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**The Admissibility of Expert Evidence in Criminal Proceedings
in England and Wales: a response**

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The Law Commission Consultation Paper No 190

The Admissibility of Expert Evidence in Criminal Proceedings in England and Wales

A Response

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Personal note: I am not a lawyer but a legal academic (socio-legal studies). My doctoral thesis was entitled '*Resources for Mediating the Incommensurability of Science and Law in Legal Contexts*' (University of Westminster, March 2007). I have a background in academic services to medicine and am interested in the representation of science to law. Because of my research, I have long considered that the Judicial Studies Board should train judges in the philosophy and sociology of science, which would be my solution to the difficulty of assessing the reliability of medical and scientific expert opinion evidence in court in both civil and criminal settings.

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Executive Summary

There is no systematic deterioration in the ability of law to make sound judgments in criminal cases where scientific opinion evidence has important bearing on matters, even if doubt on its integrity has been cast over recent egregious errors. There are limitations on the capacity of science to depict the absolute truth and its conclusions always must be regarded as provisional. Law is not always aware of this. Science is not a privileged source of knowledge. It is socially constructed. Empirical studies attest high precision and objectivity in their findings but the design of studies affects the reliability of conclusions. Gatekeeper functions and rules of evidence would diminish pragmatism, flexibility and judicial discretion in court, notwithstanding that it would protect the jury from misleading evidence in some cases. If the proposal is a reaction to recent mishaps over convictions, it might be superfluous because law has not become incompetent and can continue to resolve matters using legal reasoning and the experience of judges. For judges to have to learn science would be arduous. Also, it would be unbeneficial because more would be gained by appreciation of the philosophy and sociology of science and the sociology of knowledge. Reference manuals in science are well constructed but substantial. Though training for judges in

the USA has been well-received, I contend that this is inappropriate. I argue for retention of part of Option 3 of the proposal that retains experts who can form a consensus over scientific evidence and present the judge with an opinion on its accuracy. The judge can then consider this in deciding its admissibility. This eliminates the 'deference test' and makes the 'panel' merely advisory. Much of the risk of repeating recent errors can be reduced by adopting better procedures. Expert opinion witnesses should be reminded of their duty to the court. A proposal has been located in the literature that would change the rôle of expert witnesses to 'auxiliary forensic professionals' who would not be immune from civil liability. Professional bodies have instituted procedures to investigate some forms of non-accidental deaths in children. Multiplication of such protocols will relieve law of some of the burden of decision-making in this and other 'grey areas'.

*Three words we should like to hear: 'I don't know.'*¹
'Experts should be on tap not on top.'^{2,3}
*There is certainty of knowledge but not certainty itself.*⁴

Preamble

Recent decisions in the English jurisdiction that have been overturned at appeal due to misleading expert opinion evidence at first instance have attracted public interest and risked bringing law into disrepute. These were egregious errors caused by flawed forensic evidence, unreliable witnesses or scientific uncertainty in which courts have erred on the wrong side. **However, there is no systematic deterioration in the ability of law to make sound judgments where scientific opinion evidence has important bearing on matters in a case.** Judges are not unfailingly incapable of deciding the weight to give evidence or of determining the evidence to prefer when there is conflicting expert witness opinion. Due to judicial application of legal reasoning rather than their attempting to become arbiters of scientific truth, the record of judges on decision-making is not nearly as dire as supposed.

Courts expect certainty from science but, whereas law must conclude at an instant of time, scientific knowledge is cumulative and never concludes. Therefore, scientific opinion always is provisional. It can be uncertain in areas where there has not been sufficient study or is difficult, and this applied to the unfamiliar kinds of situations recently brought before the courts. The problem for law is not knowing that evidence is uncertain; otherwise, acquittals would proceed from ordinary legal reasoning. A false or wrongful acquittal of several guilty defendants is preferable to false or wrongful conviction of just one who is innocent.⁵ It can only be presumed that the uncharted waters of some recent cases disorientated the courts so much that they drew the wrong conclusions.

Science never is absolute and often is socially constructed. Also, the scientific method is geared to reduction of sources of error and bias to the smallest possible degree, often using statistics to quantify 'certainty' and the magnitude of possible error. This engenders confidence in results but is always only the best estimate obtainable, which is why distinction is drawn in the philosophy of science between certainty of knowledge and certainty itself as an absolute that exists independently of our ability to

¹ Jack Stilgoe, Times Higher Education, 19 January 2007 at <http://www.timeshighereducation.co.uk/story.asp?storyCode=207521§ioncode=26> accessed 10/04/2008

² Attributed, famously, to Sir Winston Churchill, see *Analysis*, 176 Canadian Medical Association (2) 167 – 168, 16 January 2007, cited in Fisher, E (2000) 'Drowning by Numbers: Standard Setting in Risk Regulation and the Pursuit of Accountable Public Administration', 20 Oxford Journal of Legal Studies (1) 109 – 130 at 117, n 66 but more likely to have originated in Roberts, J (1929) 'The Professional Expert and Administrative Control', 7 Public Administration, 247 - 259

³ The opinion in the Select Committee on Science and Technology Report: *Scientific Advice, Risk and Evidence Based Policy Making*, No. 63, Session 2005 – 06 (8th November 2006) that '[T]he misconception that scientists in the civil service should be 'on tap, not on top' must be laid to rest once for all' is quite wrong. It is precisely this idea that is the source of problems in hearing evidence in court.

⁴ Attr. Popper, K (1935/2002) *The Logic of Scientific Discovery*, London: Routledge Classics. Popper's contention is that the conclusions of science are by *inference* from the outcomes of investigation.

⁵ Attributed to Blackstone, W. (1769) *Commentaries on the Laws of England*, Oxford: Clarendon Press

know it. This is the reason that science evolves continuously in a quest for greater certainty.

Modern scientific method represents the apotheosis in application of discipline and attests high accuracy in its findings. However, such accuracy is immaterial if the wrong design for the study has been chosen. One is reminded of the comments of Sir Ian Kennedy, Chairman of the former Healthcare Commission, on epidemiological studies concerning medicines. He compared random controlled trials (RCTs) with observational studies, saying that RCTs do not detect safety problems while observational studies are historical and describe what actually happens.^{6, 7}

That it should be thought necessary to introduce gatekeeper functions to assess whether expert opinion evidence can be admitted into court is a natural reaction to previous problems but is a pity, because judges usually have sufficient discretion in normal situations to be able to direct juries appropriately. It is felt intuitively that imposition of a rule would detract from the flexibility and pragmatism shown in court, and exercise of judicial discretion, all of which frequently are effective in eliciting the truth. Reasonable confidence is needed that a gatekeeper for evidence would avert the kinds of problems previously experienced and others in future. Of course, this cannot be guaranteed but it would be a bad day for law if errors were to continue regardless. Pilot schemes or simulations would demonstrate the ability of judges to discern admissible evidence using the new rule, so that the effect on judgment can be seen without committing the criminal legal system to the new measure.

Thought might also be given to differences in US and English jurisdictions on the handling of expert evidence. Although the USA is a common law country, it places great reliance on codes to standardize specific behaviour. This is evident in regulation of industry and the environment, a subject that I teach. There seem to be attempts at systematisation in the functioning of law in the USA to a degree not contemplated hitherto in England and Wales. This would explain the rules of evidence that your report examines and the requirement for a reference manual on scientific evidence. English courts have always proceeded on a more practical basis. In civil cases, where there is no jury, the judge admits all relevant evidence and decides on the weight to accord it, the danger in criminal hearings being that this procedure in front of a jury can cause confusion. All will depend in future on whether reasonable balance can be achieved by control of experts and their evidence. This might or might not need to depend on a system of rules and codes.

The Law Commission's proposal does not always make clear that legal perception relies on expert witness *opinion* evidence and it is in this is that contention and difficulty for law can arise. Expert witness opinion of *fact* often is not in dispute, can be simply stated and corroborated. The proposal for a new rule for admissibility of

⁶ BBC Radio 4 'Today' Programme 17th October 2008

⁷ The design of epidemiological studies, sources of error and bias is explained comprehensively by Green, Freedman and Gordis (2000) as a Reference Guide to Epidemiology in a chapter of *the Reference Manual of Scientific Evidence* of the US *Federal Judicial Centre* and can be seen at [http://www.fjc.gov/public/pdf.nsf/lookup/sciman06.pdf/\\$file/sciman06.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/sciman06.pdf/$file/sciman06.pdf) accessed 27.06.2009. Trishia Greenhalgh explains how to evaluate articles in evidence-based medicine in *How to Read a Paper: The Basics of Evidence-Based Medicine* (3rd ed), Malden, Mass: Blackwell Publishing, 2006.

evidence concerns expert witness *opinion* evidence and this should be more clearly stated throughout.⁸

Notwithstanding the above remarks, it is realised that there is a will to introduce this procedure and the response given here will be to the proposals on which comment is invited.

Comments on Proposal

Part 1 Introduction

1.18 In *Cannings*: the scientific method was not at fault but investigations were not taken far enough (see also 2.20 and 2.21). Only subsequent study revealed the genetic links in the Cannings family to Sudden Infant Death Syndrome, so the fault can be attributed to lack of thoroughness on the part of scientists. 1.19 confirms and warns against over-reliance on such evidence

Part 2 The Problems

2.7 No augmentation of or argument with the expert witness's evidence was presented. This is a problem in very narrow specializations. In these circumstances, the evidence should be regarded with extreme caution and the judge should direct the jury towards acquittal.

2.16 In *Clark (Sally)* the medical expert opinion witness made his own decision on the evidence to provide to the court (evidence of a staphylococcal infection in a child at post-mortem not disclosed at first instance). In this, the witness usurped the rôle of law and clearer definition of the duty of expert witnesses should be given. The witness in this case was responsible for wrongful conviction.

2.17 – 2.19 This was an arrogant witness but courts often are impressed by senior figures in medicine.⁹ Clearly his evidence was misleading and outside his area of expertise. Perhaps rules of admissibility would assist here but the court should have taken steps to verify the statistical evidence.

2.20 In *Cannings*, medical expert 'dogma', if that is what it was shown to be, could not have been based on empirical evidence. A rule of admissibility would expose this but so would challenge by the defence.

2.21 n25 In view of my earlier comments, dismissing the case would be the right decision. Another choice might be to hold a private debate in the absence of the jury in an attempt to establish reasons for disagreement between experts.

⁸ It is recognized that, ultimately, all issues concern fact and even opinion serves to establish it. However, the distinction of expert opinion evidence from purely fact as matters of record is preserved in the present discussion.

⁹ This idea is examined in Woolfe, LJ (2001) 'Are the Courts Excessively Deferential to the Medical Profession?' 9 *Medical Law Review*, 1 - 36

2.28 n37 No doubt Professor Redmayne is right. It is only a question of how the evidence is screened.

2.33 Better to falsely or wrongfully acquit several guilty defendants than to falsely or wrongfully convict just one who is innocent.

Part 3 The Common Law and Calls for Reform

3.14 The consultation might be an over-reaction to previous egregious errors caused by poor scientific evidence and over-opinionated witnesses. *Laissez-faire* is not necessarily a bad method provided the court is not misled, because often it is better to hear *all* the evidence available, provided the judge can distinguish the reliable from the unreliable and so direct the jury. It has stood the English courts in good stead in the past.

Part 4 Proposals for Reform

4.3(3) Option (3) the ‘deference test’ should not be rejected without further consideration. The method is evocative of the civil *Bolam Test*,¹⁰ a rule of evidence in torts for professional negligence, used most often and quite instructively in medical actions. Consensus among experts in the field is a dimension missing from cases that have been misdirected. It would mediate or reconcile conflicting expert opinion, albeit that defence and prosecution would have different aims in proffering their evidence. So far as the truth can be ascertained, this method would more nearly approach it. However, in view of the preference expressed by the Law Commission consultation for Option 4, let it be said here that expert opinion in Option 3 should be utilized for the express purpose of establishing whether the evidence is accurate, significant and properly obtained. The judge would retain the prerogative of deciding whether it is admissible, not the experts. An ‘expert panel’ simply would assist the judge to decide. However, insofar as the experts would have agreed on a consensus, (in the absence of the jury), presentation of the discussed evidence, if admitted in proceedings, would be simplified, so that the jury would have less difficulty in comprehending it or its value. The judge would direct on its bearing on matters and the weight to accord it. The suggested rôle for such a scientific panel would remove the ‘deference’ from a deference test and it might instead become a ‘reliability test’. As will be asserted later, the task of deciding admissibility of evidence under Option 4 without assistance would be onerous for judges, in spite of the help afforded by the criteria of the rule. Option 3 avoids burdening judges with quite exhaustive tests of reliability. Also, it would obviate the need for court-appointed experts. As presently framed, Option 4 still would demand of judges a deep understanding of scientific principles that I believe is unrealistic. In Option 3, such understanding would be desirable but not essential.¹¹

¹⁰ *Bolam v Friern Hospital Management Committee* [1957] 1WLR 582; 2All ER 118

¹¹ The suggested procedure now resembles a substituted *Bolam Test* and discussion might ensue on whether these experts should be called by the parties or appointed by the court. In any event, a new rule of this kind would establish opinions on complex or contested evidence and a desire for consensus that would relieve the judge of much difficulty in deciding admissibility.

4.3(3) (contd.) Advice on revising Rule 702 of the US Federal Court argued for retention of peer review as a criterion of acceptability.¹² The same author considered this would retain for the scientific community the ability to judge the reliability of scientific evidence. The present consultee upholds the first part of this opinion but not the second. In practice, a panel of scientists reaching consensus over opinion expressed by the parties would do no more than submit its opinion to the judge, who would consider it among other aspects of a case in reaching a conclusion (see above paragraph). The power of science must be limited to providing help to law and not using scientific persuasion to propel a legal pronouncement.

4.45 Rule 702 of the Federal Rules of Evidence and the *Daubert Test* still cannot tell if the evidence is unreliable in areas of great uncertainty or divided opinion. It does not represent a magic bullet. This is precisely where problems for law arise. I continue to doubt whether judges can or should take on this rôle unaided.

4.47 Theories cannot necessarily have an empirical basis. For instance, the force necessary to produce the symptoms of ‘shaken baby syndrome’ are not known.¹³ Scientific studies do not always present ‘tidy’ outcomes with neat data and clear conclusions. The criteria of *Frye* and *Daubert* tests, Rule 702 nor the test proposed as Option 4 might be able to be universally applied.

4.47(4) Rejection of minority views is justifiable in terms of the criteria specified for admissibility tests in the consultation paper. However, in civil cases using the *Bolam Test* of medical opinion, where there is conflicting expert evidence, a minority view sometimes can be accepted. Although dealing with questions of acceptable medical practice in establishing the standard of care, comparison with criminal cases can be made, at least academically. In *Sidaway v Bethlem Royal Hospital Governors*¹⁴ Lord Bridge said, ‘Where the medical evidence is equivocal or where, for example, there is a conflict of evidence whether a responsible body of medical opinion supports a particular practice, the judge has to resolve that conflict.’ In *Fincham v Anchor Insulation Co Ltd.*,¹⁵ it was stated that the judge has a duty to make a legal diagnosis where the medical experts were unable to agree on whether the plaintiff was suffering from asbestosis. At appeal in *Bolitho v City and Hackney Health Authority*¹⁶ it was determined that was not sufficient for a defendant to produce evidence from a number of experts that his opinion accorded with medical practice in order to escape liability. The court had to be satisfied that the exponents of medical opinion relied upon could demonstrate that such opinion had a logical basis.^{17, 18} These interpretations are

¹² Tamerelli, AW (1994) ‘*Daubert V Merrell Dow Pharmaceuticals: The Questionable Wisdom of Abandoning The Peer Review Standard for Admitting Expert Testimony*’, 47 *Vanderbilt Law Review* 1175 – 1203

¹³ One is reminded of a demonstration by the prosecution of the force necessary to shake a baby to death using a doll, in the televised trial of Louise Woodward, *Massachusetts v. Woodward* (SJC-07635 Commonwealth vs. Louise Woodward (and a companion case). Middlesex. March 9, 1998. - June 16, 1998, which I would advise was nothing less than a spectacle.

¹⁴ [1985] 1 All ER 643, 643 per Bridge LJ;

¹⁵ *The Times*, June 16 1989 QBD

¹⁶ [1988] AC (HL) (E) at 243

¹⁷ Harpwood, V (2001) ‘*Bolitho, Expert Logic and the Rôle of Judges*’, 6 *Health Law* (10) 1 – 3

¹⁸ See also discussion in Jones MA (1996) *Medical Negligence*, London: Sweet & Maxwell §3 - 126 – 3 - 128;

sensible and make two important points. The first is that, by implication from legal opinion, a minority view is acceptable if it has a logical basis. From the ruling in *Bolam*, the second is that the standard of medical practice was entirely a matter of expert opinion was weakened by *Bolitho*, returning it to legal judgment.¹⁹ In a gatekeeper system, these tensions could be resolved with the jury absent but it should not be a foregone conclusion that the scientific opinion with less representation is necessarily the wrong one. The real danger is where there is only one opinion on which to rely but it would have behoven the courts at least to have satisfied themselves in some recent instances that the opinion proffered had a logical basis.

4.52, 4.57 – 4.58 I am not sure that all scientists subscribe wholeheartedly to Popper's notion of *falsification*, in spite of Professor Dawkins' assurances, and rely much more on the principle of *verification*. Explanations in the sociology of science would account for this. Empirical studies are set up to test the truth of an envisaged hypothesis. This is the theory and assumption laden inquiry driving the research. A null hypothesis is created as putative falsification of the test hypothesis and protects the integrity of the method. In real life though, effort is focussed into proving the test hypothesis true. A statistical value is allotted to the possibility that the null hypothesis will be found true by chance.²⁰ A truly falsificationist approach would set out to prove the null hypothesis true, or at least to find the test hypothesis false. Falsification strategies are driven by the need for absolute consistency among repeated studies, involving iterative, regressive tests of theory. Influences on inconsistent results are removed or corrected each time, until the outcome is unfailingly reliable. While an estimable concept, it is hardly practicable and few can afford to subscribe to it in reality. The reputation of scientists would not be enhanced by showing, however altruistically, that their conclusions could be discredited. This is not to disparage scientific evidence, because this is usually honestly produced and can be validated according to the rigour with which it was sought, albeit that this inherently is not without limitation.

4.69 That witnesses must explain why their evidence is reliable represents an advance on the problem of determining admissibility. It unburdens the judge from making his/her own assessment 'cold' and can be done in the absence of the jury. Also, it would remind expert opinion witnesses of their responsibility to the court.

4.80 – 4.85 Judges need not gain scientific expertise in order to assess the reliability of evidence but should develop their own evaluation tools based on how scientists believe what they do, which is a matter of the philosophy of science, and how science is conducted, which is explained by the sociology of science and the sociology of knowledge. This can be learned more simply than trying to absorb the multifactorial matters of science. An appreciation of science as a discipline would stand judges in better stead than trying to assess scientific information *per se*.

Part 6 Proposals for Consultation

¹⁹ Gilson, CC (2006) 'Resources for Mediating the Incommensurability of Science and Law in Legal Contexts', PhD Thesis, London: University of Westminster 140 - 146

²⁰ Referred to as the 'p' value and is typically very small.

6.4 If admissibility tests are introduced, will allowance not be made in future for witness demeanour? Literature describes this phenomenon in terms of civil cases but there is no reason it should not apply equally to criminal hearings. This is described as the personality of the witness, the impression they make upon the trial judge, for example, whether they confined themselves to giving evidence or acted as advocates.²¹ There are also issues of whether witnesses make concessions to the other side.²² To these I would add the ability of witnesses to justify and defend their own evidence objectively under pressure from cross-examination²³ and willingness to modify their opinions in the light of argument from the other side. Performances of witnesses under such admittedly stressful situations informs judges usefully about their conviction in the evidence they proffer and often helps judges decide on the evidence to prefer where it conflicts. **This is a most valuable court dynamic.** Whereas it might possibly confuse juries, were this process to be held behind closed doors, they would miss an important element in assessing evidence for themselves. This militates against introduction of rules of admissibility.

6.10 – 6.33 (overall) Examination of evidence against the suggested criteria would be very demanding of the skills and knowledge of the judge. Naturally, I consider it would be good if it could be done. Training in scientific methodology undoubtedly would help but I consider the task would be enormous and the time required considerable. Inevitably, the judge still would require assistance at times. As commented previously, evidence will not necessarily come in the neat packages anticipated by the authors of the report and it might be a naïve hope that the judge always can apply the criteria without difficulty. It could mean that evidence not meeting the criteria would be excluded for that reason but unusual forms of study, while not qualifying under the protocol, nonetheless might be valuable to the case.

6.23 (particularly). The *Reference Manual on Scientific Evidence* of the US Federal Judicial Center (2000, 2nd edition)²⁴ is an impressive and weighty exposition of science in areas that might impinge on legal judgments. My initial concern on inspecting it was that absorbing its contents would be burdensome for judges. While its contents are authoritatively written, it struck me as more informative for *scientists* in relation to evidence, most of whom already have sufficient background knowledge to accommodate it.^{25, 26} However, judges in the USA expressed their appreciation of the ‘Manual’, this opinion being gathered in an evaluation of it in preparation for a third edition.²⁷ Of special note for the purpose of this consultation is the section on

²¹ *Caldeira v Gray* [1936] 1All ER 540, 542 The Privy Council

²² *Joyce v Yeomans* [1989] 1WLR549, 556, cited with approval in *Maynard v West Midlands Regional Health Authority* [1984] 1WLR634, 637

²³ *Loveday v Renton* [1990] 1 MLR 117 PER Stuart Smith at 125

²⁴ at <http://air.fjc.gov/public/fjcweb.nsf/pages/16> (index of contents) accessed 27.06.2009

²⁵ Commentary suggests that expert scientific witnesses regard it as helpful in preparation of their evidence (see next footnote)

²⁶ It is also worth commenting that the contents of the Reference Manual are formed on the same assumptions that underlie the operations of science

²⁷ (2009) *Evaluation of the Reference Manual on Scientific Evidence*, Letter Report, Committee on the Evaluation of the Reference Manual on Scientific Evidence, Committee on Science, Technology and Law, Policy and Global Affairs, National Research Council of the National Academies, the National Academies Press, Washington, DC at <http://www.nap.edu/catalog/12581.html> accessed 27.06.2009

‘How Science Works’ by David Goodstein,²⁸ which is almost a sociology of science that also explodes several myths about how science is conducted. For the present consultee, this confirms a personal belief that it is neither useful nor practicable to teach judges the amount of science they would need in order to gauge the admissibility of scientific evidence for use in court (while admitting they only would ‘dip’ into it for information of a specific type). Of more substantial and enduring benefit would be training in the philosophy of science that explains how scientists believe and the assumptions underlying their work, and the sociology of science that explains the conditions under which science is done. These are abstract and theoretical concepts that therefore are generalizable to all areas where science is recruited to assist law. David Goodstein’s section goes partway to achieving this.

6.23 (contd.) Regarding judge training, I am interested in the possibilities this presages and would have prepared an article on the subject, had events (The Law Commission Consultation!) not overtaken me. I believe it would be possible along the lines mentioned in the above paragraph. However, I have sampled the judge training seminars ‘*Science for Judges*’ offered by the Brooklyn Law School, Series I – XI (March 2003 – April 2007).^{29, 30, 31} Papers accompanying the seminars have been published extensively in the School’s own *Journal of Law and Policy*.³² Reactions to the seminars by judges generally were good.³³ From videos of the programmes available on line, it appears the studies were sought by judges and were popular. Other resources exist, for example the *Knowledge and Information Services (Science)* of the US National Centre for State Courts.^{34, 35} One is left only to wonder if similar seminars to those held in the United States would succeed among judges in the English jurisdiction, or whether anything is different in the training of judges from that in the USA that might require a different approach.

6.29 It is important that judges should not be distracted from their judicial rôle.

6.39 It can be difficult, sometimes, to detect unwarranted assumptions amid complex scientific evidence or where the expert is particularly impressive.

6.40 Courts should avoid capture by science. Even if scientific evidence is ruled admissible, the court should always decide the weight to give it in reaching a

²⁸ p.67 at [http://www.fjc.gov/public/pdf.nsf/lookup/sciman00.pdf/\\$file/sciman00.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/sciman00.pdf/$file/sciman00.pdf) accessed 27.06.2009

²⁹ Held under the auspices of the Center for Health, Science and Public Policy of Brooklyn Law School in collaboration with the Federal Judicial Center, the National Center for State Courts and the Committee on Science, Technology and Law of the National Academies of Science

³⁰ <http://www.brooklaw.edu/centers/scienceforjudges/> accessed 27.06.2009

³¹ It is understood this series of seminars has been discontinued because they were funded by a grant that has now expired.

³² Available on line at <http://www.brooklaw.edu/centers/scienceforjudges/papers.php>

³³ See *Evaluation of the Reference Manual on Scientific Evidence*, (op. cit. 2009) pp11 – 12

³⁴ at <http://www.ncsconline.org/wc/courttopics/ResourceGuide.asp?topic=SciTec&guide=148> accessed 27.06.2009

³⁵ Literature is being generated in recognition of the problem of statistical evidence for judges. For instance **I can recommend** Aitken, CGG and Tarovi, F (2008) ‘Fundamentals of Statistical Evidence—a Primer for Legal Professionals’, 12 *International Journal of Evidence and Proof* (3) 181 – 207; Barnes, DW (1983) *Statistics as Proof. Fundamentals of Quantitative Evidence*, Boston and Toronto: Little, Brown and Company

conclusion. If the attitude is struck that *science is not a privileged source of knowledge*,³⁶ courts might accord its proper place among **all** the evidence relating to the case. This should happen even when the evidence is pivotal. Courts are courts of law, not courts of science.

6.53 (3) Science is not so open and democratic as supposed (see my comments under 4.52, 4.57 – 4.58 *supra*).

6.56 The caveats of 6.55 are accepted and, in the example given, the dispute over the meaning of symptoms of cranial injury now has been resolved by research. At the time of the original trials, though, there was disagreement. Of course, the defence may not raise spurious issues to contradict prosecution evidence but scientific uncertainty will continue to occur in yet unknown future instances. The instruction of 6.56 is wise but it might not be able to be applied unflinchingly if there is no clear blue sky between competing theories. **How would a rule of evidence be applied if two (or more) competing theories were to pass the test of reliability, or it was impossible to tell whether one was ‘more reliable’ than another?**

6.65 – 6.71 (Court-appointed assessors). This idea is logical but far from new. Judges always have been at liberty to call such an expert. In the USA, courts have authority to appoint an expert under Rule 706 of the Federal Rules of Evidence, or at their own discretion. There is evidence from the USA that court appointed experts are employed, but infrequently, to give opinions where expert testimony conflicts.³⁷ There is neither an overwhelming opinion in favour of the employment of court-appointed assessors nor one against the practice. The method of appointment appears haphazard. The results of a survey showed difficulty in accommodating court-appointed experts in a court system that values adversarial presentation of evidence and where it was stated that only rarely did the adversarial system fail to permit informed assessment of facts.³⁸ Other difficulties were identified, some of which might not occur in the procedures described in the Law Commission discussion paper, for instance problems in obtaining a suitable expert.³⁹ The above study describes a pretrial procedure to aid in understanding complex expert testimony,⁴⁰ including early identification of disputed expert testimony,⁴¹ attempts to narrow disputes and screening of expected testimony by parties’ experts to ensure admissibility.⁴²

6.73 (Judicial training) Yes. I refer here to my comments under §6.23

6.78 (Statutory test of admissibility) on balance, yes, but I remain concerned about loss of judicial discretion and flexibility in proceedings.

6.79 (Guidelines for judges) yes but along the lines I have proposed under §6.73

³⁶ Emphasis added

³⁷ Cecil, JS and Willging, TE (1994) ‘Accepting Daubert’s Invitation: Defining a Rôle for court-Appointed Experts in Assessing Scientific Validity’, 43 Emory Law Journal 995 – 1070

³⁸ *ibid*

³⁹ See Law Commission Consultation Paper §6.67, fn 70

⁴⁰ Cecil, JS and Willging, TE (1994) *op. cit.* 1059

⁴¹ *ibid*,

⁴² *ibid*, 1062

6.80 (experienced-based evidence) Yes, if subjected to cross-examination

6.81 (Parties should demonstrate reliability of evidence) Yes, subject to the caveats I have raised

6.82 Common law provision over evidence has served well and only relatively few trials have been misled by questionable evidence. It might be a step too far to enshrine the envisaged procedures in primary legislation. I am not certain how §§1.2(1) and (3) could be codified. It *could* be advisable to codify §1.3 in primary legislation but see my comments under ‘General comments not solicited by the consultation, Responsibilities of expert opinion witnesses to the court’ *infra*.

6.83(1) (independent assessor) Yes.

6.83(2) (establishing evidentiary reliability before the jury is sworn) If the procedure is adopted, then yes.

6.84 – 6.88 (Impact Assessment) I am not fully qualified to comment on all the issues raised in this part of the consultation. The economic benefit of fewer wrongful convictions by institution of evidentiary reliability tests is hard to estimate; the psychological and social benefits of fewer errors in legal decisions would be easier to appreciate. Respect for the law would be enhanced. However, the foregoing presumes that errors will continue and multiply. This is not necessarily so, even if scientific complexity will continue to cause problems for law. Lessons already have been learned from previous mistakes. Forensic services and standards have been improved. Expert opinion witnesses can be reminded of their responsibilities to the court. My responses to the consultation have shown that more might be lost than gained by new statutory provisions concerning admissibility of evidence but I have contended that means exist to improve the understanding of science by the judiciary without them needing to become experts in science themselves.

Appendix: General comments not solicited by the consultation

RESPONSIBILITIES OF EXPERT OPINION WITNESSES TO THE COURT

This issue suggests itself throughout the reading of problems to which the consultation eludes. In combination with gatekeeping functions and the need for parties to attest the reliability of their evidence (the court determines whether it is correct), there is a need to remind witnesses of their duty to the court.⁴³ This might deter the adventuresome behaviour that has characterized some recent expert testimony. No doubt expert opinion witnesses, especially repeat players, who lead courts into unsafe convictions can be subjected to sanctions but they cannot be made liable for their evidence. Duties of experts in civil hearings are set out in Civil Procedure Rule Part 35, following advice in the judgment of the *Ikarian Reefer*.⁴⁴ Since 2006, the duties of experts in criminal litigation have been governed by Criminal Procedure Rule Part 33 (Criminal Procedure Rules 2005).⁴⁵ The Disclosure Manual of Crown Prosecution Service imposes quality controls on the use of experts.⁴⁶ Some of the most controversial cases either took place before commencement of these measures but the record reveals little indication that the responsibilities of experts to the courts were stressed. In this regard, the literature reveals examination of whether there should be a liability on the parties for their evidence and the rôle of remedies in preventing unsupported testimony.⁴⁷ The author says,

*'Experts would be better treated as auxiliary forensic professionals, albeit whose primary allegiance is to scientific rigour in the pursuit of justice rather than serving as advocate for their client. As such, experts should be open to civil action in a similar way to legal professionals.'*⁴⁸

This radically would change the relationship of experts to the court and require significant revision of procedure. However, it might safeguard the court from speculative expert opinion and lessen the expectation on judges that they should become conversant with science. Against the notion would be the deterrent effect likely on experts to becoming witnesses for fear of legal action. Some sentiments of this kind already have been expressed in relation to prominent expert opinion witnesses who have been heavily criticised by law.⁴⁹

SUDDEN INFANT DEATH SYNDROME (SIDS)

This is included here because it demonstrates proceduralization of investigation into sudden unexpected death of infants. It formalizes actions and responsibilities on the part of the several involved agencies so that, for the purposes of law, reasonable

⁴³ As opposed to the party engaging them

⁴⁴ *National Justice Compania v Prudential Assurance* [1993] 2 Lloyds Report, 68 Comm. Ct.

⁴⁵ available at http://www.justice.gov.uk/criminal/procrules_fin/contents/rules/part_33.htm#IDAIDP4B accessed 30.06.2009

⁴⁶ at http://cps.gov.uk/legal/d_to_g/disclosure_manual/ accessed 30.06.2009

⁴⁷ Dwyer, D (2008) 'Legal Remedies for the Negligent Expert', 12 *The International Journal of Evidence and Proof* (2) 93 - 115

⁴⁸ Ibid 115

⁴⁹ See 'Child doctors express 'concerns'' at <http://news.bbc.co.uk/1/hi/health/7348486.stm> accessed 30.06.2009

assumptions can be made about cause of death that do not rely on the opinion of a single expert.⁵⁰ Amid these circumstances, no longer will it be necessary for courts to attempt their own determination of culpability if the procedure attests that a death has been from natural causes. In fact, there would be no case to answer. This signifies improvement in the standard of evidence available and foretells that courts no longer will have to wrestle over difficult decisions in this area. Progress of this kind in other areas of uncertainty would reduce the need for rules of admissibility of evidence.

Bibliographical Note: the following edited book arose from the proceedings of ‘Law’s Experts’, a conference on expertise in Canberra in 2002. Of special interest to this consultation is Chapter 8, Judging facts: managing expert knowledge in legal decision-making and Chapter 11, The invisible branch: the *authority* of science studies in expert evidence jurisprudence.

Mercer, G (ed) (2004) *Expertise in Regulation and Law*, Aldershot: Ashgate.

⁵⁰ *Sudden Unexpected Death in Infancy. A Multi-Agency Protocol for Care and Investigation*, The Report of a Working Group Convened by The Royal College of Pathologists and The Royal College of Paediatrics and Child Health, September 2004 available at www.rcpath.org and www.rcpch.ac.uk