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Scots law of evidence: Fit for purpose in the digital and global age?

Programme summary

A series of workshops at the Scottish Universities Insight Institute asked whether Scots law of evidence is fit for purpose in the digital and global age. They brought together wide ranging academic and practitioner expertise. This note summarises key points from a longer report.

Law and Science in the criminal justice system

The relationship between law and science is increasingly important to society. In criminal prosecutions the use of forensic science such as fingerprint and DNA evidence is extensive, and scientific developments are continually stretching the parameters of what it is possible to prove and with what degree of reliability. Confidence in the reliability of scientific evidence is vital to the integrity of the trial process. Unreliable science can lead to miscarriages of justice. This report notes that Scotland's current rules do not provide a rigorous modern framework for the use and management of expert scientific evidence in court. It is over thirty years since there has been a systematic appraisal of evidence law in Scotland and there has never been a detailed analysis of the use of expert scientific evidence or forensic practices.

The Fingerprint Inquiry set up in the wake of the Shirley McKie case illustrates many of the difficulties. The case of Liehne v HM Advocate in May 2011, where the jury was given inadequate directions by the trial judge on complex scientific evidence, is a further reminder of systemic weaknesses. Other English speaking jurisdictions, such as the US, Canada, and proposed for England by their Law Commission, expect the judiciary to play a significant role as gatekeepers in evaluating the quality of the scientific evidence admitted in court.

Benefits and risks posed by science

Recent successes in solving "cold crimes" due to the application of new scientific techniques to historical evidence illustrate the value and importance of novel science. The report discusses a number of new techniques in human identification being developed by Sue Black, one of the programme leaders, and her team. Some of these developments have been used effectively in court and have significant potential to aid the identification of perpetrators of crimes that are notoriously hard to prove e.g. child sexual abuse. This represents novel science in its infancy but the Law Commission and the Forensic Regulator both support the introduction of novel science to the court providing it is not used inappropriately or outwith the boundaries of its capabilities. It is recognised that as novel research develops and embeds within the scientific community, protocols, procedures and standards need to be regularly updated and modified. The admissibility and degree of weight and reliance placed on the evidence needs to be in step with the maturity of the emerging science. If this balance is not achieved there is concern that should the techniques be improperly applied they could give rise to legal conflicts.

Those who use scientific evidence should ensure it is appropriately validated. Courts should only admit reliable evidence so that society can be confident there is no increased risk of a miscarriage of justice due to insufficiently tested scientific theories or techniques, or to experts stepping outside their area of expertise. For example, when experts explain to juries the likelihood of an event occurring it is critical than the probabilistic reasoning supporting that evidence meets appropriate standards of reliability. As we saw in the wrongful convictions of Sally Clark and other mothers in sudden infant death cases in

England, the misuse of probabilistic reasoning and statistics by eminent witnesses can seriously mislead juries.

The risk of unreliable science

We know that miscarriages of justice have occurred due to unreliable science, unreliable interpretation of science and unreliable practices of "experts". However, we do not know the full extent of the unreliable science we unwittingly rely upon for decision-making in the criminal courts, or the danger such unreliability poses to the integrity of science and justice. For example, within the scientific community there are serious reservations over the robustness of peer review as a mechanism of ensuring quality and reliability. Within the legal community there is therefore uncertainty over how to ensure science is trustworthy.

In March 2011 the Law Commission for England & Wales published their proposals to address concerns over the use of expert evidence in the criminal courts. The concerns they expressed are similar to those facing Scotland. These include concerns over the quality of the evidence given by some experts, and the adequacy of the knowledge and skill of some lawyers in examining and cross-examining scientific experts. Further concerns relate to how well-equipped judges are to exercise their discretion in admitting or refusing to admit expert evidence, and whether juries might too readily be swayed by apparently persuasive but potentially unreliable expert evidence. The Law Commission report includes a draft Bill that aims to clarify when expert evidence is appropriate to ensure experts meet new tests of competence and impartiality. The Bill includes measures aimed at guiding judges in fulfilling an enhanced gate-keeping role in decisions over the reliability of evidence admitted in court.

Steps to minimise the risks posed by scientific evidence

Much can be done to improve Scotland's approach to science in the courtroom and there are excellent models to assist. The report recommends that:

- Students undertaking the Diploma in Professional Legal Practice at Scottish law schools be given training in understanding probability, statistics, and the scientific method.
- The (English) Law Commission's recent proposals on expert evidence be considered for adoption in Scotland.
- A working group be established to consider and, if thought necessary, draft and promulgate primers for the judiciary on forensic science techniques, bearing in mind current work by the Statistics and Law working group of the Royal Statistical Society.
- The Scottish judiciary be offered seminars on probabilistic reasoning.
- The Codes of practice being developed by Andrew Rennison, the UK Forensic Science Regulator, be considered for adoption in Scotland.

A full report of discussions with recommendations for specific actions by different parties can be found at http://www.scottishinsight.ac.uk/Programmes/Programmes20102011/ScotsLawofEvidence.aspx

The team which designed this series of workshops comprised:

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For further information on the Scottish Universities Insight Institute please visit: www.scottishinsight.ac.uk, contacting Insight staff using the details provided there.