

Task Number: 2011-008

Article Title: [The Individualization Fallacy in Forensic Science Evidence](#)

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Article's Subject Matter:

- Individualization and the uniqueness fallacy

Key Points in Article

- Can forensic scientists be sure that a particular identification can be an exclusion of all other in the world?
- Origins of the notion of individualization
 - Gottfried Wilhelm Leibniz (1646-1716) if there is no way to tell two entities apart, they are one and the same entity.
 - Lambert Quetelet (1796-1874) nature never repeats
 - Alphonse Bertillon (1853 – 1914) Bertillonage
 - Balthazard (1911) argued the uniqueness of fingerprints
 - Sir Francis Galton, was not convinced entirely of fingerprints ability to individualize
- The argument that examining many pairs of objects in casework have not yet come across two sets of markings produced by different sources that are indistinguishable from each other
 - Karl Popper impossible to prove a hypothesis by accumulating positive instances, the statement “all swans are white, will remain unproven until it is disproved by seeing a black swan”
 - No concerted effort to find different objects that produce identical markings
 - Indistinguishable markings produced by different objects already have been found in a number of forensic subfields, i.e. handwriting.

Fallacies and Issues

- This paper is saying at this time the standard for conclusion should be the two patterns are consistent (or match) but not as strong of a statement that they share a common source. Further talks about the likelihood within a given pool of possible suspects.
- For the future emulate the general model used in DNA typing
- No basis exists in theory or data for the core contention that every distinct object leaves its own unique set of markers that can be identified by a skilled forensic Scientist. Their claims exaggerate the state of their science.

- That forensic identification can help by forswearing exaggerated, definitive conclusions in favor of humbler, scientifically justifiable and probabilistic conclusions.

Considerations

- This paper is worth reading and sharing as it brings up many valid points.
- However the reader should be aware that there are difference between pure science and applied sciences.
- This article does not address the Canadian Courts expectation for an expert witness which is different that the US Rule 702 Federal Rules of Evidence.
- A discussion should be held on what our standards of conclusion are and how we arrive at them.
- The statement that and identification can be an exclusion of all others in the world is flawed.