

Trace Evidence

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Williamson v. Reynolds

- “This court has been unsuccessful in its attempts to locate *any* indication that expert hair comparison testimony meets any of the requirements of *Daubert*.”
 - Williamson v. Reynolds, 904 F. Supp. 1529, 1558 (E.D. Okl. 1995) *rev'd on this issue*, Williamson v. Ward, 110 F.3d 1508, 1522-23 (10th Cir. 1997) (due process, not *Daubert*, standard applies in habeas proceedings)

Williamson (cont.)

- Expert: “microscopically consistent”
- Expert: “[T]here ... could be another individual somewhere in the world that would have the same characteristics.”

Williamson (cont.)

- Prosecutor: “[T]here’s a match.”
- State appellate court: The “hair evidence placed [petitioner] at the decedent’s apartment.”

Edward Honaker

- Expert: Crime scene hair sample “was unlikely to match anyone” other than the defendant.
- Another expert would later conclude: the “hairs were not comparable.”
- Exonerated by DNA.

Central Park Jogger

- Prosecutor “pointed out, hairs from the jogger were found on two of the suspects. How could that have happened if they were not involved?”
 - N.Y. Times, Dec. 1, 2002, at 50.
- Later DNA analysis: not jogger’s hair

State v. Bromgard

- Erroneous hair evidence in the trial of Jimmy Ray Bromgard, who spent 15 years in prison before being exonerated by DNA.
 - Liptak, *2 States to Review Lab Work of Expert Who Erred on ID*, N.Y. Times, Dec. 19, 2002, at A24

Bromgard (cont'd)

- Expert: “[T]he odds were **one in one hundred** that two people would have head hair *or* pubic hair so similar that they could not be distinguished by microscopic comparison and the odds of *both* head and pubic hair from two people being indistinguishable would be about **one in ten thousand.**”
 - State v. Bromgard, 862 P.2d 1140, 1141 (Mont. 1993)

Bromgard (cont'd)

“The witness’s use of probabilities is contrary to the fact that there is not – and never was – a well established probability theory for hair comparison... . If this witness has evaluated hair in over 700 cases as he claims in his testimony, then it is reasonable to assume that he had made many other misattributions.”

- Innocence Project, Peer Review Report

Nelson v. Zant

- State's expert testified that the hair not only could have come from the defendant but that it could only have come from about 120 people in the entire Savannah area.
- However, FBI concluded that it was not suitable for comparison purposes.
 - 405 S.E.2d 250 (Ga. 1991).

Oklahoma City: Joyce Gilchrist

- “[T]he forensic report was at best incomplete, and at worst inaccurate and misleading.”
- “We find it inconceivable why Ms. Gilchrist would give such an improper opinion, which she admitted she was not qualified to give.”
 - *McCarty v. State*, 765 P.2d 1215, 1218 (Okla. Crim. App. 1988)

FBI Review

- 8 cases: misidentified hairs in 6 & fibers in 1
- “The review of the laboratory notes revealed that they were often incomplete or inadequate to support the conclusions reached by the examiner. No documentation existed that would allow the examiner to identify textile fibers associated in one of the cases.”
 - Special Agent Deedrick, Summary of Case Reviews of Forensic Chemist, Joyce Gilchrist (April 4, 2001) at 1

Guy Paul Morin

- Moran was erroneously convicted based, in part, on hair evidence.
- Recommendation 2: “Trial judges should undertake a more critical analysis of the admissibility of hair comparison evidence as circumstantial evidence of guilt.”
 - Hon. Fred Kaufman, *The Commission on Proceedings Involving Guy Paul Morin* (Ontario Ministry of the Attorney General 1998).

Lab Reports

- (1) “preparation of reports containing minimal information in order not to give the ‘other side’ ammunition for cross-examination,”
- (2) “reporting of findings without an interpretation on the assumption that if an interpretation is required it can be provided from the witness box,”
- (3) “[o]mitting some significant point from a report to trap an unsuspecting cross-examiner
 - Lucas, *The Ethical Responsibilities of the Forensic Scientist: Exploring the Limits*, 34 J. Forensic Sci. 719, 724 (1989).

Bullet Lead Comparison

- “Chemically indistinguishable”
- “Could have come from the same box.”
 - State v. Earhart, 823 S.W.2d 607 (Tex. Crim. App. 1991)
- Melt “can range from the equivalent of as few as 12,000 to as many as 35 million 40grain, .22 caliber longrifle bullets)
 - National Research Council, Forensic Analysis: Weighing Bullet Lead Evidence (2004)

State v. Noel

- “the State asserted that this testimony is reliable scientific proof not only that the bullets ‘came from the same source of lead at the manufacturer’ but were ‘sold in the same box.’”
- 723 A.2d 602, 608 (N.J. 1999) (dissent).

Bullet Lead (cont.)

- “The conclusions in laboratory reports should be expanded to include the limitations of compositional analysis of bullet lead evidence. In particular, a further explanatory comment should accompany the laboratory conclusions to portray the limitations of the evidence. Moreover, a section of the laboratory report translating the technical conclusions into language that a jury could understand would greatly facilitate the proper use of this evidence in the criminal justice system. Finally, measurement data (means and standard deviations) for all of the crime scene bullets and those deemed to match should be included.”

Guy Paul Morin (cont.)

- “The Centre of Forensic Science should establish a written policy on the form and content of reports issued by its analysts. . . . In addition to other essential components, these reports must contain the conclusions drawn from the forensic testing and *the limitations to be placed upon those conclusions.*” Kaufman Report, Recommendation 7.

Troedel v. Wainwright

- Gunshot residue test report concluded that swabs “from the hands of Troedel and Hawkins contained antimony and barium in amounts typically found on the hands of a person who has discharged a firearm or has had his hands in close proximity to a discharging firearm.”
- 667 F. Supp. 1456 (S.D. Fla. 1986), *aff'd*, 828 F.2d 670 (11th Cir. 1987).

Troedel (cont.)

- Expert: “Troedel had fired the murder weapon.”
- Same expert in habeas deposition: “could not, from the results of his tests, determine or say to a scientific certainty who had fired the murder weapon” and the “amount of barium and antimony on the hands of Troedel and Hawkins were basically insignificant.”

Troedel (cont.)

- Due to “the inconsistent positions taken by the prosecution at Hawkins’ and Troedel’s trials, respectively, the Court concludes that the opinion Troedel had fired the weapon was known by the prosecution not to be based on the results of the ... tests, or on any scientific certainty or even probability. Thus, the subject testimony was not only misleading, but also was used by the State knowing it to be misleading.”

Prosecutor's Role

- “[A]s Mr. Riley candidly admitted in his deposition, he was ‘pushed’ further in his analysis at Troedel’s trial than at Hawkins’ trial. . . . [T]he prosecutor *pushed* to ‘see if more could have been gotten out of this witness.’ When questioned why, in the Hawkins trial, he did not use Mr. Riley’s opinion that Troedel had fired the weapon, the prosecutor responded he did not know why.”

- “[W]e are greatly disturbed by the implications that the Oklahoma County District Attorney’s Office may have placed undue pressure upon Ms. Gilchrist to give a so-called expert opinion, which was beyond scientific capabilities.”
- *McCarty v. State*, 765 P.2d 1215, 1219 (Okla. Crim. App. 1988)

ABA Criminal Justice Standards

- A “prosecutor who engages an expert for an opinion should respect the independence of the expert and should not seek to dictate the formation of the expert’s opinion on the subject. ... [T]he prosecutor should explain to the expert his or her role in the trial as an impartial expert”

- ABA Standards for Criminal Justice, Prosecution and Defense Function and Defense Function (3d ed. 1993) (Standard 3-3.3(a)). A comparable Standard applies to defense counsel. ABA Standard 404.4(a).

ABA Standards (cont.)

- The commentary elaborates: “Statements made by physicians, psychiatrists, and other experts about their experiences as witnesses in criminal cases indicate the need for circumspection on the part of prosecutors who engage experts. Nothing should be done by the prosecutor to cast suspicion on the process of justice by suggesting that the expert color an opinion to favor the interests of the prosecutor.”

Recommendations

- Lab Report should be:
 - Complete
 - State limitations of technique
 - Contain a “jury section”: Plain English statement of results that could be given to the jury
- Expert testimony should not go beyond the report, unless a supplemental report is issued.