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IN THE COURT OF APPEALS OF NORTH CAROLINA

No. COA23-407

Filed 20 February 2024

Mecklenburg County, Nos. 20 CRS 3904, 06

STATE OF NORTH CAROLINA

v.

PRENTISS DAVID LIPSCOMB, Defendant.

Appeal by Defendant from judgment entered on 3 November 2022 by Judge David T. Lambeth, Jr. in Mecklenburg County Superior Court. Heard in the Court of Appeals 15 November 2023.

Blass Law, PLLC, by Danielle Blass, for the Defendant-Appellant.

Attorney General Joshua H. Stein, by Assistant Attorney General Donna B. Wojcik, for the State.

CARPENTER, Judge.

Prentiss David Lipscomb (“Defendant”) appeals from judgment after a jury convicted him of possession of a firearm by a felon. On appeal, Defendant argues the trial court plainly erred by admitting expert testimony without establishing the necessary foundation for reliability under North Carolina Rule of Evidence 702. After careful review, we discern no plain error.

I. Factual & Procedural Background

The evidence at trial tends to show the following. On 14 March 2019, Officer Larry Deal with the Charlotte-Mecklenburg Police Department (“CMPD”), stopped a vehicle believed to be involved in an attempted homicide and armed robbery. Defendant was a passenger in the vehicle. Because Defendant was not the subject of the stop, had no weapons on his person, and had no outstanding warrants, he was released by officers at the scene. Prior to Defendant’s release, however, he consented to a buccal swab, and an officer swabbed the inside of his mouth to obtain a DNA sample. Law enforcement subsequently searched the vehicle, and officers discovered a Ruger handgun on the passenger side of the vehicle.

On 17 February 2021, a Mecklenburg County grand jury indicted Defendant for possession of a firearm by felon, carrying a concealed firearm, and attaining the status of habitual felon. On 19 April 2021, the grand jury issued a superseding indictment for habitual-felon status. On 1 November 2022, the State tried the case before the Honorable D. Thomas Lambeth in the criminal session of Mecklenburg County Superior Court.

Several witnesses testified for the State, including Katherine Howley, a DNA analyst with CMPD’s biology section. Howley had over twenty years of experience in the field of DNA analysis, including six years with the Florida Department of Law Enforcement and over fourteen years with CMPD. Howley testified that throughout

her career, she has analyzed “thousands of [DNA] samples.” Howley was tendered and qualified as an expert in DNA analysis without objection.

When analyzing an individual’s DNA profile, Howley examines twenty-four locations on the DNA strand. Those twenty-four locations, and the information gathered from them, make up an individual’s DNA profile. Howley explained that outside of identical twins, every individual’s DNA profile is unique. She stated that this process—reviewing the twenty-four locations on an individual’s DNA strand to create their DNA profile—is widely accepted in the scientific community.

Howley then explained the multi-step process of analyzing DNA. The first step is called the “extraction” step. When Howley receives a new sample for analysis, she initially takes “what is called a ‘cutting’ from that item” and places it in a tube. She next uses “reagents and heat . . . to release the DNA from the cells that are found on that sample.” The second step is called “quantitation.” Howley testified that during this step, she determines how much DNA is present in the sample. She can also determine if any male DNA is present. The third step is called “amplification.” During amplification, Howley makes “millions of copies of DNA from those 24 locations . . . to hopefully obtain a DNA profile from that sample.” The final step is the analysis step. Howley places the sample on a “genetic analyzer,” which separates the DNA by size and “compares that DNA to a known length of DNA in order to give it what’s called a ‘call’ or a number.” That number, Howley explained, is that individual’s DNA profile.

More specifically, during the analysis step, Howley views the DNA, which “essentially looks like peaks on a graph.” She testified that the DNA sample will depict the twenty-four locations, and there will be “peaks under [each] location if [she] obtained any DNA profile from that sample.” Howley then determines if the DNA profile is “suitable for a comparison.” She can also determine if the DNA profile is single source, meaning that it is only from one individual, or a mixture, meaning that more than one individual’s DNA is present on the sample. Howley testified that this four-step process—extraction, quantitation, amplification, and analysis—is widely accepted in the scientific community.

Howley next testified regarding the difference between a major profile and a minor profile. A major profile—either a partial-major profile or a full-major profile—means “that one person contributed more DNA than the other people present in that sample” The remaining portion of the mixture are the minor profiles. Howley stated that if she has a mixture, meaning more than one person’s DNA is present, she may still be able to “pull out a major profile and do a comparison to that major profile to a known standard to determine if it matches or is consistent with that known profile.”

Howley used the four-step process in this case. She compared the buccal swab extracted from Defendant with the biological sample extracted from the grip of the handgun found in the car. She explained that when she received Defendant’s buccal swab, she performed the four steps to generate and analyze Defendant’s DNA profile.

From the buccal swab, Howley obtained a full DNA profile, meaning there was “full information at each of [the twenty-four] locations, and it was a single source profile.”

Howley then explained how she performed the same process on the samples taken from the grip of the handgun. From this sample, Howley “obtained a mixture from at least three individuals.” She stated that from this mixture, she was able to pull out a partial-major-male DNA profile, indicating that one particular individual “contributed more DNA to that sample.” Specifically, Howley testified that she was able to obtain a major profile at twenty-three of the twenty-four locations. She compared this DNA profile with the buccal sample collected from Defendant and concluded that “they were consistent with each other.”

Howley further explained that when she determines a person’s DNA profile is consistent with a forensic profile, she provides a statistical calculation to demonstrate how rare it is that the two profiles are consistent. To calculate the statistic, she uses a database that demonstrates “how often the different alleles or the different possibilities at each marker [are] seen in the population.” The statistic she calculated in this case was one in twenty-one septillion. In other words, she would have to look at twenty-one septillion people’s DNA profiles before she expects to see that particular DNA profile again.

On 3 November 2022, the jury returned verdicts of guilty for possession of a firearm by a felon and not guilty for carrying a concealed firearm. On 4 November

2022, Defendant pleaded guilty to attaining habitual-felon status and gave oral notice of appeal.

II. Jurisdiction

This Court has jurisdiction under N.C. Gen. Stat. § 7A-27(b)(1) (2021).

III. Issue

The issue before this Court is whether the trial court plainly erred by admitting Howley’s expert testimony under North Carolina Rule of Evidence 702(a).

IV. Standard of Review

When properly preserved for appeal, the admissibility of expert testimony under Rule 702 is reviewed for abuse of discretion. *See State v. McGrady*, 368 N.C. 880, 893, 787 S.E.2d 1, 11 (2016). When a defendant fails to preserve an evidentiary issue at trial, however, this Court reviews its admissibility for plain error. *See State v. Hunt*, 250 N.C. App. 238, 246, 792 S.E.2d 552, 559 (2016). Defendant concedes he did not challenge the trial court’s admission of Howley’s expert testimony, and therefore requests we review the issue for plain error.

Under plain error review, this Court must first find that an error occurred at trial. *See State v. Lawrence*, 365 N.C. 506, 518, 723 S.E.2d 326, 334 (2012). Next, for a trial court’s error to constitute a plain error, the defendant must demonstrate that the error was “fundamental.” *Id.* at 518, 723 S.E.2d at 334. For an error to be fundamental, “a defendant must establish prejudice—that, after examination of the entire record, the error had a probable impact on the jury’s finding that the defendant

was guilty.” *Id.* at 518, 723 S.E.2d at 334 (internal citations and quotations omitted). Importantly, plain error “is to be applied cautiously and only in the exceptional case,” where the “fairness, integrity or public reputation of judicial proceedings” is at risk of being seriously affected. *Id.* at 518, 723 S.E.2d at 334 (internal citations and quotations omitted).

V. Analysis

On appeal, Defendant contends the trial court plainly erred when it admitted Howley’s expert testimony because it lacked a proper foundation under the reliability requirement of Rule 702. Specifically, Defendant contends that while Howley testified as to the reliability of the methods she used to *create* DNA profiles, she failed to do so regarding the methods used to *analyze* DNA profiles. The State, on the other hand, argues that the trial court did not err because Howley’s testimony was both relevant and reliable, thus adhering to the requirements of Rule 702. After careful review of Howley’s testimony, we discern no plain error.

North Carolina Rule of Evidence 702(a) sets forth a three-pronged reliability test for the admissibility of expert testimony. *State v. Coffey*, 275 N.C. App. 199, 211, 853 S.E.2d 469, 478–79 (2020). A witness qualified as an expert may testify in the form of an opinion if: (1) the testimony “is based upon sufficient facts or data,” (2) the testimony “is the product of reliable principles and methods,” and (3) the expert witness “has applied the principles and methods reliably to the facts of the case.” N.C. Gen. Stat. § 8C-1, Rule 702(a) (2021). “The expert must have knowledge of facts

which would be helpful to a jury in reaching a decision.” *Coffey*, 275 N.C. App. at 211, 853 S.E.2d at 478–79 (internal citations and quotations omitted).

When analyzing this test, the trial court has discretion, as “[t]he precise nature of the reliability inquiry will vary from case to case depending on the nature of the proposed testimony.” *Id.* at 211, 853 S.E.2d at 479 (internal citations and quotations omitted). “In any event, ‘[t]he primary focus of the inquiry is on the reliability of the witness’s principles and methodology, not on the conclusions that they generate.’” *State v. Graham*, 287 N.C. App. 477, 488, 882 S.E.2d 719, 728 (2023) (quoting *McGrady*, 368 N.C. at 890, 787 S.E.2d at 9).

In *State v. Coffey*, our Court considered whether the trial court plainly erred in admitting a DNA expert’s testimony. 275 N.C. App. at 210–11, 853 S.E.2d at 478. We determined that the expert “thoroughly explained the methods and procedures of performing autosomal testing and analyzed [the] defendant’s DNA sample following those procedures.” *Id.* at 213, 853 S.E.2d at 480. The expert also testified that the particular methods discussed had been accepted within the scientific community. *Id.* at 213, 853 S.E.2d at 480. Accordingly, we held the expert testimony satisfied the reliability requirement. *Id.* at 213, 853 S.E.2d at 480.

We recently considered a similar issue in *State v. Graham*, 287 N.C. App. 477, 882 S.E.2d 719 (2023). Applying *Coffey*, we concluded that the expert testimony satisfied the reliability requirement of Rule 702 for three reasons: the expert (1) testified as to her training and background, (2) sufficiently described the methods she

used to compare DNA profiles, and (3) described the reliability of the method used in *Graham*. *Id.* at 497, 882 S.E.2d at 732–33. Consistent with our holding in *Graham*, we conclude Howley’s expert testimony satisfied the reliability requirement of Rule 702.

First, although not specifically challenged on appeal, we note Howley testified as to her training and background in the field of DNA analysis. Additionally, as in *Graham*, Howley testified as to the CMPD lab’s accreditation and detailed the standards for the lab to satisfy accreditation standards, including participation in continuing education. *See id.* at 496, 882 S.E.2d at 732. Thus, contrary to Defendant’s contention, Howley’s testimony regarding the reliability of the CMPD lab was sufficient.

Second, as in *Graham*, Howley’s testimony sufficiently explained what DNA is and the processes she used to analyze DNA samples. *See id.* at 496, 882 S.E.2d at 732 (emphasizing the necessity for an expert to testify specifically as to what DNA is and how DNA can be used to assist in forensic investigations). Furthermore, Howley also indicated the processes she used were widely accepted in the scientific community. In *Graham*, the witness explained the difference between a full DNA profile, where all twenty-four areas of the DNA are present, and a partial DNA profile, where fewer than twenty-four areas are capable of being analyzed. *Id.* at 497, 882 S.E.2d at 732. In this respect, Howley’s testimony is indistinguishable from the expert testimony in *Graham*. *See id.* at 497, 882 S.E.2d at 732.

Finally, the witness in *Graham* sufficiently testified as to the process she used and the process's reliability. *See id.* at 497, 882 S.E.2d at 732. In particular, the expert testified that she obtained a DNA profile of the defendant from his buccal swab. *Id.* at 497, 882 S.E.2d at 732. When comparing the defendant's DNA profile to that collected from the crime scene, she found "no inconsistencies across all 24 areas[.]" *Id.* at 497, 882 S.E.2d at 732. She estimated there was a "1 in 130 octillion probability of selecting a person at random that had the DNA profile obtained from the [crime scene.]" *Id.* at 497, 882 S.E.2d at 732 (internal quotes omitted).

As in *Graham*, after Howley was tendered as an expert, she testified about the process she used in this case. *See id.* at 497, 882 S.E.2d at 732. Howley explained that when she received Defendant's buccal swab, she performed the four steps—extraction, quantitation, amplification, and analysis—to create and analyze Defendant's DNA profile. Howley obtained a full DNA profile, meaning there was "full information at each of [the twenty-four] locations, and it was a single source profile." She performed the same process on the samples taken from the grip of the handgun. From the mixture obtained from these samples, Howley pulled out a partial-major-male DNA profile. Because Howley was only able to obtain a full-major profile at twenty-three of the twenty-four locations, she could not conclude that there was a match. She was able to determine, however, that the profiles were consistent with each other.

Howley further testified that the statistic she calculated in this case was one in twenty-one septillion. Defendant argues that Howley's testimony regarding her statistical calculation was misleading. Specifically, he contends that Howley's explanation of the statistic could have led the jury to mistakenly believe that there is a one in twenty-one septillion chance the DNA was from someone other than Defendant, which is impossible considering there are fewer than twenty-one septillion people in the world.

When asked about the statistic on direct examination, Howley stated that the statistical calculation "determine[s] how common or rare . . . that the two of them being the same is." Further, she testified that she uses the statistic "to show how common or rare that profile is in the world." The State then asked Howley how many people are in the world, to which Howley responded "approximately 8 billion." This was the extent of Howley's statistical explanation elicited by the State. On cross examination, the defense elicited additional testimony. There, Howley attempted to clarify any confusion by explaining the statistic is not the mere probability of two people having the same DNA. Rather, she explained, the statistic demonstrates "how often the different alleles or the different possibilities at each [location] is seen in the population."

Q: So that's essentially a theoretical number based upon a statistical calculation as opposed to we haven't tested everyone's DNA in the world at this point and then put that into a database, correct?

A: That is correct. It's based off of, again, how often that allele or that possibility and that marker is observed. And it also takes into account there -- we have not seen all the possibilities that are, you know, available or even possible on a DNA strand. They have not all been represented on Earth because that would, again -- would be like 21 septillion people[.]

Given the testimony elicited on direct and cross regarding DNA statistical calculations, we cannot agree the admission of Howley's testimony constituted plain error. When reviewing the record for error on appeal, it is our duty to consider all evidence presented as a whole. We thus conclude the admission of Howley's testimony and explanation of her statistical calculation did not rise to the level of plain error.

Defendant also contends that both *Coffey* and *Graham* are distinguishable because the expert testimony in those cases regarded a single-source DNA profile, rather than a mixture. Defendant provided no binding authority tending to show that our Rule 702 analysis changes with a partial profile versus a single-source profile. Simply because Howley testified as to a mixed DNA profile does not render those cases distinguishable, in our view. Although Howley was not able to obtain a single-source DNA profile from the grip of the handgun, she was able to develop a partial-major-male DNA profile, indicating to her that one particular individual "contributed more DNA to that sample." Twenty-three of the twenty-four locations had a major profile. Howley explained this to the jury in a manner that does not constitute plain error.

The four-step process Howley utilized in this case did not merely create DNA profiles; it also provided a method for analysis and comparison. As explained above, Howley testified that she (1) based her analysis upon sufficient facts and data, (2) used reliable principles and methods in her analysis, and (3) reliably applied her principles and methods to the facts of this case. *See* N.C. Gen. Stat. § 8C-1, N.C. R. Evid. 702(a). Therefore, the trial court did not plainly err in admitting Howley's testimony. *See Lawrence*, 365 N.C. at 518, 723 S.E.2d at 334.

VI. Conclusion

We hold that the trial court did not plainly err by admitting Howley's expert opinion testimony because she satisfied the foundational requirements for reliability under North Carolina Rule of Evidence 702.

NO ERROR.

Judges GORE and FLOOD concur.

Report per Rule 30(e).