



F43 “In God We Trust, All Others We Cross-Examine” — Cross-Examination in DNA Mixture Cases

Nicole Kubista, JD, 7582 Currell Boulevard, Ste 212, Woodbury, MN 55125; and Rebecca A. Waxse, JD, 5669 147th Street, N, PO Box 548, Hugo, MN 55038*

After attending this presentation, attendees will understand the theories behind cross-examination as a method for relaying information and uncovering biases and inaccuracies of this method as it relates to DNA mixtures.

This presentation will impact the forensic science community by highlighting the practical aspects of cross-examination, specifically where this tool meets and fails to meet its purpose of conveying accurate information to fact finders.

Cross-examination of witnesses is often a criminal defendant’s only hope of uncovering inaccuracies, relaying concerns, and testing the veracity of evidence against him. Depending on the initial presentation of evidence in the direct examination, cross-examination may offer a more comprehensive understanding of the evidence, allow juries to understand what parts of the analysis are subject to possible bias or multiple interpretations, help the jury assign weight and meaning to the evidence, and in some cases create confusion as to the nature of the testimony.

In the case of scientific evidence or evidence of a highly technical nature, such as DNA mixtures, the necessity for a defendant to convey the complexities internal to the case and within the forensic community is heightened. The important scientific discussions about interpretation of mixtures may make the difference between a conviction or an acquittal. Furthermore, the presentation of DNA mixture evidence may be given too much or too little weight in helping a jury decide the final outcome of a trial. Thus, for many defendants, cross-examination is the imperfect tool they must use to convey not only the complexity of the science but also the imperfections of human analysis.

For an expert witness, cross-examination is the moment where a perfectly laid out explanation of the scientific evidence is muddled by an attorney. The procedural demand for short explanations and “yes” or “no” answers leaves many witnesses with a sense that all the necessary information was not conveyed to the fact finder or worse, misinformation was relayed to the jury. This frustrating process appears to be in direct opposition to properly conveying scientific knowledge.

When it comes to explaining DNA mixtures, attorneys, witnesses, and defendants find themselves competing to control the information relayed to the fact finder. The tension between these parties is often complicated by the lack of limits on admissibility of scientific evidence. Without proper limits, both direct and cross-examination may attempt to push a witness into unsupported or contested scientific positions. This presentation will examine actual trial transcripts and draw from examples of DNA mixture litigation in criminal cases.

J. Wigmore in *Wigmore on Evidence* stated that cross-examination is “beyond any doubt the greatest legal engine ever invented for the discovery of truth.”¹ Other legal scholars view cross-examination as the principal means by which biases or inaccuracies of witnesses are uncovered; however, the real-world application of these theories creates highly variable results especially when a complex DNA mixture is the subject of cross-examination. Witnesses, defendants, attorneys, and everyone involved may feel frustrated because important information has been obscured or was unclearly communicated.

Reference:

1. J. Wigmore, *Wigmore on Evidence* 1364 (3d ed. 1940)

DNA, Cross-Examination, Jurisprudence