THE SAFE USE OF EXPERT EVIDENCE

Abstract: Experts are indispensable to the administration of justice. Why? Because litigation ranges way beyond what judges or juries comfortably deal with as the facts of everyday life. Whether it is the diseases of the mind, or the chemical reactivity of pharmaceuticals or the obviousness of a contended-for inventive step in a patent case, without the assistance of experts, courts would be vastly under-equipped in making decisions of fact. But, here there is a real danger: that of over-reliance, or even of the surrender of the authority of the judge to experts; to those paid by litigants to testify helpfully on their behalf. Recognising that danger, the analysis of the law of evidence and the practical approach of the courts to expert testimony should both confine the use of experts within definable boundaries and also require judges to equip themselves with that ordinary distance from witnesses that will enable judicial independence to be seen to be upheld.

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Introduction

Experts are privileged witnesses; ones treated differently in terms of law compared to any others who testify before a court. They can express opinions and may go so far as to comment on the ultimate issue before the court, territory beyond the reach of any other testimony. Some experts are so central to judicial decisions that there is a danger that they become almost deciders of the case. Unlike other witnesses, experts are paid, some making a living from court appearances and investigations. While asserting independence, can this always be so depended upon for a court to defer to their views? The draw of finance poses a real danger as does the, perhaps, unconscious bias of supporting the team for whom experts are acting. It must be recognised that experts are both a danger to justice while also being an indispensable help. Without the explanation of science some cases would be impossible to try. How, therefore, should a judge analyse expert evidence? How should awareness of inherent dangers lead to a judicial mindset that can grasp and use expert testimony as opposed to surrendering authority to a most important kind of witness, one who is not sworn to be objective and who, if the expert were the judge, would be debarred from the case by reason of financial reward?

The purpose of this article is to examine expert evidence through the filter of the judicial mind. Fact-finding is often a hidden process of analysis, where scepticism is masked by detachment, but which all judges need to grapple with openly for fear of falling into the kind of trap that the deployment of experts in litigation may open up. The rules applicable, enabling only the calling of an expert where what is involved is beyond normal judicial experience, and the distinction as between evidence as to fact and evidence of opinion, how that plays out as between expert and ordinary testimony, the hearsay rule, and the tools for assessing evidence on a practical basis, are thereby brought into focus. Our central premise is to argue for the strict application of the rules as to expert testimony that have been shown to uphold judicial authority and to outline a fact-based approach to the analysis of what experts assert which returns to the courts the decision-making power which is obvious where a judge is dealing with ordinary witnesses.

The balancing-act of expert evidence

Expert evidence is invaluable to the administration of justice.[1] In some litigation it is indispensable. Without reliance on experts, many issues involving patent law, forensic pathology, psychiatry, engineering, medicine, and other areas beyond the knowledge of judges and juries could not reliably be assessed.[2] Nonetheless, the peril must be recognised: that of leaning on the view or interpretation of an individual of a scientific theory, when the duty remains on the judge or jury to actually decide the facts. The key issue of reliance on experts is of a court foregoing responsibility in their favour. Perhaps, more often than not, the experience with experts is a positive one, with highly skilled and knowledgeable professionals offering clear and unbiased analysis of an arcane discipline. But negative experiences can have a significant impact on the outcome of a trial,[3] or the expense incurred by the parties in litigation and the use of the courts' limited time.[4]

The pitfalls of expert evidence were instanced by the Canadian Supreme Court, in *White Burgess Langille Inman v Abbott and Haliburton Co*,[5] where the judges warned that 'expert opinion evidence can be a key element in the search for truth, but it may also pose special dangers'.[6] Experts, experience indicates, far from invariably assisting the court, can becalm trials and may beckon the finders of fact towards error, curiously on their side of the case, through their support of untenable theories and their failure to recognise inconsistencies in partisan theories. These dangers, while recognised, are difficult to deal with by legal rules, though they have been the focus of numerous attempts at structural reform internationally.[7] In this context, judicial mindset in approaching an expert's testimony and in determinedly asserting judicial independence becomes more important than legal rules. The best experts are clear sighted, able to explain otherwise unfathomable concepts from their deep knowledge of their discipline and may be balanced in their conclusions through a consideration of all real possibilities.[8]

Judges should, however, always be aware of how dangerous expert testimony is. Expert evidence may be ruinously expensive and without a clear rule as to deployment and a limitation on numbers that may be deployed, the principle of equality of treatment risks being unbalanced in favour of those with the deepest pockets. As outlined by Collins J in *Duffy v McGee & Anor,* while the Irish courts do not have the same formal gatekeeping function as the courts in the United States under the *Daubert* rule,[9] 'in any given case the admissibility of

[1] This article is based on a lecture given by the first author to the Grange Conference for medio-legal professionals in Ridley Castle, North Yorkshire, England, in September 2022 <https://www.educationandtrainingnetwork.co.uk/wp-content/uploads/2022/03/Medicolegal_Conf_22_4March22.pdf> accessed 12 January 2023.

[2] As stated by Samuel R Gross in 'Expert Evidence' (1991) 6 *Wisconsin Law Review* 1113 at 1116, 'whole categories of cases are dominated by issues that can only be resolved with expert knowledge'.

[3] Gemma Davies and Emma Piasecki, 'No more *laissez faire*? Expert evidence, rule changes and reliability: can more effective training for the bar and judiciary prevent miscarriages of justice?' (2016) 80(5) J Crim L 327 at 328 cites *R v Clark (Sally)* [2003] EWCA Crim 1020 as an example of a case in which expert evidence was relied upon at trial and was subsequently found to be erroneous, leading to the overturning of a conviction due to the appellate court's view that the evidence central to the hearing could not be sustained upon further scrutiny at [181].

[4] Australian Law Reform Commission, *Managing Justice: A Review of the Federal Civil Justice System* (ALRC 89–2000) 435.

[5] [2015] 2 SCR 182.

[6] ibid [1].

[7] The Canadian Supreme Court held in *R v DD* [2000] 2 SCR 275 at [52] that while experts were not biased in a 'dishonest sense', a 'lack of independence and impartiality can contribute to miscarriages of justice' and has done so in a number of 'notable cases'.

[8] The judgment of Noonan J in *Duffy v McGee & Anor* [2022] IECA 254 highlighted that the duty of impartiality 'imports a willingness on the part of the expert to remain open to alternative possibilities, and if necessary, to change his or her mind when confronted with new information' at [94].

[9] 509 US 579 (1993). The US Supreme Court in this case significantly altered the admissibility test for expert evidence from the original position in *Frye v United States* 293 F 1013 (DC Cir 1923), which had established a general acceptance rule. In *Daubert*, by contrast, the Supreme Court held that trial judges must consider whether expert evidence is to be admissible 'at

expert evidence may be challenged on the basis that it lacks a reliable scientific or methodological foundation', though the stage and manner in which this should be done is to be determined on a 'case-by-case assessment.'[10] Where is the fundamental line to be drawn? It is this: no court should surrender to any expert. As Collins J warned, even where an expert is uncontradicted, the court is not required to accept anything. He reminded judges that 'there is no principle that greater weight must be given to expert evidence than to ordinary evidence of fact'.[11]

Admissibility tests for expert evidence

Experts are confined, and should be so confined, to testimony only where the law permits. While other jurisdictions have considered, or allowed, an expansion in the admissibility of expert testimony, this may have the effect of increasing the cost of litigation and of requiring all litigants to have an expert even for the most mundane of issues. An expert in our system may only be called to offer testimony on an arcane discipline; meaning an area of fact outside general experience.[12] This does not extend to issues such as what may cause individuals to enter an uncontrollable rage or to act carelessly: but rather why a handwriting sample may be fraudulent or how paranoia may impact the mind of someone with a severe psychiatric illness.[13] There has been a significant pressure, largely due to the increasingly complex and niche litigation before modern courts, to expand the number of fields which may permit the assistance of expert evidence.[14] The rule permitting expert evidence only on matters 'upon which competency to form an opinion can only be acquired by a course of special study'[15] goes back as far as 1782 in England.[16] This is the classic rule applied in Ireland: 'The courts permit expert evidence in relation to all matters that are outside the scope of the knowledge and expertise of the finder of fact, whether judge or jury. The expert opinion evidence must be evidence which gives the court the help it needs in forming its conclusions.'[17] As a working rule, this has the advantage of clarity. It also keeps experts confined to those cases where their use is indispensable. Common law systems, however, continue to struggle to find the right test for admissibility.

An alternative approach to our jurisdiction has been proposed by the Australian Law Reform Commission, emphasising whether expert evidence would be of assistance to the trier of fact, as opposed to focusing on whether the topic addressed is within the scope of common knowledge.[18] But approaches differ in the common law world with a significant degree of uncertainty in practice as to when expert evidence is to be admitted, particularly in the United States. Federal Rule 702 states that 'the standard as to whether expert testimony is warranted is whether it will "assist the trier of fact"', a broad approach towards admissibility that is

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the outset' at 2796, applying a test of whether it constitutes scientific knowledge that 'will assist the trier of fact to understand or determine a fact in issue'. This created a higher threshold for the admissibility of expert evidence through emphasising scientific validity in admitting evidence before a trial court. In discussing the effect of this ruling, Bert Black, Francisco J Ayala and Carol Saffran-Brinks, 'Science and the Law in the Wake of *Daubert*: A New Search for Scientific Knowledge' (1994) 72 Tex L Rev 715 at 786 stated that this involves a 'far more searching inquiry into the merits of scientific evidence' on the part of the courts than was previously undertaken under *Frye*.

[10] [2022] IECA 254, [17].

[11] [2022] IECA 254, [18].

[12] In *Duffy v McGee & Anor* [2022] IECA 254, Collins J held at [4] in a concurring judgment that, despite the 'note of caution' sounded in previous cases such as *AG (Ruddy) v Kenny* (1960) 94 ILTR 185, 'the domain of expert evidence has continued its inexorable expansion' in this jurisdiction.

[13] *The People (DPP) v Kehoe* [1992] ILRM 481.

[14] Lirieka Meintjes-Van der Walt, 'The Proof of the Pudding: the Presentation and Proof of Evidence in South Africa' (2003) 47(1) Journal of African Law 88, 89.

[15] Hodge M Malek, *Phipson on Evidence* (20th edn, Sweet & Maxwell Ltd 2022) 1245.

[16] *Folkes v Chadd* (1782) 3 Doug 157. References henceforth to England as a jurisdiction means the jurisdiction of England.

[17] *The People (DPP) v Bowe* [2017] IECA 250, [104], per Birmingham P.

[18] Law Reform Commission, *Consolidation and Reform of Aspects of the Law of Evidence* (LRC 117–2016) 73.

heavily influenced by the facts of the particular trial.[19] The trial judge in the US is viewed as a 'gatekeeper', determining such preliminary issues with reference to 'the qualification of witnesses, and the existence of any privileges'.[20] This can perhaps generate inconsistency with regards to the admissibility of experts opining on visual identification evidence, to adopt a paradigmatic example where the differences become stark, with some courts in the US opting to not adopt the liberal trend endorsed by the Supreme Court in *Daubert v Merrell Dowell Pharmaceuticals*,[21] and some critics viewing it as an invasion on the role of the jury in determining the weight to be given to such evidence.[22] In Australia, since the Evidence Act 1995 abolished the common knowledge rule, codification has resulted in an increase in the admission of expert opinion evidence on the soundness of a disputed visual identification.[23] The Canadian Supreme Court established a four-point test in *R v Mohan*, requiring the court to consider relevance, necessity, the absence of any other exclusionary rule, and a properly qualified expert[24]. It has, however, been clarified in subsequent Canadian judgments that 'even where these requirements are met, the evidence may be rejected if its prejudicial effect on the conduct of the trial outweighs its probative value',[25] thereby ushering in either the flexibility of judicial discretion or, some may argue, a case-by-case uncertainty. This wide range of approaches emphasises the myriad ways in which different jurisdictions have sought to strike the difficult balance between ensuring that juries and judges are given all the necessary information in relation to disputes of fact and preventing excessively long and costly litigation as a result of countless experts being called by each party.

In Ireland, the traditional rule, as in England and Wales, bars experts being called to give evidence with regards to the psychology of visual identification. Of itself, this example may seem peripheral but enabling expert testimony on an issue which jury-members and judges deal with in their everyday lives, highlights the dangers inherent in any loosening of the current test. Were that to occur, were the admission of expert testimony not based on a clear rule, but on something akin to judicial discretion, the nature of litigation, its cost and duration, becomes capable of expanding into more a contest of experts than judicial analysis. While the US has gradually expanded the number of issues which are viewed as benefitting from expert opinion,[26] in England and Wales and in Ireland courts have taken a restrictive approach; of which the psychology of identification is merely an example. Where an issue lies within the scope of ordinary knowledge, such as an individual's ability to recognise an individual and recall their appearance a number of months later,[27] such issues do not enable expert evidence assistance.[28] The approach has been to rely upon a direction to the jury in

[19] Angela D Slater, 'Federal Standards for Admissibility of Expert Evidence on Causation' (1994) 61 Defence Counsel Journal 51.

[20] Paul W Grimm, 'Challenges Facing Judges Regarding Expert Evidence in Criminal Cases' (2017) 86 Fordham L Rev 1601.

[21] 509 US 579 (1993).

[22] Robert J Hallisey, 'Experts on Eyewitness Testimony in Court' (1995) 39 Howard LJ 282.

[23] Australian Law Reform Commission, *Unform Evidence Law* (ALRC 102–2005) 312.

[24] [1994] 2 SCR 9.

[25] *R v DD* [2000] 2 SCR 275, [11].

[26] Paul W Grimm, 'Challenges Facing Judges Regarding Expert Evidence in Criminal Cases' (2017) 86 Fordham Law Review 1604 lists a number of other areas in which expert evidence is increasingly introduced in the United States to assist the finder of fact in increasingly complex factual issues in cases. These include issues relating to cryptocurrency, the operation of telecommunications towers and the reliability of field sobriety testing in drunk-driving cases.

[27] However, it is important to note that, per Robert J Hallisey, 'Experts on Eyewitness Testimony in Court – a Short Historical Perspective' (1995) 39 Howard Law Journal 237 at 282, some courts in the United States have remained reluctant to allow for the introduction of such evidence in spite of *Daubert*, though this is not the universal approach.

[28] It may also be highlighted that the Courts in this jurisdiction and others have consistently held that the burden in the first instance falls on counsel to ensure that expert evidence is 'relevant and likely to assist the court', per Collins J in *Duffy v McGee & Anor* at [23], and to 'assess whether the proposed witness has the necessary expertise and whether his or her evidence is otherwise admissible', per *Kennedy v Cordia (Services) LLP* [2016] UKSC 6.

criminal trials as to the potential inaccuracies with visual identification, rather than introducing an expert in this respect.[29] This view is largely founded on the understanding that there is a 'general awareness'[30] that evidence of this kind is public knowledge, and a recognition of the potential for 'unnecessary time-wasting and evidence that is potentially confusing and misleading'.[31]

Keeping to the arcane knowledge test strictly, which is the law in this jurisdiction, experts remain a rarity; though personal injury practitioners, almost by default, have enabled trials of experts in even the most mundane of fact issues. This may be questioned as may the judicial discipline that apparently enables that practice. Traditional focus on the core test of admissibility advantages the court since no litigant can then claim contradiction by a person supposedly more qualified than the judge.

In England and Wales, since the Woolf reforms of the late 1990s, courts may significantly restrict the number of experts permitted to give evidence, and the scope of the evidence given.[32] In Ireland, as noted in *Defender Ltd v HSBC France*,[33] Order 39, rule 58 of the Rules of the Superior Courts, states that expert evidence 'shall be restricted to that which is reasonably required to enable the Court to determine the proceedings' and prevents mushrooming expert evidence overwhelming trials.[34] One on each side is now the general rule. Despite such efforts at restriction, there remain countless cases in all jurisdictions of multiple experts being called in trials, all supposedly immersed in the same discipline but unable to agree anything beyond fundamentals. Courts are not obliged to be so burdened.

Insanity and psychiatric evidence

Once the admissibility threshold is passed for expert evidence, however, more challenging issues are faced by the tribunal of fact in hearing such testimony, including 'the effective comprehension of complex issues and their synthesis into the judicial determination'[35] or into a direction to a jury. Here, we use psychiatric evidence as the exemplar. But, in approaching any expert evidence, a judge is required to have the same mindset: that of self-equipping their analysis through absorption of the fundamental principles on which the expert testifies and of maintaining independence.

A truly difficult area, exemplifying the pitfalls awaiting a judge, emerges from criminal cases involving psychiatric evidence: such as where a plea of not guilty by reason of insanity is entered by an accused. In such cases, complex rules address the duty of the prosecution: if there is any evidence of insanity, that must be reported to the defence; if there has been an examination by a doctor, the defence must obtain any report, and any committal to a psychiatric hospital must also be reported.[36] Insanity, as defined initially in the *M'Naghten Case*,[37] requires that a person does not know the nature and quality of their act or does not

[29] *DPP v Maguire* [1995] 2 IR 286.

[30] Oliver P Holdenson, 'The Admission of Expert Evidence of Opinion as to the Potential Unreliability of Evidence of Visual Identification' (1987) 16 Melbourne University Law Review 521.

[31] ibid 531.

[32] PD 35 of the Civil Procedure Rules, introduced following Lord Woolf's reports on reform of the justice system, outlines procedure rules in respect of experts and assessors in civil procedure. Rule 35.4(3A) provides that for a number of claims, expert evidence will only be given 'from one expert on a particular issue'.

[33] [2020] IESC 37.

[34] Kelly P, writing in *O'Brien v Clerk of Dáil Éireann* [2016] IEHC 597, [2016] 3 IR 384, noted at [36] that Rule 58 'gives a measure of badly needed statutory control to the court in respect of expert evidence'.

[35] Nigel Wilson, 'Concurrent and court-appointed experts? From Wigmore's 'Golgotha' to Woolf's 'proportionate consensus'" (2013) 32(4) CJQ 493, 493.

[36] Peter Charleton and others, *Charleton and McDermott's Criminal Law and Evidence* (2nd edn, 2020) at [5.04], citing *McKevitt v DPP* (Unreported, Supreme Court, 18 March 2003).

[37] [1960] All ER Rep 229.

know that an action is legally or morally wrong, and was later developed to include that the actor was unable to refrain from committing the act due to insane compulsion. There may often be an amalgam of all three of these factors. In Ireland, this common law test is restated in s 5 of the Criminal Law (Insanity) Act 2006, and the same test was approved in England and Wales in *R v Sullivan*,[38] with the special verdict of an acquittal on the ground of insanity stemming from s 2 of the Trial of Lunatics Act 1883, guilty but insane and now revised as not guilty by reason of insanity.

In the case of diminished responsibility, a substantial diminution in understanding or control not caused by substance abuse must affect the accused.[39] In Ireland and England and Wales, the position is the same with regards to the burden of proof resting with the defendant.[40] To rely on insanity or diminished responsibility, the accused must prove such a defence as a probability, in stark contrast to other criminal defences such as duress, where the prosecution must disprove beyond a reasonable doubt that the defence might exist, with the accused only carrying an evidential burden;[41] meaning that he or she must point to some evidence from the entire body of evidence which makes such a defence reasonably tenable.[42] Civil cases invariably adopt that standard for experts since the duty of a pleader of a wrong is to establish a probability of that wrong.

Though it is impossible to determine what particular evidence, or combination thereof with facts-on-the-ground, convinces the jury to return a particular verdict, cases involving an insanity plea under the 2006 Act are oftentimes based largely on a forensic psychiatrist's evidence. Nonetheless, it is important to note that the Court of Appeal has confirmed that, as in all other areas of the law in which expert evidence is provided to a decider of fact, a jury is not bound by psychiatric evidence, even where that evidence is unchallenged.[43] This is based on the principle that expert evidence cannot replace the central role of the jury or the judge in any case, as set out by Hardiman J in *People (DPP) v Abdi (No 1)*,[44] in which he reaffirmed that 'the role of the expert witness is not to supplant the tribunal of fact, be it judge or jury, but to inform that tribunal so that it may come to its own decision'. Indispensable to the judicial role is the requirement under the Constitution for independence; Article 34.6.1°. But judges have remained live to the authority of an expert witness in such cases, leading to a potential instruction to juries in Ireland that no expert may operate as a thirteenth juror in a trial.[45] Nor may an expert become the judge.

The Supreme Court in *The People (DPP) v Abdi* outlined the built-in potential for mistaken or uncertain diagnoses in psychiatric evidence in particular, not as a result of any bias or negligence, but merely due to the very nature of such evidence:

> 'Experience indicates that psychiatry is not a science which unwaveringly yields precise and unassailable diagnoses. Diagnoses depend on what is reported by witnesses as to the circumstances of the commission of the action, on winning trust, on what family and others say as to the conduct of the accused, on mental health history, on medical history, on objective psychological testing, on alcohol consumption or substance abuse, on what

[38] [1984] AC 156, HL.
[39] This is discussed in the Irish context in *The People (DPP) v Buck* [2020] IESC 16, [15].
[40] Mark Lucraft, *Archbold Criminal Pleading, Evidence and Practice* (Thomson Reuters 2021) 2239.
[41] See *The People (AG) v Whelan* [1934] IR 518 and Peter Charleton (n 36) [21.01] for the Irish approach to the defence of duress.
[42] *The People (DPP) v Davis* [2001] 1 IR 146.
[43] *The People (DPP) v Tomkins* [2012] IECCA 82.
[44] [2004] IECCA 47.
[45] *The People (DPP) v Kehoe* [1992] ILRM 481.

> is reported by the accused at interview, on an analysis of consistency with objective fact, on gaining insight over time and on a fair analysis in matching or rejecting a diagnosis based on the application of clinical judgment'.[46]

The history of the common law demonstrates that 'scepticism is built into the approach to criminal responsibility and the defence of ostensibly criminal actions on an asserted basis of insanity'.[47] Rightly, judges should approach all experts with polite scepticism. Habitually, juries are instructed that the concept of 'innocent until proven guilty' requires them to only accept individual facts once they are proven beyond reasonable doubt and, at the conclusion of the trial, to examine all such facts so as to ascertain whether these accepted facts prove collectively that the accused committed the offence. Helpful experts will approach their task in the same way; without preconceptions, emphasising only investigation, analysis, fact and, where their opinion is required, this is based on rational deduction founded on experience and scholarship. This ability to draw inferences from facts presented on the basis of expertise is one of the key distinguishing factors between ordinary witnesses of fact and expert witnesses,[48] and remains a draw towards a court relinquishing control and the more significant danger of experts forming opinions in a way that suits the case of those engaging them.

The significance of trust

This privileged position that experts tend to be afforded before the courts has led to concerns regarding potential partisanship among witnesses, particularly with respect to an expert's remuneration.[49] The significant sums often paid to experts for their testimony can give rise to concerns, both from a perceived or actual 'pull of the team'[50] and this raises a stark warning that the result can be a potential inequality of arms between litigants.[51] While MacMenamin J in *O'Leary v Mercy University Hospital Cork Ltd* considered that substantial fees do not, as such, create a conflict of interest.[52] His judgment highlighted the importance for an expert witness to 'err on the side of maintaining his or her independence and objectivity' and to 'avoid conduct which renders them open to an allegation that they have become an advocate or "part of a legal team"'.[53] Recent judgments of the Court of Appeal have made clear that the onus of ensuring that expert witnesses are aware of their duty to the court rests with the parties calling such witnesses and that any failure to comply with such requirements risks both the exclusion of their evidence and adverse consequence in costs.[54] There are, however, a range of approaches between jurisdictions as to whether evidence will be excluded, or merely given less weight, where an expert's objectivity or impartiality is called into question, with the law in England and Wales and in Canada taking a similar approach to that seen in Ireland,[55] while in Australia, an emphasis is placed on weight rather than admissibility of the

[46] *The People (DPP) v Abdi* [2022] IESC 35, [31].
[47] ibid [32].
[48] Tristram Hodgkinson and Mark James, *Expert Evidence: Law and Practice* (5th edn, 2020) 26.
[49] For example, Gary Edmond in 'Secrets of the 'Hot Tub': Expert Witnesses, Concurrent Evidence and Judge-Led Law Reform in Australia' (2008) 27(1) Civil Justice Quarterly 51 at 52 noted that a survey of judges and magistrates in Australia found that 'bias' and 'partisanship' were two of the most pressing problems with expert evidence in that jurisdiction.
[50] Josefin Movin Østergaard, 'An Assessor on the Tribunal: How a Court Is to Decide When Experts Disagree' (2016) 35(4) CJQ 319 at 326 states that 'despite their overriding duty to the court, party-appointed experts carry with them a truth-hindering risk of bias'.
[51] Furthermore, disclosure by experts of the information they rely upon to other parties to the litigation has been emphasised as an important balancing requirement, per *Dana UK Axle Ltd v Freudenberg FST GmbH* [2021] EWHC 1413 (TCC).
[52] [2019] IESC 48.
[53] ibid [40].
[54] Per the judgment of Collins J in *Duffy v McGee* [2022] IECA 254, [38].
[55] See *Armchair Passenger Transport Ltd v Helical Bar Plc* [2003] EWHC 367 (QB) for the position in England and Wales and see *White Burgess Langille Inman v Abbott and Haliburton Co* [2015] 2 SCR 182 for the position in Canada.

evidence.[56] It also remains open to the judge or jury, even where only one expert testifies on a subject, as with any witness, to accept that evidence or reject it: in no sense is any witness simply because of the absence of contradicting testimony binding on the court.[57]

One attempt at addressing impartiality and the pull of finance has been through the introduction of a single joint expert who, through the independence offered by being the sole expert witness on a particular subject, is assumed to be less at risk of falling towards bias. Concerns regarding the duration of trials and the cost of litigation may be significantly alleviated where a single expert is appointed to a case. These considerations have led to such experts becoming the norm in England and Wales, in smaller cases in particular.[58] Lord Woolf in *Peet v Mid-Kent Healthcare Trust*[59] emphasised that the discretion given to the courts by Practice Direction 35.7 of the Civil Procedure Rules to direct for a single joint expert is not restricted and that the ordinary course of practice for judges should be to hear evidence from such an expert, as opposed to experts appointed by each party.[60] In Ireland, s 20 of the Civil Liability and Courts Act 2004 makes provision for agreement on a single joint expert between the parties, rather than one being imposed by the trial judge. That changed nothing; agreement in an adversarial system is always possible. In the 'Review of the Administration of Civil Justice' report, chaired by Kelly P, one of the key reforms in relation to expert evidence suggested was to confer a power on the court to appoint such an expert in this jurisdiction, adopting the procedure from England and Wales.[61] But even that procedure carries dangers, as even where subject to cross-examination, such an expert likely to have even greater sway with the court than in a contest as between party-nominated experts.[62]

Judging expert evidence, however, will remain focused on the testimony itself. Hence, the precepts set out by Stuart Smith LJ in *Loveday v Renton (No 1)* remain helpful in stating that the judge guides himself or herself as to accepting or rejecting expert evidence according to its 'internal consistency and logic', the 'precision and accuracy of thought as demonstrated' in answering, particularly in facing up to the logic of a contrary proposition, perhaps in 'searching and informed cross-examination', by not shying away from conceding 'points that are seen to be correct', and scrutinising 'the care with which' the issue was considered and the report to the court was prepared.[63] Another suggestion was set out in *Bolam v Friern Hospital Management Committee*,[64] in which it was held that a court, while having a duty to say why an expert's evidence is rejected,[65] and it might also be said is accepted, may dismiss what an expert says where:

(a) an expert's opinion is based on illogical or even irrational reasoning; or

(b) the expert's reasoning is speculative or manifestly illogical; or and perhaps and

(c) the evidence of the expert witness is so internally contradictory as to be unreliable.

[56] See the judgment of the Court of Appeal of the State of Victoria in *FGT Custodians Pty Ltd v Fagenblat* [2003] VSCA 33.
[57] *Griffiths v TUI (UK) Ltd* [2022] 1 WLR 973.
[58] Aoife Beirne, 'Expert Evidence: Lessons from Abroad' (2017) 22(2) The Bar Review 48.
[59] [2001] 1 WLR 210, [14].
[60] ibid [7].
[61] Peter Kelly, *Review of the Administration of Civil Justice Report* (October 2020) 14.
[62] Josefin Movin Østergaard, 'An Assessor on the Tribunal: How a Court is to Decide When Experts Disagree' (2016) 35(4) CJQ 319, 327.
[63] [1989] 1 Med LR 117.
[64] [1957] 1 WLR 582.
[65] *Loveday v Renton (No 1)* [1989] 1 Med LR 117, 125.

This, however, is just a list and cannot be more than suggestive. The reality of ascertaining whether or not expert evidence is to be accepted is much more complex. Factors such as 'clarity of reasoning' are considered also in determining whether a particular expert's testimony will be accepted, or whether it supports a proposition contrary to the testimony of another specialist giving evidence.[66] It may be a prime example of the psychology of the law to try to cover all eventualities through legal justification. It is therefore useful to consider how the judge in the court is reacting or assessing expert evidence as it is presented. Our suggested approach is based not only on experience but is posited as essential to opposing the privileges of experts with the safeguard of judicial independence. That is only possible through understanding and careful analysis.

The judicial approach to expert evidence

The area of specialisation of an expert witness may be as unfamiliar to the judiciary as to a jury.[67] Hence, firstly, the imperative focus of a trial judge is on grasping the fundamental elements of the very arcane discipline that has enabled the calling of an expert. Independence is central to the role of a judge, which requires ensuring that no expert may usurp their position during the hearing. Without a working grasp of the relevant scientific discipline, a judge can neither properly instruct a jury on issues such as psychiatric evidence, nor make a safe and valid decision in civil matters relating to scientific evidence.

For a judge, it is consequently essential for experts to refer to medical and other scientific reference texts. Thereby, quiet study outside of court is enabled and the judge may become master of at least the fundamentals. It is also important for experts to remember that a judge is a lawyer rather than a clinician or engineer, and that therefore the judicial mind tends to grasp towards definitions and descriptions. The legal mind looks for legal certainty; what is concrete, graspable, relatable, and workable. Law is a discipline which over centuries has tamped down instinctive human reaction to wrong and replaced emotion with a set of rules as to how a judge ought to react when faced with particular circumstances.[68] But these may conflict. Potentially, this conflict is in place in every case. The reason that all legal rules exist, such as those related to the defence of insanity that the accused must prove clearly that s/he was insane and that insanity is limited to a complete loss of understanding or control, is that all cases may benefit from the same approach.[69] In other words, the elusive chimera of legal certainty. Thus, a judge is interested in any expert's opinion but will require such opinion to be founded clearly on an explanation as to the science informing the final position.

The United States Supreme Court took the legal mindset to its apogee in developing a test in relation to the requisite reliability of expert evidence in *Daubert v Merrell Dow Pharmaceuticals Inc.*[70] Does this help? In this jurisdiction, there has been no test setting a legal rule as a

[66] Peter Heerey, 'Expert Evidence: the Australian Experience' (2002) 7(3) The Bar Review 166 at 168 provides a particularly helpful analysis of the judicial approach towards expert evidence in Australia.
[67] Indeed, one of the significant criticisms of the 'gatekeeping' function of judges under the *Daubert* test is based on the fact that 'judges lack the scientific knowledge and education' to know when to exclude unreliable or illogical expert evidence, per the Law Reform Commission (n 18) at 251.
[68] A particularly famous example in this jurisdiction can be seen in the judgment of Kingsmill Moore J in *Re Julian* [1950] IR 57, in which he held at [65] that, despite regretting the outcome of applying the law as it was clearly stated, he was bound to do so, resulting in the enforcement of what was likely a mistakenly, but clearly drafted will.
[69] The importance of certainty, particularly in criminal law, has been highlighted on numerous occasions by the Irish courts; see *King v Attorney General* [1981] IR 233, *Attorney General v Cunningham* [1932] IR 28, *The People (DPP) v Cagney and McGrath* [2008] 2 IR 111, *Douglas v DPP* [2011] IEHC 110 and *Dokie v DPP* [2013] IEHC 343.
[70] 509 US 579 (1993).

threshold of reliability,[71] though the Law Reform Commission recommended the introduction of such a test in its Consultation Paper on Expert Evidence.[72] In effect, the aim of any exposition in testimony of science is to return independence to the judge. Further, basic knowledge enables a judge who is required to summarise evidence for a jury to rephrase or simplify what might be difficult concepts into a form that they can approach, or if a judge must write a judgment, enables pages of transcript to be reduced to an understandable paragraph for an appeal court.[73]

The second thing that a judge is focusing on is the application of the science set out by an expert. As the expert is speaking, everything that is stated must be stored and compared with prior statements and reports.[74] This process of comparing the statements of witnesses to what others have said is done with non-expert witnesses as a matter of judicial habit; but the process of reasoning is more extreme in expert evidence case as the expert is the one laying the pathway which is to be followed to a particular outcome and which oftentimes the expert contends is the sole plausible outcome.[75] Whether this is in fact the case is always being asked in the judge's mind, and this cannot be done without a thorough understanding of the fundamentals of the discipline.

As with any witness, a judge, thirdly, is wary of deception. This is not to state that expert witnesses are more likely to mislead a court; but the risk is lessened by judicial mindfulness of the danger. Through the development of specialist language, experts may be faced with temptations to present more foggy testimony than would be accepted from other witnesses and to dish up a conclusion against a background where that conclusion cannot easily be analysed. As Collins J explained in *Duffy v McGee*,[76] it was concerns regarding the potential for bias or lack of independence that led to the development of duties and responsibilities of expert witnesses by Cresswell J in *The Ikarian Reefer*.[77] Hence, experience has shown that what tends to spotlight a true expert in their evidence is a willingness to impart knowledge freely. By opting to lay out the science as part of the satisfaction of knowledge, an expert signals that they have nothing to fear, and thereby their testimony becomes increasingly persuasive or significant.[78] Apart from that, grappling with knowledge of the science reasserts judicial control over the process of decision-making.

Fourth, as has been made clear by the myriad regulations and practice directions set out across several jurisdictions, judges, dimly or vividly, are aware of the potential dangers of experts. Often their evidence is the fulcrum of the case which may ultimately determine the result of the hearing. Strong views have been expressed in the past that experts may shift

[71] Declan McGrath, *McGrath on Evidence* (3rd edn, Round Hall 2020) [6-41].

[72] Law Reform Commission, *Consultation Paper on Expert Evidence* (LRC CP 52-2008) para 2.295.

[73] This has played an increasingly significant role in hearings in recent decades as 'the gulf between the background knowledge possessed by a typical juror or judge and the knowledge possessed by an expert in the field has widened', per John E Lopatka, 'Economic Expert Evidence: the Understandable and the 'Huh'?' (2016) 61(3) The Antitrust Bulletin 434, 436.

[74] Moffat Maitele Ndou, 'Assessment of Contested Expert Medical Evidence in Medical Negligence Cases: a Comparative Analysis of the Court's Approach to the *Bolam/Bolitho* test in England, South Africa and Singapore' (2019) 33(1) Speculum Juris 54 at 62 states that 'what is required in the evaluation of the expert evidence is to determine whether and to what extent the experts' opinions are founded on logical reasoning', albeit in the context of South African case law.

[75] The position of an expert witness was described as one of 'particular privilege before the courts' in *Condron v ACC Bank & Ors* and *Cuttle v ACC Bank Plc* [2012] IEHC 395.

[76] [2022] IECA 254, [20].

[77] [1993] 2 Lloyds Rep 68.

[78] This is particularly significant in relation to expert opinion evidence that has changed over the course of a hearing. Keith Rix, *Expert Psychiatric Evidence* (RCPsych Publications 2011) notes at 9, referring to changes in expert evidence in light of new information or due to a misunderstanding of a particular legal test, that 'if you change your opinion, the basis for doing should be crystal clear. If it is not and if the earlier version of your report has already been disclosed, or is disclosed inadvertently … you will be accused of being biased'.

theories or views to match the shape of a problem.[79] Therefore, a judge considers how any expert witness was identified and briefed. It is therefore useful for experts to include in a report as to how they were contacted and what the task was that they accepted.[80] It is important to remember that, at common law, the preparation of witness statements is subject to privilege against disclosure, so there is a great deal more mystery surrounding an expert than there is with a percipient witness. The law in England and Wales on this issue was confirmed by Longmore LJ in *Jackson v Marley Davenport Ltd*, stating: 'There can be no doubt that if an expert makes a report for the purpose of a party's legal advisers being able to give legal advice to their client, or for discussion in a conference of a party's legal advisers, such a report is the subject matter of litigation privilege at the time it is made.'[81] *Payne v Shovlin* confirms that the relevant rule[82] 'demands such production or disclosure of reports that will ensure that surprises do not occur, either in the course of examination-in-chief or in cross-examination of an expert witness'. [83]

Lastly, every judge listening to a case is looking for pivot points; the moments that the balance of a case tips one way or another. During both the examination-in-chief and the cross-examination, the judge is ideally silent, considering the particularly significant details and principles and making a mental list linking the science to the facts. That is being done whether the salient ideas are being gathered to instruct a jury or to justify a later written decision. An expert view may be reasoned out of the final conclusion or may inform a judicial decision. However, what a judge should never do is to interpose their own theory upon the expert's views; where the science is not backed explicitly by an expert, it should not be invented or inferred.

The rule against hearsay

Expert evidence is one of the exceptions to the rule against hearsay evidence being admitted, the general rule being that a 'statement other than one made by a witness while giving oral evidence in the proceedings is inadmissible as evidence of any facts stated'.[84] The purpose of such a general prohibition is that statements of this kind are both unsworn and 'cannot be tested by cross-examination',[85] and therefore the exception with regards to expert evidence is justified as providing 'the judge or jury with the necessary specialist criteria for testing the accuracy of their conclusions'.[86] In England and Wales, hearsay in criminal proceedings is governed by the Criminal Justice Act 2003,[87] while the rule against hearsay in civil proceedings was abolished by s 1(2)(a) of the Civil Evidence Act 1995, enacting recommendations of the Law Commission.[88]

[79] WM Best, *Principles of the Law of Evidence* (Sweet & Maxwell 11th edn, 1911) 491 and Pitt Taylor, *Treatise on the Law of Evidence* (The Blackstone Publishing Company 12th edn, 1931) 59.

[80] This is particularly important where they may be concerns regarding 'structural bias', as discussed by Deirdre M Dwyer, 'The effective management of bias in civil expert evidence' (2007) 26(Jan) CJQ 57 at 59, arising where bias arises not from personal interest in litigation, but rather from a pre-existing view of a particular expert resulting in their selection by a plaintiff or a defendant to support their position.

[81] [2004] EWCA Civ 1224, [14].

[82] Order 39, rr 42-51 of the Rules of the Superior Courts.

[83] [2006] IESC 5.

[84] Charleton (n 36) para 3.02.

[85] Hodgkinson (n 49) 276.

[86] (n 18) 219.

[87] Liz Heffernan, 'Hearsay in Criminal Trials: the Strasbourg Perspective' (2013) 49(1) The Irish Jurist 135 notes that the Criminal Justice Act 2003 in England and Wales has 'altered radically' the position in relation to hearsay in criminal matters, resulting in a 'substantial revision of the rule'.

[88] 'The Hearsay Rule in Civil Proceedings', Law Com No 216, Cmnd 2321 (1993).

Reference, at common law, to papers or research carried out by other experts are not hearsay;[89] provided these references are connected to the assessment of the expert witness in that particular area of study. In this jurisdiction, this was confirmed in *The People (DPP) v Boyce*,[90] in which it was stated that an expert 'can ground or fortify his or her opinion by referring to works of authority' and has since been supported in *Harrington v Harrington,*[91] and *The People (DPP) v Rattigan*.[92] Similarly, doctors relying upon notes of other treating physicians do not breach the rule against hearsay, though the courts in Ireland have generally noted that evidence given by individuals who have not examined the relevant patient, or other prime material, carry significantly less weight.[93] It is, however, important to note that hearsay evidence cannot be automatically rendered admissible due to its delivery by way of expert witness testimony.[94] Reliance on notes or scientific research is not only permissible in the case of expert evidence, but often required as an 'expression of an existing body of thought that informs an expert analysis',[95] and it is not necessary to produce formal corroboration in the same way as it might be in the case of non-expert witnesses.[96]

Practical science

Any judge or jury may find it difficult to grapple with the intricate scientific evidence produced at a trial. That evidence may be as variable as to the state of materials or, in the case of psychiatric evidence, may require a judge or jury looking into the mind of a person. To take the latter, while no one can fully do that, the psychiatrist certainly provides the most detailed analysis of this area and thus may be taken more seriously than any other witness in a case relating to insanity or diminished responsibility. Such an expert is not alone in the danger posed. This is of particular concern, as highlighted by the Law Reform Commission, due to the potential rise of a 'trial by expert', stemming from:

> a concern that jurors are ill-equipped to weigh the evidence on matters of great technical complexity and are liable to defer to whichever expert commands the most authority on the stand, a question which may not necessarily turn on the stand, a question which may not necessarily turn on the objective quality of his or her evidence.[97]

Over time, experience teaches that expert opinion is not enough, that science rests on facts and that sometimes the facts cannot support the theory being presented. As a professional fact finder, it is never the demeanour of the witness that determines the perceived validity of their testimony; as Shakespeare says, 'there's no art to find the mind's construction in the face'.[98] But there is an art in retaining and comparing proven fact and considering how that works with theory. Facts, where the judicial system works properly, rule cases more than expert opinion.

The ultimate issue

[89] In any event, the Supreme Court has left open the categories of testimony which may operate as an exception to the hearsay rule; *Ulster Bank v O'Brien* [2015] IESC 96, *Bank of Scotland v Fergus* [2019] IESC 91.
[90] [2005] IECCA 143.
[91] [2020] IEHC 72, [60].
[92] [2018] IECA 315, [61].
[93] This was the approach taken by O'Higgins J in *JWH (Orse W) v GW* [1998] IEHC 33 in the family law context.
[94] Law Reform Commission (n 18) 228.
[95] *DPP v C* [2021] IESC 74.
[96] See *Davie v Magistrates of Edinburgh* [1953] SC 34.
[97] Law Reform Commission (n 18) 228.
[98] William Shakespeare, *Macbeth*, King Duncan, Act 1 scene 4.

It is not the role of the expert to take over a court. But that is a real danger. Carl Jung described the human experience of extreme emotion as being like that of lovers who may readily tip from affirming each other to a state of mutual hatred. Enantiodromia was part of his concept that there is an unconscious opposite to every strong personality trait. One example given by him is of an intensely shy girl who, on a mountain hike, when her group was threatened by dense fog, suddenly sprang into a leadership role, barking orders and thereby bringing them back to safety, only to revert to her retiring self. This may also consist of the emergence of the unconscious opposite in the course of time.[99] The opposite is always a threat. Indeed, legal cases often come down to a clash of opposites.

Thus, wise advocates learn that in presenting a case it can help to slowly unravel the point. Persuasive testimony is about logically, and in well-defined steps, setting out the basis of an opinion, one all the stronger since it is only come to in consequence of thought and analysis that is discernible from the manner in which it is built up. But experts may effectively jump the gun. Experts are allowed to give opinion whereas non-experts generally are not.[100] Even in such cases, however, the expert is apparently limited since he or she is traditionally required to not occupy the ultimate issue.[101] The ultimate issue is the kernel of the case: was the employer negligent in not fencing a machine; was the accused insane at the time of killing; did a car crash through a red light; can scooters without lights be regarded as contributing to an accident.

Sometimes, a view on the ultimate issue is so bound up with the case as to render a view on it inescapable. In English law, a forensic psychiatrist may express the view that at the time of the killing the accused was legally insane.[102] In the US, in criminal cases, 'an expert witness must not state an opinion about whether the defendant did or did not have a mental state or condition that constitutes an element of the crime charged or of a defense. Those matters are for the trier of fact alone.'[103] The US Supreme Court in *United States v Elonis* held on this issue that:

> 'a [fine] line that expert witnesses may not cross." *United States v. Mitchell*, 996 F.2d 419, 422 (D.C. Cir. 1993). . . . Expert testimony is admissible if it merely "support[s] an inference or conclusion that the defendant did or did not have the requisite *mens rea*, so long as the expert does not draw the ultimate inference or conclusion for the jury and the ultimate inference or conclusion does not necessarily follow from the testimony." *United States v. Bennett*, 161 F.3d 171, 183 (3d Cir. 1998) (quoting *United States v. Morales*, 108 F.3d 1031, 1038 (9th Cir. 1997)). "It is only as to the last step in the inferential process-a conclusion as to the defendant's mental state-that Rule 704(b) commands the expert to be silent." *United States v. Dunn*, 846 F.2d 761, 762 (D.C. Cir.

[99] Carl Jung, *Psychological Types* (1990) 426. In Two Essays on Analytical Psychology in Carl Jung, *Collected Works of CG Jung* (2nd ed, 1966) at 64-79, he wrote: 'Old Heraclitus, who was indeed a very great sage, discovered the most marvellous [sic] of all psychological laws: the regulative function of opposites. He called it enantiodromia, a running contrariwise, by which he meant that sooner or later everything runs into its opposite.'

[100] There are exceptions, but these are less encompassing, such as an opinion as to what speed a diver was doing.

[101] This is noted in Keith Rix (n 78) 93, stating psychiatric evidence 'is not admissible on the issue of whether or not an accused person had the *mens rea* for a particular offence'. The Law Reform Commission (n 18) at 237 notes that the reasoning for this rule is to ensure that the expert witness does not usurp the role of the trier of fact, though it has been abolished for civil proceedings by s 3 of the Civil Evidence Act 1972 in England and Wales.

[102] *R v Atkins* [2009] EWCA Crim 899.

[103] Federal Rules of Evidence 704b introduced after the trial of Ronald Hinckley who was found not guilty by reason of insanity in the attempted murder of President Regan; *United States v Hinckley* 525 F Supp 1342 (DDC 1981). For further discussion of the developments in relation to the ultimate issue rule in the United States in the aftermath of the trial of Hinckley, see Anne Lawson Braswell, Resurrection of the Ultimate Issue Rule Federal Rule of Evidence 704(b) and the Insanity Defense (1986-1987) 72 Cornell L Rev 620.

> 1988). Rule 704(b) may be violated when [counsel's] question is plainly designed to elicit the expert's testimony about the mental state of the defendant, *Boyd*, 55 F.3d at 672, or when the expert triggers the application of Rule 704(b) by directly referring to the defendant's intent, mental state, or mens rea, *United States v. Lipscomb*, 14 F.3d 1236, 1240 (7th Cir. 1994). Rule 704 prohibits "testimony from which it necessarily follows, if the testimony is credited, that the defendant did or did not possess the requisite *mens rea*." *Bennett*, 161 F.3d at 182 (quoting *Morales*, 108 F.3d at 1037)'.[104]

The ultimate issue rule rests as a protection for the court. Again, if it is abided by then no litigant can claim that the judge ignored expert advice. Thereby, a judge maintains independence. One of the most helpful and neutral approaches that can be taken by an expert witness is that of a sliding scale of strength whereby, for instance, forensic scientists express a view – does not support, supports, strongly supports, very strongly supports – a connection, for example, as between an object found at the scene of a crime and an object found in the accused's possession. For civil cases, a similar approach helps. Certainly, the enforcement of the ultimate issue rule leads to a situation of pin-head analysis: the expert is brought to the cliff edge but does not declare the precipice but, instead, delineates the drop and the angle of descent; something English law has firmly rejected.[105] Thus, new areas of expertise are being discovered and admitted:

> 'We conclude that where a photographic comparison expert gives evidence, properly based upon study and experience, of similarities and/or dissimilarities between a questioned photograph and a known person (including a defendant) the expert is not disabled either by authority or principle from expressing his conclusion as to the significance of his findings, and that he may do so by use of conventional expressions, arranged in a hierarchy, such as those used by the witness in this . . . We think it preferable that the expressions should not be allocated numbers, as they were in the boxes used in the written report in this case, lest that run any small risk of leading the jury to think that they represent an established numerical, that is to say measurable, scale. The expressions ought to remain simply what they are, namely forms of words used. They need to be in an ascending order if they are to mean anything at all, and if a relatively firm opinion is to be contrasted with one which is not so firm. They are, however, expressions of subjective opinion, and this must be made crystal clear to the jury charged with evaluating them'.[106]

Ultimately, then, the expression of a definite view may be possible.[107] This is to be guarded against but may be inevitable. It is the manner in which that is done that may be dangerous to the trial process and the confidence of litigants that a judge has truly assessed the case, as opposed to there being a danger of evidence being excluded and litigants disappointed in the fairness of the process. There is, indeed, a fine line as between pushing an opinion and saying all that is necessary to support an opinion. The latter is what a court both needs and should require.

[104] *United States v Elonis*, 841 F.3d at 596.
[105] *R v Stockwell* (1993) 93 Cr App R 260.
[106] *R v Atkins* [2009] EWCA Crim 899, [31].
[107] Landon (1944) 60 LQR 201.

Opinion

Though it has often been, falsely, suggested that experts are present in court cases to express an opinion, as they are the sole witness who can legally do so, the reality is more nuanced: opinion is expressed by witnesses frequently. It is on this basis that Lardner J held in *RT v VP* that 'an expert who does not have first-hand knowledge of the facts upon which his opinion is based may nevertheless state a hypothesis on assumed facts'.[108] Exceptions to the rule against the general admissibility of opinion include both the exception for experts[109] and matters which cannot be exactly observed.[110] But the courts have equally accepted that, where evidence is of probative value and likely to be of assistance to the judge or jury, this is to be viewed as an overriding principle.[111] Often it is virtually impossible to disentangle a bundle of facts from the expression of an opinion, such as where a witness states that a photograph is of a person who attacked them. Such an approach is necessary as it is the foundation for the rules of evidence:

> 'apart from identity of person, things and handwriting are age; speed; temperature; weather; light; the passing of time; sanity; the condition of objects – new, shabby, worn; emotional and bodily states; and intoxication. The law's hostility to opinion evidence is partly supported by the fact these are all cases where it is very easy for witnesses to make mistakes'.[112]

Opinion is, after all, woven into everyday discourse.[113] The term may be defined broadly as a belief, judgement, or view that a person forms, and seeks to express, either through objective or subjective reasoning, about any topic, issue, person, or thing. But it is important to distinguish between the everyday use of the term and the legal approach towards the definition; an opinion, as introduced before a court by an expert may, instead of actually being an opinion, be a fact. It may be a rational and scientific expression of fact using an arcane discipline that takes years of study and experience to acquire. The judge or jury must then find the fact and on that basis assess the hypothesis. For an expert, reaching the point of expressing a viewpoint, often incorrectly described as an opinion, may engage the application of knowledge and professional judgment and the comparative study of relevant literature. That is much more fact than opinion and may be pure fact.

It is difficult to draw a clear line as between opinion and fact, causing difficulties for the rules of evidence in separating between what testimony may be given by experts and non-experts. What appears to be an opinion may be as much a statement of fact as a mathematical result. Rules have therefore developed to empower finders of fact to determine the foundations of any opinion expressed, such as requiring an expert's report to give details of any information relied upon, as seen under Criminal Procedure Rule 33.3(1) in England and Wales.[114]

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[108] [1990] 1 IR 545.

[109] This exception has roots in cases such as *Folkes v Chadd* (1782) 3 Douglas 157, 99 ER 58, in which Lord Mansfield accepted that in some circumstances, the court could hear evidence of 'opinions of men of science'.

[110] McGrath (n 71) para 6-162 cites s 81(5) of the Road Traffic Act 2010 as an example of such a matter, requiring corroboration regarding opinion evidence of the speed of a vehicle.

[111] *AG (Ruddy) v Kenny* (1960) 94 ILTR 185 views a particularly wide scope of non-expert opinion evidence as admissible; see McGrath (n 71) para 6-165.

[112] John D. Heydon, *Cases and Materials on Evidence* (Butterworths, 1975) 370. Rupert Cross and Nancy Wilkinson, *An Outline of the Law of Evidence* (Butterworths 1964) (referred to here because of the exposition of the common law) note that: 'In many cases, although the answer to a question does not call for specialised knowledge, it would be difficult or impossible for a witness to give his evidence without referring to his opinion. … It is impossible to draw up a closed list of cases falling within the second exception to the general rule prohibiting the reception of evidence of opinion. Items frequently included in it are speed, the identify of persons, things, and handwriting, age and the state of the weather.'

[113] *The People (DPP) v C* [2021] IESC 74.

[114] Per Tony Ward, 'Hearsay, Psychiatric Evidence and the Interests of Justice' (2009) 6 Crim LJ 415 at 416, 'experts may cite scientific works, reference books, and unpublished material generally relied upon in their field, and doctors may rely on

Nonetheless, any such resulting fact or finding may be challenged, in the same way as it could be where stated by any other witness.

As a result, the manner in which evidence was tested, or results of experimentation obtained, as well as the state of scientific literature as supportive or contradictory, are vital information for the court. These stay on the line of fact and do not cross into opinion. This, again, requires not just listening to but absorbing the principles and application of an arcane discipline. Jacob J in *Routestone Ltd v Minories Finance Ltd & Anor*, stated that 'what really matters in most cases is the reasons given for the opinion'.[115] Experts may further be challenged as to their objectivity,[116] but, where it is shown that any theory is based on prior analysis of fact, this is a safe foundation for the expression of an opinion. But these intermediary facts may often be omitted during testimony or in a report, in the interests of brevity; truncated principles are expressed, but this does not make such evidence unassailable. The expert may be cross-examined on any of the relevant steps, principles, contradictory literature or possible other causes and, thereby, the tribunal of fact is further informed and will not just be looking at the demeanour of the witness but the soundness of the underlying science and its proper application in the formation of the conclusion.[117] It might be cautioned, however, that without an ability to analyse the basis for an apparent opinion, a judge endangers judicial independence. Without that, is there any true analysis? An opinion from an expert, no more than an opinion from any other witness, cannot be just accepted.

This principle of an apparent opinion being a fact, in reality, is further illustrated in cases where expert statements have the appearance of predicting the future; cases in which there is a particular probability of the litigant developing a form of illness, for example. While this appears to be mere speculation, such statements are often statements of fact on a review of scientific literature which analyses multiple prior instances. That is fact. Similarly, where psychiatric literature indicates a severe risk of a particular disorder developing, this may be a fact determined by way of empirical study.

Hot tubbing

In civil cases, where two opposing experts appear, some systems enable the experts to appear in the role of advocates; a process known as 'hot tubbing'[118] or 'concurrent expert evidence'.[119] While counsel may be permitted to examine the witnesses after this process, this is generally restricted to clearing up any questions that were not asked. The main purpose of this process is to aid focus, and is generally viewed as being 'quicker, and more focused, than the traditional sequential format'.[120] Proponents of this procedure also suggest that it makes evidence easier for expert witnesses to deliver, rendering them of greater assistance to the court and potentially resulting in more agreement between witnesses than would generally

what their patients tell them about their present symptoms or mental state (which they are better placed than the jury to interpret), but not about the causes of those conditions)'.

[115] [1997] BCC 180.

[116] Remme Verkerk, 'Comparative aspects of expert evidence in civil litigation' (2009) 13(3) E&P 167 at 186 states that the US jurisdiction in particular sees extensive cross-examination of expert witnesses in a manner 'unknown to Continental systems', but cross-examination as to objectivity is common across all jurisdictions.

[117] This is also applicable to the 'hot tubbing' procedure, as held in *A Local Authority v A (No 2)* [2001] EWHC 590 at [22].

[118] A recent discussion of a trial judge's perspective on the 'hot-tubbing' process in England and Wales can be seen in Fordham J's judgment in *R (on the application of Richards) v Environment Agency* [2021] HRLR 18 at [5].

[119] In England and Wales this is facilitated by PD 35 of the Civil Procedure Rules, while in Ireland it is Order 63 of the Rules of the Superior Courts.

[120] Gary Edmond, 'Assessing Concurrent Expert Evidence' (2018) 37(3) CJQ 344 at 346.

arise in the standard adversarial process.[121] Furthermore, is has been suggested that hot tubbing is particularly useful to judges in the process of parsing expert testimony to determine where experts disagree, thereby ascertaining where the key scientific disputes lie in the case.[122] Nothing stops a judge, apart from hot tubbing, insisting that experts opposing each other be taken out of turn so that an immediate comparison is enabled.

However, this process also has its limitations, such as its potential to magnify 'the impact of experts' personality differences and quirks on the presentation and discussion of evidence'.[123] These limitations may have restricted the expansion of this procedure to civil cases alone, but it does highlight that an expert is generally part of a team, as opposed to an independent figure.[124] This is a particular issue due to the lack of financial or time-saving benefit from the hot tubbing procedure, as most supporters of the procedure have tended to emphasise the increased utility of evidence provided in this manner, as opposed to its ability to deal with the practical issues arising as a result of lengthy expert-focused hearings.[125] It has been recognised that, most concerningly, where the 'hot tubbing' ideal of wholly independent experts finding extensive common ground during the process of concurrent testimony does not arise, the same problematic outcomes are likely to arise as in the traditional adversarial model of expert evidence: either two equally convincing theories remain following the process, or the expert more capable in presenting their evidence on the stand might convince the judge, independently of the factual basis for their theory.[126]

It is this former issue, particularly where numerous expert witnesses are called in a trial, where witnesses for either side cannot find any common ground whatsoever, that incurs the most cost and delay. This is in part due to the adversarial system which has been suggested by some to incentivise parties to litigation to select experts with particularly strong or polarised views, which are then further distanced from one another through the process of cross-examination by the emphasis placed on where experts differ in opinion or contradict one another.[127] If people are genuine experts, then there should be a base of indisputable knowledge and of prior empirical analysis.[128] If the groundwork is contested unnecessarily, the entire foundation of opinion is undermined for both sides. Then the danger emerges of a case spinning out of control, of a jury or judge being left to their own devices to pick up what they can. The result in a civil case will be a readily contestable appeal but in a jury case the errors may never be picked up because of the laconic nature of the verdict. Thus, the task of every expert is to identify the troughs and the peaks of where any contest may lie and to brief counsel as to the science behind any difference in opinion.[129]

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[121] Andrew Burr, 'Hot-Tubbing with Witnesses of Opinion: Current Best Practice for Delay and Quantum Analysts' (2017) 33(8) *Const LJ* 523 at 523.

[122] Helen Blundell, 'Whatever happened to hot tubbing?' (2022) 2 JPI Law 110 at 114, citing *SSE Generation Ltd v Hochtief Solutions AG* [2016] CSOH 177.

[123] Hazel Genn, 'Getting to the Truth: Experts and Judges in the 'Hot Tub'' (2013) 32(2) CJQ 275, 297.

[124] One of the central limitations of this procedure, particularly where compared to that of a single joint expert, is that it remains a 'partisan procedure which has a high risk that adversarial bias will distort the result', per Nigel Wilson, 'Concurrent and court-appointed experts? From Wigmore's 'Golgotha' to Woolf's 'proportionate consensus'' (2013) 32(4) CJQ 493, 497.

[125] Gary Edmond, Ann Plenderleith Ferguson and Tony Ward, 'Assessing concurrent expert evidence' (2018) 37(3) CJQ 344, 345.

[126] Geoffrey L Davies, 'Recent Australian developments: a response to Peter Heerey' (2004) 23(Oct) CJQ 396, 399.

[127] Josefine Movin Østergaard, 'An Assessor on the Tribunal: How a Court is to Decide When Experts Disagree' (2016) 35(4) CJQ 319, 326.

[128] O'Donnell J in *Emerald Meats Ltd v Minister for Agriculture* [2020] IESC 48 noted that, where the process by which opinion evidence is given to the correct functions properly, 'there should not be wide and unbridgeable gaps between the views of experts' at [28].

[129] The role of an expert at trial is described by Charleton J in *DPP v C* [2021] IESC 74 as being to 'explain the reasons for and logic behind an opinion and not every single step in reaching it'.

A Warning

In conclusion, one thing often blandly asserted as to the duty of an expert is that experts should not disagree. Thus, some argue, all experts should be distrusted. But lawyers disagree and dissenting judgments in final courts of appeal abound. Disagreement is not to be equated with deceit. All professionals deserve that epithet on the basis of not only knowledge but truthfulness. Some perhaps suspect that the draw of reward may influence reports or opinions, whether in law or in other fields of expertise. Others may cavil at experts routinely reciting 'I realise my duty is to the court and not to the parties.'[130] In reality, in any area of expertise that is well beyond the exploratory or the theoretical, such as chemistry, physics, psychiatry or pathology, common ground should exist to be explained to the tribunal of fact and its assessment should be slow to shift radically. The most helpful testimony is given where points of difference are explained since it may be here that the fulcrum of the case is found. There, of course, remain rare instances in which experts may stray towards contradiction or place excessive emphasis on a particular theory without clarifying the purpose for such a focus.[131] Experts for hire may have their day but it used to be thought that they would soon enough be found out. The cynical might assert that being found out as contradicting a patient's woes or declaring a multitude of cases irrecoverable may lead to continual professional engagement. But there are also, and they are indispensable to any tribunal, the genuinely well-prepared, helpful and modest masters of science without whom the courts could not function.

Yes, experts present particular dangers to the process of judicial decision. But this may readily be avoided through both the application of the rules constricting and limiting admissibility of expert testimony, but more readily by a proper mindset on the bench. Judicial analysis remains sound where an expert is quietly listened to, the science is absorbed, analysis proceeds on the basis of comparison to the facts and to the fundamental principles of the discipline under discussion. Expert witnesses are not to be afforded a celebrity status but are, instead, to be assessed from a distance. Where the judge remains determined through using as much as is possible of what is explained to the court to retain and assert objectivity and independence, experts are both kept at a distance and their help is engaged. There are dangers in expert evidence. But the perils outlined here need not, and should not, overwhelm the judicial function.

[130] This duty is referred to by Charleton J in *James Elliott Construction Ltd v Irish Asphalt Ltd* [2011] IEHC 269 at [13], noting that 'it is a natural aspect of human nature that even a professional person retained on behalf of a plaintiff or defendant may feel themselves to be part of that sides team'.

[131] Keith Rix (n 78) 41 states that it is vital for experts giving evidence to make clear to the Court where any issue falls outside the expertise of a particular expert.