



# NATIONAL COMMISSION ON FORENSIC SCIENCE



## Institutional and Organizational Best Practices

---

### **Type of Work Product**

Abstract developed by the Human Factors Subcommittee

### **Statement of the Issue**

What kinds of information should forensic scientists consider, and what kinds of information should they avoid considering, when performing forensic assessments? When should forensic scientists rely upon investigative facts to reach conclusions, and when should they avoid being influenced by such facts?

### **Background**

The National Research Council has expressed concern that forensic science experts are vulnerable to cognitive and contextual bias that “renders experts vulnerable to making erroneous identifications.” (NRC, 2009, p. 8, n. 8). To address the problem, commentators have suggested a variety of context management procedures designed to shield analysts, at least temporarily, from irrelevant but potentially biasing information. But recent discussion of the need for such procedures has revealed confusion and disagreement about a key underlying issue: what facts *should* a forensic scientist consider when forming a scientific opinion. Some forensic scientists are willing to base their conclusions, in part, on facts that others view as irrelevant to a scientific assessment. It is difficult to address the problem of contextual bias when there is uncertainty about which facts are irrelevant and potentially biasing and which facts are pertinent and helpful.

The Human Factors Subcommittee is preparing a policy proposal on this issue for consideration by the National Commission. The proposal will contain a statement of general principles regarding the appropriate factual and evidential basis for forensic science opinions. The proposal will contain general guidelines for evaluating whether a particular type of information is pertinent to a forensic science assessment.

The essence of the proposal is that forensic scientists should draw conclusions from the evidence that they are asked to evaluate. For example, forensic scientists who perform pattern matching tasks (e.g., comparison of fingerprints, toolmarks, shoeprints) should base conclusions on the characteristics of the items examined and should not be influenced by information about whether a particular suspect confessed, or had a convincing alibi, or was incriminated by other forensic evidence. It is appropriate for forensic scientists to consider and rely upon any information that helps them assess the strength of the inferential connection between the evidence they have examined and the conclusions they are asked to reach. It is not appropriate for them to base conclusions on information that supports a particular conclusion (e.g., that the suspect confessed) if that information has no bearing on the strength of the inferential connection between the evidence they have examined and the conclusions they are asked to reach. The scientific integrity

of forensic scientists' conclusions is undermined if they allow their putatively scientific judgments to be influenced by information from outside their domain of expertise.

The proposal will include broad statements of principle, supported by examples and illustrations. It will be supported by a background document providing a detailed rationale for the principles and suggestions for how they should be implemented.