

MPD should work, in collaboration with the State Crime Laboratories if possible, to develop policies and procedures for submitting information to the crime laboratories that are designed to minimize context and other cognitive biases in forensic analyses.

Discussion: The goal of criminal investigations is, of course, to identify and apprehend the true perpetrator of any given crime. Increasingly, police across the country, including in Madison, rely upon the state or local crime laboratories and other forensic science experts to analyze crime-scene evidence to develop leads, exclude innocent individuals, or develop evidence that can be used to convict the perpetrator. The last two decades, however, have revealed that many of the forensic sciences the system has come to rely upon lack basic scientific validation and can at times produce erroneous results. As the National Academy of Sciences (NAS) (the nation's pre-eminent authority on scientific questions) concluded in 2009, after an exhaustive examination of the state of forensic sciences in America, "With the exception of nuclear DNA analysis, however, no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source." Indeed, among the known wrongful convictions in this country since 1989, flawed or mistaken forensic science evidence has consistently been one of the leading contributors to those false convictions.

The NAS, and numerous scholars both before and since its 2009 report, have identified context and cognitive bias—what the NAS and other federal scientific bodies refer to as "human factors" in forensic analysis—as one of the leading causes of forensic error. Specifically, because so many of the forensic disciplines rely upon subjective judgment of the forensic analyst, those judgments are susceptible to contamination resulting in unintended skewing, when the analyst knows facts of the case that seem to point to a particular individual but that are not relevant to the analyst's scientific work. Routinely, police submit requests for forensic analysis to the laboratories that include not only information essential to enable testing, but also extraneous, biasing information, such as information about whom the police believe committed the offense, whether the suspect has confessed or an eyewitness has identified the suspect, the suspect's prior record, etc. A fingerprint analyst, for example, needs to know the basic nature of the crime and where to look on a piece of physical evidence, and needs to have prints to compare to crime scene evidence, but the analyst does not need to know which of those prints came from the suspect, or any of the other potentially incriminating evidence outlined above. Providing that kind of non-domain-relevant information serves no legitimate purpose, but does make it very difficult for the analyst to make truly objective judgments about what can be gleaned from comparison of various fingerprints.

To enhance the reliability of forensic testing, MPD can help solve this problem by creating policies and procedures, and by training personnel on those policies and procedures, to ensure that MPD detectives and other personnel who submit information to the State Crime Laboratories and other forensic experts provide only that information to the laboratories that the analysts need to do their work, and that they refrain from contaminating the process with extraneous and biasing information. The State Crime Laboratories are currently very engaged in efforts to improve the scientific bona fides of their work, and likely would be very amenable to working with the MPD to craft scientifically appropriate policies and procedures. As any scientist knows, for any type of scientific testing to have any validity, it must be "blind" testing, to the greatest extent possible. MPD can help ensure that its evidence meets that standard.