

Bias in forensic scientific case analysis: How to recognize it and avoid it

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Although numerical characterizations of error are well understood and developed for laboratory methods, little is known currently about how to recognize error and bias in more subjective forensic analyses that require correlation of physical evidence with complex events. Little uniformity in method exists among forensic science practitioners who infer from evidence found at a crime scene or autopsy or found through other scientific testing. Many experts in interpretive fields such as forensic medicine, forensic pathology and crime scene reconstruction often disagree with each other markedly, and little is known about how to determine what is correct and what is erroneous in such analyses. Recent exonerations of incarcerated persons through DNA technology have pointed out how far we need to go to recognize and avoid bias in courtroom scientific testimony. The purpose of this paper is to demonstrate how a simple method based on little known principles of deductive and inductive logic can allow both scientists and triers of fact to determine reliably what happened and who is responsible for what happened in both criminal and civil court cases. The method not only minimizes bias and human error but it also allows one to recognize when bias is present in an analysis offered by another scientist. The presenter will illustrate with famous cases and with cases from his file.

Biography

Thomas W. Young, MD has served as a self-employed forensic pathology consultant for six years. He previously served as the chief medical examiner for Jackson County and other metropolitan Kansas City counties in Missouri for nearly 12 years. Recently, he was appointed to the review board of the American Investigative Society of Cold Cases.

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