UNDUE DEFERENCE TO EXPERTS SYNDROME?

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Expert witnesses fulfill a crucial role in the court system by opening up vast bodies of knowledge to lawyers, judges and juries who do not have the professional training to make that information readily accessible otherwise. The expert’s contribution can be particularly valuable when courts are addressing the rapidly developing body of medical knowledge, in general, and that relating to “syndromes”, in particular. However, being the elucidator of knowledge to the ignorant puts the expert in an incredibly powerful position and the danger is that courts will show undue deference to experts when the expert is expressing nothing more than his or her opinion. This article has its genesis in the coincidental occurrence of two recent examples, in the United Kingdom, where expert witnesses advanced their own particular theories — theories that were later shown to be either unfounded or inapplicable in the particular cases before the courts. In the first example, the evidence of Sir Roy Meadow, an English expert on Munchausen syndrome by proxy (MSBP), resulted in a number of women being convicted of killing their children and imprisoned. Eventually, it became apparent that his evidence was unsound, a number of the convictions were quashed, and the women were freed. However, prior to these challenges, much the same evidence had resulted in numerous children being removed from their parents’ care and sometimes adopted into new families. In the second example, Dr. Colin Paterson, a Scottish doctor, “identified” a condition, known as temporary brittle bone disease (TBBD), and provided an alternative explanation of certain injuries to children, displacing the suspicion that the children had been abused. He featured as an expert witness for accused parents, in criminal cases, and in child protection litigation. While both his research and his findings were subsequently discredited, it is not entirely clear how many children may have been returned to their parents as a result of his evidence. The juxtaposing of these examples, resulting in both over-inclusion and under-inclusion, in terms of prosecution and child protection, provides the opportunity to examine how expert evidence is admitted into court proceedings in the UK; to ask whether the US Daubert test would provide a better safeguard; to explore what more might be done to avoid such debacles in the future; and to speculate that there may be another syndrome, Undue Deference to Experts Syndrome, at work in the legal system.

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**Introduction**

Expert witnesses are a recognized part of the legal landscape and, indeed, providing expert evidence to courts has become something of a growth industry.\(^1\) Expert witnesses often make valuable contributions. Engineers give evidence of the unique nature of particular designs in patent cases. Accountants explain how the books might be kept in a business context. Forensic scientists speak to the methodology and probability of matching physical evidence, like blood or hair samples found at a crime scene, to the accused. Expert witnesses play no less of a role in family-related cases. Psychiatrists explain what might drive one adult partner to kill the other where the killer has been the victim of domestic abuse at the hands of the deceased. Psychologists offer expertise in terms of what is likely to have positive or negative effects on a particular child in the context of custody disputes. Actuaries help the court to understand the value of various assets, like pensions, and how these valuations may be arrived at, in property disputes. Expert witnesses feature particularly prominently when “syndromes” come before the courts and, certainly, there is no shortage of either syndromes or expert witnesses prepared to testify about them.\(^2\) Thus, we have had battered child syndrome,\(^3\) shaken

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\(^1\) In a Rand study of California Superior Court trials in the late 1980s, experts appeared in 86% of the trials and, on average, there were 3.3 experts per trial. “In the past two decades, the use of expert witnesses has skyrocketed. Some commentators claim that the American judicial hearing is becoming trial by expert.”: John W. Strong, *McCormick on Evidence* (5th ed, 1999), §13 (references omitted). “A large litigation support industry, generating a multi-million pound fee income, has grown up among professions such as accountants, architects and others, and new professions have developed such as accident reconstructionists and care experts. This goes against all principles of proportionality and access to justice.”: The Right Honourable the Lord Woolf, *Access to Justice: Final Report to the Lord Chancellor on the Civil Justice System in England and Wales* (1996), chapter 13, para 1. It is worth remembering that expert witnesses often play an important part in negotiations that take place prior to a case reaching court and may contribute to a settlement being reached in civil cases.

\(^2\) It is worth noting that the *Scoping Study On Delay In Children Act Cases: Findings and Action Taken* (2002), instructed by the Lord Chancellor in England and Wales, found that delays in the handling of cases involving children were attributable, in part, to a shortage of available expert witnesses. However, when one looks more closely at the findings, it appears that the shortage is not of expert witnesses *per se*, but due to a desire for particular witnesses, court practice and overall poor case management (at para. 64). These findings echo those of the Booth Committee: see, *Avoiding Delay in Public Law Children Act Cases* (1996).

\(^3\) The term “battered child syndrome” first came to prominence with the multidisciplinary conference organised by Dr C. Henry Kempe on “The Battered-Child Syndrome”, in 1961, and the seminal article he and others wrote the following year: C. H. Kempe, F. N. Silverman, B. F. Steele, W. Droegemueller and H.
baby syndrome,4 battered woman syndrome,5 parental alienation syndrome,6 repressed memory syndrome,7 and child sex abuse accommodation syndrome,8 to name but a few.


5 The “battered woman syndrome” was articulated by psychologist Lenore E. Walker in the first edition of her book The Battered Woman’s Syndrome (1984). See also Lenore E. Walker, The Battered Woman (1979). She identified a “cycle of violence”, often found in abusive relationships, involving a tension-building stage, an acute battering incident, and a honeymoon stage, characterized by contrition and relative tranquility, before the cycle began again. In addition, she explored the notion that many women responded to their plight with a form of “learned helplessness” to explain why women stayed in abusive relationships. This, in turn might produce a “flight or fight” response on the part of the victim which has been used to explain why some female victims of abuse went on to kill their abusers. Walker’s approach has been criticized by both feminists and those who fear that it provides a “special excuse for women”: Anne M. Coughlin, “Excusing Women” 82 Cal. L. Rev. 1 (1994) at p.27. Feminist criticism has focused on concern that Walker’s early work tended to “pathologize” female victims, negating the reasonableness of their fears, and perpetuates stereotypical notions of women as helpless. Some argue that, far from responding with passivity, many victims do seek to escape the abuse and that it is inadequate responses from the legal system, in particular, and society, in general, that render such attempts unsuccessful. In addition, it has been argued that Walker’s approach presents a “one size fits all” picture of abuse that does not describe all such relationships accurately. The literature here is extensive but see, for example, Rebecca D. Cornia, “Current Use of Battered Woman Syndrome: Institutionalizion of Negative Stereotypes about Women” 8 U.C.L.A. Women’s L.J. 99 (1997); David L. Faigman and Amy J. Wright, “The Battered Woman Syndrome in the Age of Science” 39 Ariz. L. Rev. 67 (1997), Myrna S. Raeder, “The Double-Edged Sword: Admissibility of Battered Women Syndrome By and Against Batterers in Cases Implicating Domestic Violence” 67 U. Colo. L. Rev. 789 (1996). It is worth noting that our understanding of the psychology of abuse has come a long way since the 1970s and 1980s and, in particular, we now understand a great deal more about post-traumatic stress disorder (PTSD). Walker and others now tend to adopt the language of PTSD in describing

In Scotland, the courts wrestled with the issue and now evidence of a history of abuse may be used to establish diminished responsibility, reducing a charge of murder to one of culpable homicide (manslaughter): *H. M. Advocate v Galbraith (No. 2)* 2001 S.L.T. 953. In England and Wales, see, *Crown Prosecution Service, The Use of Expert Evidence in the Prosecution of Domestic Violence* (March 2004).

6 Child psychiatrist Richard Gardner coined the term “parental alienation syndrome” (PAS) in 1985, in the context of alleged child sexual abuse, but he developed it into a much more broad-ranging theory over the last twenty years in his extensive publications on the subject: see, for example, Richard Gardiner, *The Parental Alienation Syndrome* (2nd ed., 1998). While his claims in respect of its incidence have changed over the years, his central theme relates to the denigration of one parent by the other, leading the child to develop a campaign of irrational hostility towards the denigrated parent. As a result, the child will refuse to have contact with the denigrated parent and will be critical of him or her. Gardner advocates that the appropriate response is for the courts to transfer custody of the child to the denigrated parent, contact with the denigrating parent be terminated, and de-programming of the child. PAS has attracted considerable criticism in the academic literature: see, for example, Carole S. Bruch, “Parental Alienation Syndrome and Parental Alienation: Getting It Wrong in Child Custody Cases” 35 Fam. L.Q. 527 (2001); Peter Jaffe, Nancy K.D. Lemon and Samantha E. Poisson, *Child Custody and Domestic Violence* (Sage, 2003); Janet J. Johnston and Joan B. Kelly, “Rejoinder to Gardiner’s ‘Commentary on Kelly and Johnston’s ‘The Alienated Child: A Reformulation of Parental Alienation Syndrome’” 42 Fam. Ct. Rev. 622 (2004). However, Gardiner has his supporters: see, Richard A. Warshak, “Bringing Sense to Parental Alienation: A Look at the Disputes and the Evidence” 37 Fam. L.Q. 273 (2003). Court in the US have both accepted and rejected PAS and it is not recognized by the American Psychiatric Association in its highly-influential *Diagnostic and Statistical Manual of Psychiatric Disorders* (4th edition, 1994), known as “DSM-IV”: see, Sally Melnick, “An Aura of Reliability: An Argument in Favor of Daubert” 1 Fla. Coastal L.J. 489 (2000). Support in Canada for PAS can be found in *C (AJ) v C (R)* 2003 B.C.S.C. 664 (2003) and *In Marriage of Johnson* 139 F.L.R. 384 (1997). PAS has been accepted as a phenomenon by the courts in England, although some judges prefer the term “implacable hostility”; *V v V (contact: implacable hostility)* [2004] 2 F.L.R. 851; *Re M* [2003] 2 FLR 636 and *Re C (Children)* [2002] 1 F.L.R. 1136. Courts in the UK remain aware of the need to listen to the genuine views of children who do not wish to have contact with a parent: *Re S (Contact: Children’s Views)* [2002] 1 F.L.R. 1156.

7 Repressed memory syndrome (RMS) is known by critics as “false memory syndrome” which, it might be argued, rather prejudices the issue. Under the heading of “Dissociate amnesias”, it is described by the American Psychiatric Association in *Diagnostic and Statistical Manual of Psychiatric Disorders* (4th edition, 1994), at p.478, as “an inability to recall important personal information, usually of a traumatic or stressful nature, that is too extensive to be explained by normal forgetfulness ….. This disorder involves a reversible memory impairment in which memories of personal experience cannot be retrieved in a verbal form (or, if temporarily retrieved, cannot be wholly retained in consciousness). It appears that repressed memories can be recovered spontaneously although greater controversy surrounds recovery through hypnosis and regression therapy. The psychiatric community is somewhat mixed in its acceptance of RMS: Harrison G. Pope, “Attitudes Towards DSM-IV Dissociative Disorders Diagnoses Among Board-Certified American Psychiatrists” 156 Am. J. of Psychiatry 321 (1999). Some authors argue that RMS is particularly applicable in cases of past sexual abuse: Laura Johnson, “Litigating Nightmares: Repressed Memories of Childhood Sexual Abuse” 51 S.C. L. Rev. 939 (2000). Opponents of RMS point to the possibility of memory implantation or what is recognized in DSM-IV as “ pseudomemory construction” of sexual abuse: David Lynch, “Post-Daubert Admissibility of Repressed Memories” 20 Champion, November 1996, 14.

8 Dr. Roland Summit first described child sexual abuse accommodation syndrome (CSAAS) in 1983 “to provide a vehicle for more sensitive response to child abuse and provide advocacy for the child within the
That a number of the syndromes themselves are controversial makes the role of the expert witness all the more important, both in terms of establishing the existence or otherwise of the syndrome, and in assessing whether it is present in a given case.

Over the years, courts and other agencies around the world have faced problems with the evidence of expert witnesses in family-related cases. This article has its genesis in the coincidental occurrence of two recent examples in the United Kingdom and asks whether there is another syndrome, “Undue Deference to Experts Syndrome”, at work in the legal system. In the first example, the evidence of Sir Roy Meadow (and his followers), an English expert on Munchausen syndrome by proxy (MSBP) resulted in a number of women being convicted of killing their children and imprisoned. Eventually, the validity of the expert’s theory was challenged successfully in court, a number of the convictions were quashed, and the women were freed.9 The same expert’s theories had led to the removal of countless children from their families, again on the basis of evidence that the child’s parent (usually the mother) suffered from MSPB and had abused the child as a result. Some of these children have been adopted into new families and the fallout from that is still being addressed. In the second example, Dr. Colin Paterson, a Scottish doctor, “identified” a condition, known as temporary brittle bone disease (TBBD). According to his theory, TBBD provided an alternative explanation of certain injuries to children which displaced the accusation that the injuries were non-accidental. He has featured as an expert witness for accused parents in criminal cases and in child protection litigation. While both his research and his findings were subsequently discredited, it is not entirely

family and within the criminal justice system”; Roland Summit, “The Child Sexual Abuse Accommodation Syndrome” 7 Child Abuse and Neglect 177 (1983), at p.178. CSAAS describes the common reaction of children in delaying reporting of sexual abuse and retracting allegations later. It is characterized by fearful, tentative and confused behavior on the part of the child. Clearly, evidence of the syndrome is important in residence/custody, contact/visitations, and child protection cases as well as prosecutions.

9 R v Clark [2003] 2 F.C.R. 447 and R v Cannings [2004] 1 All E.R. 725. A third woman, Donna Anthony, had her conviction for killing her two children quashed in April 2005, having spent seven years in prison: Joanna Bale, “Mother set free as murder convictions are quashed”, The Times, April 12, 2005. In the case of yet another woman, Trupti Patel, the same expert’s evidence featured but she was acquitted. It is not entirely clear that everyone convicted as a result of the expert’s evidence has had her (or, possibly, his) conviction re-examined: see discussion at p.XXX, below.
clear how many children may have been returned to their carers as a result of his evidence.

The coincidental occurrence of these two examples was appealing for a number of reasons. First, it reflected the eternal dilemma of child protection: what can be described as the “damned if you do, and damned if you don’t” phenomenon. Overzealous intervention, designed to protect children from (alleged further) abuse, but without adequate foundation, risks unjustified removal of a child from his or her family, resulting in distress to family members, stigmatization of the parents, and the violation of the rights of both the child and the parents. Failure to act timeously, when faced with allegations of abuse, risks exposing the child to further harm and possible death. In the MSBP

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11 Sadly, there is no shortage of examples of a failure to intervene appropriately and the tragic consequences that can follow. The National Coalition for Child Protection Reform (www.nccpr.org) has focused on the inadequacy of aspects of child protection law and procedures. Many states have responded by putting special procedures in place to investigate cases giving rise to concern. In Oregon, for example, such was the concern over failures in the child protection system that the Governor established a Critical Incident Response Team (CIRT), in 2004, to review cases of children who were abused or died while in state care with a view to improving policy, training and practice. Within months, CIRT had reviewed two cases. One involved a five year-old girl who was in foster care and whose family members had expressed concern to about her care. She was found unconscious, with a fractured skull, and seriously malnourished: see, www.dhs.state.or.us/2004news/2004-1213a.html. The second case involved a fifteen month-old boy, Ashton Parris, who died having been returned to the care of his parents on a trial basis: see, www.dhs.state.or.us/2004news/2004-1220.html. The boy’s father has now been charged with his murder: Steve Mayes, “Human Services Needs Broad Changes”, The Oregonian, March 2, 2005. In England and Wales, a tragic trail of abuse cases from Maria Colwell, in 1972, to Victoria Climbié and Ainlee Labonte, more recently, points to systemic failures in the child protection system. See, Child Abuse: A Study of Inquiry Reports 1980-1989 (H.M.S.O., 1991) and Christina Lyon with Cathy Cobley, Stephanie Petrie and Caroline Reid, Child Abuse (3rd ed, 2003), chapter 3 and pp.646-647. In Scotland, in 2001, 11 week-old Caleb Ness died while being care for by his brain-damaged father, who was later convicted of culpable homicide (manslaughter), despite the fact that the family’s problems were known to the local social work department. For the Executive Summary and Recommendations of the resulting enquiry, see, Report of the Caleb Ness Inquiry: (2003) http://download.edinburgh.gov.uk/CalebNess/Caleb_Ness_Report_Summary_and_Recommendations.pdf. The full Report, running to 264 pages, is available at: http://download.edinburgh.gov.uk/CalebNess. In 2002, again in Scotland, 13 month-old Carla-Nicole Bone died at the hands of her step-father while her mother looked on and despite repeated pleas from family members to the local child protection agencies. The step-father, Alexander McClure, is now serving a life sentence for murder: Stuart Patterson and Craig Walker, “Family’s anger at baby death report”, The Scotsman, September 18, 2003. Cases like these
example, the result of the expert’s participation was over-inclusive prosecution and the, sometimes permanent, removal of children from their families. In the TBBD example, there was the danger of an under-inclusive response, resulting in children being returned to their abusers and being left unprotected. Second, both examples involved the courts in addressing the admissibility of, and value to be attached to, expert evidence. Third, in each case, the experts whose evidence was to be considered were members of the medical profession. Finally, each involved the ultimate discrediting of the expert’s evidence because of the danger posed by the way he conducted his research and presented his evidence.

Further reflection and research established that problems with these syndromes or diseases are not unique to the legal systems in the UK and cases concerning both issues can be found in many other jurisdictions. Nor were they the only examples of expert testimony being called into question in family-related cases and sometimes discredited. This article will examine how the problematic examples of expert evidence about MSPB and TBBD played out in the UK and the harm that cases of this kind do, beyond the injustices suffered by the individuals involved. Drawing on the case law and literature from the United States, it will explore how US jurisdictions have addressed the admissibility of expert evidence. In particular, it will examine the mechanisms that are in place to separate valid expert evidence from junk science: a dichotomy which, as we shall see, is rejected by sections of the scientific community. Finally, we will look at how the mechanisms might be improved: an issue which has implications well beyond the specific cases highlighted here. First, it may be helpful to consider the attraction of expert evidence for the legal system along with the attendant pitfalls.

The attractions and pitfalls of expert evidence

provided the impetus for the latest Scottish child protection review, resulting in a report, It’s Everyone’s Job to Make Sure I’m Alright (Scottish Executive, 2002).

12 See notes XX-XX, above.

13 Where appropriate, occasional references will be made to cases in Australia, Canada and New Zealand, but any full exploration of developments there will have to await a future article.
The attraction of using expert witnesses in court proceedings is not difficult to fathom. To state the obvious, most lawyers and judges simply lack the expertise in a whole variety of non-legal disciplines to utilize the vast knowledge that these disciplines have to offer. Thus, courts need the assistance of experts in the disciplines in order to understand crucial information. Some commentators believe there is a fundamental problem in terms of what courts sometimes expect of expert scientific evidence. It is not simply that lawyers may not understand the information being presented but, rather, there is something of a failure to comprehend the scientific process. This results in a tendency “to treat all science as a single discipline distinguished only by its classification as valid or junk”.14 If we could get past this simplistic approach, so the argument goes, we would be in a position to make more subtle evaluations of particular evidence. As Edmond and Mercer put it:

“The rejection of a simple dichotomy between ‘good’ and ‘bad’ science facilitates discussion of a number of areas otherwise precluded. For instance, questions relating to the efficacy of various sciences, their objectives, and the ethics of their practitioners can be examined in more specific local terms, freed from the need to anchor them to over-arching, unworkable, mythological images of science”.15

Somewhat paradoxically, it is this very ignorance of science that often results in non-scientists being mesmerized by it. Science is perceived as solid, knowable, measurable: in short, it offers certainty.16 These factors combine to place the person who does


16 This belief in the certainty of science is somewhat misplaced, not least because of the danger of “fashions”, if not in the hard sciences, certainly in the social sciences. For instance, while the divorce of warring parents was once perceived as beneficial to children and summed up in the phrase “better one happy parent than two who are miserable”, that view has been challenged by many studies and authors including Judith Wallerstein and her colleagues. See, for example, Judith S. Wallerstein and Joan B. Kelly, Surviving The Breakup: How Children and Parents Cope With Divorce (1980) and Judith S. Wallerstein, J.M. Lewis and Sandra Blakeslee, The Unexpected Legacy of Divorce: A 25 Year Landmark Study (2000). Medicine is not immune from fashions. One feature of the Cleveland child abuse debacle was the use, by
understand science, the expert, in an incredibly powerful position. After all, if one is
coming from a position of ignorance, the person who holds the key to that certain body of
knowledge is something of a savior. The danger for the legal system is that this
empowerment of the expert witness will result in undue deference to his or her opinion.

The deference to scientific expertise is magnified when it involves experts who are not
only scientists but also doctors. Lawyers are constantly amazed at (and mildly irritated
by) how well the medical profession has managed public relations when the legal
profession has been so spectacularly unsuccessful in that arena. Despite the prevalence of
medical malpractice actions, members of the public, at least, remain largely deferential
to, if not in awe of, the medical profession. Maybe it has something to do with the god-
like power of life and death. Whatever the cause, there is no doubt that juries and some
lawyers hold medical expert witnesses in particularly high regard. In addition, there is the
tendency for members of one profession to behave with the utmost courtesy to members
of other professions. While anything that enhances good manners in the courtroom is to
be welcomed, there is a danger that this simple courtesy may translate into undue
defforence. It is interesting to note that, prior to damning the evidence of Dr. Paterson, the
expert witness on TBBD, Wall J. prefaced his remarks with the following statement: “[I]t
is only fair that I should record at this point that [two other expert witnesses who disputed
Dr. Paterson’s findings] paid tribute to the work which Dr. Paterson has done in the field
of bone pathology. I should also record my own assessment of Dr. Paterson as a highly

the two doctors involved, of anal dilation as a diagnostic technique in assessing whether a child might have
been sexually abused. See, Report of the Inquiry into Child Abuse in Cleveland 1987 (HMSO, 1988, Cm
412). The Court of Appeal, in England, recently highlighted another example: “Not long ago, experts were
suggesting that newborn babies should lie on their tummies. That was advice based on the best-informed
analysis. Nowadays, the advice and exhortation is that babies should sleep on their backs – Back to Sleep.
This advice is equally drawn from the best possible sources.”: R v Cannings [2004] 1 All E.R. 725, para. 28.

17 Note Weintraub’s observation, “[P]hysicians have been quick to condemn the legal profession as the
cause for the surge in medical malpractice lawsuits. However, in reality, the greater impetus has been the
medical expert witness who has developed unique theories of causation with consequent corruption of
855 (1995) at p.856.
intelligent man whose manner is sympathetic and whose evidence was given persuasively with both enthusiasm and charm.”\(^\text{18}\)

Certainly, lawyers and judges are not notorious for being particularly deferential. Nor are all lawyers and judges science-illiterate. That brings another danger into the picture. It is the responsibility of the lawyer to be a zealous advocate of his or her client’s case, always within ethical bounds, of course. One result of this is that the lawyer will seek out expert witnesses who will be of help in the client’s case and a science-savvy lawyer will be somewhat selective in choosing the witnesses he or she calls.\(^\text{19}\) It is a feature of the adversarial system that there will be another lawyer, presenting the opposing case, who has the opportunity to do exactly the same thing. However, the adversarial system, itself, encourages one advocate to advance a particular scientific theory as valid and the other advocate to seek to dismiss it, again reflecting a lack of subtlety in the understanding of the scientific process.

What of the expert witness themselves? There is no doubt that many experts give evidence in a neutral and objective manner in order to assist the court in understanding the expert’s particular field. The fact that many experts are paid for their services is no reason to assume that their objectivity is necessarily compromised.\(^\text{20}\) Nonetheless, the fact that “career experts” do exist and that there is a lucrative industry in providing expert

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\(^{19}\) The irony of the position in which Wall J. found himself, in *Re AB (Child Abuse: Expert Witness)* [1995] 1 F.L.R. 181, is instructive in this context. Before proceeding to deliver resounding condemnation of the evidence of an expert witness (Dr. Paterson) in the case before him, he quoted from Cazalet J. in *Re J (Child Abuse: Expert Evidence)* [1991] 1 F.C.R. 193 at 226, where Cazalet J. also criticized the position taken by the same witness. Wall J. then made the following statement: “I must also declare a personal interest in the case as I appeared as leading counsel for the parents and myself called Dr. Paterson as a witness on their behalf.”

\(^{20}\) In a recent Scottish case, the court was more concerned that the expert witnesses for the pursuer (plaintiff) gave their evidence free of charge, seeing this as a reflection of their commitment to a particular position and calling their impartiality into question. It contrasted this with the expert witnesses for the defender who followed the more usual course of charging for their services. See, *McTear v Imperial Tobacco Ltd.* [2005] CSOH 69 (neutral citation), also available on the Scottish Court website at: [http://www.scotcourts.gov.uk/opinions/2005csoh69.html](http://www.scotcourts.gov.uk/opinions/2005csoh69.html), at para.5.18, discussed at p.XXX, below.
testimony might make one pause for thought. That issue aside, there are other causes for caution. Given the powerful position of the expert witness, as the elucidator of knowledge to the ignorant, one might speculate that some experts enjoy being in this position and the issue of the expert’s ego enters the picture. A related danger is the extent to which the expert witness is personally invested in his or her own particular theory. By definition, an expert witness will have devoted considerable energy to working in a particular field. By and large people prefer to have this devotion validated by it being proved to have been worthwhile, rather than feeling they have been wasting their time. Some experts will be speaking to their own original work. Bearing in mind that very few scientists achieve the fame associated with discovering penicillin or having a condition named after them, there is the danger that some experts will be so attached to their own theories that their ability to assess the theories objectively has been compromised. In short, there are any number of reasons why, and ways in which, medical and other experts may provide less than objective evidence. That this danger is recognized by the medical profession itself is encouraging and, as we shall see, it will act against its own (eventually) where they are adjudged to fall below recognized professional standards. Of course, this will be little comfort to the child who has been injured further after being return to an abusive parent or the parent whose child has been removed unjustifiably. Thus, the evidence of experts in the field, while often an essential part of child protection cases and associated prosecutions, is not without its dangers. How, then, did expert evidence play out in the selected examples of MSPB and TBBD?

21 See comments at note XX [probably note 1], above.

22 This line of enquiry is one from which academics might gain valuable personal insights.

23 As we shall see, there are elements of this in both of the examples discussed below.

24 See Weintraub’s comment, “Inaccurate or false testimony is an embarrassment to our profession”: Weintraub, “Expert Witness Testimony: A time for self-regulation?”, op. cit. at p.856. Chadwick and Krous provide the following criteria for irresponsible medical testimony, although they acknowledge that “other forms of irresponsible testimony will doubtless be described in the future”: absence of proper qualifications; use of unique theories of causation; use of unique or very unusual interpretations of medical findings; alleging non-existent medical findings; flagrant misquoting of medical journals or widely used texts; making false statements; deliberate omission of important facts or knowledge pertinent to the opinion being offered: David L. Chadwick and Henry F. Krous, “Irresponsible Testimony by Medical Experts in Cases Involving Physical Abuse and Neglect of Children” 2(4) Child Maltreatment 313 (1997), at p.314.
Munchausen Syndrome by Proxy (MSBP)

The term “Munchausen syndrome” was coined in 1951 by Dr. Richard P. Asher to describe the condition where a patient repeatedly makes false claims of symptoms, or deliberately induces illness in himself or herself, in order to gain medical attention. The element of proxy entered the picture in 1977, when (then) Dr. Roy Meadow applied the term to a carer, usually a mother, who did much the same thing, but to a child. Thus, the term Munchausen syndrome by proxy (MSBP) was born. While it is most frequently used in the context of non-accidental injury to children, it can arise in other contexts. Where the mother makes false claims about a child’s symptoms, sometimes made more credible by the production of “evidence” like a urine sample she has tampered with, the danger is that the child will be subjected to unnecessary, and possibly painful, diagnostic procedures and treatment. There is also the possibility that any condition the child does actually have will go undiagnosed. Where the mother goes as far as to induce illness, the

25 Richard P. Asher, “Munchausen Syndrome” (1951) 1 Lancet 339. The name derives from Baron Karl Fredrich von Munchhausen, an eighteenth century German aristocrat who served in the Russian cavalry and was famous for telling tall tales.

26 Dr. Meadow was knighted, in 1997, for his contribution to medicine and childcare.


28 While MSBP has been renamed “factitious disorder”, MSBP will be used here since it is the term used in most of the case law and literature and, probably irreversibly, etched on the public consciousness.

29 The perpetrator need not be the mother of a child, with other carers, including some with health care backgrounds, sometimes being implicated. See, for example, the case of Beverley Allitt, the nurse convicted of killing four children in her care and injuring nine others: R v Allitt (Beverley), unreported, 1993 discussed in T.J. David, “Munchausen Syndrome by Proxy” (2001) 31 Fam L. J. 445. Coincidentally, Dr. Meadow gave evidence at her trial. Nor need the victim be a child and other, including elderly people or companion animals, may be at risk suggesting that the victim’s vulnerability and dependence on the carer is a factor. See also, H.M.C. Munro and M.V. Thrusfield, “Battered Pets: Munchausen syndrome by proxy (factitious illness by proxy)” 42 Journal of Small Animal Practice 385 (2001), detailing a study conducted in Scotland by faculty from the Royal School of Veterinary Studies at the University of Edinburgh and suggesting that companion animals may be victims of MSBP.

30 See, for example, R v L.M. [2004] Q.C.A. 192, at paras. 14-16, for the description of a range of procedures, including the taking of a bone marrow sample and a bowel sample and intra-muscular in injections, to which a child was subjected over a period of a few months.
threat to the child’s health is obvious and the consequences can be fatal.\textsuperscript{31} That some parents will harm their children, quite deliberately, is attested to by an abundance of civil and criminal case law, official enquiries, and academic and other literature on the subject. That some of them do so by means of alleging non-existent illness or fabricating symptoms is also reasonably clear. Where concern about MSBP has arisen is the way it was diagnosed and attested to by one expert witness and his followers and this evidence was admitted into court and accepted so readily in a number of cases.

Having named and identified MSBP, Dr. Meadow went on the elaborate on the theme in subsequent publications.\textsuperscript{32} Perhaps most notable was the development of what came to be known as “Meadow’s law”, summed up in the statement “One sudden infant death is a tragedy, two is suspicious and three is murder until proved otherwise.”\textsuperscript{33} He also provided expert evidence on the subject in court, as did others who subscribed to his view. His evidence was offered by the prosecution, in criminal cases, and by governmental child protection authorities, in child protection cases. The most notorious examples of Sir Roy Meadow’s contributions, in the criminal context, concerned the convictions of Sally Clark, in 1999, and Angela Cannings, in 2002.\textsuperscript{34} In 1999, Ms Clark was convicted, by a majority of ten to two, of murdering her two sons, one by suffocation and the other by smothering. Her appeal, in 2000, was dismissed. Her husband campaigned tirelessly and the Criminal Cases Review Commission referred the

\textsuperscript{31} See, for example, the case of Petrina Stocker who was convicted of the manslaughter of her nine year-old son having added salt to his feeding bottles in hospital. It appears that both social workers and police officers involved in the case may not have responded with sufficient rigor. A review of hospital procedures was carried out and recommended that feeds be provided in tamper-proof containers and fridges should be lockable. See, Jenny Booth, “Salt killer mother is jailed for five years”, The Times, February 25, 2005.

\textsuperscript{32} Roy Meadow, “False allegations of Abuse and Munchausen Syndrome by Proxy” 68 Arch. Disease in Childhood 444 (1993) (Significantly, this article addresses false allegations of abuse as a manifestation of MSBP. It does not address false allegations of MSBP as a form of child abuse); Roy Meadow, “What Is and What Is Not ‘Munchausen Syndrome by Proxy’?” 72 Arch. Disease in Childhood 534 (1995); Roy Meadow, ABC of Child Abuse (3rd ed, 1997).

\textsuperscript{33} Roy Meadow, ABC of Child Abuse (3rd ed, 1997), at p.??? (find)

\textsuperscript{34} See also the case of Donna Anthony who had her conviction overturned in April 2005 and it can be anticipated that other cases will follow, see note XX, below. See also note XX, above for reference to the case of Trupti Patel who was acquitted on similar charges despite Dr. Meadow’s evidence.
case back to the Court of Appeal which allowed the appeal and quashed the convictions in January 2003.  

35 Central to her original conviction was Sir Roy Meadow’s colorfully presented statistical evidence on the likelihood of two children in the same family dying from Sudden Infant Death Syndrome (SIDS). 36 He likened this occurrence to picking the winning horse in the Grand National, running on odds of 80-1, in successive years. As the Court of Appeal concluded, 

**“we rather suspect that the graphic reference by Professor Meadow to the chance of backing long odds winners of the Grand National year after year may have had a major effect on [the jury’s] thinking notwithstanding the efforts of the trial judge to play it down”**. 37

In 2002, Ms Cannings has been convicted of murdering her two sons by smothering. 38 Her appeal was allowed and the convictions were quashed in 2003. 39 Again, Sir Roy Meadow had been a prosecution witness and part of his evidence related to the statistical probability of two children in the same family dying of SIDS. Again, the appeal did not relate solely to his evidence, 40 although the Court raised some questions about it. 41

Concluding that the convictions were unsafe, the Court observed:


36 This was not the sole ground for allowing the appeal, since this Court heard for the first time about microbiology results, known to the prosecution but never disclosed to the defense, which led one expert to conclude “overwhelming streptococcal infection is the most likely cause of death” of one of the boys; *Ibid*, at para 122. However, the Court did note that “it seems likely that if this matter had been fully argued before us we would, in all probability, have considered that the statistical evidence provided a quite distinct basis on which the appeal had to be allowed”; *Ibid*, at para 180.


38 Ms Cannings had also been charged with the murder of a third of her four children but that case did not proceed: *R v Cannings* [2004] 1 All E.R. 725, para. 2.


40 Subsequent to her conviction, evidence emerged of possible SIDS deaths and ALTEs (“acute” or “apparent life threatening events”) in relation to children of Ms Cannings’ grandmother and, hitherto unknown to her, half-sister: *Id.*, paras. 31-35.

41 The picture here is complicated by the fact that there was some doubt about which of two studies Sir Roy refereed in his evidence and whether he had read the background notes in respect of one of them. While on other expert witness described Sir Roy’s evidence as “a travesty”, whether this was so or not
“We recognise that the occurrence of three sudden and unexpected infant death in
the same family is very rare, or very rare indeed, and therefore demands an
investigation into their causes. Nevertheless, the fact that such deaths have
occurred does not identify, let alone prescribe, the deliberate infliction of harm as
the cause of death. …. If on examination of all the evidence every possible
known cause has been excluded, the cause remains unknown.” 42

In the light of this case and those of Sally Clark and Trupti Patel, the court noted the
unexplained nature of deaths due to SIDS and paid tribute to the continuing research.
However, it issued the following stern warning:

“We cannot avoid the thought that some of the views expressed with reasonable
confidence in the present case (on both sides of the argument) will have to be
revised in years to come, when the fruits of continuing medical research, both
here and internationally, become available. What may be unexplained today may
be perfectly well understood tomorrow. Until then, any tendency to dogmatise
should be net with an answering challenge.” 43

Nor was Sir Roy Meadow’s influence confined to the criminal arena. In the context of
child protection, it is not known how many children have been removed from their
parents’ care on the basis of evidence of the kind leading to the criminal convictions
outlined above. As we shall see, estimates vary and the truth is that we will probably
never know the precise figure. 44 This is due in part to the lack of response by some local
authorities, in England and Wales, 45 and imperfect record-keeping, in Scotland. 46 In
addition, it should be remembered that the standard of proof in child protection cases

42 Ibid, at para. 177.
43 Ibid, at para. 22.
44 See p.XXX, below.
45 See p.XXX, below.
46 See p.XXX, below.
requires proof on the balance of probabilities, while the standard in criminal cases is proof beyond reasonable doubt. In short, what is insufficient, in the criminal context, may be enough in a child protection case.

One might have thought that the fallout from these cases would have been enormous. After all, several women have spent years wrongfully incarcerated and children have been removed from their families on the basis of evidence that is, at the very least, questionable. However, if one was expecting a cosmic official response, one would be disappointed. Certainly, Sir Roy Meadow was vilified in the popular press and, to a lesser extent, professional journals. Nor did his followers escape unscathed. Despite this, it appears that Sir Roy was invited to speak at an international conference for child protection workers in San Diego in January 2005, much to the annoyance of some of his victims.

What of the response at government level? In January 2004, the Attorney General, Lord Goldsmith, ordered a review of two hundred and fifty-eight cases in England and Wales


48 See, for example, Anne Pukas, “The man who made a fortune wrecking the lives of women” The Express, January 21, 2004; Tracey Lawson, “Why an expert witness is in the dock”, The Scotsman, January 24, 2004. Amongst other details, Tracey Lawson’s article offers his former wife’s views of Sir Roy’s character, including, “In retrospect the signs were there – in who Roy was – that he would go too far. He found it everywhere. He was over the top. He saw mothers with Munchausen syndrome by proxy wherever he looked” and “I don’t think he likes women. I don’t think he’s gay. But, although I can’t go into details, I’m sure he has a serious problem with women”. On the one hand, a former spouse may be in a unique position to offer insights into an individual’s character. On the other hand, who would really welcome such opinions being published in the press?


50 Professor David Southall was similarly criticized in the press. See, for example, Tanya Thomson, “Angry parents to confront doctor”, The Scotsman, August 4, 2004 and Maxine Frith, “Southall verdict: A pioneer or a menace? Once in demand, professor faces end of career”, The Independent, August 7, 2004. Professor John Stephenson, the leading expert to give evidence to the Scottish courts, has had his diagnosis challenged in at least one case and it can be anticipated that more will follow: Tanya Thomson, “Abuse expert to face court over ‘Munchausen’ case”, The Scotsman, January 20, 2004.

where women had been convicted of killing their children.\textsuperscript{52} At the time of writing, it is not known how many cases will be referred back to the courts. Press reports initially suggested that as many as 5,000 children may have been removed from their families as a result of allegations of MSBP, although this figure has been questioned subsequently.\textsuperscript{53} Initially, it was unclear whether these civil cases would be re-examined, with the Children’s Minister, Margaret Hodge, and the Solicitor General, Harriet Harman, appearing to differ over the matter.\textsuperscript{54} In the event, the government issued guidance to local authorities asking them to review their own cases.\textsuperscript{55} 130 of the 150 local authorities responded to a survey conducted by the Association of Directors of Social Services.\textsuperscript{56} They reported that disputed medical evidence arose (or was anticipated to arise) in 47 of 5,175 cases. The impact of the medical evidence was known in nine of these cases and, in a further thirty eight, the case was not sufficiently advanced for the outcome to be clear.\textsuperscript{57} That there have been calls for a public enquiry is hardly surprising but, at the time of writing, these calls have fallen on deaf government ears. Incredulity and outrage followed the announcement that Angela Cannings would receive no compensation from the state for the years she has wrongfully spent in prison.\textsuperscript{58} Of course, this does not preclude the possibility of her raising a civil action against Sir Roy Meadow.

\textsuperscript{52} Clare Jerrom, “Care proceedings excluded from review of expert witness cases” \textit{Community Care}, January 29, 2004.

\textsuperscript{53} Roy Greenslade, “Sense and sensitivity”, \textit{The Guardian}, April 19, 2004 (noting that it is unclear where this figure came from but that it continues to be repeated in the press).

\textsuperscript{54} Clare Jerrom, “Care proceedings excluded from review of expert witness cases” \textit{Community Care}, January 29, 2004.


\textsuperscript{56} \textit{Idid}.

\textsuperscript{57} \textit{Ibid}. Interestingly, the BBC’s Radio 4 \textit{Today} program conducted a poll, to which 70 of the 150 local authorities replied. 74\% of those replying indicated that they were not reopening any cases: Clare Jerrom, “Care proceedings excluded from review of expert witness cases” \textit{Community Care}, January 29, 2004.

\textsuperscript{58} Tanya Thomson, “Compensation blow for cot death mother wrongly jailed”, \textit{The Scotsman}, January 12, 2005.
In Scotland, a parallel investigation of criminal cases was conducted by the Crown Office, the body responsible for bringing prosecutions. It appears that twenty-two cases of convictions for murder or culpable homicide (manslaughter), some going back as far as ten years, were re-examine and it was concluded that there had been no miscarriages of justice.\(^{59}\) This was hardly a transparent process and, thus, has done little to assuage public concern. The Scottish review of child protection cases involving the removal of children from their parents amid allegations of MSBP has been even less satisfactory. The Scottish Children’s Reporter Administration (SCRA), responsible for investigating and pursuing child protection proceedings, re-examined some forty-three cases, dating from 1981 onwards, and found that three of them warranted a return to the courts.\(^{60}\) Particularly disturbing is the admission by SCRA that five cases could not be reviewed in detail, “3 because staff had only a vague recollection of a relevant case and therefore the child could not be identified, 2 because due to the passage of time the case files or papers are not available”.\(^{61}\) Little wonder, then, that a “SCRA insider” branded the review “a bit of a joke”.\(^{62}\) Indeed, the media seems to have had greater success in tracing cases of children removed from their families and sometimes adopted, amid allegations of MSBP, than has SCRA, albeit journalists have the luxury of relying on nothing more than the, sometimes partisan, accounts of the individuals involved.\(^{63}\) It is hardly surprising that a


\(^{61}\) Ibid, at para. 8. See also, Kate Foster, “Lost without trace: the families who were torn apart on a whim” *Scotland on Sunday*, October 10, 2004.

\(^{62}\) Liam McDougall, “Officials consider attempt to trace parents wrongly accused of child abuse ‘a joke’”, *Sunday Herald*, June 7, 2005. The same anonymous source claimed that the initial review of the SCRA database highlighted 3,500 “potential cases of concern”. The article quotes Alan Miller the then Principal Reporter (head of SCRA) as having written to the Scottish Executive warning of “considerable difficulties in practice” in undertaking a thorough review.

\(^{63}\) Tim Pauling, “Solicitor backs calls for a public enquiry into misdiagnoses”, *Aberdeen Press and Journal*, January 27, 2004 (referring to “dozens” of cases and giving details of two, one of which involved children who have been adopted subsequently); Tanya Thomson, “‘Whitewash’ fear over child abuse review”, *The Scotsman*, May 17, 2004 (referring to twelve families and the nineteen children found by the newspaper).
number of parents are raising actions in court seeking to have their children returned to them and calls for a public enquiry continue.

It is one function of the General Medical Council (GMC) in the UK to police the professional standards of its members. How did it respond? In August 2004, the GMC’s professional conduct committee banned Professor David Southall, the expert witness in Sally Clark’s case, from working in any area of child protection for the next three years. That decision was appealed to the High Court and, while it ruled that he did not deserve to be “struck off” the medical register, it called for the conditions applying to him to be tightened. In June 2005, Dr. Alan Williams, the Home Office forensic pathologist who carried out the post-mortem examination on Sally Clark’s sons and failed to disclose aspects of findings in his evidence at her trial, was found guilty of “serious professional misconduct” by the GMC’s professional conduct committee and banned from Home Office pathology work for three years. At the time of writing, the fate of Sir Roy Meadow has yet to be determined but, in the light of how the GMC has dealt with his colleagues, one might speculate that he has little to fear from his own professional body.

[ ..... update when decision handed down ..... ] Ironically, it was expert evidence led at the hearing over allegations that he was guilty of “serious professional misconduct” that may have proved most damning in his case. Sir David Cox, retired Professor of Statistics at Imperial College London, gave evidence that Sir Roy made fundamental errors in

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64 Tanya Thomson, “Abuse expert to face court over ‘Munchausen’ case”, The Scotsman, January 20, 2005 (giving details of a Glasgow solicitor who is representing six mothers who are challenging the removal of their children from their care).

65 “The main objective of the General Council in exercising their functions is to protect, promote and maintain the health and safety of the public.”: Medical Act 1983, s.1A., as substituted by the Medical Act 1983 (Amendment) Order 2002, S.I. 2002/3135, para.3.

66 Strictly speaking, the Fitness to Practice Panel has directed “that the person's name shall be erased from the register”: Medical Act 1983, s.35D, as substituted by the Medical Act 1983 (Amendment) Order 2002, S.I. 2002/3135, para.13.

67 Sam Lister, “Doctor will not be struck off for false murder claim” The Times, April 15, 2005 and John Aston, “Clark ‘baby murder’ case doctor is let off”, The Scotsman, April 15, 2005 (reporting that Professor Southall will be required to refer all cases involving alleged child abuse to another doctor and to report to the GMC every six months).

68 Nigel Hawkes, “Pathologist in Sally Clark trial is found guilty of misconduct”, The Times, April 4, 2005.
calculating the probability of more than one infant in the same family dying from SIDS. As we shall see, the immediate reaction of sections of the medical profession and the Royal College of Paediatrics and Child Health was somewhat defensive, albeit the latter went on to respond more constructively thereafter.

MSBP has not escaped the notice of the European Court of Human Rights, although it has addressed the cases before it in terms of the procedures followed rather than the condition itself. In *P, C and S v United Kingdom*, a case also of interest for its trans-Atlantic dimension, a child, S, was removed from her parents at birth, largely due to concerns that the mother suffered from MSBP. Finding violations of articles 6 (right to a fair trial) and 8 (right to respect for family life) of the European Convention on Human Rights, the Grand Chamber concentrated on the lack of legal representation of the parents in the proceedings. In *Venema v Netherlands*, the Court found that the authorities in the Netherlands had violated the parents’ article 8 right to family life by denying the parents the opportunity to contest the allegations against them prior to the removal of their daughter and by acting on incomplete information, including allegations of MSBP.

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70 See pp.XXX-XXX, below.

71 Precisely where the European Court is going on the issues of emergency removal of children from their parents, representation of the parents and the child, and adoption of children against the wishes of their parents, is a fascinating subject which, sadly, is outwith the scope of this article. See also, *K and T v Finland* (2001) 31 E.H.R.R. 18.


73 The mother, P, a citizen of the United States, had been convicted of child endangerment in California in respect of allegations that she administered laxatives inappropriately to her child, B, because she suffered from MSBP. B was removed from her care and placed with his father. P subsequently moved to England, married, and gave birth to S. Child protection authorities in the US alerted the authorities in England to the earlier case and concerns that P suffered from MSPB. It was this information that triggered the removal of S. See, *P, C and S v United Kingdom* (2002) 35 E.H.R.R. 31, paras. 9-56.

The reach of Sir Roy Meadow’s work goes far beyond the UK. In the US, MSBP seems to have made its first appearance in the case law with the 1981 conviction of Priscilla Philips of murdering her daughter. Subsequently, attorneys and the press drew attention to concerns over misdiagnosis of the condition. In Australia, the Queensland Court of Appeal set aside the verdict in the case of a woman who was convicted of torturing one of her children and wounding two others, and ordered the retrial, due to concern that the conviction resulted from undue reliance on the MSBP label. In New Zealand, concern has been expressed over the removal of six children from their mother amid allegations of MSBP.

It is no exaggeration to say that the recent experiences surrounding MSBP in the UK has rocked the world of child protection. Due largely to the work of one highly-influential man, who attracted quite a following in the medical community, a number of women served prison sentences for crimes they did not commit, some children were removed from parents for months or years, and other children and parents have been lost to each other through adoption. That this can happen in developed legal systems is nothing short of scandalous. The courts were all to willing to listen to the dogmatic views of experts adhering to a particular theory and, while they may have learned something from this

75 People v Phillips 122 Cal. App.3d 69 (Cal. Ct. App. 1981), where specific reference is made to Dr. Meadow’s 1977 article.

76 Tom Ryan, an attorney in Arizona, is a leading critic of misdiagnosis of MSBP. He is quoted by Padilla as observing, “Munchausen Syndrome by Proxy has become the disease du jour. This diagnosis is nothing more than modern day medical McCarthyism, where mothers are accused of a sinister form of child abuse with nothing more than suspicion, rumor and innuendo”: Gloria Padilla, “Lawyer Blasts ‘Disease Du Jour’” San Antonio Express-News, April 13, 1998. In the Foreword to David Allison and Mark Roberts, Disordered Mothers or Disordered Diagnosis (1998), he likens the diagnosis of MSBP to the Hans Christian Andersen fairly tale, The Emperor’s New Clothes (in which the Emperor is, in fact, naked, but courtiers conspire to feed the fallacy of his spectacular new outfit).


debacle, it remains to be seen whether the deference accorded to (particularly medical) experts will be less absolute in the future. While some of the expert witnesses involved have been subject to sanction by their own professional body, the GMC, it was neither swift to act nor were the sanctions particularly severe. Not one doctor has lost his licenses to practice medicine over these cases [.... Check this once Sir Roy Meadow’s GMC hearing completed ....].

Before we examine the criteria the courts apply in admitting expert evidence – criteria designed to prevent just this sort of injustice from occurring – and the damage that cases of this kind cause, we will look at another example of the influence of an expert and how his theory played out in the courts.

**Temporary Brittle Bone Disease (TBBD)**

If Sir Roy Meadow and the impact of his views on MSPB produced a media feeding frenzy, the reaction to Dr. Colin Paterson and his views on the existence of “temporary brittle bone disease” (TBBD),

amounted to something of a low-calorie snack. There never was a “Paterson’s Law”, sitting alongside Meadow’s Law. TBBD did not attract a following amongst other members of the medical profession and, indeed, it was its rejection by other experts that may have reduced its impact, in practical terms. Unlike the investigations which followed the overturning of the convictions of Sarah Clark and Angela Cannings, there was initial resistance to the idea of reviewing the cases in which Dr. Paterson played a part. After some dragging of feet, the Children’s Minister for

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80 In the light of this, it is interesting to note that Dr. Paterson whose evidence on TBBD is equally questionable did suffer this penalty: see p. XXX, below.

81 More recently the term “transient brittle bone disease” has been used to describe the condition but, as with MSBP, TBBD will be used here since it is better known.

82 Writing in the influential UK newspaper, *The Guardian*, Claire Dyer reported that David Spicer, a barrister and chair of the British Association for the Study and Prevention of Child Abuse and Neglect, wrote to the Minister for Children, Margaret Hodge, asking if local authorities would be advised to reopen cases in which Dr. Paterson had been involved. Initially, it appeared that they would be no such instruction: see, Claire Dyer, “Inexpert Witness: In the fuss over Roy Meadow, whose evidence incriminated Angela Cannings, the case of another medical courtroom specialist has gone unnoticed” *The Guardian*, April 6, 2004, G2.
England and Wales, Margaret Hodge, finally called for a review.83 While there is now a body of case law rejecting TBBD and giving some of the strongest condemnation of an expert’s testimony found in the law reports, we do not know how often his evidence held sway and led to the return of children to their families.84 Writing in 1997, Dr. Paterson estimated that 78 children had been returned to their parents after he gave evidence in care proceedings in the England and Wales85 and, as we shall see, his evidence had this effect in at least one Scottish case86 and in at least two cases in the US.87

But we are getting ahead of ourselves. What is the theory advanced by Dr. Paterson about this alleged condition, TBBD? Essentially, TBBD provides an alternative explanation to the cause of a pattern of injuries, specifically broken bones, in children. When a child comes to the attention of the authorities because of suspected abuse, part of the child’s body will often be X-rayed, with a skeletal survey sometimes being carried out over the whole body. Sometimes the X-rays disclose previous injuries including bone fractures, typically to some or all of the arms, wrists, legs, ankles and ribs. If the child’s carer(s) (usually the parent(s)) cannot provide an innocent explanation of how the injuries occurred that is consistent with the injuries themselves, then a strong suspicion arises that that the child has been abused.88 In a small number of cases, a child will suffer from osteogenesis imperfecta (OI), better known as brittle bone disease. This is a permanent genetic condition, of varying severity, in which the sufferer has increased bone fragility,


84 For a discussion of some of the cases, see p. XXX, below.


86 This case has never appeared in the law reports and, thus, there is no case name. See the discussion of the case at p.XXX, below.


leaving him or her unusually susceptible to bone fractures.\textsuperscript{89} Where a child has this condition, and it can usually be diagnosed using well-accepted tests, then the suspicion of non-accidental injury is displaced, since there is now an innocent explanation of the child’s injuries.\textsuperscript{90}

It was in this context that Dr. Paterson developed his theory about a condition he called temporary brittle bone disease (TBBD).\textsuperscript{91} Where he departed from established medicine was by suggesting that there might be a condition, similar to OI and creating a susceptibility to bone fractures, but which was temporary.\textsuperscript{92} Essentially, to put it in lay-person’s terms, the child had suffered from brittle bone disease but had “got better”. Again, there was an innocent explanation of the child’s past injuries. The problem was that the condition could no longer be established by recognised tests. To fill that gap, Dr. Paterson provided his own explanation of what might cause TBBD and how it could be

\textsuperscript{89} \textit{Osteogenesis imperfecta} is classified on a scale from IA to IVB, in terms of severity. Statistics on the frequency of the condition vary but Feldman, \textit{op. cit.} at p.214, cites type IA as occurring in 3.5 out of 100,000 births. He notes that type 4A “has the greatest potential of confusion with abuse”, but it accounts for only 5% of OI cases … rarely, mild OI type 3 can also cause confusion. OI types 2 and 3 usually cause severe disease from infancy and, hence, are unlikely to be confused with abuse”. Bays estimates the incidence of Type I, the most common form of the condition, as one per 30,000 births: Jan Bays, “Conditions Mistaken for Child Physical Abuse” in \textit{Child Abuse: Medical Diagnosis and Management} (ed Robert Reece & Stephen Ludwig, 2\textsuperscript{nd} ed, 2001), at p.200.

\textsuperscript{90} It is possible, of course, that a child can suffer from \textit{osteogenesis imperfecta} and also be the victim of abuse: Daniel R. Cooperman and David F. Merten, “Skeletal Manifestations of Child Abuse” in \textit{Child Abuse: Medical Diagnosis and Management}, \textit{op. cit.} at pp.149-150

\textsuperscript{91} Dr. Colin R. Paterson and Dr. Susan J. McAllion, “\textit{Osteogenesis Imperfecta} in the Differential Diagnosis of Child Abuse” 299 Brit. Med. J. 1451 (1989). Ablin & Sane express the view that “The so-called entity of TBBD, proposed as a variant form of OI, originated at a presentation at the Fourth International Conference of OI in 1990. An article was subsequently published in the \textit{American Journal of Medical Genetics} without peer review”:Deborah S. Ablin & Shashikant M. Sane, “Non-Accidental Injury: Confusion with Temporary Brittle Bone Disease and Mild \textit{Osteogenesis Imperfecta}” 27 Pediatric Radiology 111, at p.111 (1997). This observation appears to discount prior publication in the \textit{British Medical Journal} so presumably what Ablin and Sane mean is that the first presentation of TBBD in the US occurred at the 1990 conference.

established on the evidence that did remain available. He noted similarities between TBBBD and both copper deficiency and collagen defects. He found that TBBBD occurred within the first year of the child’s life, appeared to be more common in twins and where birth had been premature and, while there was usually no family history of brittle bones, there might be a history of bone laxity. The pattern of injuries often included fractures to the ribs and at the ends of long bones and the condition was sometimes accompanied by projectile vomiting and anemia. Dr. Paterson attached considerable weight to the absence of bruising accompanying diagnosis of fractures when TBBBD had occurred, although it appears that bruising is often absent when young children sustain bone fractures.

TBBBD came in for almost unanimous criticism from the medical community, with prosecutors being warned of this new defense. Some of the medical condemnation of

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93 Paterson and McAllion (1989) op. cit..

94 Paterson (1993) op. cit. and Paterson (1997) op. cit..

95 In Re AB (child abuse: expert witness) [1995] 1 F.L.R. 181, at pp.??-?? (find). Dr Paterson attached considerable significance to the absence of bruising stating, “Had these fractures been sustained as a result of a series of deliberate injuries inflicted on a child with normal bones, it would be almost inconceivable that evidence of such injuries would not be obvious.” However, Wall J. noted the evidence of two other experts “that fractures in young children frequently occur without evidence of bruising”, and the considerable support for this proposition in the medical literature. This led him to prefer the latter evidence.

96 There would appear to be at least one domestic advocate of TBBBD in the US, a Dr. Marvin Miller, author of “Temporary Brittle Bone Disease: Associated with Decreased Fetal Movement and Osteopenia”, rejected by a number of leading medical journals and published in Calcified Tissue International (see Family Independence Agency v Detrych 2002 WL 1275632 (Mich. App., 2002), at *8). He has appeared in a number of cases but his testimony has not prevailed over that of other experts. See, State v Swain 2002 WL 146204 (Ohio App. 4 Dist., 2002) (Unsuccessful appeal against conviction for felonious assault and child endangerment. At trial, all three of the state’s witnesses discounted TBBBD as a legitimate theory.); State v Glover 2002 WL 31647904 (Ohio App. 12 Dist., 2002) (Unsuccessful appeal against convictions for felonious assault. Dr. Miller’s theories “had not been accepted by the medical community”. Theories rejected by the jury as part of larger picture of evidence.); Family Independence Agency v Detrych 2002 WL 1275632 (Mich. App., 2002) (On appeal, Dr. Miller’s testimony found inadmissible applying a variant of the Frye test. “Dr. Miller’s testimony is based on a novel theory which lacks the appropriate objective and independent validation necessary to permit it admissibility at trial”, at *9). TBBBD is mentioned and rejected by the courts in a number of appeals: see, for example, In the Matter of Eric CC 653 N.Y.S.2d 983 (1997).

97 “Questionable ‘Brittle Bone Disease’ Defenses to Physical Abuse” 8(10) Update, (American Prosecutors Research Institute, National Center Prosecution Child Abuse) October 1995, p.1 (“The bottom line is that TBBBD is not accepted in the scientific community. … TBBBD remains an unsubstantiated hypothesis lacking empirical support. If TBBBD is raised as a defense in your jurisdiction, it most certainly should be
the so-called disease was absolute, with Kirschner expressing the view: “The concept of 'temporary brittle bone disease' ... remains totally unsubstantiated” 98 and many others expressing similar views. 99 Others were concerned about the credentials of those involved in the research and the lack of opportunity to evaluate the findings. 100 Perhaps of greatest concern was that “most of the radiologic features ascribed to transient brittle bone disease are those classically noted in cases of abuse”. 101

The English courts were the first to express concern over his evidence with Cazalet J. making the following observation in 1990: “He accepted that he has been criticized in certain previous cases for developing particular theories as to their causation. In the present case, I think he may have developed a theory of causation rather than a diagnosis”. 102 Next, it fell to Wall J., in 1994, to note: “Whilst the court of course accept

challenged.”). Joëlle Anne Morino, “A Courtroom Diagnosis: Countering the Defense of Temporary Brittle Bone Disease and Mild OI” 16(8) Update (American Prosecutors Research Institute, 2004) (“It is vitally important that all MDTs know that TBBD is not a recognized disease”). Update from 1997 onwards is available online through the APRI website at: www.ndaa-apri.org. I am most grateful to the staff at APRI for sending me a copy of the 1995 article in response to an email.


99 Deborah S. Ablin, “Osteogenesis Imperfecta: A Review” 49 Canadian Association of Radiologists J. 110 (TBBD “remains a medical hypothesis lacking the support of sound scientific data”); Deborah S. Ablin & Shashikant M. Sane, “Non-Accidental Injury: Confusion with Temporary Brittle Bone Disease and Mild Osteogenesis Imperfecta” 27 Pediatric Radiology 111, at p.112 (1997) (“until clinical research scientifically established the existence of TBBD, it should remain strictly a hypothetical entity and not an acceptable medical diagnosis”).

100 Ablin & Sane, op. cit., at p.112 (“objective analysis of the data by an independent observer is not possible”); Ralph S. Lachman, “Differential Diagnosis II: Osteogenesis Imperfecta” in Diagnostic Imaging of Child Abuse (ed Paul K. Kleinman, 2nd ed, 1998) at p.221 (“because no radiologists were authors of this publication, and no details are given regarding the methods employed in the radiologic evaluation of these patients, it is difficult to assess the accuracy of these findings”).

101 Lachman, op. cit., at p.221. The same point is made by Dr. Jan Bays who gives a detailed analysis of the similarities between TBBD and child abuse and is critical of the lack of evidence produced by Dr. Paterson in support of his theory: Jan Bays, “Conditions Mistaken for Child Physical Abuse” in in Child Abuse: Medical Diagnosis and Management, op.cit. at p.486.

102 Re J (Child Abuse: Expert Evidence) [1991] 1 F.C.R. 193, also reported as ReB (A Minor) (Expert’s Evidence) [1991] 1 F.L.R. 291. It should be noted that Dr. Paterson’s evidence was mentioned in Re P (Minors) (Child Abuse: Medical Evidence) [1988] 1 F.L.R. 328, but largely in the context of a need for further research into the copper deficiency which he mentioned.
that there may be cases where there is a divergence between judicial and clinical findings, I regard as worrying in the extreme Dr. Paterson’s failure to record his research material of cases of proven brittle bone disease judicial findings to the contrary. In my judgment this is a factor which must cast the gravest doubt on his findings”.

He then went on to detail the following shortcomings in Dr. Paterson’s evidence and contribution to the case: omission of reference to the child’s brain damage; failure to disclose the controversial nature of his research and omission of factors that did not support his opinion, demonstrating a lack of objectivity; failure to record the fact that previous judicial findings cast doubt on the validity of his research data; reinforcing false hope in parents that they would be exonerated; and the resulting increase in costs in the case.

Lest his fellow judges had been too subtle in their criticism, Singer J. was even more forthright, in 2001, when he said, “In my judgment, in relation to any future potential diagnosis by Dr. Paterson of TBBD, his methodology and his credentials to express opinion deserve to be and should be subjected to rigorous scrutiny before he is given leave to report in further cases. In this case, notwithstanding [the earlier comments of Cazalet and Wall J.J.] Dr. Paterson has in my opinion provided a misleading opinion, failed to be objective, omitted factors which do not support his opinion, and lacked proper research in his approach to the case in point.”

In the midst of this, Dr. Paterson’s evidence was instrumental in securing the return of twins to their parents in Scotland in 2000. Somewhat frustratingly, the only information in print about this case comes from a newspaper report since it was disposed of at first instance, there was no appeal, and there is no law report. It appears that the


104 Id.


106 While there was passing reference to Dr. Paterson’s evidence of temporary brittle bone disease in an earlier unreported Scottish case, Reporter to the Children’s Panel for Strathclyde Region v DH and KH, 22 January 1992, Outer House, available on Lexis, this was not central to the decision.

twins had been removed from their parents at the age of seven months and placed in the care of relatives for almost two years before being returned to their parents by Sheriff John Stewart as a result of Dr. Paterson’s evidence of TBBD as a medical condition.

Despite warnings about TBBD having been given to prosecutors in the US by their own professional organization, Dr. Paterson appears to have played a central role in the acquittal of parents on charges of child abuse in Tucson, Arizona, in 1998. Two years later, in *State v Talmadge*, a mother secured a retrial on child abuse charges on the basis that Dr. Paterson’s evidence had been excluded improperly by the trial court. She was subsequently convicted and imprisoned for 35 years.

Despite this opposition to his theory, Dr. Paterson made himself available to the courts as an expert witness on TBBD and, it will be remembered, according to his own estimate, in 1997, seventy-eight children had been returned to their parents after he gave evidence in care proceedings in the England and Wales. It may be some tribute to the legal system that it was members of the judiciary who prompted the General Medical Council to intervene in Dr. Paterson’s case, but what is rather more alarming is the fact that Dr.

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108 See note XXX, above.

109 In an article in the journal of the (US) National Association of Criminal Defense Lawyers, Alicia O. Cata waxes lyrical about the contribution of Dr. Paterson in securing the acquittal of her clients, identified only as R and L, on child abuse charges: Alicia O. Cata, “Child Abuse v Temporary Brittle Bone Disease: One Lawyer’s Experience with Medical Research and its Misapplication to the Facts” 22 Champion 16 (1998).


111 .... *Find newspaper account of final conviction .......* It is unclear from either the law report or the newspaper account whether her daughter was returned to her care pending the retrial.


113 It is reported that, having received complaints from three High Court judges, Dame Elizabeth Butler-Sloss wrote to the General Medical Council expressing concern about Dr. Paterson: Rhiannon Edward, “Bone expert ‘misled court’”, *The Scotsman*, March 2, 2004.
Paterson was able to continue appearing as an expert witness long after the courts had signaled disquiet with his evidence.

In March 2004, the professional conduct committee of the General Medical Council found Dr. Paterson guilty of serious professional misconduct and, in particular, that his “criteria for the diagnosis of TBBD were unclear, and/or variable, with the result that the use of these criteria in legal proceedings could mislead others thereby posing an unacceptable risk to the safety of children”.\(^{114}\) It is only fair to note, perhaps, that the chairwoman of the committee described Dr. Paterson as “an honest and dedicated professional”.\(^{115}\) His license to practice medicine was withdrawn or, to put it in ordinary parlance, he was “struck off”.\(^{116}\) It is understood that Dr. Paterson intends to appeal against the decision \(\ldots\) Has he done so yet ??\ldots\) He only had 28 days...\) Sections of the medical community regard the removal of his medical license as harsh\(^{117}\) and some see a sinister dimension in the fact that a person who gave evidence for the defense suffered a greater penalty than those who were witnesses for the prosecution.\(^{118}\)

This, then was what was being presented to courts from 1990 until 2001. As we have seen, the medical and scientific communities had been skeptical of TBBD since its


\(^{115}\) Id.

\(^{116}\) Strictly speaking, the Fitness to Practice Panel has directed “that the person's name shall be erased from the register”: Medical Act 1983, s.35D, as substituted by the Medical Act 1983 (Amendment) Order 2002, S.I. 2002/3135, para.13.

\(^{117}\) News of the decision to remove Dr. Paterson’s name from the register was broken in the British Medical Journal by Owen Dyer in his article, “GMC strikes off proponent of temporary brittle bone disease” (2004) 328 Brit. Med. J. 604. The Journal offers a “Rapid Response” feature which allows individuals to send letters by email in response to a particular article and sometimes a dialogue develops between correspondents. Correspondence relating to Dyer’s article can be found by accessing the article (www.bmj.bmjjourrnals.com/cgi/content/full/238/7440/604-a?maxto ) and clicking on “Read responses to this article” on the top right-hand corner of the screen. Much of the correspondence was in support of Dr. Paterson and criticized the GMC decision. See, for example, Dr. Peter M.R. von Kaehne, “Time for an overhaul of child protection” (March 14, 2004); Michael D. Innis, “Medical Ignorance Perverts Due Process in Alleged Child Abuse” (March 16, 2004); Mark Struthers, “Re: Time for an overhaul of child protection” (March 20, 2004); and Michael D. Innis, “GMC Ruling Unjust” (June 16, 2004).

\(^{118}\) Dr. Peter M.R. von Kaehne, “Time for an overhaul of child protection”, op. cit., note XX, above.
inception, ultimately condemning it. Thus, it was still being advanced in the courts well after its dismissal as lacking scientific validity. That this could happen calls into question the whole issue of how so-called scientific evidence is admitted in court. Before we examine the rules on admissibility of evidence, it is worth exploring the harm done by cases of this kind.

**What impact do cases like these have?**

It is stating the obvious to note that cases of the kind outlined above harm the individuals involved but, lest we forget, let us recap on the magnitude of that harm. Angela Cannings, Sally Clark and Donna Anthony are real women, not characters in a law school class hypothetical. Each of them spent years in prison before her convictions were overturned. Each had lost children and, far from their loss attracting the sympathy usually extended to a bereaved parent, was vilified and blamed for the deaths. Each had family members who, fortunately for them, often showed incredible courage, loyalty and determination in campaigning on her behalf. Nonetheless, these relatives too had suffered bereavement and their plight was exacerbated by the legal system. In addition, there are the families of living children, torn apart amid allegations of MSBP. As we have seen, estimates of the number of families affected vary widely, but there are undoubtedly cases where expert evidence had resulted in children being removed from their parents and, sometimes, adopted into new families.\(^\text{119}\) Whether, on review, the removal proves to be unjustified remains to be seen but it seems likely that at least some cases of unwarranted removal will emerge. For the children who can be returned to their parents, the disruption has been enormous, for those who cannot, the toll is immeasurable. Similarly, the parents have experienced nightmares that few of us can truly comprehend. Conversely, in the TBBBD cases, we have no way of knowing how many children may have been returned to abusive situations because of expert evidence. Nor do we know how many parents are

\(^{119}\) See p.XXX, above.
failing to address fundamental problems in the way they parent and, indeed, may believe they are doing nothing wrong.\textsuperscript{120}

However, the damage done by cases of this kind goes well beyond those involved directly. They discredit the whole legal process. When people are wrongfully convicted and incarcerated, the credibility of the legal system is called into question. While lawyers might argue that the later correction of these errors is something of tribute to the legal system’s ability to police itself, there is little doubt that considerable harm is done by the fact that the errors occurred in the first place. In the context of child protection, whether we are addressing over-zealous intervention (MSBP) or a defense later found to be invalid (TBBD), these failures diminishes public faith in the system and may result in a reluctance to trust it and to participate in it. Given that child protection relies on members of the public reporting cases of suspected abuse, we cannot afford to undermine public confidence in the child protection system.

In addition, these cases have, quite properly, discredited evidence of the expert witnesses involved. Both the MSBP and TBBD cases share the common characteristic of experts being allowed by the courts to advance their own theories – theories to which they were particularly attached – apparently unfettered by very much by way of challenge. To some extent, the lawyers involved must bear responsibility. Why did those opposing the cases advanced by Sir Roy Meadow, Dr. Paterson, \textit{et al} not seek out their own experts of the right kind? Is this an indication of the danger of lawyers simply not being sufficiently well-versed in the sciences? It is a feature of the adversarial system that reliance is placed on the competing attorneys to make their cases. With the twenty-twenty vision afforded by hindsight, it seems that Sir Roy Meadow made some fundamental and elementary errors in the use of statistics. That did not become apparent until the General Medical

\textsuperscript{120} This danger was emphasized by Wall J, in \textit{Re AB (Child Abuse: Expert Witness)} [1995] 1 F.L.R. 181, when he noted, “If ….. the truth is that the parent has injured the child non-accidentally, the damage done by an opinion which exonerates the parent is severe. The process of acceptance is either set back or destroyed; the parent’s conviction that he or she has not injured the child is reinforced; the question of rehabilitation of the child is rendered more complex and the risks to the child of a return to parental care become even more difficult to quantify. In sort, both the parents and more importantly the child, whose interests are paramount, are ill-served.”
Council heard evidence in his disciplinary case.\textsuperscript{121} Had the defense lawyers working for Ms. Clark, Ms. Cannings and Ms. Anthony known more about statistics could the whole problem have been avoided? As we have seen, it was the evidence of other experts in the TBBD cases that went a long way to alerting the courts to the problems with Dr. Paterson’s theory. It is not usually the function of the court to conduct its own investigation into the facts. Perhaps it should be or, at least, maybe the court should have greater opportunity to appoint independent experts to assist it.

If these experiences make experts and the courts more careful in the future, then that is all to the good. Certainly, there are recent examples of the established position of experts being called into question in other contexts and it may be that this questioning process is facilitated by the recent experiences of MSBP and TBBD. So, for example, a healthy debate is now underway in respect of shaken baby syndrome and the evidence of its occurrence.\textsuperscript{122} However, these cases may have had a more general negative effect in tainting all expert evidence and there is the danger that well-researched and accurate expert evidence may carry less weight in the future and that this, in turn, could lead to injustice to litigants and risk to children.

What of the professionals involved? Clearly, individual careers have been damaged. For Sir Roy Meadow, who is seventy-two years old and retired, the practical impact may be minimal. While one would think that the diminution of his reputation would have been significant, it appears he is still invited to speak at conferences.\textsuperscript{123} Similarly, Dr. Colin Patterson is also retired, albeit he has lost his license to practice his profession. As we have seen, others involved have got off rather more lightly.\textsuperscript{124} While it is sad to see distinguished careers end in ignominy, where a professional has overstated a case or has

\textsuperscript{121} See p.XXX and footnote XXX, above.

\textsuperscript{122} See p.XXX, footnote XXX, above.

\textsuperscript{123} Jamie Doward, “Parents demand gag on cot death doctor’s lectures: Outrage at international acclaim for Meadow”, \textit{The Observer}, January 16, 2005 (reporting that he was invited to speak at an international conference for child protection workers in San Diego in January 2005).

\textsuperscript{124} See p.XXX, above.
errerred, causing such significant consequences to other, public sympathy is likely to be somewhat minimal. What is remarkable is the lack of humility shown by the various experts involved. Not one has apologized to those he has harmed.\footnote{A statement made to the press on behalf of Dr. Paterson included the following: “Dr Paterson is naturally very disappointed with the decision reached by the GMC. He has spent his working life helping others and researching the intricacies of brittle bone disease, in which he is acknowledged as a world expert. He has never knowingly misled any tribunal or court in setting out his views and has always had regard for the views of others.”: Hugo Duncan, “Bone expert is struck off for misleading court”, \textit{The Scotsman}, March 5, 2004. Far from apologizing, it is reported that Professor Southall stands by the allegations he made against Mr. Clark and has vowed to “continue working for children”: Karen McVeigh, “Still in a job – the doctor who accused a father of murder”, \textit{The Scotsman}, August 7, 2004.}

Of course, the failure to engage in a public “mea culpa” may be based on sound legal advice, given the prospect of victims raising civil actions against the experts - yet again demonstrating how the legal system may be out of line with public perceptions of what is right and proper.

What of the impact on the medical profession, more generally? Failure by an individual member of a profession reflects badly on the profession as a whole, which is why bar associations are so harsh on attorneys who transgress. On February 2, 2004, in the wake of the Meadow affair, Professor Sir Alan Craft, President of the Royal College of Paediatrics and Child Care, had a letter published in \textit{The Times}. It contained the following statements:

“The recent cases concerning cot deaths and suspected Munchausen syndrome by proxy (which has been redefined in recent years as "factitious or induced illness") have confused the legal and medical professions and public. …

We accept that there must be a review of any cases involving unexplained infant deaths where there may have been a miscarriage of justice. However, this will do nothing to restore public and professional confidence in the management of child abuse. Many medical posts in the field of child protection remain unfilled and paediatricians are, not surprisingly, increasingly reluctant to act as expert witnesses in these complex cases.”\footnote{Professor Sir Alan Craft’s letter, “Need to review child protection”, \textit{The Times}, February 2, 2004. On February 11, 2004, he wrote to the members of the Royal College itself, highlighting “an unprecedented number of media attacks on paediatricians”. He noted that this was exacerbating an existing problem “that paediatricians are becoming reluctant to become involved in child protection unless they absolutely have...}
If, as indeed appears to be the case, young doctors may be less willing to enter the field of community pediatrics, for fear of litigation\(^\text{127}\) and experienced pediatricians are becoming reluctant to offer their services as expert witnesses, then the child protection system is, again, placed in jeopardy. However, Professor Craft’s response to justified public concern is somewhat defensive, if not downright threatening. It comes very close to saying, “if you dare to criticize us, we will take our ball and go home”. The image of a profession banding together to protect its own was reinforced further by another letter, this time signed by a number of leading pediatricians and other medical experts, ……. find ……… To be fair, once some of the dust had settled, the Royal College of Paediatrics and Child Care took a more constructive approach to the issues raised. It launched two reviews, one examining the quality of evidence in recent high-profile child abuse cases and the other looking at recent research on child abuse\(^\text{128}\). In addition, together with the Royal College of Pathologists, it established a working group to develop a protocol for the care and investigations of SIDS cases\(^\text{129}\).

Lest we respond to these implicit threats and fall into the trap of undue deference to medical experts, it is worth noting that a balance can be struck here. In *Kent County*

\(^{127}\) A survey conducted by the Royal College of Paediatrics and Child Care found that, while the number of pediatricians in the UK rose quite rapidly by 15.2% between 2001 and 2003, less than 1% of them were going into work in the community covering child protection cases and 7.4% of consultant posts in community trusts remained unfilled: Royal College of Paediatrics and Child Care, *Supporting Services for Children: Workforce Census 2003* (2005), available at: 
www.rcpch.ac.uk/publications/recent_publications/Censusnew.pdf

\(^{128}\) Liam McDougall, “Testimony of child abuse exerts under new scrutiny”, *Sunday Herald*, May 9, 2004 ….. Await further information from RCPCH ……………

\(^{129}\) *Sudden Unexpected Death in Infancy: a multi-agency protocol for care and investigation* (2004). This was the report of a working group convened by the Royal College of Pathologists and the Royal College of Paediatrics and Child Health and can be found at: 
www.rcpch.ac.uk/publications/recent_publications/SUDI%20report%20for%20web.pdf
Council v The Mother, The Father, B, for example, a mother, who claimed she had been falsely accused of suffering from MSBP and harming her child, sought to publicize her case in the press. The pediatricians involved sought to protect their identity. In balancing the competing interests of freedom of speech and privacy, Munby J. noted that, “it is scarcely an exaggeration to say that Sir Roy Meadow has been pilloried and almost demonised in the media”. However, he went on to acknowledge that there is “a powerful public interest in knowing who the experts are whose theories and evidence underpin judicial decisions which are increasingly coming under critical and skeptical scrutiny”. In the event, he went on to protect the identity of two pediatricians.

Central to ensuring that the legal system makes the best use of sound expert evidence at the same time as guarding against that which is hasty, exaggerated, or just plain wrong, are the rules and procedures employed by courts in admitting expert evidence and attaching the appropriate weight to it. What, then, are the relevant rules and procedures?

**Admitting expert evidence in the UK and the weight to be attached to it**

In England and Wales, reference is made to the “expert witness” and, while the more traditional Scottish term is “skilled witness”, the former will be used here since it is used and understood in both jurisdictions. Essentially, there are three issues to be

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131 Kent County Council v The Mother, The Father, B, op. cit., para. 129.

132 Ibid.


135 Many modern Scottish writers note the English origins of the term “expert witness” and go on to use it nonetheless. See, for example, Ian D. MacPhail, Evidence (1987), paras 17.10A et seq. and Fiona Raitt, Evidence (3rd ed, 2001), chapter 16. Cf. A.G. Walker and N.M.L. Walker, The Law of Evidence in Scotland (2nd ed, 2000, Margaret L. Ross and James Chalmers), para. 16.3.1 where the term “skilled witness” is preferred “since it reflects the range of attributes which may qualify the witness to give opinion evidence”.

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resolved in respect of expert evidence. First, is the question of admissibility: that is, whether the expert evidence will be heard at all. Second, if expert evidence is admitted, there is the issue of the content of the expert’s evidence and, in particular, the permitted parameters of opinion evidence. Third, is the matter of the weight to be attached to the expert’s evidence. The first two issues are questions of law, to be decided by the court, and the third is for the trier of fact, whether that function is undertaken by a judge or a jury. It is worth bearing in mind that in civil cases, in the UK, fact-finding is almost exclusively the province of the judiciary, since civil juries are something of a rarity and are unknown in adoption and child protection proceedings. In criminal trials, juries are a key feature of the system except for more minor offences.

Turning to the question of the admissibility of expert evidence, the first hurdle to be overcome is demonstrating the need for such evidence. As Lawton L.J. put it:

“If on the proven facts a judge or jury can form their own conclusions without help, then the opinion of an expert is unnecessary.”

Ordinary human behavior is usually regarded as inappropriate for expert testimony for this reason and, giving a hint of the danger of undue deference to experts, his Lordship continued:

“The fact that an expert witness has impressive scientific qualifications does not by that fact alone make his opinion on matters of human nature and behaviour within the limits of normality any more helpful than that of the jurors themselves: but there is a danger that they may think it does.”

Since medical conditions and syndromes will often be beyond the ken of ordinary people, evidence about them from an expert will often be entirely appropriate. Assuming that the court accepts the need for expert evidence, the qualifications and experience of the individual expert proffered must be established. Details of the witness’ degrees, other


138 R v Turner, op. cit.
qualifications, publications, memberships of learned societies and professional organizations, and the like, will normally suffice to demonstrate the requisite level of expertise. Only rarely will a witness be cross-examined on the question of qualifications and medical experts, like Sir Roy Meadow and Dr. Colin Paterson, would have had no difficulty in demonstrating the requisite expertise.

Unlike their counterparts in the US, where judges perform a gate-keeping function, courts in the UK do not engage in detailed exploration of the subject-matter of the evidence at this stage, since that is more usually addressed in assessing the weight to be attached to the evidence (to which we shall return presently). None the less, the ordinary rules of relevance and reliability apply, and these may inject an element of gate-keeping when the court determines whether the evidence proffered is, indeed, expert evidence at all. Thus, for example, the Court of Appeal, in England, found inadmissible the evidence of a psychologist who offered evidence of human behavior indicating the likelihood of the deceased having committed suicide, rather than having been killed by her husband, on the basis that it “was not expert evidence of a kind properly to be placed before the court”.

“[H]is reports identify no criteria by reference to which the Court could test the quality of his opinions: there is no data base comparing real and questionable

139 Formal qualifications are not essential and expert evidence may be based on the witness’ practical experience. In an older English case, a solicitor (attorney) was permitted to give evidence on handwriting on the basis of his amateur interest in the subject: R v Silverlock [1894] 2 Q.B. 766. See also, R v Murphy [1980] Q.B. 434 (experienced police officer permitted to give evidence on the speed and displacement of vehicles involved in a road accident) and White v H. M. Advocate 1986 S.C.C.R. 224 (experienced police officers permitted to give evidence on the quantity of drugs an individual might reasonably possess for his own consumption).

140 See pp. XXX-XXX, below.

141 An example of how general court procedures may limit scrutinize particular claim of expertise, see Mearns v Smedvig Ltd. 1999 S.C. 243, where the Outer House of the Court of Session refused to require the pursuer in a personal injury case to submit to quasi-medical tests as to the effects of a particular injury (the “Blankenship system”) to be carried out by a person who was not medically-qualified and were novel and unorthodox in nature and not yet accepted by the medical profession.

142 R v Gilfoyle [2001] 2 Cr.App.R. 57, para.25. the court could have reached the same decision by applying the rule that expert evidence on the behavior of ordinary people is inadmissible.
Having got the expert witness into court, what of the content of the evidence he or she may give? Frequently, the expert will be giving evidence of matters observed first-hand or tests he or she has carried out, with the evidence of the pathologist who carried out a post-mortem being an obvious example. It is permissible for the expert to refer to relevant literature and texts and passages so referred to, although not the rest of the document, become a part of the expert’s opinion.\textsuperscript{144} Most significant for our purpose is the role of the expert witness in expressing opinions. It is sometimes suggested that there is a general rule to the effect that a witness must give evidence of facts, not opinions. However, it is widely acknowledged that the rule is honored more in the breach than the observance, even as regards non-expert (ordinary) witnesses.\textsuperscript{145} Whatever the position in respect of ordinary witnesses, when “the issue involves scientific knowledge, or acquaintance with the rules of any trade, manufacture, or business, with which men of ordinary intelligence are not likely to be familiar”,\textsuperscript{146} it is permissible for the expert witness to express opinions on the relevant matters and, indeed, that is often the whole point of calling him or her. An obvious example here would be the expert witness speaking to the standard of care to be expected of a member of a particular profession. However, it is crucial that, prior to leading opinion evidence, a factual basis for that

\textsuperscript{143}Id.

\textsuperscript{144}Main v McAndrew Wormald Ltd. 1988 S.L.T. 141. See also, Balmoral Group Ltd. V H.M. Advocate 1996 S.L.T. 1230 (permissible for expert to refer to an unapproved code of practice since he was simply asked whether he regarded it as a statement of good practice).

\textsuperscript{145}Indeed, the Law Reform Committee noted that an ordinary witness might more naturally give an accurate account of events by mixing a certain amount of opinion in with the facts: Law Reform Committee, 17th Report: Evidence of Opinion and Expert Evidence (1970, Cmnd 4489), para 4. In addition, it has been observed that, “Testimony, which at first sight appears to be of fact, may prove to be actually of belief or opinion” and the example of identification of a person is given as an example:, Walker and Walker, op. cit., para.16.1.1.

\textsuperscript{146}W.G. Dickson, A Treatise on the Law of Evidence in Scotland, op. cit., para. 397.
evidence must be laid.\textsuperscript{147} This will be of particular importance where, for example, a witness is speaking to the existence of a syndrome and its applicability to a particular individual, but has never met or examined the individual.

In all of this, the role of the expert is to assist the court, rather than to advocate for a particular position.\textsuperscript{148} A Scottish court had the opportunity to explore this point in a recent case, where the widow of a cigarette smoker who had died of lung cancer was seeking damages from a tobacco company.\textsuperscript{149} The court heard from a number of expert witnesses on the subject of the link between smoking cigarettes and contracting lung cancer. It noted that the witnesses for the pursuer (plaintiff) “were all connected in one way or another with ASH [an anti-smoking lobbying group], and were clearly committed to the anti-smoking cause; and no doubt for this reason were prepared to give evidence \textit{gratis}”.\textsuperscript{150} While this generosity on their part was not, in itself, fatal, the court felt it justified “scrutiny of each of their evidence, so as to see to what extent they complied with their obligations as independent expert witnesses and how soundly based their views were”.\textsuperscript{151} In the event, the court found that none of them had been “mindful of the need

\textsuperscript{147} Cross and Tapper, \textit{op. cit.}, at p. 568 (“The facts upon which an expert’s opinion is based must be proved by admissible evidence”); Walker and Walker, \textit{op. cit.}, at para. 16.3.6. (“Since opinion is based on a certain state of facts, it is valueless unless the facts are averred and proved”).

\textsuperscript{148} In \textit{National Justice Compania Naviera S.A. v Prudential Assurance Co. Ltd ("The Ikarian Reefer") [1993] 2 Lloyd's Rep.68}, at p.81, Cresswell J. set out the duties and responsibilities of expert witnesses and included the following: “1. Expert evidence presented to the Court should be, and should be seen to be, the independent product of the expert uninfluenced as to form or content by the exigencies of litigation [...]. 2. An expert witness should provide independent assistance to the Court by way of objective unbiased opinion in relation to matters within his expertise [...]. An expert witness in the High Court should never assume the role of an advocate.

\textsuperscript{149} \textit{McTear v Imperial Tobacco Ltd. [2005] CSOH 69} (neutral citation), also available on the Scottish Court website at: \url{http://www.scotcourts.gov.uk/opinions/2005csoh69.html}

\textsuperscript{150} \textit{Ibid}, at para. 5.18. The court noted that the expert witnesses for the defender had charged for their services but found this unsurprising since, “This is generally the case: expert witnesses are usually professional people who would normally expect to seek appropriate remuneration for research, preparation of reports and attendance at court”: \textit{Id}.

\textsuperscript{151} \textit{McTear v Imperial Tobacco Ltd.}, \textit{op. cit.}, para. 5.18.
to be independent and each appeared … to engage in advocacy to a greater or lesser extent”, and this greatly diminished the value to court attached to their evidence. The opinion of a given expert is open to challenge, of course, either through cross-examination or by leading other expert witnesses who reach a different conclusion: a technique used to great effect in McTear. Despite these safeguards, it is a matter for concern that expert witnesses were able to have the impact they did in the context of MSBP and TBBD. However, such problems with expert scientific evidence are not new.

On the third question posed at the beginning of this section, the weight to be attached to the expert’s evidence, one cannot do better than to remember the words of Lord President Cooper from 1953. In what has come to be the locus classicus of the position of the expert witness in the Scottish courts, he said:

“Expert witnesses, however skilled or eminent, can give no more than evidence. They cannot usurp the functions of the jury or a Judge sitting as a jury ….. Their duty is to furnish the Judge or jury with the necessary scientific criteria for testing the accuracy of their conclusions, so as to enable the Judge or jury to form their own independent judgment by the application of these criteria to the facts proved in evidence …… the decision is for the Judge or jury.”

This position has long been accepted in England and the above passage is frequently cited with approval. The weight to be attached to particular evidence is a question of fact and, on occasions, courts have been quite brutal in their condemnation of particular

152 McTear v Imperial Tobacco Ltd. op. cit., para. 6.149.

153 In the 1970s and 1980s the evidence of a leading Home Office forensic scientist resulted in a number of successful appeals in criminal cases. In Preece v H.M. Advocate [1981] Crim.L.R. 783, a man who had served seven years of a life sentence had his conviction overturned when it became apparent that the expert had drawn unwarranted conclusions from blood samples and seminal stains. In 1999, a police officer, Shirley McKie, was acquitted of perjury arising from the alleged presence of her fingerprint at a murder scene where she claimed never to have been. Her acquittal was thanks largely to two fingerprint witnesses from the US who discredited the evidence of the experts from the Scottish Criminal Records Office Fingerprint Bureau. An official enquiry followed, resulting in changes in procedure, and the man convicted of the murder appealed. For a discussion of this case, see, Raitt, op. cit., at para. 16.09.


155 See, for example, Tapper, op. cit., at p.569.
expert evidence.\textsuperscript{156} While the trier of fact is not bound by expert opinion, the Court of Appeal issued the following warning:

“where expert evidence was admissible to enable the judge to reach a properly formed opinion on a technical matter, then he could not set his lay opinion against the expert evidence he had heard. But he was not bound to accept the evidence of an expert witness if there was a proper basis for rejecting it in other evidence he had heard, or the expert evidence was such that he did not believe it or for whatever reason was not convinced by it.”\textsuperscript{157}

As we have seen, there was considerable criticism of the evidence of Dr. Paterson in the courts. It took longer for Sir Roy Meadow’s evidence to be subject to similar challenge, but the courts got there eventually. Nonetheless, in each case, we have examples of later-discredited evidence being admitted and weight being attached to it. This can only add fuel to the fires calling for a rethinking of the law on admissibility of expert evidence in the UK.\textsuperscript{158} In that, can we learn anything form the very different approach taken in the US?

\textbf{Admissibility of expert evidence in the US}

In the US, as in the UK, the court must be satisfied, first, that the assistance of an expert is warranted by the subject-matter in question. That is to say, “the subject of the inference must be so distinctively related to a science, profession, business, or occupation as to beyond the ken of lay persons”.\textsuperscript{159} While there is some support for the view that this

\textsuperscript{156} For example, in \textit{Re B (a child)} [2003] EWCA Civ 1148, [2003] 3 FCR 156, addressing the issue of ordering a child to be given the controversial combined MMR (measles, mumps and rubella) vaccine, Lord Justice Sedley, at para. 36, went as far as to brand the views of one expert witness “junk science”.


permits the judge a degree of latitude in determining whether an expert is really required, the Federal Rules of Evidence tend towards permitting expert evidence where it would simply be helpful. Rule 702 provides for the use of expert evidence “if scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue”. The second hurdle to overcome, in introducing expert evidence, relates to the credentials of the particular expert witness presented, since Rule 702 refers to “an expert by knowledge, skill, experience, training, or education”. Given the abundance of experts offering their services, this should not be a difficult hurdle to leap. State courts apply much the same two tests in terms of subject-matter need and the qualification of the expert.

Thereafter, the US approach to admissibility of expert evidence diverges, quite dramatically, from that found in the UK, by requiring judges to play a more active part in assessing the validity of scientific evidence and the following is a brief overview of how this central role for the judiciary has developed. The federal courts first recognized the need for a specific rule in 1923, in what came to be known as the “Frye test” which requires that, in order to be admissible, expert evidence had to be “generally accepted”. Considering whether to admit evidence of a “systolic blood pressure test” (a precursor of the polygraph), the Court of Appeals for the District of Columbia was confronted, in Frye v United States, with a novel scientific development. It articulated the test in the following terms;

“Just when scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone, the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-
recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.”

While the Frye test was adopted subsequently in many state courts, its status was called into question at federal level in the 1970s, in part due to what were then the new Federal Rules of Evidence. In addition, there were concerns that either it excluded useful evidence or that some evidence could pass the test and yet result in a court being presented with evidence that was too inconclusive to be of assistance.

The US Supreme Court sought to clarify matters, in 1993, in Daubert v Merrell Dow Pharmaceuticals. There, the plaintiffs were two young children who claimed that their limb reduction defects were the result of their mothers having taken an anti-nausea drug, Bendectin, during pregnancy. They were unsuccessful in securing damages from the manufacturer of the drug because they could not produce published studies demonstrating that Bendectin did actually cause limb reduction. While the Court clarified that the Frye test had been superseded and displaced by the Federal Rules of Evidence, for our present purpose, the greater significance of the case was the new test it laid down for the admissibility of expert scientific evidence and the proactive role given to judges. Under what came to be known, unsurprisingly enough, as the “Daubert test”, judges are charged with the function of acting as a gatekeeper in determining the admissibility of expert

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163 Frye v United States 293 F. 1013 (D.C. Cir. 1923), at p.1014.

164 The Frye test, or variants thereon, continues to be employed in a number of states today: see, Alice B. Lustre, “Post-Daubert Standards for Admissibility of Scientific and Other Expert Evidence in State Courts” 90 A.L.R.5th 453.

165 Rule 702 is of particular relevance here and, just pre-Daubert, it read as follows: “If scientific, technical or otherwise specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education, may testify thereto in the form of an opinion or otherwise.” See note XX, below, for the post-Daubert amendments to Rule 702.


167 Under the relevant procedure, the defendants were granted summary judgment at district court level.

168 Daubert, 509 U.S. 579, at p.587.
scientific evidence by applying a two stage test. First, the judge must determine whether the evidence is, indeed, “scientific knowledge”. While the Court did not provide any satisfactory definition of “scientific knowledge”, Justice Blackmun set out the criteria for this evaluation, albeit he made clear that these should be regarded as neither exhaustive nor as exclusive. The following questions should be asked in respect of the theory or technique: (a) Can the theory or technique be tested and has it been so tested? (b) Has it been subjected to peer review and publication? (c) What is its known or potential error rate? (d) Is there a standard governing the operation of the technique? (e) To what extent is it generally accepted in the relevant scientific community? Thus, the Frye test was subsumed into a more wide-ranging enquiry. Only if the evidence qualifies under the first step, need the judge move on to the second step and assess the relevance of the evidence to the particular case and admit it if it will “assist the trier of fact to understand the evidence or determine a fact at issue”. This second issue has been described as one of “fit” and as “an aspect of relevancy and helpfulness”. As the Court

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169 Justice Blackmun describes it, at p.590, as “an inference or assertion ….. derived by the scientific method”. He refers to “scientific method” as “scientific knowledge” that “implies a grounding in the methods and procedures of science”.

170 Daubert, 509 U.S. 579, at pp.593-594.

171 The Court elaborated in Kumho Tire Co. Ltd v Carmichael 526 U.S. 137 (1999): “Daubert’s list of specific factors neither necessarily nor exclusively applies to all experts in every case”. That decision also extended the Daubert test to all expert evidence.

172 Justice Blackmun quoted, at p.593, from Karl Popper as follows: “The criterion of the scientific status of a theory is its falsifiability, or refutability, or testability”: Karl Popper, The Growth of Scientific Knowledge (5th ed, 1989), at p.37.

173 Justice Blackmun elaborated on this criterion, at pp.593-4, as follows: Some propositions, moreover, are too particular, too new, or of too limited interest to be published. But submission to the scrutiny of the scientific community is a component of ‘good science’, in part because it increases the likelihood that substantive flaws in methodology will be detected. ….. The fact of publication (or lack thereof) in a peer reviewed journal thus will be a relevant, though not dispositive, consideration in assessing the scientific validity of a particular technique or methodology on which an opinion is premised.”

174 In respect of this criterion, Justice Blackmun, quoted at p.594, with approval, from United States v Dowling 753 F.2d 1224 (3rd Cir, 1985), at p.1238 as follows: “[A] reliability assessment does not require, although it does permit, explicit identification of a relevant scientific community and an express determination of a particular degree of acceptance within that community.”

175 Daubert, 509 U.S. 579, at p.592.

acknowledged, “‘Fit’ is not always obvious and scientific validity for one purpose is not necessarily scientific validity for other, unrelated purposes”. The Daubert test has been adopted, in whole or in part, in over thirty states. It was refined by subsequent case law and, as a result, the Federal Rules of Evidence were amended further in 2001 to include more specific reference to Daubert-type criteria.

The result is that judges in the US are now called upon to play a very active gatekeeper function in assessing expert evidence at the stage of admissibility. The Daubert Court itself was at pains to point out that the judge is concerned “solely on the principles and methodology, not on the conclusions they generate”, albeit the Court has since acknowledged that “conclusions and methodology are not entirely distinct from one another”. The Court was mindful of the dangers posed by scientific evidence and noted Rule 403 of the Federal Rules of Evidence which permits exclusion of evidence “if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury”. Further, it addressed the concern, raised in the case,

177 Daubert, 509 U.S. 579, at p.591. The question of “fit” was further clarified in General Electric Co. v Joiner 522 U.S. 136 (1997), where a majority of the Court observed “the court may conclude that there is simply too great an analytical gap between the data and the opinion offered.”

178 Each state has its own admissibility standards, used in state courts, and they can be classified as states that have adopted the Daubert test; those that continue to apply the Frye test; those that have not rejected Frye entirely but which apply Daubert factors; and those which have developed their own tests. For a full discussion of where each state fits into this picture, see Alice B. Lustre, “Post-Daubert Standards for Admissibility of Scientific and Other Expert Evidence in State Courts” 90 A.L.R.5th 453.

179 While Daubert Court emphasized that its criteria provided a non-exclusive list, the courts have developed the criteria further and a good summary of the developments is set out in the Advisory Committee’s Note to FRE 207 as Amended December 1, 2001. This note is reproduced as Appendix 1 to Mueller and Kirkpatrick, Evidence: Practice Under the Rules, Cumulative Supplement 2004.

180 Daubert-type criteria were added to Rule 702 which now reads as follows (the additions are indicated in italics): “If scientific, technical or otherwise specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts and data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.”

181 Daubert, 509 U.S. 579, at p.595.

that its approach would “result in a ‘free-for-all’ in which befuddled juries are confounded by absurd and irrational pseudoscientific assertions”. However, it viewed this concern as “overly pessimistic about the capabilities of juries and the adversary system generally”. A concurring opinion in Daubert noted that “judges should not become amateur scientists” but, as one commentator has observed, “that and more is surely what Daubert …. presupposes”.

Initially, at least, it has been suggested that members of the federal judiciary were not particularly welcoming of the Daubert test. A recent survey of US state judges throws more light on how the Daubert test operated. While the study predates the latest round of amendments to the Federal Rules of Evidence, it addresses the operation of basic concepts that remain central to admissibility decisions. In the first part of the study, four hundred state judges were sampled and 94% of those responding said they found the Daubert test valuable in their decision-making, with 55% expressing the view that it provided “a great deal of value”. So much for the popularity of Daubert, but what of its efficacy? This is where the survey signals cause for concern, since it demonstrated that an overwhelming number of judges did not understand two of the basic concepts used in the Daubert test. While 88% of the judges reported that they found “falsifiability” to be a

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183 Daubert, 509 U.S. 579, at p.595.
184 Daubert, 509 U.S. 579, at p.596.
185 Daubert, 509 U.S. 579, at p.601, per Chief Justice Rehnquist.
187 Rorie Sherman, “Judges Learning Daubert: Junk Science Rule Used Broadly” National Law Journal, October 3, 1993, at p. 3 (“Many federal judges believe Daubert has made their lives more difficult …. They are going to have to give a more reasoned statement about why they are letting in evidence”).
188 Part I of the study was conducted in ?????, see note XXX, below. Part II of the study took place ?????: see note XXX, below.
190 Gatowski, op. cit., at p.443.
useful guideline in determining the merits of scientific evidence, only 6% of them demonstrated a true understanding of the concept.\textsuperscript{191} Similarly, while 91% of judges reported that they found “errors rates” to be useful in assessing the quality of the evidence offered, only 4% of them demonstrated an accurate understanding of the definition of error rates.\textsuperscript{192} They did very much better in understanding what was meant by two of the other \textit{Daubert} criteria, “peer review and publication”\textsuperscript{193} and “general acceptance”,\textsuperscript{194} but the results of the study do suggest that a \textit{Daubert}-type test is, perhaps, just too technical and complicated for every-day use in the courts. Like earlier studies, analyzing judicial opinions, it may be that judges simply do not have the requisite knowledge or skills to engage in this kind of scientific evaluation.\textsuperscript{195}

The second part of the study\textsuperscript{196} was based on the responses of 325 state judges and was rather more specific in its ambit.\textsuperscript{197} For our present purpose, the responses addressing

\textsuperscript{191} Gatowski, \textit{op. cit.}, at p.444. Perhaps this finding should come as no surprise in the light of the observation of Chief Justice Rehnquist in \textit{Daubert} itself, when he said “I defer to no one in my confidence in federal judges; but I am at a loss to know what is meant when it is said that the scientific status of a theory depends on its ‘falsifiability’, and I suspect some of them will be, too.”: \textit{Daubert}, 509 U.S. 579, at p.600.

\textsuperscript{192} Gatowski, \textit{op. cit.}, pp.445-447. In \textit{Daubert}, the Supreme Court opined, at p. 594, that “in the case of a particular scientific technique, the court ordinarily should consider the known or potential rate of error and the existence and maintenance of standards controlling the technique’s operation”. It was against this standard that the judges were tested.

\textsuperscript{193} 71% responded in a way that showed a clear understanding of the peer review process: Gatowski, \textit{op. cit.}, p.447. Even here, 10% demonstrated a clear lack of understanding of the process. This improved performance is not surprising when one remembers that “peer review and publication” is a familiar concept, at least in academic legal circles.

\textsuperscript{194} 82% demonstrated an accurate understanding of “general acceptance”: Gatowski, \textit{op. cit.}, pp.447-448. It should be remembered that “general acceptance” is the familiar \textit{Frye} test.


\textsuperscript{196} Veronica Dahir, James T. Richardson, Gerald P. Ginsburgh, Sophia I. Gatowski, Shirley A. Dobbin, and Mara L. Merlino, “Judicial Application of \textit{Daubert} to Psychological Syndrome and Profile Evidence” 11 Psychol. Pub. Pol’y. & L. 62 (2005) (hereinafter, “Dahir”). Judge who completed Part I of the survey were given the option of participating in Part II which was conducted by means of structured telephone interviews or a written questionnaires and had an 81% response rate.

\textsuperscript{197} Part II was directed to judges’ experience with particular kinds of scientific evidence (DNA, epidemiology, specific kinds of psychological evidence, including syndromes and profiles) and their
psychological syndromes are of particular interest. Judicial experience of a range of syndromes varied and, while MSPB was not one of the syndromes addressed by the researchers specifically, eight of the judges mentioned “factitious disorders” when asked about experience of other syndromes. The judges were asked to identify what aspects of psychological syndrome evidence they found most problematic in determining admissibility and, perhaps it is rather telling that few of the judges mentioned the Daubert criteria at all, referring slightly more often to qualification of the expert, subjectivity of the diagnostic process and application to the particular case (relevance), as being of greater concern. While one might conclude from this that the judges surveyed found the Daubert criteria unproblematic, the results of Part I of the study, demonstrating a lack of judicial competence in aspects of the criteria, should be borne in mind. Thus, it is not unreasonable for the researchers to conclude as they do, that their results “reveal a strong tendency for judges to continue to rely on more traditional standards such as general acceptance or qualification of the expert when assessing psychological syndrome .... evidence”.

Would application of the Daubert test have made a difference in the UK?

198 Of the 325 judges who participated in part II of the study, 318 provided codable answers to the questions dealing with syndromes and 260 reported at least some exposure to psychological syndrome evidence: Dahir, op. cit., at p.68.

199 The syndromes on which the study focused particularly (the rate of “some” experience is shown in brackets) were: battered women’s syndrome (78%); rape trauma syndrome (64%); child sex abuse accommodation syndrome (75%); parental alienation syndrome (39%); repressed memory syndrome (41%); and post-traumatic stress disorder (79%): Dahir, op. cit., at p.69.

200 Dahir, op. cit., at p.72.

201 The most often-cited of the Daubert criteria was “general acceptance”, which was mentioned by 9% of the judges, with “falsifiability” and “peer review and publication” receiving only three mentions each; Dahir, op. cit., at p.72.

202 Each was mentioned in 11% of the responses: Dahir, op. cit., at p.72.

203 Dahir, op. cit., at p.74-75.
A crucial question is whether application of a test, along the lines of the Daubert test, would have made any difference in the MSPB and TBBD cases in the UK. As we have seen, the Daubert test involves a number of elements: falsifiability; peer review and publication; error rate; and generally acceptability. We have also seen that the many judges have a great deal better understanding of two of these elements - peer review and publication and generally acceptability – than they do of the others. It can certainly be argued that it is the factors that judges understand that weigh most heavily when they make their decision. Conversely, if judges do not understand some of the elements of the Daubert test, it can be doubted that these factors play any significant part in their decision-making process. There is no reason to suppose that members of the judiciary in the UK are any more science-savvy than their US counterparts and, indeed, their educational backgrounds may suggest that many are likely to be less so.

Turning first to peer review and publication, it should be remembered that both Sir Roy Meadow and, perhaps to a lesser extent, Dr. Colin Paterson were eminent members of their profession with a slew of publications to their names. As far as general acceptability is concerned, it is important to note that it already forms part of the test of admissibility of expert evidence in the UK. In any event, Sir Roy certainly had no difficulty in attracting a significant following from other members of the profession, in part due to his very eminence so, again, that element of the Daubert test would probably have been satisfied. Dr. Paterson’s theory was always subject to more controversy but it may have attracted sufficient support to mass muster and, as we shall see, did so on occasions in the US under the general acceptability standard of the Frye test. Even supposing that the other elements of the Daubert test – falsifiability and error rates – had been understood

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204 See the discussion at p.XXX, above.

205 See p.XXX, above.

206 While the study of law, in the US, is undertaken at post-graduate level, it is usually studied at undergraduate level, in the UK, with most law students proceeding straight from high school to law school. Thus, most members of the judiciary in the UK will not have had exposure to the sciences at college or university level.

207 See p.XXX, above.
and applied, the very facts that might have caused the expert evidence to be rejected were not led in the MSBP cases.

It is difficult to assess whether the *Daubert* test proved helpful, in respect of MSBP in the US, in avoiding the debacle experienced in the UK since the position taken here is not that the phenomenon of parents fabricating illness in children never occurs. We have ample evidence that it does. The difficulty exemplified by the UK cases is that it was being inappropriately diagnosed. Thus, the fact that MSBP has been found to be present in a given case in the US is of no assistance. Slightly more insight can be gleaned from how TBBD played out in the US. As we have seen, the evidence of Dr. Paterson was accepted in at least two cases in the US, but under a version of the *Frye* test. Certainly, attempts to lead evidence from the home-grown TBBD proponent, Dr. Marvin Miller, seem to have met with considerably less success, so it may be that *Daubert* had some impact.

All of this suggests no more than that application of a test along the lines of the *Daubert* test might have made a difference, at least in the some of the TBBD cases. That is hardly a resounding vote of confidence. When one considers the difficulty experienced in the US in applying the test, the conclusion must be that adopting such a test would not, in itself guarantee that the problems experienced in the UK would be avoided in the future. Thus, we must look at what else we might do.

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208 See, for example, Commonwealth v Robinson 565 N.E.2d 1229 (Mass. 1991) (mother convicted of involuntary manslaughter having caused child to ingest large quantities of salt; trial judge prohibited specific mention of MSBP or Failure to Thrive syndrome); State v Lumberera 845 P.2d 609 (Kan. 1992) (mother convicted of murder; no expert evidence that she actually suffered from MSBP; reversed on appeal due to a catalogue of errors); Reid v State 964 S.W.2d 723 (Tx. 1998) (mother convicted of murder; evidence of MSBP admitted); Adoption of Keefe 733 N.E.2d 1075 (Mass. 2000) (mother’s consent to adoption dispensed with; reversed on appeal; MSBP not found to be present here); (In re A.B. 600 S.E.2d 409 (Geo., 2004) (child adjudicated deprived due to mother’s MSBP; reversed on appeal). It is worth noting that at least one court found the *Daubert* test to be inapplicable to MSBP since it was not a novel scientific theory: State v Hocevar 7 P.2d 329 (Mont. 2000).

209 State v Talmadge 999 P.2d 192 (Sup. Ct. Az,, 2000) and the unnamed case, both discussed at p. XX, above.

210 See the discussion at p. XX, above.
What else might be done?

Recent UK experience of MSPB and TBBD serve as a warning that the legal system must take greater care in the use of expert evidence, not only in respect of these examples, but over the whole spectrum of syndromes, disorders and conditions. The state of our knowledge and understanding of the world around us advancing at an unprecedented rate and “science” plays an enormous part in that. Almost daily, new studies are published on this or that and new theories emerge. In so far as they contribute to debate within the scientific community, this is all very healthy. In so far as they may offer insights into new treatments for troubled people, rather more caution may be warranted. It is when we turn to the use of this developing knowledge in court proceedings that we are presented with an enormous challenge. In the context of the family, the decision to admit particular evidence may have far-reaching consequences for the safety of an individual child, the privacy and integrity of a given family, or the liberty of a particular parent. The evidence may relate to whether a condition exists at all, as in the case of TBBD, or to the applicability of a given condition, like MSBP, in the case of a particular individual.

The trick for the legal system is to identify that which is sufficiently well-researched and well-tested to warrant placing reliance on it and to reject the rest. We have heard the admonition against treating “all science as a single discipline distinguished only by its classification as valid or junk”. That may be sound advice on how to approach scientific enquiry, but the point is that evidence is either admissible or it is not. There is no subtle middle ground in that decision. On the one hand, if we admit evidence that later proves to be exaggerated, too generalized, or just plain wrong, we risk injustices of the type outlined in the foregoing discussions of MSBP and TBBD. On the other hand, if we simply place more obstacles in the way of admitting expert testimony in court, we risk

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missing the opportunity to understand better what is happening. Many theories that were once controversial are now well-accepted. In this context, it is tempting to cite Galileo’s view that the earth might not be the centre of the universe and the reaction of many of his contemporaries that his position was not only wrong but blasphemous. However, there are numerous, more recent, examples of theories that were once novel and are now accepted. It was a long and hard battle to get courts to accept the impact of a history of domestic abuse in driving the victim to kill her aggressor.\textsuperscript{212} We should remember that Henry Kempe was breaking new ground when he published his seminal article on child abuse in 1962.\textsuperscript{213} Thus, we need to find a way of utilizing new information at the same time as guarding against unfounded theories. So what can we do to enhance the ability of judges to make the decision?

It is tempting to advocate a macro solution, like abandoning the adversarial system in favor of the more inquisitorial model of justice, found in many European countries. This would place the court under the obligation to find its own experts and remove the iniquity of impecunious defenders being placed at a disadvantage when pitted against the limitless resources of the state in finding experts willing to testify. Aside the fact that such a radical change to the legal system is unlikely to happen any time soon in either the UK or the US, would this solve the problem? It would still leave the judge with the question of what scientific evidence to admit and this, in turn, would require assessment of the evidence being proffered. In short, we would be no further forward. A more modest solution might be to suggest that old favorite of family lawyers, the family court. But, still, the problem of admissibility of scientific evidence would remain. Granted, if the particular judge was hearing only a discreet range of cases (family-related matters), the range of expert evidence proffered might be narrower, thus, enabling him or her to develop a familiarity with the science and the evidence. However, that would be of little help as new theories emerged, as they most certainly will.

\textsuperscript{212} See note, XX, above.

Still on the macro level, but rather more attainable, would be to improve the education of lawyers and judges so that each has a better understanding of scientific methodology and information. It will be recalled that in Sir Roy Meadow’s case, the fundamental errors he made in respect of statistical analysis did not become apparent until he was being disciplined by the General Medical Council. Throughout the cases in which he gave evidence, it seems his powerful evidence about the probability of more than one child dying of SIDS in the same family went unchallenged. If ever there was an example of lawyers “not knowing what we don’t know”, that was it. If one does not know what to question, one cannot know what other expert advice to seek and to offer to the court. Unless the court is given the full range of competing expert views, how can it assess the reliability of scientific evidence? As we saw with the example of TBBD, it was only once the courts were exposed to the views of those who disagreed with Dr. Paterson’s theory that they were able to discount his evidence. In order to meet these problems it has been suggested that, “those involved in legal education at every level should make efforts to raise the scientific literacy of all those involved in the legal system”. 214 Those who advocate this approach “are not proposing that judges become scientists but only that they be trained to ask relevant questions when determining the admissibility of proffered scientific evidence” 215 and that “what judges need to know is not how to design the best scientific study but how to evaluate imperfect ones”. 216 We are beginning to appreciate that meaningful legal education goes well beyond teaching law students “the law” and legal methodology. This, in turn, requires that law teachers are more aware of the broader

214 Gatowski, op cit., note XX, p.455.
215 Dahir, op cit., note XX, at p.74.
216 Gatowski, op cit., note XX, p.455.
picture of law in context.\textsuperscript{217} In the meantime, resources have been developed to assist the judiciary and lawyers and more could be done here.\textsuperscript{218}

The recent UK experience suggests that there may be a case for the judiciary taking a more active gatekeeper role in assessing the admissibility of expert evidence. On the other hand, as we have seen, it may be that a full-blow Daubert test is rather too complex for judges to apply, causing them to rely on concepts they understand, like peer review publication and generally acceptability. Of course, a more science-savvy judiciary, assisted by similarly improved attorneys, might make the Daubert test more useful but we might also consider reformulating the test to ask simpler questions. For example, Moreno suggests that judges ask themselves, “How did the experts arrive at their conclusions?” “How did the experts test their conclusions?” and “How did the experts rule out other conclusions?”\textsuperscript{219}

In addition, there are a number of ways in which the presentation of expert evidence could be policed or changed. First, we might consider using expert witnesses selected from a panel of experts accredited by their own profession.\textsuperscript{220} It has been suggested that such a body should be independent, set standards of competence, have a code of conduct making clear to expert witnesses what is expected of the, and have the power to remove a

\textsuperscript{217} See, for example the Family Law Education Reform Project run jointly by Hofstra University Law School’s Center for Children and the Association of Family and Conciliation Courts which is designed to provide law teachers with the tools to teach students about the interdisciplinary nature of family law. See, www.hofstra.edu/Academics/Law/law_center_family.cfm

\textsuperscript{218} See, for example, Gatowski, \textit{op cit.}, p. 455 (“In recent years, a number of educational resources have been developed to assist judges in understanding their gatekeeping role and to help them properly apply appropriate admissibility standards in the courtroom”), citing the Federal Judicial Center, \textit{Reference manual on scientific evidence} (2\textsuperscript{nd} ed, 2000) and their own publication, Shirley A. Dobbin and Sophia I. Gatowski, \textit{A judge’s deskbook on the basic philosophies and methods of science}, produced by the State Justice Institute and available online at www.unr.edu/bench


\textsuperscript{220} Such a body has been established by the Council for the Registration of Forensic Practitioners: see, www.crfp.org.uk/
given expert from the panel in certain circumstances.\textsuperscript{221} At first sight, such a solution looks attractive since it suggests a monitoring of experts by members of their own profession and might reduce the incidence of mavericks peddling their own particular theories. However, there is the danger that those who were advancing a theory outside the mainstream of accepted wisdom in the profession might be excluded, thus denying the courts the opportunity to hear new ideas and challenges to existing ones. In any event, the courts seem to have least difficulty in assessing the credentials of experts. Perhaps most telling of all is that Sir Roy Meadow would, most probably, have had little difficulty in gaining accreditation from his peers. After all, he was a former president of the Royal College of Paediatrics and Child Care.

A second possibility would be for the court to appointed expert witnesses in place of, or in addition to, those proffered by the parties.\textsuperscript{222} Such a system presupposes a panel of experts from which the court would choose so the benefits and shortcomings of that aspect are rolled into any system involving a court-appointed expert. There are other advantages. First, the impecunious defender (whether in a criminal case or one relating to child protection) would not be placed at a disadvantage by his or her lack of resources when compared to those of the state. Second, where the court-appointed expert is the only expert heard, there would be a saving in cost. Third, it is less likely that a court-appointed expert would be chosen to advance a particular position and the so-called “battle of the experts” could be avoided. However, it is often the case that there is more than one credible view on matters covered by scientific evidence and the danger is that the court would not be given the full picture. A variation on the court-appointed expert is giving the court the power to direct that evidence be given by a joint expert. If the parties cannot agree a joint expert, then the court will appoint one. This is the solution found in the new Civil Procedure Rules, in England and Wales,\textsuperscript{223} as part of a far-reaching reform of civil


justice system there, resulting from the Woolf Report.\textsuperscript{224} It should be noted that these rules are confined to civil cases and that family proceedings are exempt from them.\textsuperscript{225} Again, while this has the attraction of reducing cost, there is the danger that the court will be deprived of competing views from relevant professionals.

Conclusions

So, to return to our original question, is there a phenomenon, “Undue Deference to Experts Syndrome”, at work in the legal system? There is no doubt that the legal systems in the UK have been shaken, if not rocked, by the recent experiences of expert witnesses and their evidence about MSBP and TBBD. Individuals have been incarcerated, families dismantled, and children returned to potentially abusive parents – all because courts were persuaded by medical experts with impressive credentials who pedaled their own theories. Where does responsibility for these debacles lie? Clearly, some of the responsibility lies with the expert witnesses themselves. They were either too blinkered or too arrogant to admit to the doubts that existed about their own theories and they failed in their fundamental duty to offer balanced and impartial testimony. In short, they were fallible human beings and they have paid the price for that. However, it is the responsibility of the legal system to devise a system that protects against just such human failings. Initially, at least, the legal system failed to do so. Some responsibility must lie with the adversarial system which encourages lawyers to seek out witnesses who will support their case. While that very system should ensure that other, possibly equally single-minded, experts are found by opposing counsel, ignorance or economics may preclude that from happening. Ultimately, however, responsibility lies with the courts. It was the courts that permitted the educated, confident and articulate Sir Roy Meadow to make the sweeping statements that so swayed juries. Similarly, while Dr. Paterson’s evidence first appeared in the courts in 1988, doubt was being cast on his evidence in the


early 1990s and, while courts continued to criticize him, he went on appearing throughout that decade and into the next. There seems little down that very considerable deference is shown to expert medical witnesses by the courts. If we have learned anything from the MSBP and TBBD debacles, it is that we must not allow “considerable deference” to become “undue deference”.