy the Daubert standard. See United States v. Gissantaner, 417 F.Supp.3d 857 (W.D. Mich. 2019) reversed United States v. Gissantaner, 990 F.3d 457 (6th Cir. 2021). The district judge found that STRMix had not been adequately tested and validated for the type of DNA evidence the government presented in that case. Gissantaner, 417 F.Supp.3d at 877. The judge found the peer review data to be “equivocal.” Id. at 879. The court did not find either the error rate or the general acceptance in the scientific community factors to weigh heavily towards admission of STRMix. Id. at 880-84. While the Sixth Circuit reversed Judge Sutton’s decision on STRMix, appellant would urge this Court to adopt the district court’s conclusions. Scholars have criticized the use of algorithms and other forensic technology hidden

behind trade secrets. See Eli Siems, Katherine J. Strandburg, Nicholas Vincent, Trade Secrecy and Innovation in Forensic Technology, 73 Hastings L.J. 773 (April 2022).

As discussed in Phillips, use of statistics regarding touch DNA has great potential to mislead the jury. The State's experts admitted that it was possible that appellant never touched the tested items. Without this DNA evidence, the State primarily had only the liar Britton's testimony to convict appellant. The trial judge erred in allowing the STRMix testimony and appellant's convictions should be reversed.

CONCLUSION

For the foregoing reasons, appellant's convictions should be reversed and this case remanded for a new trial.

s/David Alexander
Appellate Defender

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This 27th day of July 2022.

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PETITION TO BE RELIEVED AS COUNSEL

Counsel for Derrick Rivera states:

1. He is Appellate Defender for the South Carolina Office of Appellate Defense and was appointed to represent appellant.
2. He has reviewed the record of appellant's trial before Judge Benjamin H. Culbertson, which was held on October 18-22, 2021, and, in his opinion, the appeal is without legal merit sufficient to warrant a new trial.
3. He has, pursuant to Anders v. California, 386 U.S. 738, 87 S. Ct. 1396 (1967), briefed an arguable legal issue which arose during the course of the trial.

Wherefore, he asks the Court to relieve him as counsel for Derrick Rivera.

s/David Alexander
Appellate Defender

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**DESIGNATION OF MATTER TO BE
INCLUDED IN RECORD ON APPEAL**

Appellant proposes the following be included in the Record on Appeal:

- (1) True-billed indictment(s):
- (2) Trial transcript dated October 18-22, 2021; and
- (3) State's Exhibit No. 12 (Bingo Video/Thumb Drive - to be transported).

I certify that this designation contains no matter which is irrelevant to this appeal.

s/David Alexander
Appellate Defender

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CERTIFICATE OF COUNSEL

The undersigned certifies that to the best of my ability this Anders Brief of Appellant complies with Rule 211(b), SCACR, and the April 15, 2014, order from the South Carolina Supreme Court entitled “Revised Order Concerning Personal Identifying Information and Other Sensitive Information in Appellate Court Filings.”

s/David Alexander
Appellate Defender

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CERTIFICATE OF SERVICE

Pursuant to Rule 262(a)(3) and Rule 262(c)(3), SCACR, the undersigned hereby certifies a true copy of the Anders Brief of Appellant and Designation of Matter in the above-referenced case has been served upon Melody J. Brown, Esquire, at the primary e-mail address listed in the Attorney Information System (AIS); and on Derrick Rivera, #314195, at Lieber Correctional Institution, PO Box 205, Ridgeville, SC 29472, this 27th day of July, 2022.

s/David Alexander
Appellate Defender

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