



E43 Legal Implications of Bitemark Evidence, Post-NAS Report: Is There a Problem?

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The goal of this presentation is to review the legal implications related to innocent people who have been shown to have been wrongfully convicted based upon erroneous bitemark identification evidence. Bitemark case false convictions have been a serious concern for the forensic science community and the criminal justice system for well over a decade. The educational objective of this presentation is to identify legal system errors and/or omissions made in bitemark cases where factual innocence has been demonstrated and propose solutions for improving the adjudication of cases where bitemark evidence is proffered. The attendee will understand the need for attorneys and trial judges to exercise caution in litigation of cases involving identity based in part or solely upon a bitemark comparison.

This presentation will impact the forensic science community by focusing on judges and attorneys who deal with cases involving bitemark experts to better understand issues related to bitemark evidence reliability.

DNA identity testing continues to exonerate innocent people whose cases involved bitemark comparison evidence. The problem of innocent people being convicted and unjustly imprisoned for crimes they did not commit became a significant concern to the forensic odontology community for the past decade and efforts to establish the science of a bitemark comparison have been and are being vigorously pursued. Two recent bitemark exoneration cases will be discussed. In a case from Wisconsin, Robert Lee Stinson, served 23 years of a life sentence for the 1984 murder of Lone Cychosz. Ms. Cychosz had been a neighbor of Mr. Stinson and her body was bitten a number of times in the course of a brutal assault that killed her. In 1986 Stinson's direct appeal of his first degree murder conviction was denied.¹ After DNA testing, the State of Wisconsin on February of 2008 agreed that Robert Lee Stinson should be granted a new trial. Mr. Stinson consistently maintained his innocence. In July of 2009, the State of Wisconsin dismissed the murder charge against Robert Lee Stinson. Thereafter in 2010, DNA evidence identified the actual killer of Ms. Cychosz. In a second case, Kennedy Brewer was accused by the State of Mississippi of the 1991 murder of Christine Jackson, the three-year-old daughter of his girlfriend. Kennedy Brewer was initially convicted of raping and strangling Jackson to death in 1995. He was sentenced to death and spent 12 years on Mississippi death row. In February of 2008, Kennedy Brewer's case was dismissed by the State of Mississippi after another person identified by DNA evidence confessed to killing the three-year-old girl. Both Stinson and Brewer were convicted due to bitemark evidence. In both the Robert Lee Stinson and Kennedy Brewer cases, the dental bitemark experts were board certified by the American Board of Forensic Odontology (ABFO). The Stinson and Brewer cases are examples of a number of cases where bitemark evidence has been shown to be erroneous. Many legal experts now claim that bitemark identification evidence should be held to be a junk science. Now, defense attorneys faced with bitemark evidence in a case routinely are filing legal challenges against the admission of bitemark evidence. The challenges contend that there is effectively no valid documented scientific data to support the hypothesis that bitemarks are demonstrably unique. Additionally, it is argued that there is no documented scientific data to support the hypothesis that a bitemark is a true and accurate reflection of this uniqueness. To the contrary, scientific evidence that does exist supports the conclusion that crime related bitemarks are grossly distorted, inaccurate, and therefore unreliable as a method of identification. A published study of the National Research Council entitled Strengthening Forensic Science in the United States: A Path Forward, in the specific section on forensic odontology, the NAS Study found that bitemark comparison was the most controversial area of forensic odontology and that there "is continuing dispute over the value and scientific validity of comparing and identifying bitemarks."² In its criticism of bitemark comparisons, the NAS Study stated:

"There is no science on the reproducibility of the different methods of analysis that lead to conclusions about the probability of a match." Even when using the American Board of Forensic Odontology guidelines, different experts provide widely differing results and a high percentage of false positive matches of bitemarks using controlled comparison studies."

If bitemark evidence is to remain as viable evidence of identification in our judicial system specific measures must be taken to guard against any circumstance where a miscarriage of Justice could occur. One lesson learned from bitemark exoneration cases is that errors occur when an expert overstates the validity or certainty of a bitemark identification. Also, exoneration cases show the need to develop a minimum threshold of objective criteria for the suitability of a suspected bitemark before a comparison is ever attempted.

The investigation of bitemark cases by forensic dentists are evolving as the result of deficiencies uncovered after convictions which relied on bitemark evidence were overturned by DNA evidence. As a direct result of past bitemark case mistakes, there should be a better understanding by attorneys and judges within the legal system to recognize problems with bitemark evidence and put in place safeguards to protect against wrongful convictions. Courts should accept the reality that there is no scientific basis to allow a bitemark expert opinion that a person is a "positive match" to a suspected bitemark. The path forward: One approach would be to simply not allow bitemark evidence in any court case until a firm scientific basis is established. Another approach would be to limit the manner bitemark evidence could be used by a trier of fact in cases where a person is identified by a bitemark. For example, to assure



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that an innocent person is not wrongfully confined based upon bitemark evidence; a jury instruction could be tailored to limit the use of bitemark evidence. Specific jury instructions will be discussed.

References:

- ¹ *State of Wisconsin v. Robert Lee Stinson*, 134 Wis. 2d 224; 397 N.W. 2d 136 (Wis. 1986).
- ² The National of Academies Press, 2009 at p. 5-35 (hereinafter, NAS Study)

Bitemark, Wrongful Conviction, Reliability