F24 An Examination of Scientific Expert Testimony: Transforming Evidence Presentation in the Courtroom

Shirley Marshall, Teesside University, Borough Road, Middlesbrough, Tees Valley TS1 3BA, UNITED KINGDOM; and Hannah Fawcett, PhD, Manchester Metropolitan University, Manchester, Greater Manchester M165GX, UNITED KINGDOM*

The goal of this presentation is to develop a comprehensive understanding of how expert witness evidence is both delivered and evaluated in the courtroom. This research examined three key issues: (1) how fiber and DNA evidence is presented in court; (2) how expert and non-expert evaluations of scientific evidence differ; and, (3) the effect that evidence presentation style has upon evidence comprehension and perceptions of expert witness credibility.

This presentation will impact the forensic science community by providing clear guidance regarding how forensic scientists can maximize their apparent credibility and enhance juror comprehension of scientific testimony.

Experts with suitable qualifications and experience testify in court on issues outside the everyday understanding of jurors. Their role is to assist the court in understanding the case evidence so a fair, informed verdict can be reached. Although experts can greatly aid juror comprehension, relatively little is known about how expert evidence is presented and evaluated in court. Research illustrates that jurors do not always reach unbiased decisions as stereotypes, preconceptions, and poor understanding of evidence accuracy have contributed to numerous false convictions.[1,2] It is therefore important to discover how best to present evidence in court in order to facilitate juror comprehension; however, there is insufficient research to establish whether jurors perceive scientists as accurate, clear, and compelling or whether they are overwhelmed by technical jargon and unconvincing presentation strategies. It would be beneficial to develop a comprehensive understanding of how expert witness evidence is both delivered and evaluated in the courtroom. Although psychological research has attempted to address this issue, the research on this topic is scarce. To this end, the current research examined three key issues: (1) how fiber and DNA evidence is presented in court; (2) how expert and non-expert evaluations of scientific evidence differ; and, (3) the effect that evidence presentation style has upon evidence comprehension and perceptions of expert witness credibility.

Twenty-three trainee forensic scientists (enrolled in BSc Forensic Science and BSc Forensic Biology programs at a university in northern England) testifying on blood (DNA) and fiber evidence collected in a mock hit-and-run incident were filmed presenting their findings in a mock court case. Their testimony was transcribed before being subjected to a detailed content analysis to ascertain their use of specialist terminology and the verbal and non-verbal features of the testimonies. Furthermore, an expert forensic scientist rated the accuracy, competency, and complexity of each individual testimony in order to provide an objective view of the trainee's abilities. Finally, mock juror participants rated the more subjective aspects of the testimonies, such as witness friendliness, attractiveness, evidence complexity, nervousness, and perceived expertise, of each trainee using the Witness Credibility Scale as well as returned verdicts in a mock trial utilizing the witness evidence.[3] Within this presentation, the effect upon the mock jurors of the different presentation techniques used by the trainees will be discussed. Relating the findings to past empirical research and theory, clear guidance will be given regarding how forensic scientists can maximize their apparent credibility and enhance juror comprehension.

Reference(s):

1. Dahl L.C., Brimacombe C.A.E., Lindsay D.S. (2009). Investigating investigators: how presentation order influences participant–investigators' interpretations of eyewitness identification and alibi evidence. *Law and Human Behavior*, 33, 368-380.
2. The Innocence Project. (2010). *Know the cases: Browse profiles*. Retrieved from http://www.innocenceproject.org/know/Browse-Profiles.php
3. Brodsky S.L., Griffin M.P., Cramer R.J. (2010). The Witness Credibility Scale: An outcome measure for expert witness research. *Behavioral Sciences and the Law*, 28(6), 892–907.

Expert Testimony, Juror Decision Making, Forensic Evidence

*Presenting Author