

Role of Expert Evidence in the Criminal Justice System

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Acknowledgements:

2015 NECJS Survey – Davies, G., and Piasecki, E., *No More Laissez Faire? Expert Evidence, Rule Changes and Reliability: Can More Effective Training for the Bar and Judiciary Prevent Miscarriages of Justice?* (2016), J. Crim. L., 80(5) 327.

Critical Trust work - Carr, S., Piasecki, E., Tully, G., and Wilson, T., *Opening the Scientific Expert's Black Box: 'Critical Trust' as a Reformatory principle in Criminal Evidence* (2016) J. Crim. L., 80(5) 364.

Evaluative validity is part of a forthcoming publication, including those in Carr *et al* and Prof Angela Gallop and DLaw of Carr

'signaling' research relating to DLaw of Carr

Understanding (forensic) Expert Evidence?

To fully understand the role played by expert evidence - and what it serves to provide – those using and receiving it must fully appreciate the assurances and risks that exist within the current processes and frameworks along the investigative and justice pathways that expert evidence travels.

Forensic Science on Trial – 2005

- Expert opinion evidence admitted too readily and without sufficient scrutiny with the effect, on occasion, of producing miscarriages of justice.
- Clark [2003] & Cannings [2004]
- Doubted sufficient of traditional safeguards:
 - Cross-examination
 - Admission of contrary evidence
 - Judicial directions
- Recommendations included:
 - a more stringent approach to the admissibility of expert evidence
 - greater training for lawyers and the judiciary.

Law Commission – Expert Evidence in Criminal Proceedings (2009/10)

- Courts reluctant to exclude expert evidence on the basis of evidentiary unreliability – adopting a relaxed “policy of laissez-faire”.
- *‘Cross-examination, the adduction of contrary expert evidence and judicial guidance at the end of the trial are currently assumed to provide sufficient safeguards in relation to expert evidence, by revealing to the jury factors adversely affecting reliability and weight. However,.. it is doubtful whether these are valid assumptions.’ (1.20)*
- *‘A more credible assumption, at least in relation to complex scientific or technical fields, is that juries will often defer to the expert providing the opinion. If such an expert’s opinion evidence is unreliable, the dangers associated with deference are obvious, particularly if the opinion forms a critical link in the prosecution’s case’ (1.20)*
- *“In short, expert evidence of doubtful reliability may be admitted too freely, be challenged too weakly by the opposing advocate and be accepted too readily by the jury at the end of the trial.” (2.27)*

Law Commission – Expert Evidence in Criminal Proceedings (2009/10)

- Recommendations included:
 - A new statutory reliability test in combination with codification and refinement of existing common law principles relating to ‘assistance/necessity’, ‘expertise’ (and ‘impartiality’)
 - More appropriate training for judges and lawyers
 - A more critical approach by the judiciary
 - Regulatory schemes to ensure minimum standards
 - Court-appointed experts
 - Pre-trial disclosure

Police Superintendents' Association

- Agreed with the introduction of the statutory test:
 - There should be a “transparently robust approach in relation to determining the admissibility of expert evidence” and the test would lead to a consistency of approach and uniformity in judicial decision making
- Agreed the existing aspects of the common law test governing admissibility are satisfactory and should be codified:
 - Yes. Codification “would add certainty and stability”
- Agreed that, where necessary, the party proposing to adduce expert evidence, should be required to demonstrate that it is sufficiently reliable to be placed before the jury?
 - Yes. “It is imperative”

What actually followed....

CrimPR 19 & PD19 (Previously 33)

19A.1 - Common Law admissibility requirements.

19A.4 - Adds requirement that expert opinion evidence must have a 'sufficiently reliable scientific basis'.

19A.5 – Factors set out by the Law Commission which may be taken into account in determining the reliability of the evidence.

19A.6 – Factors which may detract from its reliability.

The Forensic Science Regulator – Dr Gillian Tully

The Regulator's role is to:

“ensure that the provision of forensic science services across the criminal justice system is subject to an appropriate regime of scientific quality standards”

How is the role administered?

- The Regulator is a public appointment, by the Home Office; however, the role is independent of the Home Office.
- This independence is critical to enable the trusted provision of impartial and unbiased advice and decision making to the entire criminal justice system.
- Priorities:
 - Provision of appropriate quality standards that meet the CJS requirements and can be independently verified
 - Lead advisor to the government and forensic science providers
 - Investigation of any quality failures and issues to be addressed

Regulator's Codes:



Codes of Practice and Conduct

for forensic science providers and practitioners
in the Criminal Justice System

Issue 4

October 2017

First issued in 2011

- **Code of Conduct** – which sets out the values and expected behaviours of the profession, which all practitioners are expected to comply with (whether instructed by the prosecution or defence)
- **Code of Practice** - which is designed to assist organisations with understanding and interpreting the standards required for UKAS accreditation to ISO 17025/20 and ILAC G19 as well as other matters concerning the provision of forensic science, including the legal obligations of an expert witness and the requirements of the criminal justice system.

In parallel, across in the US

US National Research Council (2009)

- A multi-year review of the forensic sciences in the US.
- Driven by errors exposed via innocence projects & the Brandon Mayfield case.
- Unprecedented critical assessment:
 - a pattern of deficiencies common to many of the forensic methods routinely used in the criminal justice system
 - a lack of rigorous and appropriate studies establishing their scientific validity
- Much forensic evidence—including, for example, bitemarks and firearm and toolmark identifications—is introduced in criminal trials without any meaningful scientific validation, determination of error rates, or reliability testing to explain the limits of the discipline (107)

U.S. – President’s Council of Advisors on Science and Technology (PCAST)

- Sought to consider the fundamental scientific validity and reliability of forensic feature-comparison procedures.
- “Aim to determine whether an evidentiary sample (e.g. from a crime scene) is or is not associated with a potential source sample (e.g. from a suspect) based on the presence of similar patterns, impressions, features, or characteristics in the sample and the source”.

U.S. – PCAST Reliability (2016)

- Repeatable - with known probability, an examiner obtains the same results, when analyzing samples from the same sources.
- Reproducible - with known probability, different examiners obtain the same result, when analyzing the same samples.
- Accurate - with known probability, an examiner obtains correct results both (1) for samples from the same source (true positives) and (2) for samples from different sources (true negatives)."

U.S. – PCAST Validity (scientific rigour) (2016)

- Foundational validity - a method can, in principle, be reliable.
- Validity as applied - the method has been reliably applied in practice.
- Foundational validity - refers to the extent to which a method is able to do what it is intended to do (e.g. link a sample to its source) in a repeatable, reproducible and accurate manner.

But

- Validity as applied must also exist - the method has been reliably applied in practice to an appropriate sample by a sufficiently proficient analyst.

U.S. PCAST Principles & Concerns

Fundamental principles:

- Foundational validity cannot be assumed
- Empirical testing is essential

Fundamental concerns:

- Overstating the probative value and misrepresenting error rates.
- Risk of jurors overestimating the probative value of expert evidence, specifically a 'match' between 2 samples
- The substitution of experience, training and professional practices for empirically demonstrated validity and reliability.

U.S. PCAST Conclusions (2016)

- No foundational validity:
 - Complex DNA mixtures
 - Bitemark analysis
 - Firearms analysis
 - Footwear analysis
 - Hair analysis
- Attorney General – must ensure evidence using such methods meets standards of scientific validity – or not rely upon it.
- Judiciary – in determining admissibility must consider validity and if it is admitted, ensure testimony about the accuracy of the method and the probative value of proposed identifications is scientifically valid in that it is limited to what the empirical evidence supports.

It is important to note the work of PCAST focused on the reliability of the evidence type – as a means of distinguishing sources, not the opinion as to the activity leading to its deposition

Impact in England and Wales.....?

2015 NCECJS Survey:

- 51% - dealt with 10 or more cases involving expert evidence since October 2014
- 30% - had no knowledge of the amended Rules or the Practice Direction
- Of 70% that were aware - 75% indicated that they were familiar or very familiar with CrimPR/PD
- 75% - CrimPR/PD had little or no effect on the approach to the admissibility of evidence
- 56% -CrimPR/PD would have no effect on their likelihood to challenge expert evidence

2015: LCJ “the one significant issue that the proper use of the Rules and Practice Direction faces is the failure of practitioners to use and refer to them.’

2017: Have time, PCAST & the activities of the Forensic Science Regulator encouraged enquiry....

By way of explanation, the routine and somewhat default acceptance of common evidence types, such as fingerprints or DNA, signals a broad **presumption of their general reliability**, as expert opinion evidence, in any given case.

Such blanket acceptance overshadows the necessity to undertake an isolated consideration, as to the reliability of the rigor underpinning the specific expert opinion, **in the context of a case.**

Part of this behaviour is embodied within the *laissez faire* approach, criticised by the Law Commission in its consultation paper on *The Admissibility of Expert Evidence*.

“Most of us have neither the time nor the expertise to examine every decision or explore all the evidence. We rely on judgements about the values and behaviours of those in charge. For the individual, ‘critical trust’ may be the best frame of mind: neither outright scepticism nor uncritical acceptance.”

Sir Mark Walport

At present, what processes and frameworks are in place relevant to the consideration of the reliability of expert evidence?

Now for the *science* bit

Expert Opinion Evidence has three components:

1. The suitability of the *discipline* for expert purposes eg DNA
2. The competence of the *individual expert* providing the opinion
3. The reliability of *the opinion*, provided by an expert in that discipline, as to the significance or otherwise of the findings **in that particular case**

$$1 + 2 = 3$$

But not always – as we will come on to discuss!

What processes and procedures are in place to ensure safe driving?

Reliability



The OFFICIAL
**HIGHWAY
CODE**



Accreditation



STANDARDS

Now is it safe to cross?

Legal Standards
Scientific Standards

The knowledge of the other road users – police, barristers, CPS?

The road conditions – procurement of forensic ‘tests’, access to independent experts

R v Gilfoyle – wrt reliability of expert opinion

Places an onus on the expert to assist the judge and jury in forming their own judgment of the evidence by providing the court with the “necessary scientific criteria for testing the *accuracy* of their conclusion,”

It is the expert’s responsibility to demonstrate, by way of published research, databases, inferential reasoning etc how they arrived at their concluding expert opinion.

'flagging' issues

How might potential issues that fall within the concept of scientific validity, in all three tenets, be flagged **during the investigation** and any subsequent **legal proceedings**, especially to assist the effective and efficient (prosecution and defence) scrutiny of forensic expert evidence?

To signal where subjective judgements are informed by:

- poor quality and/or quantity of material
- conformational and/or contextual bias
- limited data and/or research

How do we individually decide that it is safe to drive or cross the road – **critical trust**

When and where are risks increased and road checks required – **scrutiny**

Can the opinion evidence be safely (**reliably**) admitted to court (**admissibility**)

4 Evaluative Principles

- Balance [represented by the presence of a hypothesis for each party];
- Logic [demonstrated by assessment of the evidence, with respect to the hypotheses];
- Transparency [clear methodology as to how the opinion is derived]; and
- Robustness [of the science underpinning the opinion].

Use these principles to scrutinise expert evidence that sits in the 'amber' zone for reliability of expert opinion