



D45 Denial in Scientific Inquiry and Its Impact on Forensic Science

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After attending this presentation, attendees will understand the means by which the impediments to scientific exploration and advancement in forensic science can be categorized and examined.

This presentation will impact the forensic community by facilitating the advancement of forensics as a science by providing a philosophical tool for the evaluation of the controversies that surround the emergence of innovative perspectives, groundbreaking methods, or other new ideas and approaches.

Thomas Kuhn contributed greatly to the philosophy of science in describing the purpose of scientific endeavor, how science progresses, and the manner in which scientists respond to emerging theoretical perspectives. His explanation of paradigm shifts in science involved the accumulation of facts counter to the reigning theoretical perspective, the development of new theories to challenge the old, and the eventual adoption or incorporation of the new perspective. In explaining this process, Kuhn presented the problem of denial, but failed to elucidate. Denial exists at each stage of his model for scientific revolution, and the mechanisms by which it is employed must be determined in order to develop a useful understanding of the phenomenon.

Various forms of denial plague the scientific community in general, with its effects expressed on three levels. Denial hampers scientific inquiry by: restricting research and investigative activities either through individual bias, institutional norms, or professional standards; fostering irrational controversies and illogical criticisms to nontraditional work; and preventing or damaging the validation of various disciplines as worthy of consideration as scientific endeavors. These consequences of denial can be seen at all three levels in the field of forensic science. Therefore, the questions that must be asked are: What are the mechanisms of denial? Why do reputable scientists engage in denial? What is the impact to forensic science? In order to answer such questions, the activity of denial in science must be categorized so that its function may be deconstructed and examined.

The use of denial in the realm of science is analogous to the states of denial espoused by Stanley Cohen in his explanation of why good people fail to prevent or otherwise cause bad things to happen. His various forms of denial can be categorized in a matrix by focusing on two issues, the level of knowledge and the level of malice involved in the action or inaction in question. Identification of the amount of malice and knowledge involved in any given act of denial identified the specific category into which it may be placed. Such a matrix serves as a model for examining denial in scientific inquiry.

Scientists have various reasons for their denial of the reality apparent before them. The impact to forensic science is seen in the approaches taken to casework, to education, and to training. Further damage is done in opening the field to criticism from without by other criminal justice practitioners and academics. This paper presents a matrix for the categorization of scientific denial, which may be readily extended to forensic science. In doing so, it also provides a means by which the constraints to scientific endeavors may be countered, and thereby enrich the forensic community with greater latitude while bolstering the community itself. At the heart of this discussion is the argument that philosophy should not only be a part of forensic science, it is a critical component.

Philosophy of Science, Bias, Research Reliability