

Forensic Science: A Very Short Introduction

By Jim Fraser

Forensic science, with its connections to crime and detective work, is a subject of wide fascination. This Very Short Introduction looks at the nature of forensic science, how forensic scientists work, the different techniques involved, and the broader legal issues it raises.

Questions for thought and discussion

- Is the adversarial legal process a good way of getting at the truth? Does the *actual* truth matter in a criminal trial?
- If the primary role of an expert witness is to provide the court with specialist evidence which is beyond their knowledge how can the same court determine if someone is an expert?
- How can we assess the contribution that forensic science makes to criminal justice?
- Does 'every contact leave a trace'? Why don't we always find the traces?
- Should we have a universal DNA database with samples from every individual?
- Does the 'CSI effect' really exist? If so what are the implications of this?
- Can finger marks recovered from a crime scene be uniquely attributed to an individual?
- Contextual evaluation of forensic evidence requires the expert to have information about the background of the investigation. Would it be better not to provide this information and have experts working 'blind'? If so what implications arise from this approach?
- Scientists around the world use the same procedures but the law uses many different procedures (in different countries) to achieve the same ends. Does this mean that science is epistemologically sounder?
- Is the comparison of a footwear mark found at a crime scene science or just common sense?
- Should forensic science services be commercialised?
- How can one be certain that a tiny trace of evidence is not due to contamination?
- Should there be specialist courts without juries to try cases involving complex scientific evidence?
- How might one decide if a new scientific technique is good enough for use in court?
- How do we prevent bogus experts from appearing as expert witnesses?

Other books by Jim Fraser

Handbook of Forensic Science, Willan, 2009 (with R. Williams)

Further reading

J. M. Butler, *Forensic DNA Typing: Biology, Technology, and Genetics of STR Markers* (London: Academic Press, 2005).

M. H. Houck and J. A. Siegel, *Fundamentals of Forensic Science* (Boston: Academic Press, 2006).

S. Bell, *Forensic Chemistry* (New Jersey: Pearson Prentice-Hall, 2006).

W. Goodwin, A. Linacre, and S. Hadi, *An Introduction to Forensic Genetics* (Chichester: Wiley, 2007).

A. Bell, J. Swenson-Wright, and K. Tybjerg (eds.), *Evidence* (Cambridge: Cambridge University Press, 2008).

R. Williams and P. Johnson, *Genetic Policing: The Use of DNA in Criminal Investigations* (Cullompton: Willan, 2008).

National Research Council, *Strengthening Forensic Science in the United States: A Path Forward* (Washington, DC: National Academies Press, 2009).