

Task Number: 2016-002

Article Title: The 'Opinionization' of Fingerprint Evidence.

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Article's Subject Matter:

- A critique of the Nuffield Report titled "The forensic use of bioinformation: ethical issues" and its discussion of old (fingerprint) and new (DNA) technology in the context of criminal justice. The author uses the McKie fingerprint misidentification to illustrate that fingerprint evidence is presented as 'fact' and not 'opinion' in court but recognizes the IAI, NAS and Nuffield reports for stating that fingerprint evidence is opinion. Criticizes the Nuffield Report's failure to recognize that fingerprint and DNA are the same kind of evidence that require statistical assessment.

Key Points in Article

- In response to misidentifications resulting from the Scottish Criminal Records Office (SCRO) Justice Wallace's comment that fingerprint identification "is not an exact science" but 'opinion' prompted outrage.
 - "Majority of our FP experts agree that fingerprint identification properly carried out and verified is an absolute fact not an opinion" Euan Innes, head of Scottish Fingerprint Service (2007).
- US courts accepted opinion as fact when Edward Foster testified "I am positive. It is not my opinion" (*People v. Jennings*, 1910).
- Modified by *State v. Steffen*, 1930 ruling "expert may ... express his opinion, ... , he cannot testify to the ultimate fact that must be determined by the jury".
- IAI statement on NAS Report (2007) "Fingerprint examiners state their conclusion as a matter of opinion" but US courts generally allow latent fingerprint examiner (LPE) to testify about identity as if it were fact, not opinion.
- UK *R v. Buckley* also holds that fingerprint evidence is evidence of opinion only but LPE testify that the suspect 'made' the crime scene print.
- Nuffield Report considers the ethical, social and legal issues raised by current and potential future uses of bioinformation for forensic purposes.
 - Notes that higher discriminatory power and lesser reliance upon human interpretation of DNA has not diminished use of fingerprints.
 - Echoes previous statements "fingerprint experts should make it clear that their conclusion is always one of expert judgement, and never a matter of absolute scientific certainty".

- **Author identifies problems with presenting LPE conclusion to a jury as ‘fact’**
 - Extends beyond purview of expert witness who should report on the result of a scientific analysis i.e. crime scene and known sample are consistent with one another and may come from a common source. Author believes that the inference that the suspect is the source involves other facts in the case.
 - Fingerprint identification is subjective, experience-based observation without measurement or even documentation.
 - What amount of detail is sufficient to conclude individualization?
 - Precludes the possibility of error ‘if 3 experts agree on a match then it is a “100% correct” match’.
- **‘Opinion’ is better than ‘fact’ as long as it does not become an all-encompassing shield that deflects accountability.**
- **Author is critical of Nuffield Report where significantly more discussion is devoted to DNA trial testimony compared to fingerprinting trial testimony.**
 - DNA testifies that defendant may be source of DNA sample and random match probability indicates the frequency with which randomly chosen individuals from a population would also be consistent with the unknown DNA sample.
 - One difficulty of DNA testimony in court is the ‘prosecutor’s fallacy’ in which the jury conflate the random match probability with the probability of innocence.
- **Report fails to recognize that fingerprint and DNA evidence are the same kind of evidence:**
 - In each a finding of consistency between crime scene sample and a known sample is used to generate an inference about the likelihood that the source of the known sample was present at the crime scene.
 - Crucial question to both is ‘How rare are the consistent characteristics expected to be in the population?’
 - For DNA it is relatively easy to calculate this rarity
 - For fingerprints these calculations are much more difficult
 - LPE have used this difficulty as legitimate grounds for simply omitting the rarity estimate and the courts have accepted this.
 - In absence of data LPE make subjective estimates.
 - Author questions the propriety of a jury relying on a rarity estimate generated by the same individual who determined the match in the first place.
- **Nuffield report implies that fingerprinting raises no statistical issue at all which is a problem that opinionization cannot resolve.**
 - Despite its longer history the fingerprint community has done less to address these difficulties and in court such difficulties are made less visible to the jury.

Issues/ Myths:

- **Canadian forensic identification practice requires bench notes and proper documentation of ACE.**
- **Canadian forensic identification employees offer opinions to the courts and RCMP employees use the term identification.**
- **US Army have rejected the use of the term identification and use the following wording to express an opinion to the courts (2015-11-03):**

"The latent print on Exhibit ## and the finger/palm print standards bearing the name XXXX have corresponding ridge detail. The likelihood of observing this amount of correspondence when two impressions are made by different sources is considered extremely low."

- **RCMP Minutiae Assessment Tool Study will be studying the consistency of forensic identification employees when selecting features within the unknown and the known in an effort to generate measureable data.**
 - **How much is enough is a legitimate question that we have yet to answer.**
 - **Research into sufficiency has been identified as a need in friction ridge community.**
- **RCMP held a statistical workshop to provide awareness training to senior forensic identification personnel.**