

In the Supreme Court of Georgia

Decided: June 4, 2007

S07A0740. VAUGHN v. THE STATE

CARLEY, Justice.

On the evening of March 31, 1999, Jennifer Agnes Lee was seen leaving her office in a new gold Ford Explorer with a man later identified as Robert Lee Vaughn. Shortly before 7:00 a.m. the next morning, her body was found at a construction site. Ms. Lee had been killed by manual strangulation and later run over by a vehicle. The letter and digits “P235,” which constitute a portion of the standard tire size for Ford Explorers, were imprinted on her thigh. Just over a month later, after Vaughn was identified, two detectives contacted him and, as soon Ms. Lee’s name was mentioned, Vaughn became weak-kneed and had to sit down. He agreed to accompany them to police headquarters for an interview, which was videotaped. He initially denied, but later admitted, that he was present at Ms. Lee’s office and that they went to dinner on March 31. A blood stain on the carpet of Vaughn’s gold Ford Explorer was determined to be of

human origin, but could not be tested successfully for DNA. A hair obtained from a shock absorber assembly underneath the vehicle was tested for mitochondrial DNA (mtDNA). The FBI Crime Laboratory concluded that Vaughn could be eliminated as the source of the hair, and that Ms. Lee could not be excluded, because her hair matched that which came from underneath the vehicle.

Vaughn was arrested and charged with alternative counts of malice murder and felony murder during the commission of aggravated assault. Defense counsel filed a motion to suppress the videotaped interview and a motion in limine to exclude the mtDNA evidence. The trial court denied both motions and a motion for reconsideration. After a jury trial, Vaughn was found guilty of malice murder and felony murder. Treating the felony murder count as surplusage, the trial court entered judgment of conviction for malice murder and sentenced him to life imprisonment. A motion for new trial was denied, and Vaughn appeals.\*

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\* The homicide occurred on the night of March 31, 1999, and the grand jury returned an indictment on August 5, 1999. The jury found Vaughn guilty on August 16, 2005 and, on the following day, the trial court entered the judgment of conviction and sentence. The motion for new trial was filed on August 26, 2005, amended on May 11, 2006, and denied on September 29,

1. A review of the evidence reveals that, when construed most strongly in support of the jury's verdict, it is sufficient to find him guilty of malice murder beyond a reasonable doubt. Jackson v. Virginia, 443 U. S. 307 (99 SC 2781, 61 LE2d 560) (1979); Moody v. State, 277 Ga. 676, 678 (1) (594 SE2d 350) (2004).

2. Vaughn contends that the direct sequencing method of mtDNA analysis used by the FBI Crime Lab has not reached a scientific stage of verifiable certainty for use in samples involving trace amounts of heteroplasmy and should have been excluded from evidence. See Harper v. State, 249 Ga. 519 (292 SE2d 389) (1982). Specifically, he argues that, unless there are non-trace amounts of heteroplasmy, it is not permissible to find that Ms. Lee "cannot be excluded," and the test results must instead be considered "inconclusive" as to whether known hair samples from the victim matched the questioned sample from underneath the Ford Explorer.

MtDNA "compares genetic material in the mitochondria, which is inherited only from the female parent.... 'Compared with traditional nuclear

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2006. Vaughn filed a notice of appeal on October 27, 2006. The case was docketed in this Court on February 2, 2007, and submitted for decision on March 26, 2007.

DNA (nDNA) analysis, mtDNA offers [several] benefits...’ [Cit.]” Quedens v. State, 280 Ga. 355-356, fn. 2 (629 SE2d 197) (2006). Although mtDNA analysis is more applicable for exclusionary, rather than identification, purposes, the overwhelming weight of authority demonstrates that mtDNA evidence is sufficiently reliable to be admissible. Wagner v. State, 864 A2d 1037, 1046 (I) (Md. App. 2005); Edward K. Cheng, Mitochondrial DNA: Emerging Legal Issues, 13 J. Law & Policy 99, 101 (I) (2005) (cited in Quedens). Likewise, the evidence in this case shows, without dispute, that mtDNA analysis is based on sound scientific theory and will produce reliable results if proper procedures are followed. See Caldwell v. State, 260 Ga. 278, 286 (1) (b) (393 SE2d 436) (1990) (nDNA). The evidence further authorized the trial court’s finding that the “‘direct sequencing’ method employed here is the only technique accepted and used by those who conduct forensic mitochondrial DNA testing, because it produces reliable results upon which any practitioner can draw conclusions.”

Although mtDNA analysis involves a simple comparison of the base sequences in the two hypervariable regions, interpretation of the test results is complicated by heteroplasmy, which is the appearance of more than one type of mtDNA in a given individual. Julian Adams, Nuclear and Mitochondrial DNA

in the Courtroom, 13 J. Law & Policy 69, 77 (II) (B) (2005). That phenomenon has often been cited unsuccessfully in challenges to the admissibility of mtDNA evidence. Adams, *supra*. “This heteroplasmy, which is more common in hair than other tissues, counsels against declaring an exclusion on the basis of a single base pair difference between two samples.” 1 McCormick on Evid. § 205, fn. 74 (6<sup>th</sup> ed.); Ann. Reference Manual on Sci. Evid. 485 (II) (A), fn. 46 (2<sup>nd</sup> ed.). Indeed, Vaughn admits that, under the guidelines of the Scientific Working Group on DNA Analysis Methods (SWGDM), when samples differ by one base pair and there is heteroplasmy, the result is that a possible source “cannot be excluded.” Thus, because there is a single base pair difference between Ms. Lee’s hair and the questioned sample, the presence of heteroplasmy would indicate that there is a match, and she cannot be excluded as the source of the hair.

The State presented expert evidence that there is heteroplasmy in this case. Although the State’s two expert witnesses differed slightly from one another and considerably from Vaughn’s expert witnesses, questions regarding heteroplasmy and interpretation of the test results are subject to cross-examination at the time of trial. People v. Klinger, 713 NYS2d 823, 831 (Co. Ct. 2000). We conclude

that “[t]he conflicting expert opinions on the test results go to the weight rather than the admissibility of the testimony. [Cits.]” Chapel v. State, 270 Ga. 151, 156 (5) (510 SE2d 802) (1998). See also Herring v. State, 252 Ga. App. 4, 6 (1) (555 SE2d 233) (2001); Wagner v. State, supra at 1049 (I); State v. Pappas, 776 A2d 1091, 1109 (II) (A) (2) (Conn. 2001).

3. Vaughn further contends that this Court should adopt the standard set forth in Daubert v. Merrell Dow Pharmaceuticals, 509 U. S. 579 (113 SC 2786, 125 LE2d 469) (1993) to govern the admissibility of scientific evidence in this state.

In light of the long-standing history of Harper and its progeny, which existed when the legislature enacted [the Daubert test in] OCGA § 24-9-67.1 as a part of Georgia’s Tort Reform Act, we do not conclude that the legislature intended to abandon the Harper evidentiary test in criminal cases. Indeed, the almost verbatim re-enactment of old OCGA § 24-9-67 as new OCGA § 24-9-67 would seem to affirm Georgia’s traditional reliance upon Harper in criminal matters, and we expressly hold that new OCGA § 24-9-67, and [neither Daubert nor] OCGA § 24-9-67.1 controls the admission of evidence in [criminal proceedings].

Carlson v. State, 280 Ga. App. 595, 598 (1) (634 SE2d 410) (2006).

4. Vaughn urges that his videotaped statement was obtained in violation of Miranda v. Arizona, 384 U. S. 436 (86 SC 1602, 16 LE2d 694) (1966), because he was never informed of his rights even though he was in custody.

To determine if an individual is in custody for purposes of Miranda, courts must inquire into whether that person's freedom of movement was restrained to a degree associated with a formal arrest. [Cits.] This inquiry involves an examination of the circumstances surrounding the questioning to determine whether a reasonable person would have felt at liberty to terminate the interrogation and leave. [Cits.]

Henley v. State, 277 Ga. 818, 819-820 (2) (596 SE2d 578) (2004). The testimony at the hearing on the motion to suppress shows that the detectives' encounter with Vaughn was low-key and non-threatening. He "voluntarily agreed to ride with the officers to the police station to answer their questions. [Cit.]" Henley v. State, supra at 820 (2). Although the detectives told Vaughn that he could drive himself, he chose to ride with them because his personal vehicle was at a repair shop and he only had access to his employer's van.

The questioning took place at the police station. However, the officers did not demand that [he] submit to interrogation at that or any other site. Instead, it is undisputed that he willingly responded to a request to come to the station, where he cooperated fully ....

Hightower v. State, 272 Ga. 42, 43 (2) (526 SE2d 836) (2000). Vaughn was not frisked, and he was allowed to retain a pocketknife which he showed the detectives. At the time of the interview, they did not believe that there was probable cause to arrest him, but he was a suspect. Although the detectives attempted to elicit incriminating information, whether Vaughn was a “suspect at the time of the questioning is not dispositive of the custody issue.” Henley v. State, supra. ““Even a clear statement from an officer that the person under interrogation is a prime suspect is not, in itself, dispositive of the custody issue, for some suspects are free to come and go until the police decide to make an arrest.’ [Cit.]” Hodges v. State, 265 Ga. 870, 872 (2) (463 SE2d 16) (1995). The record does not contain any indication that Vaughn “informed the officers that he wanted the interview to end, that he wished to speak with counsel, or that he wished to leave the station. After [he] made his statements, he was driven home by an officer.” Robinson v. State, 278 Ga. 836, 837-838 (2) (607 SE2d 559) (2005). Under these circumstances, “we must affirm the trial court’s finding that [Vaughn] was not in custody for purposes of Miranda. [Cits.] Therefore, admission of his non-custodial statements was proper.” Hightower v. State, supra.

Judgment affirmed. All the Justices concur.

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BENHAM, Justice, concurring.

Concurring fully in the opinion in this case, I take the opportunity afforded by the holding in Division 3 of the opinion that Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (113 SC 2786, 125 LE2d 469) (1993), has not been adopted for use in criminal cases in Georgia to note that the contrary implication in my dissent in Smith v. State, 275 Ga. 715, 727 (571 SE2d 740) (2002), was incorrect and should not be taken as authority that Daubert has any application to criminal cases in this state.