A35 How to Cope With Monopoly Forensic Science

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After attending this presentation, attendees will know how the organization of forensic science may influence the testing and interpretation of forensic evidence. Attendees will learn that forensic science in the United States is often characterized by a two-fold monopoly in the testing and interpretation of data.

This presentation will impact the forensic science community by helping lawyers improve their performance when engaging forensic science and the forensic scientists. This presentation will help lawyers to better understand monopoly forensic science. It will also help lawyers understand what is deemed appropriate behavior when dealing with monopoly forensic science. This presentation will improve the interface between law and science by improving the participants' understanding of the incentives created by the current organization of forensic science in the United States and elsewhere. This improved understanding will help close the gap in understanding between law and science.

Participants will learn that the monopoly in testing increases the risk of one-sided "evidence filtering" whereby some evidence and some tests are filtered out of the case file. Filtering creates a one-sided picture if the elements passing the filter (the evidence that is tested and the tests that are performed) all tend to support only one theory of the crime, while the elements blocked by the filter (evidence that is not tested and the tests that are not performed) tend to support alternative theories of the crime. The dangers of evidence filtering are compounded if the crime lab does not report the results of all tests performed.

Participants will learn that the monopoly in interpretation increases the risk of one-sided interpretations of the scientific evidence. They will learn that when evidence is ambiguous, forensic scientists must interpret the evidence in the light of their prior expectations and the relative importance they place on different risks of error. These effects arise even when forensic scientists are conscientious and free of cognitive bias.

Participants will be encouraged to draw practical implications for trial practice. They will learn how monopoly forensic science influences each step in the forensic science process from the initial event being investigated to expert testimony in the courtroom. Lawyers will be encouraged to adapt their practices to the contingencies created by forensic-science monopoly.

Monopoly Forensic Science, Evidence Filtering, Prior Expectations

 ** Presenting Author*