

## DNA as an Instrument in Constructing Narratives and Justice in Criminal Investigations: A Socio-Epistemological Exploration

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**Abstract :** Since at least the early 2000s, DNA profiling has achieved a preeminent status in forensic investigations into criminal acts. While the criminal justice system has a long history of using forensic evidence and testing them through establish technoscientific means, the primacy of DNA in establishing 'truth' or reconstructing a series of events is unparalleled in the history of forensic science. This paper seeks to elucidate the ways in which DNA profiling has become the most authoritative instrument of 'truth' in criminal investigations, and how it is used in the legal process to ascertain culpability, create the notion of infallible evidence, and advance the search for justice. It is argued that DNA profiling has created a paradigm shift in how the legal system and the general public understands crime and culpability, but not without limitations. There are indications that even trace amounts of DNA evidence can point to causal links in a criminal investigation, however, there still remains many rooms to create confusion and doubt from empirical evidence within the narrative of crimes. Many of the shortcomings of DNA-based forensic investigations are explored and evaluated with regards to claims of the authority of biological evidence and implications for the public understanding of the elusive concepts of truth and justice in the present era. Public misinformation about the forensic analysis processes could produce doubt or faith in the judgements rooted in them, depending on other variables presented at the trial. A positivist understanding of forensic science that is shared by the majority of the population does not take into consideration that DNA evidence is far from definitive, and can be used to support any theories of culpability, to create doubt and to deflect blame.

**Keywords :** DNA profiling, epistemology of forensic science, philosophy of forensic science, sociology of scientific knowledge

**Conference Title :** ICFSC 2017 : International Conference on Forensic Sciences and Criminology

**Conference Location :** Berlin, Germany

**Conference Dates :** May 21-22, 2017