

STATE OF NORTH CAROLINA v. WILLIAM LESTER McVAY, JR.

NO. COA03-1457

Filed: 21 December 2004

**Evidence—glass comparison—expert testimony—admissible**

The trial court did not abuse its discretion in a breaking and entering prosecution by admitting expert testimony comparing glass fragments from the scene with fragments found in the sole of defendant's boot. The trial court did not have precedent to determine the reliability of the testing procedure, but there was extensive voir dire testimony supporting reliability, the witness had an extensive background in trace evidence and experience in glass analysis, and defendant made no argument about the relevancy of the evidence.

Appeal by defendant from judgment entered 3 April 2003 by Judge Robert P. Johnston in Mecklenburg County Superior Court. Heard in the Court of Appeals 31 August 2004.

*Attorney General Roy Cooper, by Assistant Attorney General Margaret P. Eagles, for the State.*

*J. Clark Fischer for defendant appellant.*

McCULLOUGH, Judge.

Defendant was tried by a jury on the charges of felonious breaking and entering, resisting or obstructing a public officer, and having the status of an habitual felon. The State's evidence tended to show the following: On or about 12 December 2001, defendant entered a Circle K convenience mart and stole two bottles of alcohol by placing them in his jacket. When the Circle K employee asked him to return the bottles, defendant refused and gave one to a white male that was with him. When the two men left the Circle K, they headed in the direction of Morningside Alternative School ("Morningside"). On the night in question, Paul Agee ("Mr. Agee") stepped outside to have a cigarette after

finishing a band rehearsal. After hearing a loud crash coming from Morningside, he observed two men crossing Independence Boulevard ("Independence") coming from the direction of the noise at the school. After losing sight of the two men, Mr. Agee observed the same two men running back across Independence, one wearing a white shirt and the other wearing a dark shirt or jacket. He observed one of the men enter Morningside. The police arrived less than a minute later.

Officer W.C. Hastings ("Officer Hastings") of the Charlotte Police Department responded to a silent alarm at Morningside. When he arrived, he observed a black male wearing dark clothing and a white male in a t-shirt near a broken door or window. The two men fled from the door and began running around the school building. Officer Hastings yelled at the two men to stop, and when they did not, he chased them into a small gully which led into a creek. The creek led into a tunnel that ran underneath Independence.

Officers C.A. Scaccia ("Officer Scaccia") and K.V. Swaney ("Officer Swaney") of the same department also responded to the alarm, and were advised by Officer Hastings that two male suspects were fleeing from Morningside in the direction of the creek and Independence. Officers Scaccia and Swaney set up a perimeter in order to apprehend the fleeing suspects whose description they had been given by Officer Hastings. Officer Swaney positioned himself in the adjacent apartment complex; Officer Scaccia positioned himself on the side of Independence opposite Morningside and was standing over the drainage tunnel. Defendant exited the tunnel in which the fleeing suspects had last been seen entering. Defendant,

a black male wearing dark clothing, matched the description given by Officer Hastings.

Defendant did not comply with Officer Scaccia's instruction to remove his hands from his pockets, and was detained at gunpoint until the other officers arrived. When taken into custody and put in the rear of Officer Swaney's squad car, defendant became verbally and physically aggressive. After attempting to kick out the window of the squad car, he had to be restrained.

Investigator Timothy A. French ("Investigator French"), a criminalist with the Charlotte Mecklenburg crime lab, testified at the trial concerning analysis of glass fragments found at the scene of the crime, and glass fragments found in the sole of defendant's boot. He compared samples taken from both the interior and exterior panes at the school with those found in defendant's boot sole, by way of visual, density, and refractive comparisons.

Defendant was found guilty of felonious breaking or entering, resisting arrest or obstructing a public officer, and as having the status of an habitual felon. He was acquitted of the charge of felonious larceny.

Defendant's single issue raised in this appeal alleges the trial court erred in allowing the State to present, as an expert, the testimony of Investigator French concerning the glass fragments found at the scene of the crime and in defendant's boot. Investigator French testified that the glass found at the point of broken entry at Morningside was "consistent" with that found in defendant's boot. For the reasons set forth below, we find this expert testimony was properly admitted by the court.

Defendant cites this Court's opinion in *Howerton v. Arai Helmet, Ltd.*, 158 N.C. App. 316, 581 S.E.2d 816, *disc. review allowed*, 357 N.C. 459, 585 S.E.2d 757 (2003), for his contention that North Carolina has adopted the federal standard for a trial court's discretionary ruling on the admissibility of expert testimony under N.C. Gen. Stat. § 8C-1, Rule 702 (2003) of the North Carolina Rules of Evidence ("Rule 702"). In setting the federal standard, the Supreme Court articulated a five-step inquiry a district court must consider to measure the reliability of scientific expert testimony. See *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 594-95, 125 L. Ed. 2d 469, 483-84 (1993). However, in its review of *Howerton*, our Supreme Court overruled this Court's blanket adoption of *Daubert*, holding that admissibility under Rule 702 has proven to be more liberal in North Carolina than that of the federal standard. *Howerton v. Arai Helmet, Ltd.*, 358 N.C. 440, 463, 597 S.E.2d 674, 689 (2004). Instead, our Supreme Court held that admissibility of expert testimony under North Carolina's Rule 702 is governed by the factors set out in *State v. Goode*, 341 N.C. 513, 461 S.E.2d 631 (1995). *Howerton*, 358 N.C. at 458, 461 S.E.2d at 686-87.

Under Rule 702(a), in order for expert testimony to be admitted, the expert must be qualified by "knowledge, skill, experience, training, or education[.]"

The Supreme Court in *Howerton* reaffirmed the principle that "trial courts are afforded 'wide latitude of discretion when making a determination about the admissibility of expert testimony.'" *Id.* at 458, 597 S.E.2d at 687 (quoting *State v. Bullard*, 312 N.C. 129,

140, 322 S.E.2d 370, 376 (1984)). Thus, "a trial court's ruling on . . . the admissibility of an expert's opinion will not be reversed on appeal absent a showing of abuse of discretion." *Id.* An abuse of discretion occurs where a "'ruling is manifestly unsupported by reason or is so arbitrary that it could not have been the result of a reasoned decision.'" *State v. Miller*, 142 N.C. App. 435, 444, 543 S.E.2d 201, 207 (2001) (citations omitted). The Supreme Court in *Howerton* held that the standard framing the discretion of the trial court's admission of expert testimony is composed of the following three-step inquiry as established in *Goode*:

(1) Is the expert's proffered method of proof sufficiently reliable as an area for expert testimony? (2) Is the witness testifying at trial qualified as an expert in that area of testimony? (3) Is the expert's testimony relevant?

*Howerton*, 358 N.C. at 458, 597 S.E.2d at 686 (citations omitted); see *Goode*, 341 N.C. at 527-29, 461 S.E.2d at 640-41.

With respect to the first step of *Goode*, "[i]nitially, the trial court should look to precedent for guidance in determining whether the theoretical or technical methodology underlying an expert's opinion is reliable." *Howerton*, 358 N.C. at 459, 597 S.E.2d at 686. *Howerton* goes on to set out that if "the trial court is without precedential guidance or faced with novel scientific theories, unestablished techniques, or compelling new perspectives on otherwise settled theories or techniques," the trial court must look to other "'indices of reliability' to determine whether the expert's proffered scientific or technical method of proof is sufficiently reliable[.]" *Id.* at 460, 597 S.E.2d at 687 (quoting *State v. Pennington*, 327 N.C. 89, 98, 393 S.E.2d 847, 853 (1990)).

Such indices may include "the expert's use of established techniques, the expert's professional background in the field, the use of visual aids before the jury so that the jury is not asked 'to sacrifice its independence by accepting [the] scientific hypotheses on faith,' and independent research conducted by the expert." *Id.* (citations omitted).

In the case at bar, the trial court conducted *voir dire* examination to determine whether Investigator French was an expert and whether the substance of his testimony would be admissible. The trial court did not have any precedent before it to determine the reliability of the testing procedure conducted by Investigator French. Thus, the court heard evidence on indicia of the evidence's reliability. Investigator French's testimony revealed in detail his testing methods as performed under controlled circumstances. The standard for the tests was the broken glass samples taken from Morningside, and the unknown was the glass removed from defendant's boot. He first conducted a visual test comparing the glass samples for the following: any color coating or tinted sheet on the glass, if the glass was colored when it was made, the thickness of the glass, and if there was any texture to it. An ultraviolet test was taken for any fluoresces. He then tested the density of the glass in a test tube by varying the density of a solution in which the samples were placed. He then observed whether the standard and the unknown stayed suspended at the same level as each other in the varying densities of solution. And lastly, under a microscope, he tested and graphed the refractive indexes of the standard and the unknown by heating the samples separately at various temperatures

in an oil for which the refractive indexes at varying temperatures were known. Using the known index of the oil, Investigator French was able to compare the indexes of the standard and the unknown at different heats. Finding the standard and the unknown to be consistent, he stated that "[he] [could] not rule out that the particle did not come from that source."

We believe the extensive *voir dire* testimony of Investigator French was sufficient to support the trial court's discretionary determination to admit the evidence of the consistency of the glass samples pursuant to the reliability of the tests. This is true especially in light of Investigator French's professional qualifications, a factor supporting both the indicia of reliability of his tests and qualifying him as an expert for purposes of his testimony. See below. Finally, we find support in our determination in a previous decision of this Court, and decisions of other jurisdictions. In *State v. Bell*, 22 N.C. App. 348, 206 S.E.2d 356 (1974), the defendant contended that there was no evidence from which the jury could infer that defendant wrongfully broke or entered the building in question. *Id.* at 349, 206 S.E.2d at 357. We held the evidence was sufficient to survive a nonsuit of defendant's charges where, among other evidence, an expert "analysis of glass particles removed from defendant's clothing revealed they had the same refractive and density qualities as the glass found inside Little Hardware." *Id.* at 349, 206 S.E.2d at 357. Other jurisdictions have allowed similar testimony. See also *Wheeler v. State*, 255 Ind. 395, 400 (1970) (where the court allowed expert testimony to establish a strong likelihood that the sliver

of glass found in defendant's shoe sole came from the broken eyeglasses belonging to the victim); *State v. Wright*, 619 S.W.2d 822, 823 (Mo. Ct. App. 1981) (where a glass shard found in defendant's trousers matched the refractive indexes and density of a piece of broken glass from the broken door, and could be used to show there was a reasonable possibility that the glass shard came from the same source as the glass from the scene).

In applying "the second step of analysis under *Goode*, the trial court must determine whether the witness is qualified as an expert in the subject area about which that individual intends to testify." *Howerton*, 358 N.C. at 461, 597 S.E.2d at 688. Relied on by the Court in *Howerton*, our Supreme Court set out the following standard for this determination in *State v. Goodwin*, 320 N.C. 157, 357 S.E.2d 639 (1987):

Whether a witness has the requisite skill to qualify as an expert in a given area is chiefly a question of fact, the determination of which is ordinarily within the exclusive province of the trial court. Under N.C.G.S. § 8C-1, Rule 702 a witness may be qualified as an expert if the trial court finds that through "knowledge, skill, experience, training, or education" the witness has acquired such skill that he or she is better qualified than the jury to form an opinion on the particular subject.

*Id.* at 150-51, 357 S.E.2d at 641.

At the time of trial, Investigator French had an extensive background in trace evidence. He had been employed by the Charlotte Mecklenburg Police Department as a criminalist for approximately five years, and prior to that by the Syracuse, New York Police Department crime lab as a forensic chemist for nine years. His duties as a criminalist included testing and analyzing



trace evidence such as hair, fiber, paint, glass, gunshot residue, tape, cordage, and match filaments. He received a bachelor's degree in chemistry and biology. Relating to trace evidence, he received internal training at two police departments and external training at the FBI Academy at Quantico and Brunswick College. Relating specifically to glass, he has performed several hundred tests for glass analysis during his career; he conducted a research project and made a presentation concerning conventional glass analysis versus elemental analysis to the American Academy of Forensic Scientists. In light of Investigator French's clear expertise in the area of trace evidence, and his experience in glass analysis, we cannot say the trial court abused its discretion in finding Investigator French to be more qualified to formulate an opinion on trace glass evidence than the jury. Additionally, we note that during the *voir dire* examination, defendant stated the following:

I believe that - I mean, it sounds that - from what Mr. French testified, this is a commonly used process to compare glass. I don't know if I have much argument about whether or not he is an expert. I think I do have a good argument about whether this evidence is more prejudicial than probative of the defendant's guilt.<sup>1</sup>

Finally, pursuant to the third step in *Goode*, defendant made no argument as to whether this evidence, if otherwise admissible, was relevant. We hold that it was.

After close review of the record and the briefs, we conclude defendant received a trial free from reversible error.

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<sup>1</sup>No such argument was offered in defendant's brief.

No error.

Judges TIMMONS-GOODSON and HUNTER concur.