A35 The Social Process of a Forensic Identification

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After attending this presentation, attendees will have a fuller understanding and appreciation of how the social interactions between scientific and non-scientific actors can shape the forensic identification process.

This presentation will impact the forensic science community by exploring the nature of objective scientific practice in human identification through the lens of Science and Technology Studies, which theorizes that much of scientific work is far from neutral, value-free observation. Understanding this nature will better prepare the field of forensic anthropology to mitigate effects of bias and lead to more comprehensive identifications.

This presentation seeks to expand the conversation on theory in forensic anthropology introduced during last year's AAFS Annual Scientific Meeting. In particular, this presentation will engage with Winburn's analysis of knowledge production within the field, further interrogating the view that positivist science is value-free and separate from the social context in which it is produced.[1] Rather, this presentation argues that the scientific process of identification itself is a cultural artifact. As such, its results represent a truth accepted as a "black box" — the inner workings of which are known to be complex, but that complexity is not necessary to understand.[2] In reality, the process is not only scientifically sophisticated, but also profoundly affected by social interaction and subjectivity where discrepancies and potential bias are ignored or downplayed.

As an example of Winburn's critique, this presentation will demonstrate how the forensic identifications produced at the Defense POW/MIA Accounting Agency's Central Identification Laboratory (DPAA-CIL) are based on amalgamations of decisions and interpretations scientists make in the course of their examinations and tests, the interactions they have with their scientific peers, supervisors, and non-scientists, as well as the influences of historical, political, and economic factors. These interactions are partly the nature of the work that requires interactions with outside laboratory actors and partly built into the protocols and standard operating procedures of the institution. Together, they form a particular DPAA-CIL cultural viewpoint and an approach to the work that often goes unexamined and unchallenged.

The process of a forensic identification and indeed the production of scientific knowledge are usually perceived as a neutral truth-finding practice that discovers facts through the unbiased testing of hypotheses or application of proven methods and techniques. This process is viewed and even trumpeted as one devoid of social influence, where the production center of knowledge is like a citadel whose walls prevent biased influences from the rest of the world.[3] In this manner, science is seen as cultureless by both the lay public and scientists themselves.[4] Embracing this view, most forensic anthropologists involved in the identification of an unknown individual subscribe to the belief that a positive identification is the result of sterile, neutral, stand-alone science; however, as the example of DPAA-CIL reveals, an identification involves the review by the CIL's Scientific Director of a compilation of specialized reports authored by both scientists and non-scientists. Moreover, each report is an end product of a series of scientific tests or observations created within a context of various social interactions and potentially mitigating political and economic factors.

The field of Science and Technology Studies has demonstrated that ideologies of scientific neutrality and objectivity are poor guides to how science is actually made.[5] This example of the DPAA-CIL's forensic identification process attempts to challenge the cultural assumptions about the scientific process and to push the attendee to peek into the black box and examine not only the complexity of the science, but the contingencies under which those tests and observations are made. Shining a light on these conditions demonstrates how a forensic identification is as much a social as a scientific process. Most importantly, greater awareness of how identifications are made will allow forensic practitioners to better mitigate biases and improve their identification processes.

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Reference(s):

1. Winburn A. Subjectivity with a capital "S"? Issues of objectivity in forensic anthropology. Proceedings of the American Academy of Forensic Sciences, 67th Annual Scientific Meeting, Orlando, FL. 2015.
2. Latour B. *Science in action: how to follow scientists and engineers through society.* Cambridge, MA: Harvard University Press, 1987.
3. Downey G.L., Dumit J. Locating and intervening: an introduction. In: *Cyborgs and citadels: anthropological interventions in emerging sciences and technologies.* Downey G.L., Dumit J., editors. School of American Research Press, Santa Fe, New Mexico, 1997.
4. Franklin S. Science as culture, culture as science. *An Rev Anthropol* 1995;24(1):163-184.
5. Haraway D. Situated knowledges: the science question in feminism and the privilege of partial perspective. *Feminist Studies* 1988;14(3): 575-599.

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