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**THE INCORPORATION OF EXPERT
EVIDENCE IN IRELAND**

AOIFE TERESA BEIRNE

Thesis submitted for the degree of PhD in Law

2016

Declaration

I declare that this thesis has not been submitted as an exercise for a degree at this or any other university and it is entirely my own work.

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SUMMARY AND METHODS

This thesis concerns the incorporation of expert evidence into Irish criminal and civil proceedings. The methodology employed in this thesis is doctrinal legal analysis. It is the product of extensive and detailed analysis of primary and secondary sources. The focus of the thesis is on Ireland. However, as the subject of expert evidence in Ireland is lacking in focused academic and judicial commentary, the thesis relies on a number of comparative sources to inform the legal analysis. While this thesis does not purport to be multi-disciplinary, Chapters 4 and 5 concern scientific expert evidence and necessitated some understanding of scientific methods for the presentation of expert scientific evidence, as well as psychological models of jury comprehension.

After the topic has been introduced in Chapter 1, Chapter 2 sets out the general principles of the law relating to expert evidence in Ireland in criminal and civil trials, against the backdrop of the traditional rules of evidence. It also identifies the duties of the expert, the limits to and the permitted bases for the expert's opinion. Expert evidence is identified as an exception to a traditional rule of evidence, and has thus developed its own test for admissibility. Expert evidence is also identified as an anomaly within the adversarial trial process.

The next three chapters deal with expert evidence in criminal proceedings specifically. Chapter 3 explores whether there is a basis for the right of an accused to an expert in Irish law. The negative aspect of this right is based on the constitutional right to fair procedures, inherent in the guarantee of a fair trial, and the European Convention on Human Rights. The positive aspect of this right is conceded to be weaker, but is sought to be justified by reference to South African and American jurisprudence, as well as through an analogy with the constitutional right to criminal legal aid.

Chapters 4 and 5 concern scientific evidence in criminal trials. Chapter 4 looks at the nature of scientific evidence and examines historic miscarriages of justice. The test for the admissibility of expert evidence is considered in more detail in this chapter in the context of expert scientific evidence. The question of whether reliability should be considered when considering admissibility is explored. The chapter also includes a comparative case study on facial mapping as a source of expert scientific evidence.

Chapter 5 examines the competency of the jury to assess expert evidence by considering the right to jury trial, psychological models for jury decision-making and some limited empirical evidence. The chapter proceeds to examine a mathematical model for the presentation of expert scientific evidence: Bayes' Theorem. This is favoured by some scientists but it has not received judicial approval in England and Wales.

Chapters 6 and 7 deal with expert evidence in civil proceedings. Chapter 6 identifies concerns in civil litigation relating to cost and delay, which expert evidence is acknowledged as contributing to. That chapter examines reforms in Ireland and England and Wales, which proposed to address these concerns through enhanced case management. This chapter also considers the pre-trial involvement of the expert and the power of the court to restrict expert evidence when it is excessive.

Chapter 7 identifies two methods which are designed to curb the costs and delay associated with expert evidence in civil litigation and have recently been introduced in Ireland: court appointed experts and concurrent evidence. These are analysed by reference to similar provisions in England and Wales and Australia.

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I first became interested in the topic of expert evidence while studying the law of evidence with Professor Liz Heffernan during my Senior Sophister year of the LL.B at Trinity College Dublin. I was very fortunate to have this thesis supervised by her upon my return from my Masters. Her constant guidance, encouragement and reassurance are the reasons this thesis eventually came to fruition. She frequently provided detailed and highly constructive feedback on my work, especially leading up to the time of submission. Her extraordinary expertise in the law of evidence helped me to improve and develop my ideas. I am deeply grateful to her for all her assistance and understanding, from both a personal and academic perspective.

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As well as Professor Heffernan, I received guidance from a number of others. Professor Edward Imwinkelried, the renowned American academic, was kind enough to take time out of his trip to Dublin in March 2011 to meet with me. I am grateful also to the Director General of Eolaíocht Fhóiréinseach Éireann, Dr Sheila Willis, for speaking to me regarding Bayes’ Theorem, and to Seamus Clarke BL for his advice on facial mapping evidence.

A portion of Chapter 4 was presented to the Criminal Law and Evidence Update, an event run by the Irish Rule of Law International, in November 2014. The late Honourable Mr Justice Adrian Hardiman provided

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The sudden passing of my mother, Attracta Beirne, in November 2012, sadly hindered the progress of this thesis. An educator herself, she always encouraged me to further my academic studies and was tremendously supportive from the beginning of my decision to pursue a PhD. I owe her a great deal in instilling in me a commitment to further my professional goals. It is only fitting that I dedicate this particular effort to her memory. My father, Michael Beirne, has consistently provided quiet reassurance and support to me in both my career and personal life for which I am also eternally grateful.

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CHAPTER 1: INTRODUCTION

“No one will deny that the law should in some way effectively use expert knowledge wherever it will aid in settling disputes. The only question is as to how it can do so best.”¹

This thesis explores certain aspects of the incorporation of expert evidence in criminal and civil trials in Ireland. Regarding expert evidence in criminal trials, it is proposed to:- (1) explore whether there exists a basis for a right to an expert in a criminal trial; and (2) examine the difficulties relating to the incorporation of expert scientific evidence. Regarding expert evidence in civil proceedings,² it is proposed to:- (1) set expert evidence against the background of civil litigation in Ireland, and the concerns arising in such litigation; and (2) examine the procedures currently in place to allay such concerns. By reference to these aims, the thesis also proposes to explore the different process considerations particular to criminal and civil trials.

Due to advances in knowledge, expert evidence has become an unavoidable feature of both criminal and civil litigation. There can be no doubt but that expert witnesses play a crucial role in assisting finders of fact to reach decisions. While there are many Irish texts concerning the law of evidence in general,³ a comprehensive study of expert evidence is lacking in this jurisdiction,⁴ in contrast to other jurisdictions.⁵ The area has also not been subjected to much focused academic commentary, at least not in the specific contexts mentioned above. In response to concerns surrounding expert

¹ Learned Hand, “Historical and Practical Considerations Regarding Expert Testimony” (1901) 15 Harvard Law Review 40 at 40.

² “Proceedings” is to be preferred over “trials” in this thesis in the context of civil cases, as expert evidence plays an important role prior to any trial. See Chapter 6.

³ See McGrath, *Evidence* (2nd ed., Round Hall, 2014); Heffernan & Ní Raifeartaigh, *Evidence in Criminal Trials* (Bloomsbury Professional, 2014); Fennell, *The Law of Evidence in Ireland*, (3rd ed., LexisNexis, 2009); Healy, *Irish Laws of Evidence* (Round Hall, 2004); and Cannon & Neligan, *Evidence* (Round Hall, 2002).

⁴ However, see Heffernan, *Scientific Evidence: Fingerprints and DNA* (Firstlaw, Dublin, 2006) dealing with scientific evidence specifically.

⁵ For example, England and Wales, see Hodgkinson & James, *Expert Evidence: Law and Practice* (4th ed., Sweet & Maxwell, 2015) and Hodgkinson & Tristram, *Expert Evidence* (Sweet & Maxwell, 2007).

evidence, the Law Reform Commission (“the LRC”) was tasked with inquiring into the area, with a view to proposing reform.⁶ The LRC’s stated aim was to examine the rules relating to the admissibility of expert evidence in court and the role and function of expert witnesses, while also engaging in an examination of arrangements to ensure the quality of expert evidence. It explored relevant options for reform by reference to two key areas, namely the admissibility of expert evidence of opinion and the role of the expert witness in court, in addition to the challenges involved in expert evidence and the role of the expert witness.⁷ At the time of the submission of this thesis, it has been nearly eight years since the publication of the Consultation Paper. A Report is eagerly awaited.⁸

While the LRC Consultation Paper is a useful reference point, developments in the law can be said to have overtaken it to a significant degree. This thesis will refer to it where appropriate. In any event, the Consultation Paper does not deal in a meaningful way with the specific aspects of the incorporation of expert evidence that this thesis proposes to address. The most controversial aspect of the law relating to expert evidence in Ireland has, to date, been whether expert evidence should be subject to a heightened test of admissibility, *i.e.* a test which would assess the reliability of the expert evidence. While this thesis acknowledges that that debate is important, it is not the sole focus of its analysis. However, it is acknowledged that the reliability debate cannot be divorced from the subject of expert scientific evidence and is examined in that context.

It is apparent, that in both civil and criminal proceedings, there is a need to consider expert evidence from an early stage. In criminal proceedings, there is a statutory obligation on the defence to seek leave to adduce expert

⁶ Law Reform Commission, *Consultation Paper on Expert Evidence* (LRC CP 52-2008) (hereinafter “LRC”). Reference to other works by the Law Reform Commission will be highlighted, where appropriate.

⁷ LRC, *op. cit.* at 1-2.

⁸ The Consultation Paper formed part of the Commission’s *Third Programme of Law Reform 2008 -2014*. Under the *Third Programme*, the LRC also published Consultation Papers on *Hearsay* (LRC CP 60-2010) and *Documentary and Electronic Evidence* (LRC CP 57-2009). The LRC intends to publish a Report that will incorporate all three areas.

evidence under section 34 of the Criminal Procedure Act 2010,⁹ the constitutionality of which has been upheld.¹⁰ There is no corresponding provision for civil cases,¹¹ but some procedural pre-trial rules governing expert evidence require lawyers and litigants to consider expert evidence soon after the institution of proceedings.¹²

Both the criminal and civil systems are technically underpinned by the same traditional evidential common law rules and, consequentially, the rules relating to expert evidence. Chapter 2 will outline the general principles of the law relating to expert evidence, within the confines of the law of evidence itself. That chapter will consider the test for the admissibility of expert evidence, the basis for the expert's opinion and whether there are any limits on the expert in terms of the matters in respect of which he or she may testify. It will also examine the duties of the expert and, in particular, the duty to be independent. As both criminal and civil trials are adversarial in nature, the chapter will conclude with an examination of expert evidence in the context of the adversarial process, where it appears to sit rather uneasily.

The thesis will then diverge. When considering criminal and civil trials separately, it proposes to take into account the different process considerations underpinning them. In a criminal trial, the constitutional rights of the accused are a key consideration, while civil law is largely premised on procedure. Cost, efficiency and access to expert evidence become important considerations in civil proceedings. However, this thesis acknowledges that procedure plays some role in criminal cases, and that constitutional rights are not completely absent civil proceedings in which expert evidence is a feature.

Most criminal trials take place before a judge and jury. If the admissibility of evidence is challenged, the judge decides in the absence of the jury (by means of a *voir dire*) whether or not it is admissible. If the evidence is ruled admissible, then it is for the jury to decide its weight. As mentioned

⁹ See Rule 33.4 and 33.5 of the English Criminal Procedure Rules. See also comparatively section 23 of the New Zealand Criminal Disclosure Act 2008, which provides that a defendant in criminal proceedings proposing to call expert evidence must disclose any brief of evidence or any report provided. However, the leave of the court is not required though. See also the Canadian Criminal Code, rule 657.3.

¹⁰ *Markey v Minister for Justice and Law Reform and Ors* [2011] IEHC 39

¹¹ *c.f.* Civil Procedure Rules of England and Wales.

¹² See further Chapters 6 and 7.

above, the rights of the accused under the Irish Constitution play a dominant role in a criminal trial. The law of evidence has been constitutionalised to a large extent by Article 38.1 of the Irish Constitution, which guarantees an accused the right to a fair trial in due course of law. Inherent in this constitutional guarantee is the right of the accused person to present evidence in his or her defence. A discussion of expert evidence is absent from modern discussions of relating to the law of evidence and human rights.¹³ However, a criminal trial is weighted heavily in favour of the prosecution from the outset, and the burden an accused person faces in adducing expert evidence undoubtedly has the potential to affect his constitutional rights.

As against the foregoing, Chapter 3 will explore whether there exists a basis in Irish law for the right of an accused person to an expert in a criminal trial. It will be shown that there are two aspects to the proposed right: the negative right to present evidence without interference from the State, and the positive right to an expert witness at the State's expense when an accused person cannot afford one. It is proposed to consider comparative jurisprudence from South Africa and the United States, as well as the provisions of the European Convention on Human Rights and its associated jurisprudence, to inform this analysis. In relation to the latter right, it is proposed to draw an analogy with the right to criminal legal aid.

As scientific knowledge advances, so too does expert scientific evidence. However, science is never certain and an established theory can be discredited overnight. In addition, there exist many novel forms of scientific "expertise", the reliability of which are questionable. Concerns regarding the reliability of scientific evidence arose from high profile miscarriage of justice cases in the past number of decades. However, it is unfortunate that, even today, there is a lack of discussion regarding expert scientific evidence in Irish law. The Director of the Forensic Science Laboratory suspects that this may be due to the conservative nature of reporting in her laboratory.¹⁴ While this thesis acknowledges that expert witnesses can and do regularly give scientific evidence in civil cases, the discussion in this thesis is limited to scientific

¹³ For example, Roberts & Hunter (eds), *Criminal Evidence and Human Rights: Reimagining Common Law Procedural Traditions*, (Hart Publishing, 2012).

¹⁴ Willis, "Does the Court Need to Look Beyond the Reliability of the Test?" (2012) *Criminal Law and Procedure Review* 56 at 57.

evidence in criminal cases. Roberts' justification for confining a work of his on scientific evidence to criminal trials was that "[t]he criminal trial, as both cultural icon and institutional forum par excellence for resolving disputed questions of fact, is a natural focal point".¹⁵ He also alluded to the pragmatic reasoning behind his decision, in that the literature on forensic science and the criminal law is truly vast. This thesis adopts these justifications.

Chapter 4 will consider the nature of expert scientific evidence at its location at the intersection between the disciplines of law and science.¹⁶ Two different types of miscarriages of justice involving expert scientific evidence will be examined in order to inform the discussion relating to the traditional concerns. It will be questioned whether the reliability of expert scientific evidence ought to be assessed prior to its admission into evidence. This necessitates a comparative analysis of the law of the United States and England and Wales. Finally, a case study is conducted regarding facial mapping. While serious concerns regarding the reliability of this novel "field" of expert scientific expertise have been raised, it is still regarded as admissible in a number of jurisdictions.

As there is currently no reliability threshold in Ireland, the question therefore arises as to how scientific expertise can be incorporated into a criminal trial to guard against potential unreliability. Juries, as laypersons, may not be able to comprehend such evidence. As will be outlined, the precise rationale behind its admission is that the jury requires its assistance in coming to its verdict. Therefore, it must be presented in a manner which addresses the concerns relating to its reliability and surrounding the competency of the jury.

¹⁵ Roberts, *Expert Evidence and Scientific Evidence and Proof in Criminal Trials* (Ashgate, 2014) at xiv.

¹⁶ While DNA evidence will not be dealt with in detail in this thesis, other than passing references as a species of scientific evidence in Chapters 4 and 5, the statutory regime for forensic sampling has been overhauled in the Criminal Justice (Forensic Evidence and DNA Database System) Act 2014. That Act was commenced on 20 November 2015. As well as providing for the establishment of a DNA database, the Act will replace the existing statutory and common law arrangements governing the taking of samples for forensic testing for use as evidence in criminal investigations and proceedings. The Act is likely to throw up interesting issues concerning the admissibility of evidence and the exclusionary rule. See Law Reform Commission *Consultation Paper on the Establishment of a DNA Database* (LRC CP 29-2004) and Beirne, "Evidence", *Annual Review of Irish Law 2014* (Round Hall, 2015).

Chapter 5 will consider the competency of the jury to assess expert evidence by reference to psychological models of jury comprehension and, admittedly limited, empirical evidence. It is then proposed to assess whether a particular probability model for the presentation of expert evidence, favoured by scientists, but judicially discredited abroad, is an appropriate method for the presentation of expert scientific evidence in Ireland.

Similar to criminal trials, the use and complexity of expert evidence has increased rapidly in civil proceedings, especially in the areas of medical negligence and large commercial disputes. It will be seen that different process considerations relating to expert evidence are at play in the context of civil proceedings, such as cost, efficiency and access to expert evidence. In most civil proceedings, the case is both heard before, and decided by, a judge sitting alone. However, case management has been embraced in certain types of cases, which involves the judge taking a more active role than previously was the case in adversarial proceedings. Civil litigation is undergoing a period of reform in Ireland and it is necessary to examine expert evidence by reference to that reform. While acknowledging that the process considerations in civil proceedings relate mainly to the aforementioned cost, efficiency and access to expert evidence, it is acknowledged that these undoubtedly have an effect on the constitutional right of access to the courts. Chapter 6 will examine expert evidence in the context of civil proceedings, by reference to concerns in civil litigation generally, specifically cost and delay, and also by reference to recent reforms at home and in England and Wales. In this context, the pre-trial examination of the expert will be considered, as will the power to restrict expert evidence.

Chapter 7 will then consider two procedures, for which recent provision was made in Ireland, which could potentially allay the aforementioned concerns: court appointed experts and concurrent evidence. While the former is not an entirely new concept in Irish law, the latter represents a significant change in civil practice. Provision for a court appointed expert in Ireland will be examined by reference to both recent and older reforms. It is proposed to consider concurrent evidence by reference to its implementation in its country of origin, Australia. However, both procedures will also be examined by reference to the law in England and Wales, as they both have been recent features of the reform of its system of civil litigation.

“This is the age of experts ...”¹

I. Introduction

This chapter seeks to locate expert evidence within the law of evidence generally. Expert evidence originally emerged as an exception to the well-established rule in both civil and criminal cases that a witness is not permitted to give evidence of their opinion. It is only after a thorough examination of the law out of which expert evidence emerged that can one address oneself to the particular issues which this thesis explores relating to the incorporation of expert evidence in Ireland.

This chapter will consider the test for the admissibility of expert evidence, along with the limits of expert testimony. The expert’s duty will also be considered and, in particular, the duty of independence in the context of concerns surrounding expert bias. The nature of the adversarial trial process will also be considered.

While the later chapters in this thesis will focus on criminal and civil law separately, this chapter will deal with both. The rules of evidence relating to expert evidence apply equally to both civil and criminal cases, albeit with varying degrees of emphasis depending on the particular forum.

II. The Admissibility of Evidence

A brief outline of the general principles of the law of evidence will suffice before embarking on an examination of expert evidence. It could be stated that the law of evidence is subject to one rule only, *i.e.* that all relevant evidence is admissible.² It follows that all irrelevant evidence is inadmissible. However, this general rule is subject to a number of exceptions, which will be referred to as the “Exclusionary Rules”. The consequence of these rules is that highly relevant evidence is, nonetheless, inadmissible in certain circumstances.

¹ *AG (Ruddy) v Kenny* (1960) 94 ILTR 185 at 189 *per* Lavery J.

² On admissibility in the law of evidence generally, see McGrath, *Evidence* (2nd ed., Roundhall, 2015), Chapter 1C.

The Exclusionary Rules can be spilt into two broad categories. The first class of Exclusionary Rules relate to issues that are a regular feature of most common law jurisdictions. These will be termed the “traditional rules of evidence” and they comprise, for the purposes of this thesis, the rule against opinion evidence, the ultimate issue rule, the rule against hearsay and the rule in *R v Turner*.³ These rules undoubtedly reflect the fact that the law of evidence has its genesis in the common law.

The second category of Exclusionary Rules are those which are peculiar to Ireland, and are typically those rules which have been informed by the Constitution of Ireland. The application of Article 38.1 of the Constitution, which enshrines the right of an accused to a criminal trial in due course of law, ensures that the law of evidence is applied strictly in criminal trials. The law of evidence in this jurisdiction has been informed to a significant degree by rights-based considerations. The general rule is that evidence obtained in deliberate and conscious breach of an accused’s constitutional rights is automatically inadmissible.⁴ This thesis does not require an in-depth discussion of the rule against unconstitutionally obtained evidence. However, the backdrop of the Constitution is highly relevant in the context of the examination in Chapter 3 of whether or not there exists basis for a right to an expert witness in Irish law. The Constitution will also be referred to in Chapter 7 in the context of the right of effective access to the courts in civil proceedings.

It should be borne in mind that, as well as the Exclusionary Rules, the courts retain a residuary discretion to exclude evidence in a criminal trial, and can exclude an item of evidence where its probative value is outweighed by its prejudicial effect.⁵

It is proposed, in the first instance, to consider the genesis and parameters of the law relating to expert evidence. This process involves a discussion of the traditional rule of evidence from which the expert evidence exception was carved.

³ [1975] QB 834

⁴ See *People (DPP) v O’Brien* [1965] IR 142; *DPP v Kenny* [1965] IR 142; and, in particular, *DPP v JC* [2015] IESC 31. See further Chapter 3.

⁵ *R v Sang* [1980] AC 402; *People (AG) v. O’Neill* [1964] Ir Jur Rep 1; *DPP v Meleady (No. 3)* [2001] 4 IR 16; *DPP v Carney* [2011] IECCA 53

III. The Rule against Opinion Evidence – The “Opinion Rule”

It is a generally well-established Exclusionary Rule that witnesses may only testify as to facts and they are not allowed to offer a qualitative assessment of those facts. The court alone, or the jury if applicable, is allowed to draw inferences from those facts. This Exclusionary Rule will be described in this thesis as the Rule against Opinion Evidence, or the “Opinion Rule”.

The Opinion Rule has more than one rationale. One of those rationales is that it prevents witnesses from usurping the role of the tribunal of fact. Kingsmill Moore J in the Supreme Court in *AG (Ruddy) v Kenny*⁶ summarised the Opinion Rule as follows:

“It is a long standing rule of our law of evidence that, with certain exceptions, a witness may not express an opinion as to a fact in issue. Ideally, in the theory of our law, a witness may testify only as to the existence of facts which he has observed with one or more of his five senses. It is for the tribunal of fact – judge or jury as the case may be – to draw inferences of fact, form opinions and come to conclusions.”⁷

It is clear that Kingsmill Moore J was alive to the danger that a jury in a criminal trial might give undue weight to statements of opinion of a witness,⁸ which would infringe the accused’s right to a fair trial contained in Article 38.1 of the Constitution of Ireland. However, the lines between fact and opinion are thought by some commentators to be blurred. Wigmore observed that it would be impossible to confine witnesses to some “fancied realm” of “knowledge” or “fact” and to forbid them to enter the domain of “opinions” or “inferences”.⁹

⁶ (1960) 94 ILTR 185

⁷ *ibid*, at 190.

⁸ McGrath, *Evidence*, *op. cit.* at [6-03].

⁹ Wigmore, *Evidence in Trials at Common Law* (Vol 7) at 16. See also *R v Graat* [1982] 2 SCR 819

at 835 where Dickson J stated that: “Except for the sake of convenience there is little, if any, virtue in any distinction resting on the tenuous and frequently false antithesis between fact and opinion”.

Wigmore advances another related rationale behind the Opinion Rule which is that that superfluous material is not presented to the jury:

“[The Opinion Rule] simply endeavours to save time and avoid confusing testimony by telling the witness ‘the tribunal is in possession of the same materials and information on this subject as yourself; thus, as you can add nothing to our materials for judgement, your further testimony is unnecessary, and merely cumbers the proceedings.’”¹⁰

Wigmore proceeds to state that “wherever inferences and conclusions can be drawn by the jury as well as the witness, the witness is superfluous”.¹¹ Kingsmill Moore J in *AG (Ruddy) v Kenny*¹² also referred to this rationale in explaining that the rule ensures that possible hazards such as “prejudice, faulty reasoning and inadequate knowledge” are avoided.¹³ In *Toohey v Metropolitan Police Commissioner*,¹⁴ it was acknowledged that Opinion Evidence is also inherently unreliable in that it:

“[S]hares the frailties of those who give it. It is subject to many cross currents such as partiality, prejudice, self-interest and, above all, imagination and inaccuracy.”¹⁵

IV. Expert Evidence

Having outlined the Opinion Rule in general terms, it is necessary to consider its most important exception, expert evidence.¹⁶ Expert witnesses are permitted

¹⁰ Wigmore, *A Treatise on the Law of Anglo-American System of Evidence in Trials at Common Law, Evidence* (3rd ed., Little Brown and Company, 1940) at [1917].

¹¹ *ibid.* at [1918].

¹² *op. cit.*

¹³ (1960) 94 ILTR 185 at 190.

¹⁴ [1965] 1 All ER 506

¹⁵ *ibid.* at 509.

¹⁶ Further limited exceptions to the Opinion Rule exists where non-experts are permitted to give opinion evidence. One such area is where a non-expert is entitled to give his opinion on whether or not a person was drunk. It was held in *AG (Ruddy) v Kenny*, *op. cit.* at 189, by Lavery J that “there are innumerable incidents of everyday life upon which an ordinary person

to give evidence of their opinion. Indeed, for the most part, expert witnesses are called for the very purpose of testifying as to their opinions. This has been referred to recently by one Irish judge as a “particular privilege”.¹⁷ In *Director of Corporate Enforcement v Bailey*,¹⁸ Irvine J offered a helpful modern restatement of the Opinion Rule and the expert evidence exception:

“The rationale for the exclusion of opinion evidence lies in the acceptance that it is for the court and not the witness to draw conclusions from proven facts. It is common case that evidence of opinion is permitted in certain exceptional circumstances such as where the court admits evidence from an expert witness. However, in order to permit of this exception the expert must establish their expert credentials before the court and their evidence must be confined to their proven area of expertise. Clearly, once an expert is permitted to give evidence as to his opinion it follows that he is open to having that opinion tested not only by the opposing party on cross examination but also by the trial judge.”¹⁹

Irvine J refers to some limits regarding expert evidence, which will be revisited below. Expert witnesses are, therefore, a distinct legal concept to other witnesses of fact, the non-application of Opinion Rule providing the main distinction between the two.

The evidence of the expert witness is admitted on the basis that it is beyond the ordinary knowledge of the trier of fact, be it judge or jury. The expert is seen to possess such special knowledge and expertise as to allow him or her to opine. This was explained again by Kingsmill Moore J in *AG (Ruddy) v Kenny* as follows:

can express a useful opinion and one which ought to be admitted". He continued "[w]hen it is a matter of thick speech, uncertainty of gait, inability to walk a straight line (in any event a most unreliable guide), smell from breath, drowsiness, truculence, argumentativeness, and other observable symptoms, I think any reasonable person can express a view based upon the sum total of his observations".

¹⁷ *Flynn v Bus Átha Cliath* [2012] IEHC 398 at [9] *per* Charleton J.

¹⁸ [2008] 2 ILRM 13

¹⁹ *ibid.* at 30.

“The nature of the issue may be such that even if the tribunal of fact had been able to make the observations in person or they would not have been possessed of the experience or the specialised knowledge necessary to observe the significant facts, or to evaluate the matters observed and to draw the correct inferences of fact.”²⁰

A detailed examination of the historical origins of the expert is outside the scope of this thesis.²¹ Suffice it to note that the use of expert witnesses is not a new legal phenomenon, and case law involving expert witnesses date as far back as the Middle Ages. Learned Hand makes the point that expert evidence has long been accepted as necessary and beneficial, even prior to the development and enforcement of the exclusive rules of evidence.²² A useful statement was articulated in *Buckley v Rice Thomas*²³ in 1554 by Saunders J as follows:

“If matters arose in our law which concern other sciences or faculties, we commonly apply for the aid of that science or faculty which it concerns. Which is an honourable and commendable thing in our law. For thereby it appears that we do not despise all other sciences but our own, but we approve of them and encourage them as things worthy of commendation.”²⁴

That expert witnesses are permitted to give evidence of their opinion has been recognised in criminal cases since at least the 17th century. For example, in *R v Pembroke*,²⁵ both sides called physicians to testify as to the real cause of the deceased’s death and as to whether or not a man can die of his

²⁰ *op. cit.* at 190.

²¹ See Learned Hand, “Historical and Practical Considerations Regarding Expert Testimony” (1901) 15 Harvard Law Review 40; Law Reform Commission Consultation Paper on Expert Evidence (LRC CP 52 – 2008) at Chapter 1; Hodgkinson & James, *Expert Evidence: Law and Practice* (4th ed., Sweet & Maxwell, 2015) at 7–10. For civil cases specifically see, Dwyer, *The Judicial Assessment of Expert Evidence* (Cambridge University Press, 2008) at Chapter 5.

²² Learned Hand, *op. cit.* at 50.

²³ [1554] Plowden 124

²⁴ *ibid.* at 193.

²⁵ (1678) 1b 1337, 1228, 1340, 1341

wounds without fever. The following year, in *R v Greene*,²⁶ the prosecution called a physician to testify that as the victim had no blood on his body his death was not caused by wounds and he must have therefore have died from strangulation.

The rule was also well established in civil cases. The case of *Folkes v Chadd*²⁷ is regarded as the seminal case establishing the admissibility of expert testimony in civil cases. The plaintiff took a trespass action against the defendant for threatening to cut down an embankment erected by the plaintiffs to prevent overflow of the sea onto the plaintiff's land. The defendants argued that, as the embankment had caused the flooding of the harbour leading to extensive damage, they were entitled to cut it down. The defendants argued that the testimony of a renowned engineer in favour of the plaintiffs should have been excluded as it "was matter of opinion, which could be no foundation for the verdict of the jury, which was to be built entirely on facts, and not opinions".²⁸ Lord Mansfield rejected this on appeal and ordered a retrial, stating the following:

"It is objected that [the expert] is going to speak, not as to facts, but as to opinion. That opinion, however, is deduced from facts which are not disputed – the situation of banks, the course of tides and of winds and the shifting of the sands ... The question then depends on the evidence of those who understand such matters ... I cannot believe that where the question is, whether a defect arises from a natural or artificial cause, the opinions of men of science are not to be received ... the cause of decay of the harbour is also a matter of science, and still more so, whether the removal of the bank can be beneficial. Therefore we are of the opinion that his judgment, formed on the facts, was very proper evidence."²⁹

The use of expert evidence has become so prevalent in recent years that the exception may indeed have outgrown the Opinion Rule.³⁰ Indeed some

²⁶ (1679) 7 Holwell, State Trials, 185 at 186.

²⁷ (1782) 3 Douglas 157

²⁸ *ibid.* at 159

²⁹ (1782) 3 Douglas 157 at 159.

³⁰ Heffernan, *Evidence: Cases and Materials* (Thomson Round Hall, 2005) at 142

commentators have gone as far as to characterise expert evidence as a particular category of testimony, being “evidence which is admissible because it is relevant and of probative value in relation to matters in issue in the case”,³¹ rather than being regarded as an exception to the Opinion Rule.

Hodgkinson and James suggest that the evidence given by an expert witness can be divided into five categories:³²

- (i) Expert evidence of opinion, upon facts adduced before the court;
- (ii) Expert evidence to explain technical subjects or the meaning of technical words;
- (iii) Evidence of fact, given by an expert, the observation, comprehension or description of which require expertise;³³
- (iv) Evidence of fact given by an expert, which does not require expertise for its observation, comprehension and description, but which is a necessary preliminary to the giving of evidence in the other four categories; and
- (v) Admissible hearsay of a specialist nature.

This categorisation of the different types of expert evidence should not be regarded as exhaustive.³⁴ It does, however, inform to a certain extent the discussion below and will be referred to where appropriate.

³¹ Hodgkinson & James, *Expert Evidence: Law and Practice*, 4th ed., (Sweet & Maxwell, 2015) at 4.

³² *ibid.* at 61. The authors acknowledge, at 69, that there is no authority which expressly supports this categorisation and that it may not be exhaustive. See also Heffernan, Ryan & Imwinkelried, *Evidentiary Foundations: Irish Edition* (Tottel Publishing, 2008), at [4.05]

³³ For example, a doctor may testify regarding his or her examination of a complainant in a trial where the accused is charged with a sexual offence.

³⁴ There has been a debate in other jurisdictions whether expert evidence of witness credibility is admissible. See Roberts, “Towards the principled reception of expert evidence of witness credibility in criminal trials? (2004) 8 E & P 215. However, such evidence was deemed inadmissible in later cases in England & Wales: *R v C* [2012] EWCA Crim 1478. In the United States prosecutors have utilised expert witness testimony in an effort to educate jurors and restore credibility to complainants' accounts in sexual assault cases. See Ellison, “Closing the credibility gap: the prosecutorial use of expert witness testimony in sexual assault cases” (2005) 9 E & P 239.

The traditional objections to Opinion Evidence can apply equally to expert evidence. Depending on the expert and the type of expert evidence, such evidence can be unreliable. The question of unreliable scientific evidence is addressed in Chapter 4, where the reliability of facial mapping evidence is also discussed. There is also the danger that the giving of an expert opinion may usurp the role of the jury. The law places limits on the admissibility of expert evidence to try to address these concerns. It is clear that the admission of expert evidence carries with it certain risks. However, it would appear, according to Hodgkinson and James, that these are risks worth taking. In this regard, the authors point to the likely benefit of the evidence to the finder of fact and suggest that where expert evidence is concerned, risks can be minimised to reasonable limits.³⁵

It is important to focus on how expert evidence can be kept within those limits in the trial process and the restrictions on its admissibility. The fact that expert evidence developed as an exception to an exclusionary rule means that the courts must police it strictly. With this in mind, it is proposed to turn to the hurdles which expert evidence has to overcome in order to be deemed admissible.

V. The Admissibility of Expert Evidence

As mentioned above, the general rule which applies throughout the law of evidence is that all relevant evidence is admissible unless specifically excluded by one or more of the Exclusionary Rules. As expert evidence is an exception to the Opinion Rule, the rules relating to the admissibility of expert evidence have been allowed to develop as a distinct subset. However, like its parent, the rules on the admissibility of expert evidence are also primarily based on relevance. Thus, there is no formal admissibility test in place for the evidence of experts.

The two main requirements for the admissibility of expert testimony are:- (i) it must be shown that expert evidence is necessary in the circumstances in that it is relevant and that it has probative value; and (ii) it must be established that the witness is a qualified expert.³⁶ On the latter point, the

³⁵ *ibid.* at 36.

³⁶ LRC, *op. cit.* at [2.09].

burden of proof rests on the party seeking to adduce the expert evidence that the witness is so qualified.

However, the foregoing test does not directly address the question of the reliability of the expert evidence. Of course, obviously unreliable expert evidence would probably fall foul of the first limb of the admissibility test, in that it is likely to be irrelevant. While there is common law authority to suggest that reliability can be raised at the admissibility stage,³⁷ reliability is a matter to be taken into account when the court is assessing the weight of the evidence in this jurisdiction. Whether a reliability standard should be employed when assessing the admissibility of evidence is a subject of much debate, and is discussed in further detail in Chapter 4 in the context of scientific evidence.

While some guidance can be gleaned from legislative definitions (discussed below), the courts have failed to set out a firm definition of who or what exactly an expert is for the purposes of giving evidence in court. This could be attributed to the fact that expert evidence is now given in a range of different cases, and on a litany of different subjects. An Irish judge commented recently that the purpose of an expert witness is to enable the court to be instructed on “arcane disciplines” which are outside the experience of a judge or jury.³⁸ However, expert evidence is not limited to the old sciences such as medicine, nor indeed to established sciences such as architecture and engineering:

“Expert evidence of fingerprint, handwriting and accident reconstruction is regularly given. Opinions may be given of the market value of land, ships, pictures and rights. Expert opinions may be given of the quality of commodities, or on the literary, artistic or scientific or other merit of works alleged to be obscene. Some of these fields are far removed from anything which could be called a formal scientific discipline.”³⁹

Technical or scientific terminology may need to be interpreted for the finder of fact and such evidence is commonly admitted. The LRC noted that in construction, intellectual property or patent disputes, the terms at issue are

³⁷ For example, the Australian case of *R v Bonthyon* (1984) 38 SASR 45.

³⁸ *Condon v ACC Bank plc* [2013] 1 ILRM 113 at 123.

³⁹ *R v Robb* (1991) 93 Cr App R 161

often outside the range of knowledge of the finder of fact and so the aid of expert witnesses is needed to explain complex concepts where the parties are in dispute about the meaning of the term.⁴⁰

A strict formulaic test is probably best avoided to take into account the diversity of subject matter on which expert evidence might be given. Lavery J, as far back as 1960, gave the following warning:

“This is the age of experts qualified to give opinions in every field of human knowledge – whether science, medical or other, in accountancy, finance, handwriting and technical matters in every aspect of manufacturing process and so on. I would certainly not wish to minimise the value of such evidence, but a sense of proportion should not be lost. There are innumerable incidents of everyday life upon which the ordinary person can express a useful opinion and one which ought to be admitted.”⁴¹

Legislative definitions of expert evidence are somewhat instructive. Expert evidence is defined in the civil context of personal injuries actions by section 2 of the Civil Liability and Courts Act 2004 as “evidence of fact or opinion given by a person who would not be competent to give such evidence unless he or she had a special skill or expertise”.⁴² In the criminal sphere,

⁴⁰ LRC, *op. cit.* at [2.35].

⁴¹ *AG (Ruddy) v Kenny* (1960) 94 ILTR 185 at 189. The learned judge concluded that drunkenness was such an incident of everyday life.

⁴² An expert is later defined in the same act in section 25(5) of the Civil Liability and Courts Act 2004, concerning false evidence, as “a person who has special skill or expertise and who (a) has been engaged by or on behalf of a plaintiff or defendant in a personal injuries action to give expert evidence in that action, or (b) for the purposes of or in contemplation of a personal injuries action has been requested to carry out an examination or investigation in relation to any matter for which such special skill or expertise is necessary. The “expert witness” is also referred to again in section 54(3) of the same Act as “a person who it is intended will be called as a witness to give expert evidence at the trial of that action.” Some further guidance in the context of personal injuries can be gleaned from the legislative definition of an expert in the Rules of the Superior Courts 1986. These rules state that they apply to expert reports including: “...report or reports or statement from accountants, actuaries, architects, dentists, doctors, engineers, occupational therapists, psychologists, psychiatrists, scientists, or any other expert whatsoever intended to be called to give evidence in relation to an issue in action.

“expert evidence” is defined as “evidence of fact or opinion given by an expert witness” and an “expert witness” is “a person who appears to the court to possess the appropriate qualifications or experience about the matter to which the witness’s evidence relates”.⁴³

It is also established that the categories of expert evidence are not closed. It would be wrong for the law of evidence to close itself off from the advantages to be gained from new techniques and new advances in science.⁴⁴ In *R v Henderson*,⁴⁵ Moses LJ noted that the decisions of the courts as to admissibility of evidence must be seen in the context of the state of the scientific or medical knowledge at the time and the evidence presented in the case.

The courts appear to take a pragmatic approach as to who qualifies as an expert. Fennell states that the modern rule can be said to be that the opinions of skilled witnesses are admissible when the person who is giving the opinion has a particular expertise or experience in the relevant area, which is based on a special study or his or her day-to-day experience.⁴⁶ In *Galvin v Murray*,⁴⁷ Murphy J defined an expert as “a person whose qualifications or expertise give an added authority to opinions or statements given or made by him within the area of his expertise”.⁴⁸ In *Southern Health Board v C*,⁴⁹ the Supreme Court took a pragmatic approach to the definition of an expert in upholding the District Court’s ruling that a social worker was an expert on child sex abuse in proceedings to impose a fit person order.

Notwithstanding the foregoing, it remains the position that no formal qualification is needed to give expert evidence and some of the older cases

⁴³ Section 34(9) of the Criminal Procedure Act 2010.

⁴⁴ *R v Clarke (RL)* [1995] 2 Cr App R 425 at 431. See also *R v Harris & Ors* [2005] EWCA Crim 1980.

⁴⁵ [2010] EWCA Crim 1269

⁴⁶ Fennell, *The Law of Evidence in Ireland* (3rd ed., LexisNexis, Dublin, 2009) at [7.08]. See *Tong v R* [2011] NZCA 211 where the evidence of a general practitioner with experience with Alzheimer’s patients was admissible despite the fact that he had no special knowledge.

⁴⁷ [2001] 2 ILRM 234

⁴⁸ *ibid.* at 239. See Rule 702 of the United States Federal Rules of Evidence which defines an expert as “witness qualified as an expert by knowledge, skill, experience, training or education”.

⁴⁹ [1996] 1 IR 219

seem to focus more on skill and reputation.⁵⁰ Lord Russell in *R v Silverlock*⁵¹ stated:

“It is true that the witness who is called upon to give evidence founded on a comparison of handwritings must be peritus; he must be skilled in doing so; but we cannot say that he must have become peritus in the way of his business or in any definite way. The question is, is he peritus? Is he skilled? Has he adequate knowledge?”⁵²

In that case, even though a solicitor had no formal qualification, he was permitted to give his opinion on a handwriting comparison because it had been a hobby of his to study historic documents for ten years.⁵³ Thus, it is clear that the witness can acquire their expertise through experience.⁵⁴ However, a concern has emerged about *ad hoc* experts, *i.e.* those experts that have gained their knowledge through purely practical experience. For example, expert facial mapping evidence of an *ad hoc* expert was admitted in New Zealand⁵⁵ and is discussed in more detail in Chapter 4.

In recent years, when considering whether a given individual is an expert, the primary emphasis has been placed on formal qualifications. Modern society places a premium on such qualifications and the fact that a witness’ expertise has been recognised by academic institutions or professional bodies of repute has a significant bearing on his or her standing as an expert.⁵⁶ Of course, excessive dependence on such qualifications may lead to confusion for a jury, who may focus more on the expert’s *résumé* than their evidence, and this will be returned to in the criminal context in Chapter 5.

⁵⁰ O’Flaherty, “The Expert Witness and the Courts” (1997) 3 MLJI 3 at 3 stated that “the admissibility of opinion evidence is not confined to those with university degrees or, indeed, expert qualifications”.

⁵¹ [1884] 2 QB 766

⁵² *ibid.* at 771.

⁵³ See also *People (DPP) v Fox* (Unreported, Special Criminal Court, 23 January 2002).

⁵⁴ The LRC, *op. cit.* at [3.32] cites *The People (DPP) v Gilligan* (Unreported, Special Criminal Court 15 March 2001) where a member of An Garda Síochána with significant experience in drug trafficking was considered to be an expert.

⁵⁵ *R v Tang* [2006] 65 NSWLR 681

⁵⁶ Heffernan, *Scientific Evidence: Fingerprints and DNA* (Firstlaw, 2006) at 20.

In addition, statute has conferred expert status on certain individuals by reason of the office that they hold. If a person is charged with membership of an unlawful organisation,⁵⁷ section 3(2) of the Offences Against the State (Amendment) Act 1972⁵⁸ permits a member of An Garda Síochána not below the rank of Chief Superintendent to give evidence of his “belief” that the accused was at the material time a member of an unlawful organisation. This evidence is seen as expert evidence, and was acknowledged as such by the European Court of Human Rights (“the ECtHR”) in *Donohue v Ireland*.⁵⁹

Expert evidence can also be given concerning custom and practice. This is common in professional negligence proceedings, where the expert witness will give evidence of both fact and opinion. In *McMullen v Farrell*,⁶⁰ Barron J held that evidence could be admitted about the nature of a solicitor’s duty to his client and the everyday practice of solicitors. He stated:

“Clearly if there is some practice in a particular profession, some accepted standard of conduct which is laid down by a professional institution were sanctioned by common usage, evidence of that can and ought to be received.”⁶¹

The LRC provisionally recommended the adoption of a definition of term “expert” and also invited submissions on whether experience only based knowledge would suffice for a witness to be entitled to give expert evidence or whether formal, professional qualifications, study or training is necessary.⁶² However, these recommendations were made prior to the introduction of certain of the statutory provisions mentioned above.

As is apparent from Irvine J’s aforementioned quote in *Director of Corporate Enforcement v Bailey*, the expert must establish his or her expert credentials before the court. The party calling the expert witness bears the burden of establishing the witness’ qualifications and credentials. This is

⁵⁷ Contrary to section 21 of the Offences Against the State Act 1939

⁵⁸ The constitutionality of this provision was upheld in *O’Leary v Attorney General* [1993] 1 IR 102

⁵⁹ Application No 19156/08, Judgment of the Fifth Chamber, 12 December 2013 at [91].

⁶⁰ [1993] 1 IR 123

⁶¹ *ibid.* at 141.

⁶² LRC, *op. cit.* at [3.58] – [3.59].

usually done by way of examination in chief. If witness statements or expert reports are involved the expert may simply adopt his report or statement which will habitually, and indeed ought to, contain evidence of his expertise. Ultimately, the question of whether the expert is sufficiently qualified in his or her field is for the trial judge in both civil and criminal trials.

VI. Facts Upon Which the Expert Opinion is Based

Regarding Hodgkinson and James' first category of expert evidence, it is well established that in order for an expert opinion to be admissible, the facts upon which that opinion is based must be proven by admissible evidence. In *R v Turner*,⁶³ it was held that before a tribunal of fact can assess the value of an expert's opinion, it must know the facts upon which it is based. The "privilege" of giving expert evidence is:

"... predicated upon also informing the court of the factors which make up their opinion and supplying to the court the elements of knowledge which their long study and experience has furnished to them whereby they have formed that opinion..."⁶⁴

This is to enable the court to come to a different view to the expert, which is of course permissible, as the court is not bound to accept expert evidence.

In Chapter 5, the decision in *R v T*⁶⁵ will be considered, wherein the Court of Appeal of England and Wales regarded it as fundamental that the expert's methods are transparent. In that case it was highly critical of the expert in not disclosing in his report the fact that he had employed a likelihood ratio in coming to his forensic conclusions. In *Mulcahy v Avoca Capital Holdings*,⁶⁶ a dispute had arisen as to whether the plaintiff's computer forensic experts would be entitled to keep secret their proprietary methods for carrying out an examination. It was held by Clarke J in the High Court that a person who presents themselves as an expert necessarily exposes their methods of

⁶³ [1975] QB 834

⁶⁴ *Flynn v Bus Átha Cliath*, *op. cit.* at [9] *per* Charleton J.

⁶⁵ *R v T* [2011] 1 Cr App R 9

⁶⁶ [2005] IEHC 136

investigation to the court. An expert is not allowed to “stand on ceremony” and by being available to give forensic evidence in proceedings an expert is potentially exposing his methods to detailed scrutiny.

The importance of a clear methodology is important in cases where there is scientific evidence. The adequacy of sampling methodology in the forensic testing of drugs was considered in *DPP v Finnamore*⁶⁷ and *DPP v Connolly*.⁶⁸ It was held in those cases that an expert forensic scientist was not required to test all packages containing drugs and the court took into account the importance of conforming to “accredited laboratory procedure.”⁶⁹

If the expert has been misinformed about the facts or has taken irrelevant facts into consideration or has omitted to consider relevant ones, the opinion is likely to be valueless. Lawton LJ also held in *Turner* that, upon calling an expert witness, he should be required by counsel to state the facts upon which his opinion is based during the course of his examination in chief. It is therefore important that the expert clearly discloses their methodology to the court.

However, it has been held that the expert does not necessarily have to have first-hand knowledge of the facts upon which his opinion is based. In order to consider this issue further, it is necessary to consider the interaction between expert evidence and another important Exclusionary Rule, the rule against hearsay. This rule is regarded as one of the most fundamental Exclusionary Rules in the law of evidence. Every student of evidence knows that hearsay is an out of court statement, which is sought to be admitted for the purposes of proving the truth of its contents. Kingsmill Moore J in *Cullen v Clarke*⁷⁰ sought to provide an explanation of the rule as follows:

“[I]t is necessary to emphasise that there is no general rule of evidence to the effect that a witness may not testify as to the words spoken by a person who is not produced as a witness. There is a general rule subject to many exceptions that evidence of the speaking of such words is

⁶⁷ [2009] 1 IR 153

⁶⁸ [2011] 1 IR 755

⁶⁹ See Heffernan & Ní Raifeartaigh, *Evidence in Criminal Trials*, (Bloomsbury, 2014), at 267 – 269. See also *DPP v PM* [2016] IECA 49 discussed in Chapter 4.

⁷⁰ [1963] IR 368

inadmissible to prove the truth of the facts which they assert... This is known as the rule against hearsay.”⁷¹

In the context of expert evidence, the rule operates to provide that the primary facts upon which the opinion of an expert is based must be proved by admissible non-hearsay evidence. Hearsay evidence does not become admissible to prove facts just because the person who proposes to offer it is an expert.⁷² These facts may be proved either by the expert himself or other witnesses.⁷³ The LRC state that the rationale for this requirement is that the court must be knowledgeable about the facts on which the expert’s opinion is based, in order to properly determine the value of his opinion.⁷⁴

If the expert does not have first hand knowledge of the facts upon which his opinion is based, he can avoid the proof requirement by stating a hypothesis upon assumed facts.⁷⁵ In addition, the expert is given even greater latitude when it comes to drawing inferences from those primary facts that have been proven in court.⁷⁶ An expert will usually become an expert in their chosen field through study and experience, and their expertise will thus usually be based, at least in part, on material of which they do not have first-hand experience. In *McFadden v Murdock*,⁷⁷ a shopkeeper who was called to give expert evidence as to the amount of wastage that it would be reasonable to expect in the course of a grocery business was permitted to give evidence as to the wastage incurred in running his own business.

Both the Court of Criminal Appeal and the Supreme Court have held that an expert is entitled to rely on materials from their field of expertise, such as prior studies, academic literature and reference works, in order to reach a conclusion. In *People (DPP) v Boyce*,⁷⁸ the expert had relied on statistical

⁷¹ *ibid.* at 378.

⁷² *Ramsay v Watson* (1961) 108 CLR 642 at 649 *per* Dixon J.

⁷³ *RT v VP* [1990] 1 IR 545 at 551.

⁷⁴ LRC, *op. cit.* at [2.68].

⁷⁵ *RT v VP* [1990] 1 IR 545 at 551.

⁷⁶ Heffernan, *Scientific Evidence: Fingerprints and DNA*, *op. cit.* at 31 remarks that “indeed, the value of expert opinion lies in the inferential light it shines on matters which have left the judge and jury in the dark”.

⁷⁷ (1867) 1 ICLR 211

⁷⁸ [2005] IECCA 143

information from DNA databases not proven in evidence as to the probability of a DNA match. The appellant contended that expert evidence was admitted to include an unproven factor. In rejecting this contention, the Court of Criminal Appeal held as follows:

“In a long established exception to the hearsay rule, an expert can ground or fortify his or her opinion by referring to works of authority, learned articles, recognised reference norms and other similar material as comprising part of the general body of knowledge falling within the field of the expert in question.”⁷⁹

The Supreme Court later upheld this conclusion with Fennelly J holding that the expert “had been entitled to explain his reliance on the databases in question by reference to accepted scientific standards, scientific studies in published scientific data and norms accepted by the science in question”.⁸⁰

There have been a series of nullity cases in this jurisdiction, which have considered the expert evidence in the context of the rule against hearsay. Initially, the approach taken by the court was strict and expert evidence of hearsay was inadmissible. This is illustrated by the decision in *RT v VP*,⁸¹ where a psychiatrist called on behalf of the petitioner sought to give opinion evidence about the respondent on the basis of what he had been told by the petitioner about her and a report written by a court appointed expert, who was also a psychiatrist. The first psychiatrist had never met or examined the respondent. Lardner J upheld the objection of the respondent to the admission of this evidence on the basis that it was based on hearsay. McGrath suggests in relation to this case that it seems incorrect to classify such evidence as hearsay because both the petitioner and the court appointed expert were called to give

⁷⁹ *ibid.*

⁸⁰ [2009] 2 IR 124 at 161. However *c.f.* the comments of the Director of the Forensic Science Laboratory in Willis, “Forensic Science: Associated Risks” (2011) Criminal Law and Procedure Review 60 at 61, where she spoke of personal experience of the trial judge ruling that the expert may not rely on literature to which they did not contribute themselves.

⁸¹ [1990] 1 IR 545

evidence. The real objection to the evidence, the author submits, is that it lacked probative value and this should go to weight, rather than admissibility.⁸²

McGrath makes the broad statement that it is not an objection to the admissibility of the opinion evidence of an expert that it is based, in part, on inadmissible evidence.⁸³ This, he submits, is evident from two further nullity cases, *JWH (Orse W) v GW*⁸⁴ and *DK v TH (Orse TK)*,⁸⁵ both of which were decided on the same day. In each case, evidence was admitted from psychiatrists concerning the mental state of the respondents, based on an interview with the petitioner, even though the respondents had not been examined by the psychiatrists. O'Higgins J warned that such evidence would be of limited value but felt that this should be taken into account when assessing the weight of the evidence, and not its admissibility. Accordingly, the LRC claim that these cases are evidence of a more lenient approach being taken by the Irish courts.⁸⁶

Expert evidence of a hearsay nature arose again in the context of "fit person" orders, where the courts have taken a similar approach. In *State (D and D) v Groarke*,⁸⁷ the petitioners were contesting the validity, on fair procedures grounds, of such an order, which provided for the removal of a child from its parents. The petitioners objected in particular to a video of a doctor interviewing the child with the aid of anatomical dolls, which had assisted the doctor in forming his view that the child had been abused. Finlay CJ, giving the judgment of the Supreme Court, was satisfied that the evidence had been rightly admitted. He was of the opinion that the court should have before it the basic evidence from which the doctor's conclusion was reached, namely the video recording and the doctor's explanation for use by the child of the dolls, in order to determine if this conclusion was correct.⁸⁸

Groarke was subsequently followed in *Southern Health Board v CH*.⁸⁹ A father had objected to the admission of videotape evidence of an

⁸² McGrath, *op. cit.*, at [6-47].

⁸³ *ibid.*

⁸⁴ (Unreported, High Court. 25 February 1998)

⁸⁵ *ibid.*

⁸⁶ LRC, *op. cit.* at [2.90].

⁸⁷ [1990] 1 IR 305

⁸⁸ *ibid.* at 310.

⁸⁹ [1996] 1 IR 219

interview between his child and a social worker, which formed the basis for an allegation of sexual abuse, on the grounds that it amounted to hearsay. The Supreme Court rejected this argument, with O'Flaherty J holding that the key evidence was that of the expert and the videotape evidence was simply material to support his testimony.⁹⁰ The court also found that it was for the relevant District Court judge to either accept or reject the evidence and the respondent could still adduce other expert evidence by way of rebuttal.

McGrath sees these decisions as pushing back the traditional boundaries as to what evidence is admissible in support of expert opinion. Despite what the courts are saying, the rules regarding expert testimony are being used as a backdoor means of admitting hearsay evidence.⁹¹ However, the LRC has suggested that, in the aforementioned cases, much emphasis was being placed on the welfare and best interests of the child. On this basis, the LRC thinks it questionable if the same approach would be taken in criminal proceedings, involving a determination of the veracity of allegations or of a prosecution of alleged perpetrators.⁹²

The LRC cites *MCG(P) v F(A)*,⁹³ a nullity case which seems to be more restrictive. In that case, a medical inspector was appointed by the court⁹⁴ for the purposes of the petition of a decree of nullity and the parties sought court direction about the scope and extent of his powers. They wished to determine if the medical inspector, a consultant psychiatrist, was entitled to interview third party informants, in respect of his diagnosis of the state of mind of the parties around the time of the ceremony of marriage. Budd J felt that this would be an impermissible stretch of the words of the statute, which envisages an inspection of the parties themselves but not third party informants.⁹⁵ The ultimate decision as to whether to grant a decree of nullity, rested with the court, he stressed. He was also concerned that there was no way of testing whether the evidence given by the third party informants was true or not:

⁹⁰ *ibid.* at 239.

⁹¹ McGrath, *op. cit.* at [6-53].

⁹² LRC, *op. cit.* at [2.97]

⁹³ [2000] IEHC 11

⁹⁴ Pursuant Order 70, rule 32 of the Rules of the Superior Courts 1986.

⁹⁵ *op. cit.* at 19.

“There are very real problems in reality about a Court having to extrapolate sound parts on an Inspector’s Report which have not been tainted by hearsay or evidence which has been rejected ... If the inspector has based part of his assessment on contaminated evidence then this is going to cause problems in the future when his report is considered by the Court and there may be real difficulties in unscrambling the part of the omelette which has been contaminated by hearsay or false and rejected evidence.”⁹⁶

This case could be seen to represent the strict view that where an objection is raised against expert evidence on the grounds of hearsay, it is likely to be ruled inadmissible.⁹⁷

The LRC, in its ‘Report on The Rule Against Hearsay in Civil Cases’,⁹⁸ recommended the abolition of the rule against hearsay, due to wide number of exceptions which have been recognised in civil proceedings. However, in its place, it proposed a complicated procedure for the admission of hearsay and it remains to be seen whether this will be implemented.⁹⁹

VII. The Limits of Expert Opinion

The expert does not have free reign in giving his or her evidence. What follows is a discussion of a number of the limits of expert opinion, including: (i) The principle that the expert is only permitted to give evidence within their area of expertise, and he or she must not give evidence on matters beyond the scope of their qualification as an expert; (ii) The common law rule, the remnants of which remain, that the expert is not permitted to give evidence on the ultimate issue to be decided at trial; and (iii) The principle that an expert is not

⁹⁶ *op. cit.* at 21.

⁹⁷ LRC, *op. cit.* at [2.103].

⁹⁸ Law Reform Commission, *Report on The Rule Against Hearsay in Civil Cases*, (LRC 25-1988)

⁹⁹ *ibid.* at 170 – 171. The hearsay rule has been abolished in civil proceedings in England by section 1(1) of the Civil Evidence Act 1995 and it is governed by statute there in respect to criminal proceedings under part 11 of the Criminal Justice Act 2003. Section 114 of that Act put eight exceptions to the hearsay rule on a statutory basis.

permitted to give their opinion on matters which are properly within the knowledge of the finder of fact, otherwise known as the rule in *R v Turner*.

(i) Expert Cannot Stray Outside Bounds of Expertise

Even though the term “expert” can be said to be broadly defined in the context of civil and criminal proceedings, it also has a specific incident which can sometimes be overlooked. While an expert might be an expert in his particular field, he or she may not have expertise in the specific issue to be determined at trial.¹⁰⁰ This was explicitly mentioned in one of the principles set out by the English High Court in *National Justice Compania Naviera SA v Prudential Assurance Co Ltd (“The Ikarian Reefer”)*,¹⁰¹ and discussed below in the context of the duties of the expert.

A case frequently cited in this context is *R v Barnes*,¹⁰² where an arboriculturalist was called to testify that woodgrain impressions incidentally lifted the impression of fingerprints at a crime scene did not match the grain in the wood surface on which they were purportedly found. This evidence was held to be inadmissible on the grounds that the expert had no experience in the interpretation of impressions and relevant comparison.

The non-observance of this principle has led to miscarriages of justice¹⁰³ in the past, as the infamous case of *R v Clark*¹⁰⁴ demonstrated. Sally Clark was convicted of two counts of murder of her two infant sons. Professor Meadow, a renowned paediatrician, gave expert testimony on possible causes of death and the statistical probabilities of a family suffering two such deaths, suggesting that the odds of two such unexplained deaths occurring in the same family were some 73,000,000 to 1. These calculations were seriously flawed. The Court of Appeal held that he should not have been allowed to testify as to the statistical probabilities as he possessed no experience in statistics.

¹⁰⁰ LRC, *op. cit.* at [3.04].

¹⁰¹ [1993] 2 Lloyd’s Rep 68

¹⁰² [2005] EWCA Crim 1158. Contrast *Tong v R* [2011] NZCA 211 where the evidence of a general practitioner with experience with Alzheimer’s patients was admissible even though he had no special knowledge.

¹⁰³ The occurrence of miscarriages of justice arising out of expert scientific evidence in particular is further discussed in Chapter 4.

¹⁰⁴ *R v Clark (Sally)* [2004] EWCA Crim 1020

(ii) *Ultimate Issue Rule*

The common law recognised a rule prohibiting expert witnesses from expressing an opinion on the ultimate issue in a trial. An ultimate issue is an issue which has to be proved before guilt can be shown or liability established,¹⁰⁵ and constitutes the very issue which the tribunal of fact has to determine. The rule was designed to prevent expert witnesses from usurping the tribunal of fact whose function it was to decide the issues at trial.¹⁰⁶ However, the application of the rule in the case of expert evidence is said sometimes to be illogical as the rationale underlying the admission of such evidence is that the tribunal of fact does not have the necessary expertise and requires assistance in making inferences from the proven facts.

This is a fundamental contradiction within expert evidence which was alluded to as far back as the start of the 20th century by Learned Hand:

“[T]he whole object of the expert is to tell the jury, not facts ... but general truths derived from his specialist experience. But how can the jury judge between two statements each founded upon an experience confessedly foreign in kind to their own? It is just because they are incompetent for such a task that the expert is necessary at all ... When the conflict is direct and open, the absurdity of our present system is apparent. The truth of either combating proposition lies just in its validity as an inference from a vast mass of experience ... as to the truth of which trained powers of observation are quite essential, the result themselves of a life of technical training.”¹⁰⁷

Experts are called as witnesses to assist the tribunal of fact to decide the matter at issue as it is beyond the knowledge and experience of the tribunal. However, an expert is not allowed to pronounce upon the ultimate issue. Where there is a conflict between the evidence of experts, both well qualified in their field, the court is placed in a difficult position. In some cases the

¹⁰⁵ Cannon & Neligan, *Evidence* (Round Hall, Dublin, 2002) at 89.

¹⁰⁶ McGrath, *op cit.* at [6-30].

¹⁰⁷ Learned Hand, *op. cit.* at 54.

contradiction may not be important,¹⁰⁸ but in others it may intrude on the decision making process. The tribunal can then resort to the strict observance of the burden and standard of proof. However, a jury in a criminal case not trained in the law, may not observe such rules of evidence as strictly as a judge would in a civil case.

The decision of *DPP v Kehoe*¹⁰⁹ is illustrative of the application of, and rationale behind, the rule in this jurisdiction. The accused was charged with murder and the defence raised provocation. The expert witness purported to give evidence about the accused's state of mind and his temperament and expressed his opinion that the accused did not have an intention to kill. However, O'Flaherty J, in the Court of Criminal Appeal, held that the accused could have adduced this evidence himself and stated:

"The Court is of the opinion that the accused's defence as properly to be considered by the jury without such elaboration and that, further, in the course of his evidence it is clear that [the expert] overstepped the mark in saying that he believed the accused did not have an intention to kill and that the accused was telling the truth. These are clear matters foursquare within the jury's function and a witness no more than the trial judge or anyone else is not entitled to trespass on the jury's function."¹¹⁰

The rationale is also clear from the comments of Hardiman J in *People (DPP) v Abdi* where he stated that "[e]xpert opinion should not be expressed in a form which suggests that the expert is trying to subvert the role of the finder of fact".

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However, the rule can be regarded as seriously undermined, especially in the context of civil trials in Ireland, largely due to the absence of a jury.

¹⁰⁸ Hodgkinson & James, *op. cit.* at 35 refer, in this regard, to professional negligence proceedings where the only requirement of the allegedly negligent professional is to prove that no other professional would have adopted the course of conduct he did.

¹⁰⁹ [1992] ILRM 481

¹¹⁰ *ibid.*, at 485.

¹¹¹ [2005] 1 ILRM 382 at 393.

Barron J in *McMullen v Farrell*¹¹² even went so far as to say that professional witnesses are entitled to express their opinion on the question which the court has to decide in certain cases.¹¹³ Similarly, in both *Condron v ACC Bank plc*¹¹⁴ and *Flynn v Bus Átha Cliath*,¹¹⁵ Charleton J stated definitively that experts are allowed to express a view on the ultimate issue before the court, because the “unusual nature of the issue that requires their expertise enables a view to be expressed, sometimes but not in every case, on an issue upon which the case may turn”.¹¹⁶

However, these recent civil decisions of the Supreme Court appear to suggest that while experts are allowed to express opinions as to the ultimate issue, these will carry little weight as what really matters are the reasons that underpin that opinion. In *Karen Millen Fashions Ltd v Dunnes Stores*,¹¹⁷ O'Donnell J referred to McGrath's observation that the rule was “obsolete” and noted that it would be artificial to prevent an expert giving their opinion as to the ultimate issue:

“For my own part, I can see how it is at least convenient to permit experts to give evidence in general as to their conclusions, so long as it is very clearly understood that what is important are the reasons leading the expert to that conclusion rather than the fact of the conclusion itself. Anything else is somewhat artificial. It is a matter of near certainty that the only expert witnesses called by either side will have formed an opinion favourable to that side and their evidence can often be best understood when both the reasons and conclusions are stated so long as it is understood and appreciated that the reasons leading an expert to a

¹¹² [1993] 1 IR 123

¹¹³ In nullity cases, expert witnesses come very close to pronouncing on the ultimate issue, as acknowledged by Budd J in *S(J) v S(C)* [1997] 2 IR 506. A medical inspector will be appointed to consider whether both parties had the capacity to enter into the marriage. However, it remains the decision of the court whether or not to grant the annulment. The expert's evidence is not decisive of the issue and the court is free to either accept it or reject it.

¹¹⁴ [2013] 1 ILRM 113

¹¹⁵ [2012] IEHC 398

¹¹⁶ *ibid.* at [9] – [10].

¹¹⁷ [2014] IESC 23

particular conclusion are the important matters for the court to consider.”¹¹⁸

The rule continues to have application in the criminal context. However, in reality, the expert can come perilously close to pronouncing on the ultimate issue, even in criminal cases. The futility of the ultimate issue in a criminal trial was recognised in a number of cases in England, one of which observed that the rule was honoured “more often in the breach than the observance”.¹¹⁹ The rule has been expressly abolished in England in civil cases.¹²⁰ It has also been expressly abolished following law commission reports in other common law countries, Australia¹²¹ and New Zealand¹²² being prime examples.

Certainly, an expert who adopts the language of the burden of proof and uses the phrase “beyond a reasonable doubt” would be acting inappropriately. However, it is clear from recent jurisprudence that an expert is permitted to express a high degree of confidence in his or her opinion. This is evident from the decision of the Court of Criminal Appeal in *DPP v White*.¹²³ The relevant Garda fingerprint expert had stated that he had “no doubt” that the fingerprints found on materials connected with the offence matched the fingerprints of the accused. The defence took issue with this phrase and argued that it came close to purporting to answer the very question which the jury have to answer, being whether or not they are satisfied beyond a reasonable doubt that the accused was guilty.

¹¹⁸ *ibid.* at [23]. In that case, it was held that the trial judge had not erred by adhering to the traditional rule and excluding evidence on the ultimate issue.

¹¹⁹ *R v Stockwell* (1992) 97 Cr App R 260 at 265. See also *DPP v ABC Chewing Gum Ltd* [1968] 1 QB 159 at 164.

¹²⁰ Section 3 of the Civil Evidence Act 1972.

¹²¹ Section 80 of the Evidence Act 1995. Following concerns that expert witnesses were overly influencing juries, the Australian Law Reform Commission examined the operation of section 80. They concluded that the uniform Evidence Acts seemed to be operating satisfactorily and recommended that the ultimate issue rule should remain abolished. Australian Law Reform Commission, *Review of the Evidence Acts 1995*, IP 28 (2004) at [6.47].

¹²² Section 25(2)(a) Evidence Act 2006. This provides that an opinion of an expert is not inadmissible because it is about an ultimate issue to be determined in the proceedings.

¹²³ [2011] IECCA 78 at [10].

The court, in referring to the passage cited by Hardiman J in *People (DPP) v Abdi*, rejected the contention that the expert had usurped the role of the jury by stating that he had “no doubt” as to the correctness of his opinion. The court was of the view that whether the role of the finder of fact had been usurped in each and every circumstance where an expert expresses a strong, or very strong, confidence in his opinion, or even “no doubt” in his opinion, will depend on a number of factors including “the circumstances of the case, the type of evidence being tendered, the manner in which it has been tendered, even perhaps the tenor in which the evidence is tendered, the charge to the jury...”

On appeal, Clarke J in the Supreme Court¹²⁴ remarked that there was no necessarily correct way in which an expert ought to express the degree of confidence with which he or she holds the opinion of which evidence is given.¹²⁵ Clarke J noted that while the phrase “no doubt” bears some similarity to “beyond reasonable doubt”, it was also a phrase which is frequently used in every day discourse.¹²⁶

Of course, safeguards remain and it is always open for a party to challenge the level of confidence held in maintaining the opinion introducing contradictory evidence and cross-examination. Clarke J summed up the principle as follows:

“[T]he witness is allowed to express an opinion, as an expert, solely on a matter which falls within his or her area of expertise and not a view on the guilt or otherwise of the accused. It is, in principle, analogous to a witness of fact expressing, with a degree of confidence, a view solely on a matter of fact within his or her own knowledge such as “I am sure it was the accused that I saw at the scene of the assault”. In either case, it remains exclusively a matter for the jury to decide what weight, if any, to

¹²⁴ *DPP v Gormley & White* [2014] IESC 17

¹²⁵ Clarke J held, *ibid.* at [12.5] that if there is was basis, whether because of the generally accepted principles of the area in question or because of a contrary view expressed by another expert witness, for suggesting that the expert has been exaggerated in the degree of confidence expressed, then that is a matter which can be the subject of a challenge to the expert's opinion.

¹²⁶ *ibid.* at [12.5] – [12.6].

attach to the evidence and of course to decide the issue of guilt or otherwise of the accused.”¹²⁷

In relation to the last sentence of the above quote, the judge’s charge represents another safeguard against expert evidence that may intrude upon the ultimate issue rule and will be referred to again in Chapter 5.

The LRC makes the point that, despite the gradual weakening of the ultimate issue rule in England, many of the older cases where evidence on the ultimate issue was excluded would still have the same result, if not on the same grounds, if decided today. This is because other admissibility rules, such as the rule in *R v Turner*, will still apply to exclude evidence that is not considered necessary as a result of the court’s determination not to let the expert usurp the role of the judge or jury.¹²⁸

The LRC points to a number of difficulties with the ultimate issue rule, such as inconsistent interpretation and application.¹²⁹ It can credibly be argued that the rule should be abolished because the supposed rationale behind the rule, to prevent the usurpation of the jury’s function, is obsolete. In any event, it is still open to the jury to accept or reject the expert’s evidence on the ultimate issue. After all, the evidence of any expert is not binding on the court. The LRC felt that it was open to it to recommend the abolition of the ultimate issue rule and replace it with a general admissibility test based on whether or not the evidence is of assistance to the court. This would still emphasise that it is the duty of the finder of fact to decide the ultimate issue, whilst still recognising the informative, but not binding, nature of the expert’s opinion.¹³⁰

However, the LRC provisionally recommended that the ultimate issue rule should not be abolished and should have continued application, as it does not impose any excessive difficulties in practice. It also provisionally recommended that the court should continue to allow expert evidence to inform and educate the judge and or jury about the background to the ultimate issue

¹²⁷ *ibid.* at [12.7].

¹²⁸ LRC, *op. cit.* at [2.213] – [2.214].

¹²⁹ *op. cit.* at [2.232].

¹³⁰ *op. cit.* at [2.234].

where necessary, whilst emphasising that the ultimate decision on such issues is for the court and not the expert.¹³¹

The LRC, taking all sides into account, was of the opinion that the rule served an important purpose by strengthening the role of the finder of fact by ensuring that the expert witness does not usurp the role of the court to determine the ultimate issue in a case. It does not prohibit the expert from giving his opinion, but rather provides him or her with a benchmark to ensure that they don't overstep the mark in relation to permissible evidence.¹³²

The more recent decisions of the superior courts in Ireland suggest that the rule is no longer applicable in civil trials. However, it should be retained in criminal trials due to the presence of the jury. As will be seen in Chapter 5, the jury is highly susceptible to being convinced by expert evidence.

(iii) *The Rule in R v Turner*¹³³

It has been outlined above that the evidence of an expert must be confined to the area of his or her expertise. In addition to being prevented from giving opinion evidence in relation to matters outside their expertise, expert witnesses are prohibited from giving evidence regarding a matter which is within the knowledge of the tribunal of fact, whether that be the judge or the jury.

The English case that established this rule is *R v Turner*.¹³⁴ The accused had killed his girlfriend after she confessed her infidelity to him and the defence sought to admit the evidence of a psychiatrist in support of a provocation defence that the admission would be likely to cause an explosion of rage in the accused. The court refused on the basis that such matters were properly within the competence of the jury. Lawton LJ felt that the jury did not

¹³¹ *op. cit.* at [2.242] – [2.243].

¹³² *op. cit.* at [2.240] – [2.241].

¹³³ The rule is sometimes referred to as the “common knowledge” rule, which was formulated by Freckleton in *The Trial of the Expert* (Oxford University Press, 1987) at 38–54, and is utilised by the LRC in their Consultation Paper, *op. cit.* Redmayne disapproves of this formulation as marginalising “important aspects of the case law”. See Redmayne, *Expert Evidence and Criminal Justice* (OUP, 2001) at 140, fn 2.

¹³⁴ [1975] QB 834. See Colman & MacKay, “Legal Issues Surrounding the Admissibility of Expert Psychological and Psychiatric Testimony” (1993) 20 *Issues in Criminology and Legal Psychology* 46.

need “psychiatrists to tell them how ordinary folk who are not suffering from any mental illnesses are likely to react to the stresses and strains of life”.¹³⁵ He further stated:

“If, on the proven facts, a judge or jury can form their own conclusions without help, then the opinion of an expert is unnecessary. In such a case, if it is dressed up in scientific jargon it may make the judgment more difficult. The fact that an expert witness has impressive scientific qualifications does not by that fact alone make his opinion any more helpful than that of the jurors themselves; but there is a danger that they may think it does.”¹³⁶

In the Irish case of *DPP v Kehoe*,¹³⁷ O’Flaherty J approved of the decision in *Turner*. The accused called a psychiatrist to give evidence in support of the defence of provocation to murder. However, the Court of Criminal Appeal held that the psychiatrist could not give evidence in relation to the state of mind or temperament of the accused which he could not do himself. It held:

“The court is of the opinion that the accused’s defence was properly to be considered by the jury without such elaboration and that, further, in the course of his evidence it is clear that [the expert] overstepped the mark by saying that he believed the accused did not have an intention to kill and that the accused was telling the truth. These are clearly matters four-square within the jury’s function and a witness no more than the trial judge or anyone else is not entitled to trespass on what is the jury’s function.”¹³⁸

The *Turner* rule was reaffirmed in *R v Henry*¹³⁹ by the Court of Appeal of England and Wales. It was held in that case that the evidence of psychologists

¹³⁵ *ibid.*, at 841-842.

¹³⁶ *ibid.* at 841.

¹³⁷ [1992] ILRM 481. Both *R v Turner* and *DPP v Kehoe* were applied by the Court of Criminal Appeal in *DPP v Kavanagh* [2008] IECCA 1.

¹³⁸ *ibid.* at 485.

¹³⁹ [2005] EWCA Crim 1681

that the accused had emotional problems and was suffering from a learning disability, but not a mental illness as such, were inadmissible.

However, it does not follow from *Turner* that the court cannot admit expert evidence where it is unsure whether it will assist or not. Hodgkinson and James note that the court retains discretion to admit the expert evidence in these circumstances.¹⁴⁰ The authors state that *Turner* should be treated as a case in which the court was confident that the jury had the experience and knowledge to assess the defendant's conduct without expert assistance.¹⁴¹

Some English decisions suggest that the rule has been considerably relaxed. These cases both primarily deal with the reliability of confessions in English law. In *R v Ward*,¹⁴² it was held that expert evidence from a psychiatrist or psychologist could be admitted to help prove that the accused was suffering from a personality disorder, which was not so severe as to be categorised as a mental illness. Similarly, in *R v O'Brien*,¹⁴³ the court noted that an anti-social personality disorder does not necessarily mean that the defendant is a compulsive liar or fantasist or that his confession or evidence might be unreliable. It also held that the law had moved on since *Turner*, and that it has now been accepted that expert evidence is admissible if it demonstrates some form of abnormality relevant to the reliability of a defendant's confession or evidence.

The rule in *R v Turner* can operate arbitrarily and has been heavily criticised. It can serve to limit the admission of evidence that could be employed valuably by the jury. It can also be seen to exclude evidence based primarily on subject matter, without any regard being had to its reliability and value in the trial. In *Murphy v R*¹⁴⁴ the High Court of Australia stated that that the rule is based on three faulty assumptions. Firstly, it assumes that "ordinary" and "normal" have some clearly understood meaning and that the distinction between normal and abnormal is well recognised. Secondly, the rule assumes that the common sense of jurors is an adequate guide to the conduct of people

¹⁴⁰ Hodgkinson & James, *op. cit.* at 13, citing *R v Stockwell* (1993) 97 Cr App R 260 in support.

¹⁴¹ *ibid.* at 14. The authors also cite *R v Mackenny* (1981) 76 Cr App R 271.

¹⁴² (1993) 96 Cr App R 1

¹⁴³ [2000] Crim LR 676

¹⁴⁴ [1989] 164 CLR 94

who are normal, even though such individuals may suffer from some relevant disability. The final problem is that the rule assumes that the expertise of psychiatrists and psychologists only extends to those who are abnormal.¹⁴⁵ The rule has been expressly abolished in some other common law jurisdictions, notably Australia¹⁴⁶ and New Zealand¹⁴⁷ following the recommendations of their respective law reform commissions. However, the abolition of the rule may lead to the widening of the ambit of permissible evidence, which can in turn lead to more convoluted and expensive trials.¹⁴⁸

The decisions in *Turner* and *Kehoe* were distinguished in the Irish decision of *People (DPP) v Abdi*.¹⁴⁹ The applicant appealed his conviction for the murder of his infant son on the basis that the trial judge had erred in admitting the evidence of a consultant psychiatrist who gave evidence on behalf of the prosecution that the applicant was not legally insane and that his actions were motivated by different considerations, including the threat of losing custody of the child. The important consideration here was the fact that the applicant had alleged that he was legally insane at the time. The Court of Criminal Appeal held that the prosecution was entitled to call expert evidence to counter the plea of insanity. It was noteworthy that the experts on behalf of the appellant had relied on the particularly violent manner in which the infant had been killed to express the view that a normal person would not have committed the act without a considerable degree of malice or personality disturbance or psychopathic tendency. Accordingly, the prosecution was entitled to counter this evidence. Hardiman J referred with apparent approval to the decisions of *O'Brien* and *Murphy*, referred to above.

Expert evidence is commonly admitted in criminal cases where the defence raises the issues of an accused's mental capacity. Statute has provided that expert psychiatric evidence is necessary in certain circumstances. In this regard, section 5(1) of the Criminal Law (Insanity) Act 2006 expressly provides that a jury can only find the accused not guilty by reason of insanity

¹⁴⁵ *ibid.* at 110.

¹⁴⁶ Section 80(b) of the Evidence Act 1995

¹⁴⁷ Section 25(1) and 25(2)(b) of the Evidence Act 2006.

¹⁴⁸ LRC *op. cit.* at [2.187].

¹⁴⁹ [2005] 1 ILRM 382. See Kennedy, "Limits of Psychiatric Evidence in Criminal Courts: Morals and Madness" (2005) 1 *Medico-Legal Journal of Ireland* 13.

where it has heard the evidence of a “consultant psychiatrist” as to his mental condition. Similarly, the evidence of a consultant psychiatrist will also be relevant to the defence of diminished responsibility under section 6 of the 2006 Act, as that defence also requires proof of a mental disorder. The evidence of psychiatrists is also routinely admitted in cases where the common law defence of non-insane automatism is raised.

The principle is similarly applicable in a civil context. In *McMullen v Farrell*,¹⁵⁰ Barron J in the High Court refused to admit evidence relating to the manner in which litigation is conducted as he felt that this was already within the court’s knowledge.¹⁵¹ In *O’Neill v Dunnes Stores*,¹⁵² O’Donnell J in the Supreme Court noted that it was not always necessary “to have so called expert evidence, sometimes fanciful and nearly always expensive, on matters that are little more than common sense”.¹⁵³ While stating that the court was in a position to draw its own conclusions regarding whether there had been negligence on the part of the defendant in the management of its premises, O’Donnell J did acknowledge that such evidence was a convenient way of giving guidance as to general practice.¹⁵⁴ Charleton J was critical of the tendency to call experts to give evidence in relation to matters such as driving in *Flynn v Bus Átha Cliath*,¹⁵⁵ noting that driving was not an “arcane discipline”.

On the future of the principle, the LRC provisionally recommended that the rule should not be abolished and that matters of “common knowledge” should remain outside the scope of matters on which expert testimony can be given.¹⁵⁶ It expressed the view that the rule should remain strictly applied as it serves a valuable purpose in clearly defining what type of expert evidence can be given. The LRC felt that the court could be trusted with dealing with any problems that may arise from a strict application of the rule by giving a flexible

¹⁵⁰ [1993] 1 IR 123

¹⁵¹ *ibid.* at 148.

¹⁵² [2011] 1 IR 325

¹⁵³ *ibid.* at 338.

¹⁵⁴ These comments were in response to a criticism by the defendant that the plaintiff had failed to call expert evidence.

¹⁵⁵ [2012] IEHC 398

¹⁵⁶ LRC, *op. cit.* at [2.192].

interpretation of what constitutes “common knowledge”.¹⁵⁷

VIII. The Duties of the Expert

There is no primary legislation explicitly governing the extent of the duties owed by expert witnesses in civil and criminal cases in Ireland. Indeed, Barr J, writing extra judicially a number of years ago, stated that experts “seem to lack a true understanding of their function, *i.e.* to assist the court in arriving at the truth by providing a skilled expert assessment, which is objective and fair, of matters requiring a specialised appreciation of the particular problem at issue”.¹⁵⁸

In the English case of *Davie v Edinburgh Magistrates*,¹⁵⁹ Lord Cooper stated that the function of expert witnesses is:

“[T]o 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.”¹⁶⁰

The duties and responsibilities of the expert witness were set out by Cresswell J in the well known English case of *National Justice Compania Naviera SA v Prudential Assurance Co Ltd* (“*The Ikarian Reefer*”):¹⁶¹

“Expert evidence presented to the Court should be, and should seem to be, the independent product of the expert uninfluenced as to form or content by the exigencies of litigation...

An expert witness should provide independent assistance to the Court by way of objective unbiased opinion in relation to matters within his

¹⁵⁷ LRC, *op. cit.* at [2.191].

¹⁵⁸ Barr, “Expert Evidence – A Few Personal Observations and the Implications of Recent Statutory Developments” (1999) 4 (4) BR 185 at 185.

¹⁵⁹ 1953 SC 34

¹⁶⁰ *ibid.* at 40.

¹⁶¹ [1993] 2 Lloyd’s Rep 68 at 81–82.

expertise... An expert witness in the High Court should never assume the role of an advocate.

An expert witness should state the facts or assumptions upon which his opinion is based. He should not omit to consider material facts which could detract from his concluded opinion...

An expert witness should make it clear when a particular question or issue falls outside his expertise.

If an expert's opinion is not properly researched because he considers that insufficient data is available, then this must be stated with an indication that the opinion is no more than a provisional one...

If, after exchange of reports, an expert witness changes his view on a material matter having read the other side's expert's report, or for any other reason, such change of view should be communicated (though legal representatives) to the other side without delay and when appropriate to the court."

While the *Ikarian Reefer* was decided in the context of civil proceedings, the common law courts have applied these principles in the criminal context as well. The position has been argued in many cases in this jurisdiction.¹⁶² O'Flaherty J, writing extra-judicially, had a similar idea:

"What then are the essentials for the reception of expert testimony? What discipline should the expert bring to his particular expertise when he comes to give evidence? By what commandments must he abide?

First: the person must be properly qualified in the field in which he says he is qualified. To put it colloquially; he must know his stuff or, if he cannot give an immediate answer, he should say so and point the way to where the answer is to be found ...

Second: the expert should always be a minister or servant of justice rather than act as the hireling of one side or the other. If he can advance his side fairly and properly, well let it be so. If not he should say so. He, like the judge, must make a judgment too, in his case a personal

¹⁶² See *Payne v Shovlin & Ors* [2004] IEHC 430; *Harrington v Cork City Council and Cork County Council* [2015] IEHC 41; and *Donegal Investment Group Plc v Danbywiske & Ors* [2016] IECA 193.

subjective one, whether it is on the reliability of his experiments, the disposition of the experiments or whatever ...

Third: he should have the confidence to discuss in advance of the trial with the lawyers on the other side of the case his findings, if asked. This most likely will benefit all at the subsequent exposition of the evidence in the course of the trial and may help to speed it up.

Fourth: he should cultivate the gift of being able to explain his conclusions in terms that will be understood by lay people, whether they are judges or jurors, or both...

Fifth: he should be meticulous in his record keeping ...

Sixth: he should never take a chance in pretending to expertise that he has not got. If he does not know the answer to a question he should say so, or if he needs time to check something or no other one will think less of him for asking for that opportunity.

Seventh: he must always be patient and never lose his temper no matter how stupid or absurd the questions that he is asked may appear to him to be.”¹⁶³

The LRC opined that when experts are giving their expert opinion, they are under a duty to ascertain all relevant facts and all essential information of the case, including those facts which may detract from their opinion.¹⁶⁴ They must then ensure that the opinion given is clear, accurate, unbiased and contains all essential information, such as the material on which the opinion is based. The opinion must also confirm whether or not this information supports the proposition he or she is being asked to put forward and must illustrate his or her thought process in arriving at the conclusions reached.

There has been a very recent amendment to the Rules of the Superior Courts 1986 (the “RSC”), which attempts to place the duties of an expert on a quasi-legislative footing in all High Court proceedings, which will presumably

¹⁶³ O’Flaherty, “The Expert Witness and the Courts” (1997) 3 MLJI 3 at 6. Heffernan, in *Scientific Evidence: Fingerprints and DNA*, *op. cit.* at 25 states that, although these comments are crafted primarily in the context of civil proceedings, they are apposite for the most part to criminal proceedings.

¹⁶⁴ LRC, *op. cit.* at [3.106].

extend to proceedings before the Central Criminal Court.¹⁶⁵ The new Order 39, rule 57(1) of the RSC¹⁶⁶ states that “[i]t is the duty of the expert to assist the Court as to matters within his or her field of expertise” and provides that “[t]his duty overrides any obligation to any party paying the fee of the expert”. Order 39, rule 57(2) now requires that all expert reports should contain an express acknowledgement of this duty and should disclose the basis for any potential conflict of interest. This change ought to go some way towards bringing the Irish position in line with that in England and Wales, where the duties of an expert are expressly provided for in the rules of civil and criminal procedure.¹⁶⁷ This is considered further in Chapter 6.

IX. Independence

It is clear from the preceding discussion that one of the recognised duties of an expert witness is that he or she should provide independent assistance to the court by way of objective, unbiased opinion. However, experts have commonly been perceived as being biased or partisan,¹⁶⁸ as they are engaged by parties to the proceedings and are remunerated for their services.¹⁶⁹ As mentioned above, O'Donnell J in *Karen Millen Fashions Limited v Dunnes Stores* stated that “[i]t is a matter of near certainty that the only expert witnesses called by either side will have formed an opinion favourable to that side...”

¹⁶⁵ See Hutchinson, “Expert Witnesses and the Duty to Disclose” (2013) 20(11) CLP 246 in which he advocated for a duty to disclose in commercial proceedings.

¹⁶⁶ As inserted by the Rules of the Superior Courts (Conduct of Trials) 2016 [S.I. No 254 of 2016]. This rule is in almost identical terms to Rule 35.3 of the Civil Procedure Rules 1998 of England and Wales.

¹⁶⁷ Criminal Procedure Rules of England and Wales 33.2.

¹⁶⁸ A number of sources suggest that simply being put in the role of an adversary witness will result in testimony that is biased favourably to the party for whom it is being given. Vidmar and MacDonald Laird, “Adversary Social Roles: Their effects on Witnesses' Communication of Evidence and the Assessments of Adjudicators” (1983) 44 J Pers and Soc Psych 888 at 890, referred to in Alldridge, “Scientific Expertise and Comparative Criminal Procedure” (1999) 3 IJEP 141.

¹⁶⁹ Experts “live by their business”, *per* Jessel MR in *Abinger v Aston* 17 Equity.

In fact, in one study Australian judges considered bias to be the most serious problem with expert evidence.¹⁷⁰ The problem was also observed in England and Wales by Lord Woolf, when he stated:

“Expert witnesses used to be genuinely independent experts. Men of outstanding eminence in their field. Today they are in practice hired guns. There is a new breed of litigation hangers-on, whose main expertise is to craft reports which will conceal anything that might be to the disadvantage of their clients.”¹⁷¹

Many commentators have sought to develop a theoretical foundation for the explanation of expert bias.¹⁷² As the topic of expert bias has been the subject of relatively limited academic and curial consideration, it could legitimately form the basis for its own thesis. However, it is proposed to address the position briefly in the context of the independence of the expert. In addition, it informs the discussion in Chapters 6 and 7 surrounding the introduction of certain case management reforms in civil evidence.¹⁷³

Bias on the part of expert witnesses is generally referred to as “adversarial bias”,¹⁷⁴ in that it derives in some way from the adversarial process and the way in which experts are used in litigation. There are generally three forms of adversarial bias, and it can take a number of conscious and unconscious forms. “Selectorial bias” arises when litigants choose experts whose opinions they know will support their case.¹⁷⁵ This means that the

¹⁷⁰ Freckelton, Reddy & Selby, *Australian Judicial Perspectives on Expert Evidence: An Empirical Study* (1999) Australian Institute of Judicial Administration Incorporated at 37.

¹⁷¹ Lord Woolf, *Access to Justice: Interim Report to the Lord Chancellor on the Civil Justice System in England and Wales* (HMSO, London 1995) at 83.

¹⁷² See for example, Dwyer, *The Judicial Assessment of Expert Evidence*, *op. cit.* at 163 – 179; Dwyer, “The Effective Management of Bias in Civil Expert Evidence” (2007) 26 CJQ 57; and Hodgkinson & James, *op. cit.* at Chapter 6.

¹⁷³ The court expert has been recommended as a solution to adversarial bias and this will be discussed in Chapter 7. However, the discussion of the court expert will be limited to whether it is likely to make trials more cost effective and efficient and not whether it resolves adversarial bias.

¹⁷⁴ Hodgkinson & James, *op. cit.* at [6-003].

¹⁷⁵ *ibid.*

opinion advanced on the part of the expert will be at the more extreme end of the spectrum.

The next form of bias is “unconscious partisanship”.¹⁷⁶ The expert does not intentionally mislead the court but is influenced by the case that the party hiring him has to make. For example, take forensic scientific evidence in a criminal trial, where the forensic scientist is trying to prove a particular hypothesis that the DNA at the crime scene belongs to the accused. The expert may be subject to the “interpreter effect”, in that they will unconsciously make mistakes in the interpretation of evidence which favours the hypothesis they are trying to prove. Linked to this is the “observer effect”, where experts will unconsciously err in recording the results of experiments due to a belief in their hypothesis. The “fallacy of verification” may arise where the expert designs experiments with the purpose of showing that the hypothesis is true.¹⁷⁷

The final form is “deliberate partisanship” where the expert deliberately tailors his evidence in support of the client, and has also been referred to as “conscious bias”. Dwyer has also sought to distinguish actual bias from “expert disagreement resulting from bias”.¹⁷⁸ Disagreement, the author claims, can result from personal, financial or intellectual interest, and can either exist externally to the instant litigation, which the author terms as “predisposition”, or can arise as a direct result of the litigation, which she terms “involvement”.¹⁷⁹ Personal predisposition arises where the expert holds similar opinions to the party retaining him, or has a personal or professional relationship with them.¹⁸⁰ Personal involvement is where a close association with the party results in the conscious or unconscious adaptation of the expert’s opinion, perhaps due to sympathy.¹⁸¹ The Court of Appeal in *Donegal*

¹⁷⁶ *ibid.*

¹⁷⁷ See the cases discussed in Chapters 4 and 5 where expert scientific evidence adduced at trial was later discredited by advancements in scientific techniques: *R v Cannings* [2004] 1 WLR 2607.

¹⁷⁸ Dwyer, *The Judicial Assessment of Expert Evidence*, *op. cit.* at 163.

¹⁷⁹ *ibid.*

¹⁸⁰ *ibid.* at 164 – 165.

¹⁸¹ *ibid.* at 166. The LRC, *op. cit.* at [4.134] provisionally recommended that the court should be encouraged as far as possible to limit the amount of time spent by an expert witness in court to that which is reasonably necessary to give their expert evidence.

*Investment Group Plc v Danbywiske*¹⁸² refused to set out rules regarding when a level of personal involvement becomes inappropriate, holding that it was a matter for the trial judge to assess by applying common sense. However, the court did acknowledge that:

“[T]he dividing line between being informed of relevant facts to take into account when forming one’s independent expert views, which is permissible, and being, as it were, lobbied with a point of view to be taken into account when forming an allegedly independent view is a difficult dividing line to draw both as a matter of principle and practice.”¹⁸³

Financial predisposition arises where the expert is an employee, shareholder or has another type of financial interest in the party retaining him.¹⁸⁴ Financial involvement arises where the expert’s payment depends, directly or indirectly, on the outcome of the case.¹⁸⁵ Intellectual predisposition arises when the expert’s standing on a particular issue may be affected by the outcome of a case.¹⁸⁶ This is related to selectorial bias, where the expert may be specifically chosen on the basis of their opinions.

Courts are acutely aware of the dangers of experts becoming “hired guns” for their clients.¹⁸⁷ In *Abbey National Mortgages (Pty) Ltd v Key Surveyors Nationwide Ltd*¹⁸⁸ Bingham MR was alive to this danger when he remarked:

“[F]or whatever reason, and whether consciously or unconsciously, the fact is that expert witnesses instructed on behalf of parties to litigation

¹⁸² [2016] IECA 193

¹⁸³ *ibid.* at [54].

¹⁸⁴ Dwyer *op. cit.* at 166-167.

¹⁸⁵ *ibid.* at 168-169.

¹⁸⁶ *ibid.* at 171.

¹⁸⁷ Friedman, “Expert Testimony: Its Abuse and Reformation” (1910) 91 Yale Law Journal 247 stated that “an expert is a kind of intellectual prostitute ready to sell his opinion and enlist in the service of the side that pays him”.

¹⁸⁸ [1996] 1 WLR 1534

often tend... to espouse the cause of those instructing them to a greater or lesser extent, on occasion becoming more partisan than the parties.”¹⁸⁹

In criminal proceedings, in particular, the danger that experts may become biased is exacerbated by the fact that an expert witness for the prosecution will be associated closely with the police. In *Preece v HM Advocate*,¹⁹⁰ the forensic scientist for the prosecution declined to tell the court about the blood group of the victim, which meant that his conclusions were misleading.¹⁹¹ The danger is also present in civil cases. Recently, the High Court was highly critical of an expert in a personal injuries case who had failed to disclose in his expert report the plaintiff’s subsequent road traffic accident.¹⁹² His conduct in doing so was described by Barton J as “reprehensible and... to be deprecated”.¹⁹³

It is well established that a person is not entitled to give expert evidence if he or she is a party to the proceedings.¹⁹⁴ However, the fact that an expert is an employee or business partner of a party to proceedings, or has an interest in the outcome of the litigation, will not *per se* preclude him or her from acting as expert.¹⁹⁵ Such “financial predisposition” is rather a factor to be taken into account when deciding the weight to be attached to such evidence.¹⁹⁶ For

¹⁸⁹ *ibid.* at 1542.

¹⁹⁰ [1981] Crim LR 783

¹⁹¹ See also the miscarriage of justice cases referred to in Chapter 4: *R v Maguire & Ors* (1992) 94 Cr App R 133 and *R v Ward* (1993) 96 Cr App R 1. The English Court of Appeal found in both cases that the prosecution forensic scientists had not been objective.

¹⁹² *Waliszewski v McArthur and Company (Stell and Metal) Ltd* [2015] IEHC 264. This, along with the plaintiff’s non-disclosure of the accident in replies to particulars, led to his action being dismissed under section 26 of the Civil Liability and Courts Act 2004 on the basis that he had given false or misleading evidence.

¹⁹³ *ibid.*, at [85].

¹⁹⁴ *Sheeran v Moran* (Unreported, High Court, Herbert J., 6 February 2003)

¹⁹⁵ The LRC., *op. cit.* at [4.132], provisionally recommended that there should not be a prohibition on the giving of evidence by experts who have a pre-existing relationship with one of the parties to an action.

¹⁹⁶ *Galvin v Murray* [2000] IESC 78 at [7] *per* Murphy J. The learned judge relied on the English decision in *Shell Pensions Trust Ltd. v Pell Frischmann* [1986] 2 All ER 911, in which it was pointed out that the United Kingdom Civil Procedure Rules (like the Irish equivalent) refer to “expert evidence” and not to “evidence given by independent experts”. It

example, it has been acknowledged that solicitors firms repeatedly choose the same firms of forensic accountants and, in another area of litigation, doctors, to act as experts. Similarly, it has been acknowledged that such parties from time to time work with one another on the lecture and conference circuit and may entertain one other by means of hospitality or otherwise.¹⁹⁷ In *R (Factortame) v Secretary of State for Transport*,¹⁹⁸ the English Court of Appeal held that “financial involvement” such as arrangements for contingency fees, depending on the outcome of the litigation, should be disclosed by an expert and although likely to disqualify him, would not automatically do so; it would manifestly go to the weight to be attached to his evidence.

A number of recent decisions of the Irish Supreme Court in civil cases reinforce the duty on the part of the expert to remain independent. In *Emerald Meats Ltd v Minister for Agriculture*, O'Donnell J stated that experts owe a duty to the court to provide their own independent assessment.¹⁹⁹ While in *Weaving Macro Fixed Income Fund Ltd (in liquidation) v PNC Global Investment Servicing (Europe) Ltd*,²⁰⁰ Charleton J stated that it was essential that experts approach a case objectively and not on the basis of an unconscious desire to assist the side which engages them. It has also been stated that experts have a positive duty to take into account the view of any opposing expert(s).²⁰¹

Contrary to the above, some would say that concerns about expert bias are not warranted, as there is little systematic evidence to suggest that it is deliberate, avoidable, or even consistently detrimental to modern adversarial

was then expressly held that the relevant rules “apply generally: to independent experts, to so called ‘in house’ experts and to parties themselves”. In so deciding, Murphy J accepted that the report of an expert who is also an employee or agent of a party may contain observations beyond that which an independent expert might have made which may act to the detriment of that party but he reasoned that it remained open to that party to engage another expert witness instead of calling its employees or agents, if it so wished.

¹⁹⁷ *Proton Energy Group SA v Lietuva* [2013] EWHC 2872 (Comm), at [29] per Judge Makie QC. In this case the money connection made the relationship closer than usual and should have led the firm to select another expert, or at least to disclose the connection to the court.

¹⁹⁸ [2002] EWCA 932

¹⁹⁹ [2012] IESC 48. See also *Toth v Jarman* [2006] 4 All ER 1276 where the English Court of Appeal (Civil Division) recognised that an expert witness “should provide independent assistance to the court by way of objective unbiased opinion”.

²⁰⁰ [2012] IEHC 25

²⁰¹ Dowling, *The Commercial Court* (2nd ed., Round Hall, 2012) at [8-33].

legal practice.²⁰² The issue undoubtedly demands further empirical investigation into the future.

As noted above, the recent amendment to the RSC provides that the expert's duty to the court overrides any obligation to any party paying the fee of the expert.²⁰³ Order 30 rule 57(2) goes on to provide that every report delivered pursuant to the RSC in such proceedings shall contain a statement acknowledging the expert's duty to the court. The conflict of interest clause required in such reports must disclose any financial or economic interest of the expert, or of any person connected with the expert, in any business or economic activity of the party retaining that expert. Furthermore, the same clause must also disclose any fee or sponsorship payable to any institution or body with which the expert is connected. As such, the RSC now require that any form of indirect or "back door" remuneration should be clearly disclosed to the High Court.

X. Weight to be Attached to Expert Evidence

Despite its privileged status, expert evidence is no different to any other piece of evidence. Once admissible, the tribunal of fact must weigh the expert evidence, but may reject it on a rational assessment. In this regard, Finlay CJ summarised the position in *Best v Welcome* as follows:²⁰⁴

"I am satisfied that it is not possible either for a judge of trial or an appellate court to take upon itself the role of a determining scientific authority, resolving disputes between distinguished scientists in any particular line of technical expertise. The function which a court can and must perform in a trial of a case in order to achieve a just result is to apply commonsense and a careful understanding of the logic and likelihood of events to conflicting opinions and conflicting theories concerning a matter of this kind."²⁰⁵

²⁰² See Edmond, "Secrets of the 'Hot Tub': Expert Witnesses, Concurrent Evidence and Judge-led Law Reform in Australia" (2008) 27 CJQ 51 at 63.

²⁰³ The LRC *op. cit.* at [4.136] had provisionally recommended this.

²⁰⁴ [1993] 3 IR 421

²⁰⁵ *ibid.* at 462.

Put simply, the tribunal of fact is not bound to accept expert evidence, and is permitted to reach a conclusion different to that of the expert.²⁰⁶ The court or jury must make its decision based on all the other evidence presented, and not just the expert evidence. A decision to reject expert evidence could theoretically be overturned as perverse in the same way as any other decision which was based on other evidence. Cooper LJ in *Davie v Edinburgh Magistrates*²⁰⁷ stated:

“Expert witnesses, however skilled and eminent, can give no more than give evidence. They cannot usurp the functions of the jury or Judge sitting as a jury... The scientific opinion evidence, if intelligible, convincing and tested, becomes a factor (and often an important factor) for consideration along with the whole other evidence in the case, but the decision is for the Judge or jury.”²⁰⁸

The rationale behind this is undoubtedly a desire to prevent usurpation of the role of the tribunal of fact by the expert. The role of the expert witness is not to supplant the tribunal of fact, but to inform it so that it can come to its own decision. If there is a conflict between experts, then this must be resolved by the tribunal of fact applying the burden and standard of proof.²⁰⁹ Charleton J was alive to the dangers of affording expert evidence any “especial degree of weight” in the criminal context in *DPP v O'Reilly*²¹⁰ wherein he stated:

“The weight to be attached to such evidence is a matter for the jury. If an expert on behalf of the prosecution had indicated that the core of the case as presented on behalf of the prosecution could not possibly or reasonably be correct, then this testimony would have to be assessed by the learned trial judge in the light of all of the relevant tests when considering whether to grant a direction. There is another reason why

²⁰⁶ *Irish Press plc v Ingersoll Irish Publications Ltd.* [1995] 2 IR 175

²⁰⁷ (1953) SLT 54

²⁰⁸ *ibid.* at 57.

²⁰⁹ *People (DPP) v Abdi* [2004] IECCA 47

²¹⁰ [2009] IECCA 30

expert testimony should not be given any particular standing. Experts may, for reasons of their own, take diametrically opposed views on even quite simple issues. The experience of the courts over many years in respect of many different experts on many different issues bears this out.”²¹¹

In this context, Chapter 5 will discuss the effect which expert evidence has been shown to have on juries.

All that being said, it has been held that where there is consensus between opposing experts on a particular issue, the trial judge must justify any departure from this consensus by reference to the key elements of the evidence before him.²¹²

XI. Adversarial Proceedings

Any discussion of expert evidence must take place against the backdrop of the adversarial process which is applied in both criminal and civil trials in this jurisdiction. In an adversarial trial, the role of the trial judge is to hear and determine the issues raised by the parties and not to conduct an investigation or examination on behalf of society at large.²¹³ The judge acts as an umpire or referee between the plaintiff and defendant in a civil trial, and the prosecution and defence in a criminal trial. We can contrast this with an inquisitorial system where the judge plays a more active investigative role. Common law jurisdictions utilise the adversarial trial, while civil law jurisdictions prefer an inquisitorial model.

Damaska wrote that only the essential meaning of the opposition between the inquisitorial and the adversarial model has a reasonable certainty:

“The adversarial mode of proceedings takes its shape from a contest or a dispute: it unfolds as an engagement of two adversaries before a

²¹¹ *ibid.* at [26].

²¹² *Donegal Investment Group Plc v Danbywiske & Ors* [2016] IECA 193 at [79] – [81]. It was held that the departure by the trial judge from the consensus between experts as to the determination of the appropriate multiplier in a share valuation was incorrect.

²¹³ *Jones v National Coal Board* [1957] 2 All ER 155 *per* Lord Denning MR.

relatively passive decision maker whose principal duty is to reach a verdict. The non-adversarial [or inquisitorial] mode is structured as an official inquiry. Under the first system, the two adversaries take charge of most procedural action; under the second, officials perform most activities”²¹⁴

In an adversarial system, the evidence is led by the lawyers, while in an inquisitorial system the judge leads the evidence. It has been suggested that the adversarial process is a “game” of some sort, and that a trial therein is a:

“...contest between competing narratives, each shaped by the available and admissible evidence, both being valued more for their abilities to persuade, convince and cohere than for any attempt they may make at providing a rigorous historically correct version of what happened”.²¹⁵

It has been queried whether the expert evidence sits well within the adversarial trial process at all. Gross describes expert evidence as a “disgrace” in the system of adversarial fact finding.²¹⁶ Alldridge makes the point, albeit speaking in the context of scientific evidence, that the introduction of the expert alters the narrative dynamic of the trial. A category of evidence and a language is introduced which requires the insertion of the expert as interpreter.²¹⁷

It is the accepted practice in an adversarial trial that the weight to be attached to any piece of evidence, including expert evidence, can be diluted through the process of cross-examination,²¹⁸ or by calling evidence in rebuttal. Cross-examination is considered to be a fundamental procedural right, and is constitutionally guaranteed in both civil and criminal proceedings. It is an aspect of the right to fair procedures, and is perceived as a right to cross-

²¹⁴ Damaska, *The Faces of Justice and State Authority. A Comparative Approach to the Legal Process*,

(London, Yale University Press, 1986) at 3.

²¹⁵ Alldridge, “Scientific expertise and comparative criminal procedure” (1999) 3 IJEP 141 at 145

²¹⁶ Gross, “Expert Witnesses”, (1991) Wisconsin Law Review 1113 at 1116.

²¹⁷ Alldridge, *op. cit.* at 147.

²¹⁸ Roberts, “Science in the Criminal Process” (1994) 14 OJLS 469 at 501.

examine without intervention from the trial judge.²¹⁹ McGrath refers to the oft-quoted statement by Wigmore that cross-examination as “the greatest legal engine ever invented for the discovery of truth”.²²⁰ In the Supreme Court decision in *Maguire v Ardagh*,²²¹ Hardiman J described cross-examination as a “great weapon” available to those who are accused on the basis of false statements of fact or denied their civil or constitutional rights.²²²

However, it has been questioned whether cross-examination is as an effective tool for testing the testimonial validity of expert evidence.²²³ Cross-examination has the potential to distort the expert evidence, as it is designed to highlight only the aspects of the evidence which advance the case of the cross-examiner. For example, the practice of counsel asking “yes” or “no” answers is hardly likely to give a fair representation of the expert evidence.²²⁴ In addition, the personality of the particular expert will affect their performance in the witness box. An effective cross-examination can and will have a significant impact on the minds of the judge or jury, and has the tendency to produce a disproportionate result.²²⁵

It is very rare for a cross-examiner to try to persuade the expert to accept his client’s case. Contrary to what may be portrayed on television, the image of the suave cross-examiner leading an unwary expert witness into supporting the scientific thesis advanced by the opposite party does not accord with reality.

Counsel tend to fight the battle in their own territory, *i.e.* the law, rather than attempt to catch the expert out on their specialty, which is unlikely to happen. Their task is to implant a doubt in the mind of the judge or the jury. In reality, cross-examination is limited to challenging the evidence by suggesting the use of an incorrect factual premise, showing the existence of fallacies in

²¹⁹ *Donnelly v Ireland* [1998] 1 IR 321

²²⁰ McGrath, *op. cit.* at [3.88].

²²¹ [2002] 1 IR 385

²²² *ibid.* at 704.

²²³ Meintjies-Van der Walt, *Expert Evidence in the Criminal Justice Process: A Comparative Approach*, Series Criminal Sciences (Rozenburg Publishers, 2001) at 189.

²²⁴ Meintjies-Van der Walt, “S v Huma (1) 1995 (2) SACR 407 (W) Shooting at science: expert evidence and equality of arms” (1996) 9 South African Journal of Criminal Justice 361 at 362.

²²⁵ O’Sullivan, “A Hot Tub for Expert Witnesses” (2004) 4(1) JSIJ 1 at 3.

reasoning or by challenging the credibility of the expert by, for example, calling into question their qualifications, experience or impartiality. The late Hardiman J, writing extra-judicially, stated the following:

“It is safe to start with the proposition that if a cross-examination of a good expert ends in a draw, the cross-examiner should be content. A draw is had where the inherent uncertainties of the expert’s testimony are properly expounded and the ground prepared whereby the tribunal, in fact, may decide to accept one’s expert’s views in preference.”²²⁶

In addition, cross-examination requires some form of expert assistance to the cross-examiner in order to be fully effective. This brings the discussion to the second method of challenging evidence in an adversarial trial; the calling of rebuttal evidence. However, the adversarial system is based on the idea that justice can be achieved if the parties to a legal dispute are able to adduce their evidence and test their opponent’s evidence in circumstances of reasonable equality.²²⁷ As mentioned above, and in more detail in Chapter 4, there is no threshold test for the reliability of expert evidence. The party adducing the expert evidence is not required to demonstrate that it is reliable and the burden shifts on to the other party to demonstrate that it is unreliable. This can result in an inappropriate shift in both the burden of proof and cost on a party who has to respond to an expert in both criminal and civil trials.

Alldridge compared expert evidence in a criminal trial to a game of tennis or bridge, in which the prosecution always has the serve.²²⁸ Placing an undue burden on an accused person in a criminal trial to respond to the prosecution’s expert evidence undoubtedly has a detrimental effect on the presumption of innocence and his or her right to a fair trial under Article 38.1 of the Constitution. Accused persons in criminal cases face difficulties in adducing expert evidence in that the prosecution will always have access to expert evidence. It is therefore up to accused persons to call their own expert evidence. However, experts have to be both available and affordable, and they

²²⁶ Hardiman, “The Role of the Expert Witness” in Daly ed., *The Role of the Expert Witness* (Inns Quay, 1999) at 13.

²²⁷ *Steel and Morris v United Kingdom* (2005) 41 EHRR 22

²²⁸ Alldridge, *op. cit.* at 150.

are rarely the latter. This places the accused in a difficult position. This forms the basis of the rights-based discussion in Chapter 3 regarding whether there exists a basis in Irish law for the right to an expert in criminal cases.

Similarly, in a civil trial, the constitutional right of effective access to the courts can be hindered by the increasing cost and length of litigation which the employment of expert assistance undoubtedly brings. These process concerns, and the methods proposed to address them, are explored in Chapters 6 and 7.

XII. Conclusion

Expert evidence developed as an exception to the general rule that witnesses are not allowed to testify as to their opinions. While the law relating to expert evidence has been allowed to develop as a tangent to a general rule, the law must not lose sight of what it really is - an exception to a strict rule of evidence.

This chapter has located expert evidence within the law of evidence generally. It addressed briefly the test for the admissibility of expert evidence as it currently stands. It has been identified that, while like any other type of evidence it must be relevant, with the only other criterion for admissibility is that the expert witness must be qualified in their field. The question of whether the reliability of the expert evidence should be introduced as an additional hurdle was not discussed in depth in this chapter, and its merits will be discussed in the context of the discussion of expert scientific evidence in Chapter 4.

It is a matter for the finder of fact, be it the judge or jury, to decide on the weight to be attached to the expert evidence, while bearing in mind that they are not bound to accept it, however impressive it may be. Some of the supposed limits placed on the testimony of an expert witness have been examined. These limits are based mostly on the traditional rules of evidence, but it is clear from the discussion above that the expert has significant leeway in giving his or her testimony.

Given the relatively low threshold for admissibility, and the relaxation of the traditional rules of evidence in relation to expert witnesses, the question of how the expert evidence is incorporated into a trial becomes very important.

However, expert evidence sits uneasily in the adversarial trial framework in that its traditional tools appear to be ineffective in dealing with it. Process considerations regarding expert evidence vary depending on whether the trial is civil or criminal, and it is from here that this thesis diverges in those separate directions.

CHAPTER 3: A RIGHT TO AN EXPERT

“In the case of expert evidence it is more like tennis, in which the prosecution always has the serve, or bridge, in which the prosecution always has the contract, than the sort of game in which either side has the initiative from time to time.”¹

I. Introduction

In Chapter 1, it was outlined that this thesis would propose to examine expert evidence by reference to process considerations. This chapter examines expert evidence in a criminal trial by reference to constitutional rights, and explores whether there is a basis for a right of an accused to an expert in an Irish criminal trial. Hardiman J in *JF v DPP*² emphatically rejected an argument made on behalf of the DPP, quickly withdrawn, to the effect that experts retained on behalf of the prosecution in a criminal trial have a superior status. He stated:

“... if there is one place everyone is equal, it is in a court of law and that applies even to the Director of Public Prosecutions or an expert retained by him.”³

However, the reality sometimes is, as evidenced by the quote above, that the prosecution has a major advantage in terms of the evidence to be advanced at trial. While this thesis does not discuss bias in a major way, it has to be acknowledged that prosecution experts are very closely aligned to the State.

It has been remarked that the admission of expert evidence without an assessment of reliability at the admissibility stage can have an adverse effect on an accused when he or she doesn't obtain their own expert evidence in

¹ Alldridge, “Scientific expertise and comparative criminal procedure” (1999) 3 IJEP 141 at 150.

² *JF v DPP* [2005] 2 IR 174

³ *ibid.* at 181.

rebuttal, due *inter alia* to a lack of funds.⁴ This is especially concerning when one takes into account the prevalence of scientific evidence in criminal trials, which is dealt with in detail in the next chapter.

In order to locate a basis for the right sought, this chapter examines expert evidence in a criminal trial within a framework of rights. As the law of evidence in Ireland has been heavily influenced by constitutional rights process considerations, this thesis attempts to locate a basis for the right to an expert in the Constitution of Ireland. There are distinct negative and positive aspects to such a right. The first concerns the right to present expert evidence, a negative right, which it is submitted already has a solid foundation in Irish constitutional law. The second, positive, aspect is more problematic and concerns the right to an expert witness at the expense of the State.

An explanation of the difference between positive and negative rights can be traced back to Hohfeld's way of distinguishing between different classes of entitlements.⁵ Hohfeld was not satisfied that legal scholars were taking an indiscriminate interpretation of the term "rights". The term "right" can be used to describe a privilege, a power or an immunity, rather than a right in the strictest sense. Hohfeld sought to exhibit all the various relations in a scheme of "opposites" or "correlations", and then proceeded to exemplify their individual scope and application in concrete cases. He tried to demonstrate that the term "rights" was actually used to describe two very different types of relationships. Some rights implied the existence of a duty on the part of another to do or provide a particular thing. Other rights, which Hohfeld called "liberties", implied the existence of a duty on the part of another to refrain from interfering.

Hohfeld explained that a "claim-right" describes a relationship in which one person or organisation owes something to the rights-bearer. This, Hohfeld explained, meant that one person's claim-right to something announces the other's correlative duty to do or provide that thing. In contrast to this, a liberty describes a relationship in which one person or organisation cannot interfere with the activity of the rights bearer. For every liberty, there exists a correlative

⁴ Hodginson & James, *Expert Evidence: Law and Practice* (4th ed., Sweet & Maxwell, 2015) at 74.

⁵ Hohfeld, "Some Fundamental Legal Conceptions as Applied in Judicial Reasoning" (1913) 21(3) Yale Law Journal 16

right to non-interference with the content of that liberty. This distinction between claims and liberties gives rise to the difference between positive and negative rights.⁶

The Constitution of the United States of America rejects the notion of positive rights. Its function is to insulate the citizen against state interference rather than require the state to act or to provide for the citizen.⁷ As will be seen below, the Irish Constitution is not so inhibitory. It protects one freestanding, enforceable positive right, the right to free primary education, guaranteed by Article 42.2. As will be seen below, it also protects a range of other rights that have cost implications such as the right to a fair trial. Some of the Constitution's unenumerated rights have very significant cost implications, in particular the right to criminal legal aid, which is robustly enforced by the courts. In addition, the Constitution lays out principles of social policy in Article 45, though these are expressly non-justiciable. However, positive rights play a lesser role in the Irish constitutional scheme, as will be seen below.

Therefore, on this analysis, it is clear that there is a difference between a negative right to an expert witness, in which the State is prevented from interfering with this right, and a positive right to an expert witness, which means that the State has a duty to provide an accused person with an expert witness. The former represents a Hohfeldian liberty, and the latter suits his definition of a claim right.

As the Supreme Court in *Magee v Farrell*⁸ has rejected the argument that there is a constitutional right to civil legal aid, except in cases where personal liberty is at stake,⁹ it is perhaps unlikely that a right to an expert witness at the State's expense would be recognised in civil cases and such an argument will not be pursued in this thesis. However, the *Magee* case is discussed below in the context of an analogy with the right to criminal legal aid.

⁶ For other applications of Hohfeld in the Irish constitutional context see Clarke, "Unenumerated Rights in Constitutional Law" (2011) (2) DULJ 101

⁷ See generally Currie, "Positive and Negative Constitutional Rights" (1986) 53(3) University of Chicago Law Review 864; Alexy, *A Theory of Constitutional Rights* (OUP, 2002) at Chapter 9, Sunstein, "Against Positive Rights" (1993) 2 East European Constitutional Review 35.

⁸ [2009] 4 IR 703

⁹ *McCann v Judges of Monaghan District Court* [2009] 4 IR 200

From the outset, it must be borne in mind that if an accused in a criminal trial intends to adduce expert evidence, he must now seek and obtain the permission of the trial judge to do so pursuant to section 34 of the Criminal Procedure Act 2010 (“the 2010 Act”).¹⁰ The constitutionality of this section was upheld in *Markey v Minister for Justice*,¹¹ and will be discussed further below.

II. The Irish Constitution

As alluded to in Chapter 2, the Irish Constitution has been at the forefront in affirming the exclusionary nature of the law of evidence.¹² It has been stated that the constitutionalisation of the law of evidence is a hallmark of the administration of criminal justice in Ireland.¹³ The Irish courts have held that an item of evidence is inadmissible if it violates a constitutional right or principle. The general rule was that evidence obtained in deliberate and conscious violation of constitutional rights is inadmissible except where extraordinary excusing circumstances exist.¹⁴ This was the principle as originally formulated in *People (Attorney General) v O'Brien*¹⁵ and *DPP v Kenny*.¹⁶

The Supreme Court recently revisited the exclusionary rule in *People (DPP) v JC*,¹⁷ overruled *Kenny*, and held that, in this context “deliberate and conscious” refers to knowledge of the unconstitutionality of the taking of the relevant evidence rather than applying to the acts concerned.¹⁸ Therefore, the rule can be said to be that an inadvertent breach of constitutional rights in the

¹⁰ There is no such requirement in civil proceedings in Ireland. However, the court does have the power to limit expert testimony under the recent amendments to the Rules of the Superior Courts 1986. This is discussed further in Chapters 6 and 7.

¹¹ [2011] IEHC 39

¹² Heffernan and Imwinkelried “The Accused’s Constitutional Right to Introduce Critical, Demonstrably Reliable Exculpatory Evidence” (2005) 40 Irish Jurist 111 at 112.

¹³ Healy, *Irish Laws of Evidence* (Thomson Round Hall, Dublin, 2004) at 3-4.

¹⁴ *People (Attorney General) v O'Brien* [1965] IR 142; *DPP v Kenny* [1990] 2 IR 110

¹⁵ [1965] IR 142

¹⁶ [1990] 2 IR 110. See Beirne, “Evidence”, in Byrne & Binchy (eds), *Annual Review of Irish Law 2015* (Round Hall, 2016) (forthcoming).

¹⁷ [2015] IESC 31

¹⁸ See the judgment of Clarke J, *ibid.* at [7.2].

obtaining of evidence will not lead to the exclusion of that evidence at trial. Knowing, reckless or grossly negligent breaches of constitutional rights will lead to such exclusion, except in exceptional circumstances.¹⁹ While an in-depth analysis of the exclusionary rule is outside the scope of this thesis, it is clear from the general principles outlined above that the invocation of the Constitution in the Irish law of evidence can be described as negative insofar as its effect has been to exclude an item of evidence.²⁰ However, the question then arises whether the Constitution can be invoked in a positive sense in the law of evidence.

Heffernan and Imwinkelried have already campaigned for the recognition of the constitutional right of an accused to introduce critical, demonstrably reliable exculpatory evidence.²¹ The authors do note that the application of the Constitution in an affirmative sense is rare and controversial in this jurisdiction.²² They argue that the Constitution should support a right for an accused to introduce exculpatory evidence where the court is satisfied that the evidence is critical to the case and is reliable. However, the authors' analysis goes further than that contained in this thesis and argues that Article 38.1 permits the accused to introduce such evidence even when it is inadmissible under a traditional evidentiary rule. The analysis in this thesis presupposes that the right to an expert is limited to a right to introduce admissible expert evidence, in accordance with the evidentiary rules outlined in Chapter 2.

It is now proposed to consider the provisions of the Constitution will have a bearing on the right sought.

¹⁹ See, however, the judgment of Hardiman J, which amounts to a trenchant defence of the personal rights of the citizen.

²⁰ See for example the law relating to the inadmissibility of confessions obtained in breach of the constitutional right to liberty: *DPP v Madden* [1977] IR 336.

²¹ Heffernan and Imwinkelried "The Accused's Constitutional Right to Introduce Critical, Demonstrably Reliable Exculpatory Evidence" (2005) 40 *Irish Jurist* 111

²² *ibid.* at 112.

(i) *The Presumption of Innocence*

An accused person in a criminal trial enjoys a presumption of innocence. The presumption exists at common law,²³ but it has been afforded superior constitutional protection in Ireland.²⁴ The right to trial in due course of law, protected by Article 38.1 of the Irish Constitution, dictates that an accused is presumed innocent until proven guilty. In the Supreme Court decision of *DPP v DO'T*,²⁵ Hardiman J stated that:

“...the presumption of innocence is a vital, constitutionally guaranteed, right of a person accused in a criminal trial and that the right has been expressly recognised in all of the major international human rights instruments currently in force.”²⁶

The consequence of the presumption of innocence is that the prosecution bears the burden of proving that the accused is guilty, *i.e.* the burden of proof.²⁷ If an accused raises a defence, then it is the responsibility of the prosecution to disprove the defence, and not the responsibility of the accused to prove it.²⁸ For example, where provocation is raised as a defence to a charge of murder, there is no burden on the accused to prove that he had lost self-control at that time. Rather, the prosecution must prove that the accused

²³ *Woolmington v DPP* [1935] AC 462

²⁴ This was confirmed in *O'Leary v AG* [1993] 1 IR 102 and *Hardy v Ireland* [1994] 2 IR 550. The presumption of innocence is also enshrined in Article 6(2) of the ECHR.

²⁵ [2003] 4 IR 286

²⁶ *ibid.* at 290.

²⁷ As Viscount Sankey famously observed in *Woolmington v DPP* [1935] AC 462 at 481, “[t]hroughout the web of the English criminal law one golden thread is always to be seen, that it is the duty of the prosecution to prove the prisoner’s guilt... No matter what the charge or where the trial the principle that the prosecution must prove the guilt of the prisoner is part of the common law of England and no attempt to whittle it down can be entertained”. Expressing similar sentiments in this jurisdiction in *McGowan v Carville* [1960] IR 330, Murnaghan J said “there is no onus on a person charged with an offence to prove his innocence, the onus at all times being on the State to prove his guilt”.

²⁸ According to Barrington J, for the Court of Criminal Appeal, in *The People (DPP) v Kelly* [2000] 2 IR 1 at 12 “the onus on the prosecution is not only to prove its case... but also to negative... any defence raised by the accused”.

had not lost self-control at that time. It is well established that any law that purports to require an accused person to prove his innocence will be repugnant to the Constitution.²⁹ The standard to the prosecution must prove that an accused person is guilty is beyond a reasonable doubt.

However, there are exceptions, both at common law and under statute, to the rule that the prosecution bears the burden of proof.³⁰ There is nothing constitutionally suspect about this, as the law does not equate the accused proving a fact in issue as the equivalent of proving his innocence. At common law, if an accused argues that he is unfit to plead then he bears the burden of proving it on the balance of probabilities.³¹ Similarly, when the accused raises insanity as a defence, the accused bears the burden of proving that they were suffering from a mental disorder at the time of the alleged crime, and the mental disorder was such that the accused person should not be held responsible for the act alleged. This was the position at common law³² and section 5 of the Criminal Law (Insanity) Act 2006 (“the 2006 Act”) has not changed the position.

The Irish statutory framework also provides that, in certain instances, the burden of proof may be placed on the accused. Where the defence of diminished responsibility is raised as a defence to a charge of murder, according to section 6(2) of the 2006 Act, the burden of proving that the accused was suffering from a mental disorder at the time of the killing, and that such disorder substantially diminished the accused’s responsibility for his conduct, rests on the accused. The constitutionality of a number of provisions has been upheld despite the fact that they placed the legal burden of proof on the accused.³³ There is a distinction between the legal burden of proof and the evidential burden of proof, *i.e.* a burden of adducing evidence to allow a

²⁹ *O’Leary v AG* [1993] 1 IR 102

³⁰ In the civil context, see Chapter 6.

³¹ Now governed by section 4 of the Criminal Law (Insanity) Act 2006

³² *R v M’Naghten* [1843] All ER 229 and *Hardy v Ireland & Ors* [1994] 2 IR 550

³³ See *O’Leary v AG* [1993] 1 IR 102 which concerned the constitutionality of section 24 Offences Against the State Act 1939 and *Hardy v Ireland* [1994] 2 IR 550 which concerned the constitutionality of section 4(1) Explosive Substances Act 1883.

defence to be argued. It has been held regarding certain statutory provisions that they only place an evidential burden on the accused.³⁴

(ii) *The Right to a Fair Trial*

Article 38.1 of the Irish Constitution states:

“No person shall be tried on any criminal trial save in due course of law.”

At first glance, the protection afforded to an accused person under the Irish Constitution appears to be quite vague, especially when compared with the comprehensive protection provided in Article 6 of the ECHR, which will be discussed below. The Irish provision echoes the phrase “due process of law” in the Fifth Amendment of the US Constitution. Indeed, it was remarked that the actual prescription of the Fifth Amendment, not to be deprived of life, liberty or property without due process of law, might have a wider scope than that of Article 38.1.³⁵

Fortunately, the Irish courts have taken an expansive attitude to the constitutional provision and Article 38.1 is seen to embrace a number of rights associated with the criminal trial process. As well as the presumption of innocence, Costello J in *Heaney v Ireland* stated that Article 38.1 has been construed as a constitutional guarantee that criminal trials will be conducted in accordance with basic concepts of justice.³⁶ Hogan and Whyte make the point that:

“Article 38.1 has been interpreted to embrace a range of both procedural and substantive rights, the content of which has been influenced by common law tradition, the European Convention on Human Rights and the case law of the European Court of Human Rights, United States constitutional practice, international agreements, and, not least, the views

³⁴ For example s. 29(2) Misuse of Drugs Act 1977. See *DPP v Smyth* [2010] 3 IR 688 and more recently *DPP v Tuma* [2015] IECA 63 and *DPP v Melenciuc* [2015] IECA 133.

³⁵ *Goodman International v Hamilton (No 1)* [1992] 2 IR 542 at 609 per McCarthy J.

³⁶ [1994] 3 IR 593 at 605.

of the Irish judiciary as to what constitutes minimum standards of procedural and substantive justice in criminal trials.”³⁷

That an accused must have an effective opportunity of meeting the case against him or her was established in *The State (Walshe) v Murphy*.³⁸ The defendant in that case in a prosecution for drunken driving had not been supplied with a copy of the statutory certificate stating the concentration of alcohol found in his urine sample until almost two years after the sample had been taken, and over a year from the original request for a copy. Finlay P quashed the conviction. It was held that natural justice required that a person charged with such an offence should be supplied with a copy of the certificate in sufficiently good time to provide him with a realistic opportunity to have the specimen which he has retained analysed and to contest the validity or correctness of the certificate.³⁹

The courts have recognised in broad terms the accused’s constitutional right to “give or call evidence in his defence” in the case of *State (Healy) v Donoghue*.⁴⁰ The issue here was the right of the accused to legal representation at the State’s expense. The court employs forceful language about the right of an accused to present a defence. Gannon J in the High Court stated that Article 38.1 bestows on the accused the right to “hear and test by examination of the evidence offered by or on behalf of his accuser”.⁴¹ The accused should have “every opportunity to defend himself.”⁴² This will be discussed further below in the context of criminal legal aid.

An important point to note is that there is no rule of law or requirement in the Constitution that the procedures available to an accused person must be identical to those available to the prosecution. This was expressly recognised by the Supreme Court in *Fitzgerald v Director of Public Prosecutions*⁴³ in which the Court rejected a challenge to the constitutionality of section 4 of the Summary Jurisdiction Act 1857 which gave an automatic right to the

³⁷ Hogan and Whyte, *Kelly: The Irish Constitution* (Round Hall, 2004) at [6.5.07].

³⁸ [1981] IR 275

³⁹ *ibid.* at 293.

⁴⁰ *State (Healy) v Donoghue* [1976] IR 325 at 336.

⁴¹ *ibid.* at 335.

⁴² *ibid.* at 348-349.

⁴³ [2003] 3 IR 247

prosecution (unlike the defence) to appeal by way of case stated. This is relevant to the principle of *reasonable* equality of arms under the ECHR, which is discussed in more detail below.

(iii) Unenumerated Rights

The Irish Constitution incorporates a doctrine of unenumerated rights. Since the case of *Ryan v Attorney General*,⁴⁴ it has been accepted that the Constitution protects both those rights that are enumerated in its text and also a body of rights that fall within the unenumerated personal rights of Article 40.3. Kenny J, in finding that there was an unenumerated right to bodily integrity, held that these rights derived from the Christian and democratic nature of the State. As will be demonstrated, both positive and negative unenumerated rights have been recognised.

According to Hogan and Whyte, where a new form of right is asserted for the first time, it is preferable to build it into the environment of an already recognised right, rather than allege that it occurs by virtue of Article 40.3.⁴⁵ After *Ryan* there followed a fruitful period of recognition of unenumerated rights, the right to fair procedures, the right of access to the courts,⁴⁶ and the right to criminal legal aid being three rights which are most relevant in the context of expert evidence.

However, the initial vigour with which unenumerated rights were recognised has slowed. Finlay CJ, while noting that problems had been encountered in developing a coherent principled jurisprudence in this area, called for judicial restraint in identifying new unenumerated rights, especially where they are socio-economic in nature.⁴⁷ As will be seen below, such restraint was exercised.⁴⁸

⁴⁴ [1965] IR 294

⁴⁵ Hogan & Whyte, *op. cit.* at [7.3.54].

⁴⁶ The unenumerated right of access to the courts is dealt with in Chapter 6.

⁴⁷ *O'T v B* [1998] 2 IR 321 at 369 – 70.

⁴⁸ *Sinnott v Minister for Education* [2001] 2 IR 545; *TD v Minister for Education* [2000] 3 IR

(i) Right to Fair Procedures

The right to fair procedures has been recognised as an unenumerated right. It is recognised as being implicit in the right to a fair trial under Article 38.1. This right requires that a person charged with an offence should be clearly told of what is alleged against him, and that he should have a proper opportunity to make his defence. The decision of the Supreme Court in *Re Haughey*⁴⁹ confirmed that corresponding protection flows from Article 40.3 where the proceedings are not strictly criminal in nature. It was held in that case that the right to an opportunity to defend oneself and meet a charge or complaint includes the following rights as identified by Ó Dálaigh CJ:

- “(a) That he should be furnished with a copy of the evidence which reflected on his good name,
- (b) That he should be allowed to cross-examine, by counsel, his accuser or accusers,
- (c) That he should be allowed to give rebutting evidence,
- (d) That he should be permitted to address, again by counsel, [the committee] in his own defence.”⁵⁰

Ó Dálaigh CJ continued, that without these rights:

“[N]o accused... could hope to make any adequate defence of his good name. To deny such rights is, in an ancestral adage, a classic case of *clocha ceangailte agus madrai scaoilte*, Article 40.3 of the Constitution is a guarantee to the citizen of basic fairness of procedures.”⁵¹

The notion of fair procedures has always represented an evolving value. This is clear from the comments of O’Higgins CJ in *State (Healy) v Donoghue*,⁵² where he remarked that:

⁴⁹ [1971] IR 217

⁵⁰ *ibid.* at 263.

⁵¹ *ibid.* at 264.

⁵² *State (Healy) v Donoghue* [1976] IR 325

“[T]he general view of what is fair and proper in relation to criminal trials has always been the subject of change and development. Rules of evidence and rules of procedure gradually evolved as notions of fairness developed.”⁵³

Kenny J in the same case went so far as to say that it would be “foolish to lay down what constitutes a fair trial because its requisites change from generation to generation.”⁵⁴

Gannon J in the High Court in *State (Healy) v Donoghue*, which was subsequently approved by O’Higgins CJ in the Supreme Court, stated that among the rights of an accused person was a right “to hear and test by examination the evidence offered by or on behalf of his accuser, to be allowed to give or call evidence in his defence, and to be heard in argument or submission before judgment be given”.⁵⁵ Gannon J went further and stated that, by mentioning those particular rights he was not to be taken as giving a complete summary or by excluding other rights, such as, *inter alia*, the right to have an opportunity for presentation of a defence. He held that these rights are interior and do not merely derive from the Constitution.

(ii) Right to Criminal Legal Aid

The right to criminal legal aid was recognised in *State (Healy) v Donoghue* and is dealt with in greater detail below in the context of the analogy drawn between that right and the right to an expert witness at the State’s expense. However, it should be noted that this right does not apply during the pre-trial phase and is limited to persons who, through their lack of means, cannot afford legal assistance.⁵⁶

(iv) *Socio-Economic Rights*

In any enquiry regarding whether the State is under a duty to enforce a positive right for its citizens, the subject of socio-economic rights must be addressed.

⁵³ *ibid.* at 350.

⁵⁴ *ibid.* at 364.

⁵⁵ *ibid.* at 335-336.

⁵⁶ *K Security v Ireland* (Unreported, High Court, 15 June 1977)

These refer to economic, social and cultural rights and can be distinguished from civil and political rights.⁵⁷ Examples of socio-economic rights include the right to education⁵⁸ and the right to housing. Article 45 of the Constitution refers to the Directive Principles of Social Policy and was influenced by Roman Catholic social teaching. Article 45.1 states:

“The State shall strive to promote the welfare of the whole people by securing and protecting as effectively as it may a social order in which justice and charity shall inform all the institutions of national life.”

Article 45 is expressly declared in the Constitution to be non-justiciable. While it was assumed initially that it was completely outside the range of judicial consideration,⁵⁹ it has been held that the Irish courts can look to Article 45 when deciding whether a constitutional right exists under Article 40.3.

In *Murtagh Properties v Cleary*⁶⁰ the plaintiff claimed that she had a right to earn a livelihood without discrimination of sex, and submitted that the right was derived from *inter alia* Article 45. In response to an argument on behalf of the defendants that the court could not have regard to the terms of the Article, Kenny J held that the opening passage of the article does not mean that the court may not have regard to the terms of the Article, but that they have no jurisdiction to consider the application of the principles in it in the making of laws. This, he held, did not involve the conclusion that the courts may not take it into consideration when deciding whether a claimed constitutional right exists.⁶¹ Kenny J cited the existence of Article 45.2.1, which provides that the State shall direct its policy towards securing that citizens, including women,

⁵⁷ See the United Nations International Covenant on Economic, Social and Cultural Rights, ratified on 16 December 1966.

⁵⁸ Article 42.2 of the Constitution of Ireland.

⁵⁹ *Buckley v Attorney General* [1950] IR 67

⁶⁰ [1972] IR 330. See also *Attorney General and the Minister for Posts and Telegraphs v Paperlink Ltd* [1984] ILRM 373.

⁶¹ *ibid.* at 335 – 336.

have an “adequate means of livelihood”, as logically involving that each citizen has the right to earn a livelihood.⁶²

However, it has been held at Supreme Court level in *McGee v Attorney General*,⁶³ that the intervention of the Court with the function of the Oireachtas is expressly prohibited by Article 45 and would be an invalid usurpation of legislative authority.⁶⁴ The Constitution Review Group in 1996 recommended against the express protection of socio-economic rights, primarily on the ground that it would tend to distort the separation of powers.⁶⁵ However, in 2014, the Constitutional Convention recommended changes to the Constitution in order to strengthen the protection of such rights.⁶⁶ Whyte contends that the courts should be prepared to protect socio-economic rights through the use of more intrusive standards of review and the exercise of an ongoing supervisory jurisdiction.⁶⁷

(v) Remedies

It has been held that the courts can fashion their own remedies in order to vindicate a constitutional right.⁶⁸ In *The State (Quinn) v Ryan*⁶⁹ Ó Dálaigh J said:

“It was not the intention of the Constitution in guaranteeing the fundamental rights of the citizen that these rights should be set at nought or circumvented. The intention was that rights of substance were being assured to the individual and that the Courts were the custodians of these rights. As a necessary corollary it follows that no one can with impunity

⁶² See also *Rogers v ITGWU* [1978] ILRM 5 where Finlay P held that the decision of the defendants to enforce a compulsory retirement age was not in conflict with Article 45.

⁶³ [1974] IR 384

⁶⁴ *ibid.* at 303 *per* Fitzgerald CJ (dissenting). The other members of the court did not consider Article 45.

⁶⁵ Report of the Constitution Review Group (Dublin Stationery Office, 1996)

⁶⁶ Eighth Report of the Convention on the Constitution, March 2014.

⁶⁷ Whyte, *op cit*, at 72.

⁶⁸ *McDonnell v Ireland* [1998] 1 IR 134

⁶⁹ [1965] IR 70

set these rights at nought or circumvent them, and that the Courts' powers in this regard are as ample as the defence of the Constitution requires.”⁷⁰

Hardiman J in *Sinnott v Minister for Education*⁷¹ held that these remarks were not to be regarded as an assertion of an unrestricted general power on the part of the judiciary.⁷² However, McMenamin J in *SS v HSE*⁷³ confirmed that where the superior courts find that there is a constitutional right at risk, they must find a remedy in the absence of the State undertaking to observe such a right.

(vi) Unenumerated Socio-Economic Rights

It is clear from the following discussion that a litigant seeking to argue the existence of a new unenumerated socio-economic right, such as the right to an expert witness at the State's expense, will face some significant obstacles. In addition, a plaintiff seeking to enforce any mandatory order directing the State to provide an expert witness to an accused bears a very heavy burden of proof. The Supreme Court, in cases concerning the right to education, demonstrated a loathness to recognise both new unenumerated rights and also implied socio-economic rights.

It has been held that it is generally not the function of the courts to concern themselves with distributive constitutional justice. In *Sinnott*, Barr J in the High Court had granted *inter alia* a mandatory injunction directing the Minister for Education to provide free primary education for a young autistic man. On appeal to the Supreme Court, the Court concluded that Article 42.4 did not require the State to provide free primary education to the plaintiff, but it is clear from the judgments of the court that it was of the opinion that the granting of the mandatory injunction was an impermissible exercise in that it entrenched upon the executive power. Hardiman J outlined his main objections in succinct form as follows:

⁷⁰ *ibid.* at 122.

⁷¹ [2001] 2 IR 545

⁷² *ibid.* at 709. These comments were followed by Edwards J in *HSE v White* [2009] IEHC 242.

⁷³ [2008] 1 IR 594

“Firstly, to do so would offend the constitutional separation of powers. Secondly, it would lead the Courts into the taking of decisions in areas in which they have no special qualification or experience. Thirdly, it would permit the Courts to take such decisions even though they are not, and cannot be, democratically responsible for them as the legislature and the executive are. Fourthly, the evidence based adversarial procedures of the Court, which are excellently adapted for the administration of commutative justice, are too technical, too expensive, too focused on the individual issue to be an appropriate method for deciding on issues of policy.”⁷⁴

In *TD v Minister for Education*,⁷⁵ the Supreme Court allowed the State’s appeal against an order of Kelly J directing various ministers to take all steps necessary to facilitate the building and opening of 12 specified and secure support units for children. It is clear from the judgments of the majority that a mandatory order will be granted against the State in only very exceptional circumstances, and as a “final resort”,⁷⁶ such as where there was a deliberate and conscious decision by the State to act in breach of its constitutional obligations to other parties accompanied by bad faith or recklessness.⁷⁷

TD is also an example of the exercise of judicial restraint in the unenumerated rights doctrine. Keane CJ questioned certain aspects of the unenumerated rights doctrine. He doubted whether the criteria used by Kenny J in *Ryan* for the identification of such rights were satisfactory for the task. He also pointed out that the Supreme Court in *Ryan* had not discussed whether the duty of identifying unenumerated rights should be the function of the courts rather than the Oireachtas. In addition, *TD* is far from a helpful precedent on the topic of unenumerated socio-economic rights. Murphy J noted that, with the exception of Article 42, there was no express provision of the Constitution which impose an express obligation on the State to provide any form of socio-economic benefit for any of its citizens however needy and deserving.⁷⁸ In

⁷⁴ *Sinnott, op. cit.* at 710.

⁷⁵ [2000] 3 IR 62

⁷⁶ *ibid. per Hardiman J* at 372.

⁷⁷ *ibid. per Murray J* at 337.

⁷⁸ *ibid.* at 316.

addition, Keane CJ stated that he would have the “gravest doubts” as to whether the courts should declare socio-economic rights to be unenumerated rights guaranteed by Article 40.⁷⁹

Whyte has argued in the context of socio-economic rights that the Irish Constitution should be interpreted to include positive rights. Whyte argues that the interpretation of constitutions should draw on the text’s background principles. In Whyte’s view, the appropriate set of background principles for the Irish Constitution is Christian thinking on social justice. In his view, this justifies judicial activism and the development of the unenumerated rights doctrine as well as the enforcement of positive rights that combat social exclusion.⁸⁰

Whether the ECHR could provide a basis for the right to an expert witness at the State’s expense is less clear. The ECHR is intended to guarantee not rights that are theoretical or illusory but rights that are practical and effective.⁸¹ The ECHR is generally seen as protecting civil and political rights, with the exception of property rights.⁸² In addition, while the ECHR has been used to impose some positive obligations⁸³ on contracting states, it is generally framed in negative, non-interference terms.

However, it is clear, at least in the area of legal aid, albeit civil legal aid, the ECtHR was willing to recognise a right which did have economic consequences. In *Airey v Ireland*,⁸⁴ the Irish Government submitted that the applicant was seeking to enforce a socio-economic right to legal aid and the ECHR should not be interpreted so as to achieve social and economic developments in a contracting state. The ECtHR responded:

⁷⁹ *ibid.* at 282. In *OA v Minister for Justice* [2007] 1 ILRM 58 Herbert J doubted *obiter* whether socio-economic rights are protected by Article 40.3.

⁸⁰ Whyte, *op. cit.* at 94 – 107.

⁸¹ *Belgian Linguistic* (1979-80) 1 EHRR 252. The ECtHR held that there was no breach of Article 2 of Protocol 1 as the ECtHR decided that the right to education does not extend to require States to establish at their own expense, or to subsidise, education of any particular type or at any particular level, in other words, it does not guarantee children or parents a right to obtain instruction in a language of his choice.

⁸² Article 1 of the First Protocol of the ECHR.

⁸³ See generally Mowbray, *The Development of Positive Obligations Under the European Convention on Human Rights by the European Court of Human Rights* (Hart Publishing, 2004).

⁸⁴ [1979] 2 EHRR 305

“The Court is aware that the further realisation of social and economic rights is largely dependent on the situation - notably financial - reigning in the State in question. On the other hand, the Convention must be interpreted in the light of present-day conditions ... and it is designed to safeguard the individual in a real and practical way as regards those areas with which it deals ... Whilst the Convention sets forth what are essentially civil and political rights, many of them have implications of a social or economic nature. The Court therefore considers, like the Commission, that the mere fact that an interpretation of the Convention may extend into the sphere of social and economic rights should not be a decisive factor against such an interpretation; there is no water-tight division separating that sphere from the field covered by the Convention.”⁸⁵

Therefore, the ECtHR was of the opinion that, although the right of access to the courts does not imply an automatic right to free legal aid in civil proceedings, it may imply the obligation on the part of the State to provide for the assistance of a lawyer to persons in financial need. This is the case where legal aid proves indispensable for an effective access to the court, either because legal representation is rendered compulsory or by reason of the procedural complexity of the case. The ECtHR indicated that a certain financial threshold for the legal costs to be incurred may be acceptable.⁸⁶ The ability of the ECHR to protect socio-economic rights remains limited⁸⁷ and will not be pursued as a basis for the right that is sought in this thesis. However, the requirements of Article 6(3)(c) of the ECHR for criminal legal assistance will be referred to below.

With the above rights-based process considerations firmly in mind, it will be explored whether or not there is a basis for the positive and negative aspects of the right claimed. It is acknowledged that any person who claims the right to

⁸⁵ *ibid.* at [26].

⁸⁶ *Glaser v United Kingdom* (2001) 33 EHRR 1, at [99].

⁸⁷ See Thornton, “The European Convention on Human Rights: A Socio-Economic Rights Charter?” in Egan, Thornton & Walsh (eds), *Ireland and the European Convention on Human Rights: 60 Years and Beyond* (Bloomsbury, 2014), at 227.

an expert witness at the State's expense is going to face significant opposition in the form of the foregoing Irish jurisprudence. The discussion will commence with the right to present expert evidence, as it can be more readily implied into the current constitutional framework.

III. The Right to Present Expert Evidence

The negative right to present expert evidence will now be considered. This is the right of the accused to present expert evidence without interference. In seeking to locate a basis for this right, it is necessary to examine the relevant provisions of the ECHR, and its accompanying jurisprudence, to establish whether they inform the discussion. Some jurisprudence from the United States will also be considered. An attempt will then be made to locate a basis for the right in the existing Irish jurisprudence.

(i) Article 6 of the ECHR

The ECHR was adopted in Irish law by the European Convention on Human Rights Act 2003 ("the 2003 Act").⁸⁸ The 2003 Act provides for numerous forms of implementation of ECHR rights. Section 2(1) thereof imposes an interpretative obligation on Irish courts, stating that:

"In interpreting and applying any statutory provision or rule of law a court shall, in so far as possible, subject to the rules of law relating to such interpretation and application, do so in a manner compatible with the State's obligations under the Convention provisions."

Section 3(1) of the 2003 Act imposes a duty on the organs of state, excluding the courts,⁸⁹ to perform their functions in a manner that is compatible with the Convention. Section 4 requires that courts take judicial

⁸⁸ See generally Egan, Thornton & Walsh, *op cit*, and in particular Chapter 3 therein by de Londras, "Neither Herald nor Fanfare: The Limited Impact of the ECHR Act 2003 on Rights Infrastructure in Ireland".

⁸⁹ Contrast this with the UK Human Rights Act 1998, section 3(1) of which imposes an interpretative obligation on courts (and other bodies) to read primary and subordinate legislation in a way that is compatible with ECHR rights, "so far as it is possible to do so."

notice of declarations, decisions, advisory opinions or judgments of the ECtHR. While the High and Supreme Courts do have the power to grant declarations of incompatibility under section 5 of the 2003 Act, they do not have the power to strike down legislation that is inconsistent with the ECHR. The declaration has no effect on the law.⁹⁰ When both are claimed, a declaration of unconstitutionality must be considered before a declaration of incompatibility.⁹¹ Once all domestic remedies are exhausted, Irish laws may be challenged before the ECtHR.

Further to the discussion of the adversarial system in Chapter 2, it should be borne in mind that the member states of the ECHR comprise both adversarial and inquisitorial systems and some of the jurisprudence of the ECtHR concerning expert evidence is referable back to an inquisitorial system, such that which is employed in Austria. While the text of Article 6 does not explicitly mention norms for the use of expert evidence, the ECtHR has developed norms on the basis of Article 6.

Article 6(1) of the ECHR guarantees the right to a fair and public hearing.⁹² This encompasses the principle of equality of arms, which will be dealt with below. Article 6(2) contains the convention guarantee of the presumption of innocence. Article 6(3) provides that an accused person has a number of minimum rights, including:- (a) the right to have adequate time and the facilities for the preparation of his defence under Article 6(3)(b); and (b) the right to examine or have examined witnesses against him and to obtain the attendance and examination of witnesses on his behalf under the same conditions as witnesses against him, both of which are provided for by Article 6(3)(d).

While Article 6 guarantees the right to a fair hearing, it does not lay down any rules on the admissibility of evidence as such or the way it should be assessed, which are therefore primarily matters for regulation by national law

⁹⁰ The effect of a declaration of incompatibility is that the Taoiseach must cause a copy of the court order with the declaration to be laid before the Houses of the Oireachtas within 21 days.

⁹¹ *Carmody v Minister for Justice* [2010] 1 IR 635

⁹² See generally, Rainey, Wicks & Ovey, *The European Convention on Human Rights*, (6th ed, OUP, 2014) at Chapters 12 and 13 and van Dijk, van Hoof, van Rijn and Zwaak (eds), *Theory and Practice of the European Convention on Human Rights* (Interstentia, 2006) at Chapter 10. See also O'Donnell, "A comparison of Article 6 of the European Convention on Human Rights and the due process requirements of the Constitution of Ireland" (2004) 4(2) JSIJ 37.

and the national courts.⁹³ It is not the role of the ECtHR to determine, as a matter of principle, whether particular types of evidence - for example, unlawfully obtained evidence - may be admissible or, indeed, whether the applicant was guilty or not. This is left within the margin of appreciation of member states. The question which must be answered is whether the proceedings as a whole, including the way in which the evidence was obtained, were fair.

While the case law on Article 6 is voluminous, I will consider the law generally as it applies to expert evidence in criminal proceedings. The right to “adequate facilities” does not, as such, include the right to appoint an expert of one’s choosing to testify at trial, nor does it incorporate the right to appoint a further or alternative expert. Problems of fairness can arise in exceptional circumstances, but the topic of expert witnesses is perhaps better examined by reference to Article 6(3)(d) of the ECHR.

The ECtHR⁹⁴ has held that it is primarily a matter for the national courts to decide whether a particular piece of evidence is formally admissible.⁹⁵ Similarly, under Article 6 it is normally not the role of the ECtHR to determine whether a particular expert report available to a domestic judge was reliable or not.⁹⁶ Subject to some exceptions, the general rule is that the domestic judge has a wide discretion in choosing amongst conflicting expert opinions and selecting one which he or she deems consistent and credible. However, if the rules on admissibility of expert evidence run counter to the principles of equality of arms and adversarial proceedings, or otherwise affect the fairness of the proceedings,⁹⁷ then the ECtHR will intervene. Stavros remarks that the Convention organs have always asserted a wider power of supervision in the area of expert witnesses than in respect of the “relevance” of proposed defence evidence.⁹⁸

⁹³ Mahoney, “Right to a Fair Trial in Criminal Matters under Article 6 ECHR” (2004) JSIJ 107 at 112.

⁹⁴ When I refer to the ECtHR this is also taken to encompass judgments of the Grand Chamber.

⁹⁵ *Garcia Ruiz v Spain* (1999) 31 EHRR 589 at [28].

⁹⁶ *Khodorkovsky and Lebedev v Russia* (2014) 59 EHRR 7

⁹⁷ *Tamminen v Finland* [2004] ECHR 266 at [40] – [41].

⁹⁸ Stavros, *The Guarantees for accused persons under Article of the ECHR: An Analysis of the Application of the Convention and a Comparison with Other Instruments*, International Studies in Human Rights Series (Brill | Nijhoff, 1993) at 241.

Decaigny identifies in the ECHR two fair trial requirements concerning expert evidence: equality of arms and the right to challenge the validity of expert opinions produced by another party.⁹⁹ He states that these must be put in place to guarantee the protections contained in Article 6. The latter is protected by Article 6(3)(d) which provides that the accused has the right to ask or let his legal representative ask the witnesses for the prosecution questions and to obtain the attendance and examination of witnesses for the defence on the same conditions valid for witnesses for the prosecution.¹⁰⁰ Parties also have the right to know and comment upon the evidence and legal submissions of other parties.¹⁰¹ It has been held that, in certain circumstances, the refusal to allow an alternative expert examination of material evidence may be regarded as a breach of Article 6(1) of the ECHR.¹⁰² There is an overlap between this provision and the former requirement of equality of arms, which is an implied element of the general right to a fair trial under Article 6(1). The requirements of Article 6(3) are to be viewed as particular aspects of the right to a fair trial guaranteed by Article 6(1). The cases examined below refer to breaches of the equality of arms principle and Article 6(3)(d) of the ECHR.

The principle of equality of arms is an important one underpinning the ECHR as a whole. The ECtHR has explained that:

“Equality of arms implies that each party must be afforded a reasonable opportunity to present his case – including his evidence – under conditions that do not place him at a substantial disadvantage vis-à-vis his opponent.”¹⁰³

However, in a similar manner to the Irish Supreme Court in *Fitzgerald*, mentioned above in the context of the right to a fair trial under Article 38.1, the

⁹⁹ Decaigny, “Inquisitorial and Adversarial Expert Examinations of in the Case Law of the European Court of Human Rights” (2014) 5(2) *New Journal of European Criminal Law* 149 at 156.

¹⁰⁰ An applicant in an inquisitorial system, for instance, cannot rely on the principle of the “equality of arms” or Article 6(3)(d) in order to call any witness of his choosing to testify at trial: *Vidal v Belgium* [1992] ECHR 47.

¹⁰¹ *Ruiz-Mateos v Spain* [1993] 16 EHRR 505 at [63].

¹⁰² *Stoimenov v FYR Macedonia* [2007] ECHR 257 at [38] *et seq.*

¹⁰³ *Dombo Beeher v The Netherlands* [2003] 18 EHRR 213 at [32] – [33].

ECtHR has not found that simple parity of representation is required by the principle of “equality of arms”. The *amicus curiae* in *Steel and Morris v United Kingdom*¹⁰⁴ stated that that:

“[T]he adversarial system... is based on the idea that justice can be achieved if the parties to a legal dispute are able to adduce their evidence and test their opponent’s evidence in circumstances of reasonable equality.”¹⁰⁵

In Austria and some other continental jurisdictions, experts appear as a general rule at the behest of the court and are not party-based. Article 6(3)(d) is limited to witnesses only and court experts are not generally deemed to be witnesses. A number of findings of the ECtHR indicate that it approves the use of independent¹⁰⁶ court appointed experts,¹⁰⁷ a common feature of inquisitorial systems. The court has even gone so far as to say that their opinions carry more weight than those of experts appointed by the parties.¹⁰⁸

An expert will be regarded as a witness when there are doubts about his or her neutrality. Whenever an expert is considered a witness in a criminal trial,

¹⁰⁴ *Steel and Morris v United Kingdom* [2005] 41 EHRR. This was referred to by the Irish Supreme Court in *Carmody*.

¹⁰⁵ *ibid.* [2005] 41 EHRR at [50].

¹⁰⁶ The ECtHR stressed the independence of the court-appointed expert in *CB v Austria* [2013] ECHR 268 at [42]: “the court-appointed expert must be considered not as appearing for one of the parties to the proceedings, but as an independent expert supporting the court in questions that the court- and its judges- was not able to answer for itself”.

¹⁰⁷ However, there is no unqualified right, as such, to appoint an expert of one’s choosing to testify at trial, or the right to appoint a further or alternative expert. Moreover, the ECtHR has traditionally considered that there is no right to demand the neutrality of a court-appointed expert as long as that expert does not enjoy any procedural privileges which are significantly disadvantageous to the applicant: *Brandstetter v Austria* (1993) 15 EHRR 378. The requirement of neutrality of court appointed experts has been emphasised, especially where the opinion of the expert plays a determining role in the proceedings *Sara Lind Eggertsdóttir v Iceland*, (2009) 48 EHRR 32. The right to appoint a counter-expert may appear where the conclusions of the original expert commissioned by the police trigger a criminal prosecution, and there is no other way of challenging that expert report in court: *Stoimenov v FYR Macedonia* [2009] ECHR 2259.

¹⁰⁸ *Bonisch v Austria* (1987) 9 EHRR 191 at [33]. This decision was cited with approval in *JF v DPP*, *op cit*.

then the Strasbourg jurisprudence dictates that the defence experts are examined under the same conditions as he is. This was the case in *Bonisch v Austria*,¹⁰⁹ wherein a purported expert was deemed to be a witness for the purpose of the ECHR. The applicant was convicted twice under the Austrian Food Act in connection with a technique he used for the smoking of meat. Both proceedings were initiated on the basis of written opinions submitted to the prosecuting authority by the state's Food Control Institute. Those opinions claimed that his techniques were dangerous to health and they contained an excessive concentration of a carcinogenic substance. In the criminal proceedings, the Director of the Food Control Institute who had filed the report was appointed by the court as an expert. The ECtHR held that on the facts the Director was more a witness against the accused than an impartial and neutral expert. The appointment of the Director as a court expert had violated the applicant's right to equality of arms in that the Director had more procedural rights than the witness called by the applicant.¹¹⁰ An alternative finding was made in *CB v Austria*¹¹¹ wherein the court appointed expert was found to have the appropriate degree of independence.

It has been held in *Khodorkovskiy & Lebedev v Russia*¹¹² that the equality of arms requirement implies that an accused must have the opportunity to conduct an active defence. The relevant complaints for the purposes of this discussion were, first, that two prosecution expert reports had been admitted without the applicants being able to challenge it, and secondly, the domestic court had also refused to admit expert evidence (both written and oral) proposed by the defence for examination at the trial. Breaches of Article 6(3)(d) of the ECHR were found regarding both complaints. The ECtHR noted, firstly, that the fact that the prosecution had obtained an expert report without any involvement of the defence did not of itself raise any issue under the ECHR, provided that the defence subsequently had an opportunity to examine

¹⁰⁹ *Bonisch v Austria*, *op cit*.

¹¹⁰ See *GB v France* (2001) 35 EHRR 36 where it was held that there was a violation of Article 6(3)(d) and it was found that a sudden and complete change of evidence given by court appointed expert during the hearing had a decisive impact on jury's opinion, in view of refusal of the trial court to appoint an alternative expert.

¹¹¹ [2013] ECHR 268

¹¹² (2014) 59 EHRR

and challenge both the report and the credibility of those who prepared it, through direct questioning before the trial court.¹¹³

In response to the Russian Government's submission that the defence had not shown why it had been necessary to question the experts, the ECtHR stated that, contrary to the situation with defence witnesses, an accused was not required to demonstrate the importance of a prosecution witness. If the prosecution decided to rely on a particular person's testimony as being a relevant source of information and if the testimony was used by the trial court to support a guilty verdict, the presumption arose that the personal appearance and questioning of the person concerned were necessary, unless the testimony was manifestly irrelevant or redundant.¹¹⁴

The two experts had clearly been key witnesses for the prosecution since their conclusions went to the heart of some of the charges against the applicants. The defence had taken no part in the preparation of the experts' report and had not been able to put questions to them at an earlier stage. In addition, the defence had explained to the domestic court why they needed to question the experts and there were no good reasons for preventing them from coming to the court. Even if there were no major inconsistencies in the report, questioning experts could reveal possible conflicts of interest, insufficiency of the materials at their disposal or flaws in the methods of examination.¹¹⁵

Regarding the second complaint, the ECtHR noted that the domestic court had refused to admit certain expert evidence which it deemed irrelevant or useless. In that connection, the ECtHR reiterated that the requirement of a fair trial did not impose an obligation on trial courts to order an expert opinion or any other investigative measure merely because a party had sought it and, having examined the nature of the reports in question, the ECtHR was prepared to accept that the primary reason for not admitting certain of them was their lack of relevance or usefulness which matters were within the trial court's discretion to decide.¹¹⁶

However, the ECtHR found that two audit reports were in fact rejected for reasons related not to their content but to their form and origins. Unlike the

¹¹³ *ibid.* at [704].

¹¹⁴ *ibid.* at [712].

¹¹⁵ *ibid.* at [714].

¹¹⁶ *ibid.* at [721].

other expert evidence the defence had sought to adduce, these reports were non-legal and concerned essentially the same matters as the reports produced by the prosecution and so were relevant to the accusations against the applicants. By excluding that evidence, the trial court had put the defence in a disadvantageous position as the prosecution had been entitled to select experts, formulate questions and produce expert reports, while the defence had had no such right. Furthermore, in order effectively to challenge a report by an expert the defence had to have the same opportunity to introduce their own expert evidence. The mere right of the defence to ask the court to commission another expert examination did not suffice.¹¹⁷ In the circumstances, the decision to exclude the two audit reports had created an imbalance between the defence and the prosecution in the area of collecting and adducing “expert evidence”, thus breaching the equality of arms between the parties.¹¹⁸ The ECtHR stressed that:

“[I]t may be hard to challenge a report by an expert without the assistance of another expert in the relevant field. Thus, the mere right of the defence to ask the court to commission another expert examination does not suffice. To realise that right effectively the defence must have the same opportunity to introduce their own “expert evidence”.”¹¹⁹

However, the court held that right is not absolute and the forms in which the defence may seek the assistance of experts may vary.¹²⁰ In the instant case, the defence tried to introduce their own “expert evidence” by proposing to the court two reports which it had obtained from third parties. Those reports were relevant, but the court refused to admit them.

The protection provided by the equality of arms principle also implies that the defence can obtain an alternative examination. In *Ivanovski v FYR*

¹¹⁷ In practice, however, the only option that had been available to the applicants under Russian law had been to obtain oral questioning of “specialists” at the trial, but “specialists” had a different procedural status to “experts”, as they had no access to primary materials in the case and the trial court refused to consider their written opinions.

¹¹⁸ *ibid.* at [724] - [735].

¹¹⁹ *ibid.* at [731].

¹²⁰ *ibid.* at [732].

Macedonia,¹²¹ the ECtHR found a violation of Article 6(3)(d) of the ECHR on account of the failure of the domestic courts to admit alternative expert evidence. The applicant had been convicted of drug trafficking. The Criminal Investigations Bureau, a state agency, had commissioned a report which indicated that the applicant's fingerprints had been found on quantities of heroin. The applicant complained that the authors of the expert report had not been examined and requested to have alternative expert examinations conducted. The ECtHR noted that the report of the Bureau was obtained within the preliminary investigation, *i.e.* not in adversarial proceedings and without any participation of the defence. It was drawn up without a court order and its transmission to the public prosecutor had set in motion the criminal proceedings against the applicant. Accordingly, this report was akin to incriminating evidence used by the prosecution rather than a "neutral" and "independent" expert opinion.

The ECtHR noted that the defence was unable to call the experts who had prepared the fingerprint report which undoubtedly made the defence team's task of proving the usefulness of the counter-reports more difficult. The applicant also was unable to introduce himself a private expert opinion. In such circumstances, although the applicant was able to raise his grievances regarding the expert evidence, he was not given any opportunity, as required under Article 6(1) and 6(3)(d), to conduct an active defence, for example, by calling witnesses on his behalf or adducing other evidence.¹²²

The ECtHR reiterated the principle that the right to call witnesses under the ECHR is not absolute and can be limited in the interests of the proper administration of justice. An applicant claiming a violation of his right to obtain the attendance and examination of a defence witness should show that the examination of that person was necessary for the establishment of the truth and that the refusal to call that witness was prejudicial to the defence rights.¹²³ Although it is normally for the national courts to assess the evidence before them as well as the relevance of the evidence which defendants seek to adduce, there might be exceptional circumstances which could prompt the ECtHR to

¹²¹ [2014] ECHR 440

¹²² *ibid.* at [59]. The Court cited *Khodorkovskiy & Lebedev v Russia* in this regard.

¹²³ *Guilloury v France* [2010] ECHR 954

conclude that the failure to hear a person as a witness was incompatible with Article 6.¹²⁴

In *Matytsina v Russia*,¹²⁵ the ECtHR held that there had been a violation of the equality of arms principle on the basis of unfair handling of expert evidence. The case concerned a yoga instructor's conviction of "illegal medical practice" after a participant in one of her courses in traditional Indian spiritual practices experienced serious psychological problems. The ECtHR found in particular that the Russian courts had unfairly handled the expert evidence in the criminal proceedings, which made it very difficult for the applicant's defence to effectively challenge the expert evidence submitted by the prosecution. Specifically, the defence was left in a disadvantageous position compared with the prosecution as it was not permitted to introduce expert evidence to counter the prosecution's evidence and that other expert evidence had been deemed inadmissible.

(ii) Charter of Fundamental Rights of the European Union

Brief reference will be made to the Charter of Fundamental Rights of the European Union ("the Charter"). By virtue of Article 29.4 of the Irish Constitution, European Union Treaties¹²⁶ form part of Irish law and indeed prevail over conflicting Irish law. The Charter formally became part of European Law on 1 December 2009.¹²⁷ Under Article 6(1) of the Treaty of Lisbon, the Charter has the same legal value as the Treaties. Pursuant to Article 51(1) of the Charter, it binds the institutions of the European Union as well as the Member States "when they are implementing Union law". The Charter is a wide-ranging catalogue of rights and principles. It contains classical civil and political rights, citizenship rights and an extensive range of economic, social and cultural rights. However, it is important to note firstly that Article 52(3) of the Charter provides that:

¹²⁴ Citing *Polyakov v Russia* [2009] ECHR 175

¹²⁵ [2014] ECHR 334

¹²⁶ See consolidated Treaty on European Union and Treaty on the Functioning of the European Union, OJ C 202 (2016).

¹²⁷ Article 6, Treaty of Lisbon. See generally Peers, Hervey, Kenner & Ward, (eds), *The EU Charter of Fundamental Rights: a commentary* (Hart Publishing, 2014).

“In so far as this Charter contains rights which correspond to rights guaranteed by the Convention for the Protection of Human Rights and Fundamental Freedoms, the meaning and scope of those rights shall be the same as those laid down by the said Convention. This provision shall not prevent Union law providing more extensive protection.”

Article 47 of the Charter concerns the right to an effective remedy and a fair trial. The fair trial provisions are as follows:

“Everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal previously established by law. Everyone shall have the possibility of being advised, defended and represented.

Legal aid shall be made available to those who lack sufficient resources in so far as such aid is necessary to ensure effective access to justice.”

This corresponds to Article 6(1) of the ECHR.¹²⁸ In *Otis*,¹²⁹ the Court of Justice of the European Union (“CJEU”) stated that it had embraced the case law of the ECtHR and endorsed the principle of equality of arms, which it described as “a corollary to the very concept of a fair hearing”.¹³⁰

Article 48(1) expressly enshrines the presumption of innocence and Article 48(2) goes on to state:

“Respect for the rights of the defence of anyone who has been charged shall be guaranteed.”

In accordance with Article 52(3) of the Charter, Article 48 thereof corresponds with Article 6(2) and 6(3) of the ECHR discussed above.¹³¹ As the CJEU has

¹²⁸ Explanations relating to the Charter of Fundamental Rights Official Journal of the European Union C 303/17 – 14. 12. 2007

¹²⁹ Case C-199/11 *Europese Gemeenschap v Otis NV & Others*, Judgment of 6 November 2012

¹³⁰ *ibid.* at [17].

¹³¹ *ibid.*

made clear in its recent decision in *Åkerberg Fransson*, this means that the Charter is “applicable in all situations governed by European Union law, but not outside such situations”.¹³² As the scope of EU law has expanded, this brings the Charter into play in an ever-increasing range of areas traditionally covered by Irish law and the Irish Constitution alone. For example, in cases where prosecutions are brought pursuant to the Competition Act 2002,¹³³ the Charter would be applicable as the court is no doubt implementing EU law. However, in the many areas which still fall outside EU law, the Charter is not applicable and forms no part of the Irish constitutional framework.

(iii) *United States*

It must be acknowledged from the outset that there are fundamental differences between the Irish and American legal systems. Unlike Irish law, the American law of evidence has been codified to a certain degree by the Federal Rules of Evidence. However, prior to this, the law of evidence in the US was originally a creature of the common law. The US has a written constitution and, as will be seen below, has shown a commitment to the presumption of innocence and the rights of an accused person. In addition, a discussion of the right to present evidence in the US is essential at this stage as this chapter later considers whether there is a basis for the positive aspect to the right that this thesis seeks in US jurisprudence. However, it is also acknowledged that the US Supreme Court has in place a different test for the admissibility of evidence in that expert evidence must pass a reliability threshold.¹³⁴

The Sixth Amendment to the US Constitution states:

“In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the state and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and

¹³² Case 617/10, *Åklagaren v Hans Åkerberg Fransson*, at [19].

¹³³ Under sections 6 and 7 of the Competition Act 2002 it is an offence to breach section 4 relating to anti-competitive agreements and section 5 relating to abuse of a dominant position. See generally Dunleavy, *Competition Law: A Practitioner's Guide* (Bloomsbury, 2010).

¹³⁴ *Daubert v Merrell Dow Pharmaceuticals, Inc* 509 US 579 (1993). See further Chapter 4.

cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.”¹³⁵

Section 1 of the Fourteenth Amendment contains the Due Process Clause, along with the Equal Protection Clause.¹³⁶ On its face, the US Constitution is as committed as the Irish Constitution to preventing the conviction of the innocent. Heffernan and Imwinkelried write that, for the most part, the United States Supreme Court has vigorously protected an accused’s constitutional right to present evidence.¹³⁷ On two occasions, the court has upheld the right even though doing so required overriding an evidentiary rule that was then a majority view in the US.¹³⁸ The Due Process Clause provides some minimum standards at least when an accused can demonstrate that particular resources, such as the retention of expert assistance, are essential to a fair determination of key issues in the case.

The US Supreme Court regards the right to present a defence as fundamental.¹³⁹ The leading case of *Washington v Texas*¹⁴⁰ conferred constitutional status on the accused’s right to present evidence. The US Supreme Court held that the application of a statute which operated as a bar on

¹³⁵ The United States Supreme Court has held that the Sixth Amendment also applies to governments of the individual states.

¹³⁶ The text of the clause reads in full: “All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the state wherein they reside. No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty, or property, without *due process of law*; nor deny to any person within its jurisdiction the *equal protection* of the laws.” (Emphasis added).

¹³⁷ However, *United States v Scheffer* 523 US 303 (1998) seems to be a deviation from this norm. Here, the court upheld Military Rule of Evidence 707, a blanket ban on polygraph testimony. For a criticism of this decision see Imwinkelried, “A Defense of the Right to Present Defense Expert Testimony: The Flaws in the Plurality Opinion in *United States v Scheffer*” (2001-2002) 69 Tennessee Law Review 540

¹³⁸ *Chambers v Mississippi* 410 US 284 (1973) (hearsay and declarations against interest) and *Rock v Arkansas* 483 US 44 (1987) (admissibility of hypnotically enhanced testimony).

¹³⁹ See generally Clinton, “The Right to Present a Defense: An Emergent Constitutional Guarantee in Criminal Trials” (1975-1976) 9 Indiana Law Review 711.

¹⁴⁰ *Washington v Texas* 388 US 14 (1967)

a defence witness giving exculpatory testimony violated the plaintiff's constitutional rights.¹⁴¹ Warren CJ held that the Fourteenth Amendment Due Process clause incorporates the Sixth Amendment compulsory process guarantee, and as a necessary implication from the latter, the accused has an implied right to present critical exculpatory testimony. Warren CJ proclaimed that a criminal accused has an implied "right to put on the stand any witness who [would be] physically and mentally capable of testifying to events that he ha[s] personally observed, and whose testimony [is] relevant and material to the defense".¹⁴² The *Washington* doctrine was reaffirmed and extended in *Chambers v Mississippi*¹⁴³ where Powell J stated that the trial judge had applied the hearsay rule "mechanically to defeat the ends of justice".¹⁴⁴ He concluded that the judge had violated Chambers' constitutional right "to present witnesses in his own defense" and emphasised that "[f]ew rights are more fundamental".¹⁴⁵ The Supreme Court in *Chambers*, however, based its finding on the Due Process Clause.

Washington and *Chambers* are authority for the proposition that the accused has a fundamental constitutional right to present a defence, and that this includes a right to present favourable evidence.¹⁴⁶ The decision in *Crane v Kentucky*¹⁴⁷ established that the accused's Sixth Amendment right applies to defence testimony which is adduced to attack prosecution testimony.

After *Chambers*, numerous courts invoked the aforementioned Sixth Amendment right to mandate the admission of various types of expert testimony. Imwinkelried and Scofield¹⁴⁸ cautioned against an overstatement of

¹⁴¹ This was on the basis of two Texan statutes that prohibited a person from testifying as a defence witness if the person had been "charged or convicted as [a co-participant] in the same crime".

¹⁴² *ibid.* at 23.

¹⁴³ 410 US 284 (1973)

¹⁴⁴ *ibid.* at 302. The prosecution had objected to the elicitation of statements of third parties by the defence on the grounds that they constituted hearsay. In response, the defence argued that the statements qualified as declarations against interest. The trial judge concurred with the prosecution and sustained the hearsay objection.

¹⁴⁵ *ibid.* at 302.

¹⁴⁶ *Crane v Kentucky* 476 US 683 (1986) at 687.

¹⁴⁷ *ibid.*

¹⁴⁸ Imwinkelried & Scofield, "The Recognition of An Accused's Constitutional Right to Introduce Expert Testimony Attacking the Weight of Prosecution Science Evidence; The

the right, despite the sweeping assertion made on the part of some judges that the accused has a “constitutional right to present all relevant evidence in his defense to the crime with which he is charged”.¹⁴⁹ The authors comment that it would trivialise that right, and revolutionalise criminal evidence law, to extend the right to “all relevant” defence evidence. They claim that the right is more limited and to trigger the right, the accused must establish two things. He must show that the evidence is highly material to the case and he must make at least a minimal showing that the evidence is trustworthy.¹⁵⁰ It is appropriate to pause here and note that the first prong means that the evidence must be relevant, which was discussed in Chapter 2. The second prong refers to the aforementioned reliability standard in the United States.¹⁵¹

Rock v Arkansas,¹⁵² a homicide case which concerned hypnotically enhanced testimony to the effect that the accused’s gun had accidentally misfired, strengthens the argument for applying the Sixth Amendment to restrictions on the admissibility of expert testimony. The state court had concluded that hypnotically enhanced testimony is so untrustworthy that it is *per se* inadmissible.¹⁵³ In the successful appeal to the US Supreme Court,¹⁵⁴ Blackmun J, for the majority, cited *Washington* which held the accused has the right to call witnesses, including herself.¹⁵⁵ Blackmun J did concede that the state had a legitimate interest in protecting the integrity of the fact-finding process by excluding unreliable evidence. He also admitted that the use of hypnosis in criminal investigation was controversial, and that the current medical view of its appropriate use was unsettled at that time.¹⁵⁶ However, after reviewing the relevant scientific literature, he concluded that the prosecution had failed to show that “hypnotically enhanced testimony is

Antidote for the Supreme Court’s Mistaken Assumption in *California v. Trombetta*” (1991) 33 Arizona Law Review 59

¹⁴⁹ *ibid.* at 76 citing *Lowther* 740 P 2 d at 1021.

¹⁵⁰ *ibid.* at 76.

¹⁵¹ See further Chapter 4.

¹⁵² *Rock v Arkansas* 483 US 44 (1987)

¹⁵³ *Rock v State* 288 Ark, 566, 573, 708, S.W.2d 78, 81 (1986) *vacated*, 483 US 44 (1987)

¹⁵⁴ *Rock v Arkansas* 483 US 44 (1987), at 55.

¹⁵⁵ *ibid.* at 52.

¹⁵⁶ *ibid.* at 59.

always so untrustworthy... that it should disable a defendant from presenting her version of events".¹⁵⁷

*Holmes v South Carolina*¹⁵⁸ confirmed the US Supreme Court's commitment to protecting the evidentiary rights of the accused in an "affirmative" sense. The defence had been precluded from introducing evidence of "third-party guilt", *i.e.* that another individual was guilty of the crime. The trial judge excluded this evidence on the basis of state court precedent. The South Carolina Supreme Court had held that evidence of third party guilt did not raise a reasonable inference as to an accused's innocence in the face of strong forensic evidence as to his or her guilt and, consequently, was inadmissible in the circumstances.¹⁵⁹ Writing for a unanimous court, Alito J found that the state evidentiary rule violated a criminal defendant's right to have a meaningful opportunity to present a complete defence, whether rooted in the Due Process Clause of the Fourteenth Amendment or the compulsory process or confrontation clauses of the Sixth Amendment. The rule was arbitrary in the sense that it did not rationally serve the legitimate end that third-party guilt rules are designed to further, *i.e.* to focus the trial on the central issues by excluding evidence that has only a very weak logical connection to those issues.

This decision demonstrated that the constitutional rights of an accused person may be imperiled even where the state is pursuing a legitimate aim in permitting the exclusion of defence evidence. Heffernan and Imwinkelried draw a comparison between this and the Constitution of Ireland and the ECHR, where interference with rights in pursuit of legitimate aims is acceptable only when serviced by appropriate means.¹⁶⁰

(iii) Ireland

As outlined above, it was held in *State (Healy) v Donoghue* and *Re Haughey* that an accused person generally has the right to give evidence in his defence,

¹⁵⁷ *ibid.* at 61.

¹⁵⁸ *Holmes v South Carolina* 126 S Ct 1727, 164 L Ed 2d 503 (2006)

¹⁵⁹ Citing *State v Gregory* 198 SC 98, 16 S.E. 2d 532 (1941); *State v Gay* 343 SC 543, 541 S.E. 2d 541 (2001)

¹⁶⁰ Heffernan and Imwinkelried, *op. cit.*, at 137.

such a right being implicit in the broader right to fair procedures.¹⁶¹ The question now arises as to whether the accused has a constitutional right to present expert evidence and the parameters of that right in a criminal trial. This also involves an examination of whether the notion of equality of arms has been recognised in the context of expert witnesses in this jurisdiction.

The principles set out in the civil case of *McGrory v ESB*¹⁶² have been held to be applicable in the criminal sphere.¹⁶³ The defendant in that personal injuries action sought and obtained a stay of proceedings until the plaintiff consented to allow his medical advisers to consult with the defendants'.¹⁶⁴ It was held by Keane CJ that a plaintiff who sues for damages for personal injuries by implication necessarily waives the right of privacy that he would otherwise enjoy in relation to his medical condition. Therefore, the court held that the law must be in a position to ensure that he does not unfairly and unreasonably impede the defendant in the preparation of his defence by refusing to consent to a medical examination. This principle is no doubt important in personal injuries proceedings. However, it assumes more importance in the criminal context, where an accused person is threatened with the loss of his or her liberty.

The Supreme Court recognised the importance of the principle of equality of arms in criminal proceedings in the context of expert witnesses in *JF v DPP*.¹⁶⁵ This case provides strong support for the right to present expert evidence. This was a judicial review decision in which the DPP had relied on the opinion of an expert psychologist who had interviewed the complainant to assert that the delay alleged by the applicant on the part of the complainant in bringing the alleged sexual offences to the authorities was reasonable. The applicant, being the accused charged with those offences, wished the complainant to be examined by an expert psychiatrist retained on his behalf.

¹⁶¹ This right has been affirmed on a number of occasions e.g. *Donnelly v Ireland and Others* [1998] 1 IR 321

¹⁶² [2003] 3 IR 407

¹⁶³ *JF v DPP* [2005] 2 IR 174

¹⁶⁴ This was on the basis that a plaintiff who sued for damages for personal injuries must be taken to waive his right to the privacy and the confidentiality which he would otherwise enjoy in relation to his medical condition.

¹⁶⁵ [2005] 2 IR 174

However, this was refused by the DPP. This meant that the expert evidence put forward by the DPP to excuse the delay went uncontroverted.¹⁶⁶

Hardiman J rejected the argument that a person is only allowed to adduce their own expert evidence where there is some reason to doubt the independence or objectivity of the other side's expert. He held that the disadvantage to a professional witness in not having personally assessed an individual whom the other side's expert has assessed was so great that it deprived the applicant of the opportunity "effectively" to present his case through an expert.¹⁶⁷ He also considered that there was a denial of *Re Haughey* rights, in that the accused was not allowed to give rebutting evidence since it was undisputed that no such evidence can properly be formulated without an assessment of the complainant.

He also considered that a refusal of access to the complainant for the applicant's expert subverts the right to cross-examination:

"Oral contradiction in a public forum is the culmination of the work of the cross-examiner but it is by no means the whole of it. All effective cross-examinations, not least of expert witnesses, are the result of intensive preparation. It is of the essence of the right to cross-examine that the cross-examiner, the advocate selected by the person impugned, should have access to the materials for cross-examination. Study and assessment of these materials is a vital part of the process of cross-examination. It is also a vital factor in the formulation of the advice an advocate gives to his client. In a case with a significant issue of expert evidence this process of preparation will take place in consultation with the party's own expert. If this expert is at a disadvantage *vis a vis* with the other side's expert, counsel will be at a disadvantage in conducting the cross-examination."¹⁶⁸

Hardiman J held that it would be "devastating" to an opponent for an expert to be able to rely on the fact that he had seen the complainant a number

¹⁶⁶ The applicant had applied that the section in the DPP's Statement of Opposition referring to such evidence be struck out.

¹⁶⁷ Citing *Steel & Morris v United Kingdom*, *op. cit.* at [59].

¹⁶⁸ [2005] 2 IR 174 at 183 – 184.

of times. It appears that Hardiman J was of the opinion that the foregoing rights, as recognised by the ECtHR, were also afforded by domestic law. He did not believe that the ECHR in this context supplied rights lacking in the Irish constitutional regime of trial in due course of law.

While *Markey v Minister for Justice*¹⁶⁹ was a judicial review case and concerns the differences between the procedural obligations associated with the trial process imposed on the prosecution and accused, it does concern a statutory limit on the right under consideration and must be examined. The decision concerned the requirement for leave to call expert witnesses in a criminal defence contained in section 34 of the Criminal Procedure Act 2010 (“the 2010 Act”). The applicant applied for a declaration that this provision was unconstitutional and a further declaration that it was incompatible with the ECHR.¹⁷⁰

Section 34 of the 2010 Act was designed to give effect to the recommendations of the Balance in the Criminal Law Review Group.¹⁷¹ The Group noted the disparity of obligations between the prosecution and the defence in a criminal trial.¹⁷² They also acknowledged that last minute

¹⁶⁹ [2011] IEHC 39

¹⁷⁰ The applicant’s solicitor stated in an affidavit dated 15 September 2010 that he had advised the applicant that an expert report was required for the conduct of his defence and he commissioned a report by way of letter dated 6 September 2010. As of the date of the swearing of the affidavit no expert report had been obtained by any expert. The expert report eventually came to hand on 11 October 2010.

¹⁷¹ Balance in the Criminal Law Review Group Report, 15 March 2007. The background to the section was referenced by Kearns P in *Markey v Minister for Justice* [2011] IEHC 39.

¹⁷² In a trial on indictment, the prosecution have a number of obligations towards the defence. Statute provides that, in the case of trial on indictment, that an accused be furnished with a “book of evidence” containing all relevant documentary evidence, including the statements of the evidence of the prosecution witnesses. See Section 4B(1) of the Criminal Procedure Act 1967, as inserted by the Criminal Procedure Act 1999. There is no equivalent statutory provision in the case of a summary trial. After some initial confusion, in *Director of Public Prosecutions v Doyle* it was confirmed that advance notice may be required in certain circumstances when the accused is being tried summarily if fair procedures dictate it. The prosecution are required to set out details of the precise conclusions that they seek to prove (in the form of statement of and particulars of the offence in the indictment) and to furnish not only copies of exhibits and the statements of witnesses it is intended to call, but also any other material which may be useful to the defence. The defence, by contrast, was not required to furnish any such information. There are limited exceptions such as alibi evidence under s.20 of

disclosure by the defence could cause major problems for the task of fairly discovering the truth and that such late disclosure can cause confusion. The Group concluded that the arrangements were imbalanced and unsatisfactory. The principal recommendation of the group was that expert reports obtained by the defence should be disclosed well in advance of trial in specific contexts. Section 34 of the 2010 Act actually goes further than the Group's recommendations and incorporates a further requirement that the defence will not be able to call an expert witness or adduce expert evidence without the leave of the court.¹⁷³ The defence must give 10 days notice to the prosecution if they intend to call an expert witness or adduce expert evidence.¹⁷⁴¹⁷⁵

the Criminal Justice Act 1984 and information regarding witnesses required by the Offences against the State (Amendment) Act 1998, or the intention to adduce evidence regarding the mental condition of the accused under s.19 of the Criminal Law (Insanity) Act 2006.

¹⁷³ Section 34 has been said to embody "a conspicuous extension of the duties on the defence in relation to its intended evidence" *per* Heffernan & Ní Raifertaigh, *Evidence in Criminal Trials*, (Bloomsbury, 2014) at [6.45]. The provision fails to distinguish between different types of expert evidence and assumes that every form of expert evidence poses the dangers outlined by the Group. In addition, the section is not limited to trials on indictment and appears to apply to any kind of expert evidence given at any stage in criminal proceedings.

¹⁷⁴ Section 34(2) of the 2010 Act. "Expert evidence" is defined under s. 34(9) as "evidence of fact or opinion given by an expert witness" and an "expert witness" is "a person who appears to the court to possess the appropriate qualifications or experience about the matter to which the witness's evidence relates." According to s. 34(3) the notice shall be in writing and shall include "(a) the name and address of the expert witness, and (b) any report prepared by the expert witness concerning a matter relevant to the case, including details of any analysis carried out by or on behalf of, or relied upon by, the expert witness, or a summary of the findings of the expert witness." However, under s. 34(4) the court may grant leave to call an expert witness or adduce expert evidence even if no report or summary of the findings are included if the court is satisfied that the accused took "all reasonable steps" to secure the report or summary before giving the notice.

¹⁷⁵ It is noteworthy that despite the requirement for the leave of the court to be granted in order to call an expert witness or adduce expert testimony, the court does retain some discretion. The ten-day notice period is dispensed with when it would not have been reasonably possible for the defence to give such notice. See s. 34(5)(b). Also, the court can grant leave on the application of the defence "in the interests of justice" if a matter arose from the giving of prosecution expert evidence that it was not reasonably possible for the defence to have anticipated.

It was contended on behalf of the applicant *inter alia*¹⁷⁶ that section 34 materially disadvantages and restricts an accused person from testing by cross-examination the prosecution evidence in accordance with established rules of evidence. It was also contended that it promoted inequality of arms to the prejudice of the weaker party, *i.e.* the accused, where the means of adducing evidence consistent with innocence or mitigating culpability were no longer available as of right, but only where leave to do so had been granted on an occasion other than at trial.

In a regrettably brief judgment, Kearns P refused a declaration that on the grounds that the said requirement was limited and proportionate to the requirements of the prosecution system. Kearns P agreed with the respondent's contention that the application was premature and hypothetical, as no decision had been made by any court refusing leave to the applicant to adduce expert evidence.¹⁷⁷ He did state that he was not expressly deciding the case on this basis and proceeded to consider whether the requirement to seek leave

¹⁷⁶ It was also contended on behalf of the applicant that the measures contained in s. 34 of the 2010 Act encroach upon an accused person's right to silence by requiring him, through his expert, to disclose his defence in advance of the trial hearing. Counsel for the applicant also relied on the potential unfairness of the section as it imposed an obligation on an accused person to seek and obtain leave of the court to call such evidence while no equivalent obligation was imposed on the prosecution. Further, that obligation had to be discharged at a point in time before the commencement of the case rather than at the time chosen by the defence. A further argument was that a decision not to grant leave was one which was incapable of being appealed. The thrust of the respondent's argument was that the section merely brought forward the point at which the trial judge determined the admissibility of certain evidence. Section 34 was intended to remove the possibility of defence by ambush and ensure that the prosecution would have a reasonable opportunity to consider the proposed evidence of the defence expert witness before that witness gave evidence.

¹⁷⁷ Kearns P noted that it cannot have been the case that a decision to call the expert as a witness had been made at the time of seeking leave (15 September 2010) as the report did not arrive until 11 October 2010. Kearns P did not agree that the applicant's constitutional rights were in "imminent danger" as if it turned out that the expert report was not helpful then no question arose of calling the expert in this case. He also reiterated the well established principle that the continuity of criminal proceedings should not be interrupted by judicial review, citing *Director of Public Prosecutions v Special Criminal Court* [1999] 1 IR 60 and stating that it was more appropriate to have such matters dealt with as and when they arise by the trial judge who is hearing the case.

adversely impacted on the constitutional rights of an accused, as he was requested to do so by the respondents.¹⁷⁸

Kearns P dispensed briefly with the applicant's contentions that section 34 of the 2010 Act firstly created an inequality of arms; and secondly compromised or limited his right to cross-examination by distinguishing the authorities relied upon by the applicant. While he recognised that the Supreme Court in *JF v DPP* had acknowledged the importance of the concept of equality of arms in criminal proceedings, the case was distinguished as it was a sexual abuse case and the views of the Court were expressed in a context whereby the defence was being denied the opportunity to call its own expert evidence in an attempt to rebut the evidence of the expert retained on behalf of the prosecution. Kearns P was of the opinion that the difficulty in that case arose from the unwillingness of the complainant to be assessed by the accused's psychological expert and the difficulty for effective cross-examination derived from this fact and nothing else.¹⁷⁹ With respect, this is an unduly limited analysis of the decision in *JF v DPP*, and should not be seen as limiting the reliance on that case as the basis for the right under consideration. As is clear from the above discussion, Hardiman J in that case delivered a trenchant defence of the rights of an accused person to present evidence.

The applicant in *Markey* did argue that he was procedurally disadvantaged by the requirement of applying for leave and uniquely disadvantaged because no similar obligation falls on the prosecution. In response to this argument, Kearns P noted the different obligations on both sides of a criminal trial. There is an obligation on the prosecution to make disclosure of all materials gathered in the course of the investigation which might be of assistance to the defence and the further obligation to furnish to the defence in a timely manner all statements of the proposed evidence upon which it intends to rely at trial, including the statements of experts. No such

¹⁷⁸ It was contended by the respondents that the applicant's case was premature, hypothetical and moot. However, largely motivated by a desire to confirm the constitutional soundness of s. 34, the respondents proceeded to argue its constitutional validity.

¹⁷⁹ Kearns P held that *O'Callaghan v Mahon* [2006] 2 IR 32 was not relevant either in the context of cross examination as the focus of the Court's concern lay more with the Tribunal's failure to make full disclosure of statements and other materials which would have formed a useful basis for the cross-examination of a particular witness before that Tribunal.

obligations fall on the defence, apart from some statutory exceptions. Kearns P stated:

“To characterise the obligations imposed on the different sides to a criminal trial as an evenly balanced see-saw which becomes totally unbalanced by the imposition of a requirement to notify the prosecution and seek leave in respect of expert evidence upon which the defence proposes to rely strikes me as astonishing and unreal.”¹⁸⁰

Kearns P also noted that by virtue of the requirement created by s. 34 a defendant will know in advance that his expert’s testimony will be admissible, can thus rely upon it in cross-examination and/or either call or not call the particular witness as circumstances at trial might require. Kearns P concluded that any interference caused by section 34 of the 2010 Act, to the extent that it may be said to interfere with any constitutionally protected right of the applicant, was limited and proportionate having regard to the nature, scope and effect of the provision when placed in balance with the public interest in an effective and balanced prosecution system. He noted that the criminal law system already contained a number of provisions which either require or encourage some measure of pre-trial disclosure on the part of the defence.¹⁸¹

Kearns P, again in regrettably succinct terms, referred to the notion of equality of arms in *Harrington v Cork City Council & Cork County Council*,¹⁸² a case concerning the disclosure of expert reports in personal injuries proceedings. He observed that the notion of equality of arms as emphasised by the ECtHR had “increasingly permeated judicial thinking in this jurisdiction”.¹⁸³

¹⁸⁰ *Markey v Minister for Justice, op cit.*

¹⁸¹ Kearns P referred to the statutory requirements relating to alibi and mental condition referenced above.

¹⁸² [2015] IEHC 41. Kearns P held where the plaintiff has obtained expert evidence but the defendant has not, the plaintiff is still under an obligation to disclose its expert reports to the defendant under the disclosure rules, provided the defendant gives an undertaking not to send copies of the reports to their own experts when instructed.

¹⁸³ *ibid.* at [16]. Kearns P did remark that no such jurisprudence had been opened to him.

In *Carmody v Minister for Justice*,¹⁸⁴ which will be discussed further in the context of criminal legal aid, the appellant relied on the notion of “equality of arms”.¹⁸⁵ As the issue of constitutionality was decided upon by the Supreme Court, it was not necessary for it to consider in full the arguments based on the ECHR. However, the Supreme Court reiterated the observation made above that equality of arms does not mean parity of representation, holding that, in general terms, the principle or notion of equality of arms means that neither party in criminal trials should be procedurally disadvantaged as compared to the other party. The Supreme Court referred to Henchy J in *State (Healy) v Donoghue*: a defendant is entitled to have his or her trial conducted in the manner which would not “shut him out from a reasonable opportunity of establishing his innocence; or... of receiving a sentence appropriate to his degree of guilt and his relevant circumstances.”¹⁸⁶ The Supreme Court in *Carmody* focused on the constitutional right to a fair trial and why this was violated in this particular case. Murray CJ said:

“The notion of “equality of arms” is but one aspect of the general right to a fair trial or a trial in due course of law. Therefore the Court does not consider it necessary to analyse that notion further for present purposes since the issue in this case falls to be decided within the broader notion of right to a just or fair trial.”¹⁸⁷

It is apparent from the foregoing that there is at least a basis for a right to present expert evidence in Irish law, in that the State is prohibited from interfering with that right. It is clear from the pronouncements of the Irish courts that the notion of equality of arms is inherent in the Irish guarantee of a fair trial, and does not exclusively arise from the incorporation of the ECHR. However, the jurisprudence of the ECtHR concerning expert evidence is undoubtedly helpful in assessing the true meaning of equality of arms and the Irish courts should pay it heed.

¹⁸⁴ *Carmody v Minister for Justice* [2010] 1 IR 635

¹⁸⁵ It was also argued that Article 6(3)(c) of the ECHR was violated due to the failure to provide him with a solicitor and a barrister, when the state had access to both.

¹⁸⁶ *State (Healy) v Donoghue*, *op. cit.* at 353

¹⁸⁷ *Carmody v Minister for Justice*, *op. cit.* at 661.

From the ECHR jurisprudence, it appears that the right only arises where the prosecution has adduced expert evidence, and that preventing the accused from effectively challenging that evidence is a breach of the principle of equality of arms. The accused must have an opportunity to conduct an “active defence”, or a “meaningful defence”, if one is to borrow the language of the US Supreme Court. However, it is clear that the right is not absolute, and it can be limited in the interests of the proper administration of justice. The expert evidence to be adduced by the accused, of course, has to be relevant. In addition, the accused would have to show that the expert evidence was necessary for the establishment of the truth and that the refusal to allow that expert evidence to be adduced would be prejudicial to his defence. Also, it is a right to reasonable equality of arms only. This was probably clear in any event from the Irish decision in *Fitzgerald*. Therefore, a failure to afford the accused the exact same conditions for the admission of expert evidence as the prosecution will not necessarily result in a breach of that right.

This leads to the next point. It is also clear from the decision in *Markey* that the State is entitled to place legislative limits on the right as long as these limits are proportionate. This is uncontroversial as it merely reflects the dominant way in which the Irish courts have traditionally assessed legislative limitations on rights. In Irish law, the proportionality test can trace its origins to the High Court decision of Costello J in *Heaney v Ireland*.¹⁸⁸ Costello J stated that the test to be adopted was from the Canadian case of *R v Chaulk*:¹⁸⁹

“The objective of the impugned provision must be of sufficient importance to warrant overriding a constitutionally protected right. It must relate to concerns pressing and substantial in a free and democratic society. The means chosen must pass a proportionality test. They must:

- (a) be rationally connected to the objective and not be arbitrary, unfair or based on irrational considerations;
- (b) impair the right as little as possible; and

¹⁸⁸ [1994] 3 IR 593. Costello J also pointed to the case of *Cox v Ireland* [1992] 2 IR 503 as an example of a case where the essence of the decision was that the punishment in question was disproportionate.

¹⁸⁹ *Chaulk v R* [1990] 3 SCR 1303 at 1335.

(c) be such that their effects on rights are proportional to the objective
...¹⁹⁰

The proportionality test can be regarded as having four elements:- (a) legitimate aim (b) rational connection (c) minimum impairment of the right; and (d) overall balance.¹⁹¹ Since the decision in *Heaney*, proportionality has become widely accepted in the Superior Courts as the way in which legislative infringement of constitutional rights is to be assessed.¹⁹²

IV. Right to an Expert Witness at the State's Expense

The right to present expert evidence would be rendered nugatory if the accused person cannot afford to retain an expert. Meintjies-Van der Walt makes the point that there is a difference between an accused's right to challenge expert evidence and his ability.¹⁹³ Arguably, if he has no ability, and this includes his financial wherewithal, then his right is impaired. A right to an expert witness at the State's expense is a positive right, and implies a duty on the part of the State to give effect to it. However, effective implementation of the right carries with it socio-economic implications. At this juncture, it is acknowledged the argument in support of such a right is confined to a situation where a person, through their lack of means, is unable to retain expert assistance. A general right to an expert at the State's expense is unlikely to be recognised.¹⁹⁴

¹⁹⁰ *Heaney v Ireland*, *op. cit.* at 607.

¹⁹¹ Brady notes that while this formulation of the test does not expressly refer to a "legitimate aim" criterion, the first sentences could be regarded as a legitimate aim test. Brady, *Proportionality, Deference and Fundamental Rights in Irish Administrative Law: The Aftermath of Meadows* (2010) 17 DULJ 136. See also Foley, "The Proportionality Test: Present Problems" (2008) 1 Judicial Studies Institute Journal 67.

¹⁹² *Meadows v Minister for Justice, Equality and Law Reform* [2010] 2 IR 701

¹⁹³ Meintjies-Van der Walt, "S v Huma (1) 1995 (2) SACR 407 (W) Shooting at science: expert evidence and equality of arms" (1996) 9 South African Journal of Criminal Justice 361 at 361.

¹⁹⁴ See *K Security v Ireland* (Unreported, High Court, 15 June 1977) where it was held that the decision in *State (Healy) v Donoghue*, *op. cit.*, did not mean that every person charged with a criminal offence had a constitutional right to have their defence paid for out of State funds. See Hogan & Whyte, *op. cit.*, at [6.5.24].

Whyte identifies three key objections towards recognising socio-economic rights:- (a) infringement of the doctrine of separation of powers; (b) usurpation of democratic politics; and (c) straying beyond judicial expertise. However, as will be seen, these are strikingly absent from the judicial decisions on the right to criminal legal aid. Whyte makes the point that it does not appear to have occurred to any member of the Supreme Court in *Carmody* that there may be an inconsistency between its previous stance in *Sinnott* and *TD*, on the one hand, and its decision in *Carmody* effectively requiring the State to spend public monies on the defence of indigent defendants in criminal cases.¹⁹⁵

Hogan observes that if socio-economic rights are made justiciable and vindicated by the courts, then this will distort the traditional balance of the separation of powers between the judiciary and the other branches of government, in that more power will flow to the judiciary.¹⁹⁶ He also observes that socio-economic rights are resource dependent, whereas this is not true of the classic civil and political rights. He does acknowledge that the protection of classic civil and political rights will have budgetary implications, but this is usually an indirect consequence of the court's order. Hogan acknowledges, in a footnote,¹⁹⁷ that court directed provision of legal aid is the exception which proves this particular rule.¹⁹⁸ Therefore, in order to argue that the State is obliged to provide expert assistance, an analogy with criminal legal aid will be drawn. Before delving into the jurisprudence, the present system of State funding for expert evidence under criminal legal aid will be considered.

(i) The Present System under the Criminal Legal Aid Scheme

The English Court of Appeal in the infamous Birmingham Six case¹⁹⁹ was alive to constraints imposed on defence experts who were being remunerated from legal aid:

¹⁹⁵ Whyte, *Social Inclusion and the Legal System: Public Interest Law in Ireland* (2nd ed., Institute of Public Administration, 2014) at 430.

¹⁹⁶ Hogan, "Judicial Review and Socio-Economic Rights" in Sarkin and Binchy (eds.), *Human Rights, the Citizen and the State: South African and Irish Perspectives* (Round Hall, 2001) 1 at 8.

¹⁹⁷ *ibid.* at 8, fn 17.

¹⁹⁸ Another exception is the right to bodily integrity. See *Ryan v Attorney General op. cit.*

¹⁹⁹ *R v McIlkenny & Ors* (1991) 93 Cr App R 287. See further Chapter 4.

“A disadvantage of the adversarial system may be that the parties are not evenly matched in resources. As we have seen, one reason why the judge expressed his preference for Dr Skuse was that Dr Black had carried out no experiments to prove his theory. Experiments presumably cost money. Whether Dr Black could have carried out any experiments within the limitations of legal aid, or the time available, we do not know.”²⁰⁰

Presently in this jurisdiction, an accused who wishes to retain an expert can obtain one under the criminal legal aid scheme.²⁰¹ This is not, however, an automatic right.

Regulation 11 of Criminal Justice (Legal Aid) Regulations 1965²⁰² provides that the fees and expenses of witnesses who are qualified medical practitioners²⁰³ or other witnesses holding a professional qualification²⁰⁴ summoned and attending on behalf of the defence to give professional evidence at the hearing of a case in relation to which criminal legal has been granted shall be payable “at a rate corresponding to the rate for the time being at which fees and expenses to such witnesses summoned and attending on behalf of the prosecution to give professional evidence at the hearing or at similar hearings are paid”. The fees payable for obtaining medical and technical reports shall be payable in the same manner.²⁰⁵

Guidelines for the scheme provide that a solicitor may engage an expert witness to assist in matters associated with the defence of their client “when absolutely necessary”.²⁰⁶ The guidelines then provide for a schedule of fees. To take one example which is related to the content of the next chapter, the rate for a forensic scientist for preparation of a report is currently €100.00 per hour,

²⁰⁰ *ibid.* at 312. In that case, Dr Skuse was the prosecution expert and Dr Black the defence.

²⁰¹ Administered under the Criminal Justice (Legal Aid) Act 1962.

²⁰² S.I. No 12 of 1965.

²⁰³ Regulation (11)(1)(b) of the Criminal Justice (Legal Aid) Regulations 1965.

²⁰⁴ Regulation (11)(1)(c) of the Criminal Justice (Legal Aid) Regulations 1965.

²⁰⁵ Regulation (11)(1)(d) of the Criminal Justice (Legal Aid) Regulations 1965.

²⁰⁶ Department of Justice and Equality, Courts Policy Division, “Procedures governing the payment of Criminal Legal Aid Fees” March 2015 at [7.5]. Prior authorisation of the Courts Policy Division must be obtained. This applies in all cases except where reports are specifically authorised by the courts at the request of the solicitor.

with a fee for a full or half day in court being €610.00 and €435.00 respectively. The fees are the same for experts retained from outside the jurisdiction.

These fees appear to be incredibly low and the phrase “if you pay peanuts, you get monkeys” springs to mind. It is apparent that these rates have been reduced heavily since 2008. While lawyers have been calling for pre-recession legal aid rates to be reinstated, it has been remarked by the managing partner in a leading Irish criminal law firm that the cuts could result in miscarriage of justice cases where there are obstacles to the use of forensic evidence.²⁰⁷ In *Hinton v Alabama*,²⁰⁸ the US Supreme Court, in a *per curiam* reversal in the case of an inmate on death row, held that it is unreasonable for an attorney to fail to seek all available funding for a necessary expert witness.²⁰⁹

(ii) *Criminal Legal Aid Jurisprudence*

It has already been outlined above that the Irish Constitution recognises an unenumerated right to criminal legal aid. In doing so, the Irish courts have recognised the inequality between the resources of the State and an accused in a criminal trial. Griffin J in *State (Healy) v Donoghue* stated that:

“Ours is an adversary system of criminal justice. On the one side is the State with all its resources, which it properly and justifiably uses in the prosecution of crime. It has available to it a trained and skilled police force, and lawyers who prosecute in the interest of the public. On the other side is the person charged with a crime; if he has the resources, he will retain the best solicitor and counsel obtainable for the preparation and conduct of his defence. If he is too poor to engage a solicitor or counsel, can he be assured of a fair trial unless legal aid is provided for him? It seems to me beyond argument that if lawyers are necessary to represent persons with means to pay for them, they are no less necessary

²⁰⁷ Peter Mullan, “Cut price legal aid could cost practice of justice dearly”, *The Irish Times*, 31 October 2011

²⁰⁸ 571 US ; 134 S Ct 1081, 1087; 188 L Ed 2d 1 (2014)

²⁰⁹ See Kolosowsky, “Funding Expert Witnesses for Indigent Defendants: A Model for Unequal Protection” (2016) 95(5) *Michigan Bar Journal* 18.

for poor persons who are unable to provide for them out of their own resources.”²¹⁰

At the risk of duplication, these principles could equally apply in the case of expert evidence in criminal cases. The State has available to it trained and skilled experts, such as forensic scientists. However, if an accused person is too poor to engage their own forensic scientist, can he be assured of a fair trial unless one is provided for him? Therefore, it is appropriate to examine the constitutional right to criminal legal aid in order to ascertain whether an analogy can be drawn between it and the right to an expert at the State’s expense.

Section 2 of the Criminal Justice (Legal Aid) Act 1962 (“the 1962 Act”) provides the statutory entitlement to legal aid for accused persons.²¹¹ As mooted above, the Supreme Court in *State (Healy) v Donoghue* elevated this entitlement to constitutional status. It held that guarantee in Article 38.1 of trial in due course of law required the State to provide criminal legal aid in appropriate cases. O’Higgins CJ described the circumstances in which this guarantee obliged the State to provide criminal legal aid:

²¹⁰ *State (Healy) v Donoghue*, *op. cit.* at 357.

²¹¹ Section 2 (as substituted by s. 5(6) of the Criminal Justice (Miscellaneous Provisions) Act 1997 provides: “If it appears to the District Court before which a person is charged with an offence or an alternative court within the meaning of section 5 of the Criminal Justice (Miscellaneous Provisions) Act, 1997, before which a person is appearing (a) that the means of the person before it are insufficient to enable him to obtain legal aid, and (b) that by reason of the gravity of the offence with which he is charged or of exceptional circumstances it is essential in the interests of justice that he should have legal aid in the preparation and conduct of his defence before it, the said District Court, or the alternative court, as may be appropriate, shall on application being made to it in that behalf, grant a certificate, in respect of him, for free legal aid (in this Act referred to as a legal aid (District Court) certificate) and thereupon he shall be entitled to such aid and to have a solicitor and (where he is charged with murder and the said District Court or the alternative Court as the case may be, thinks fit) counsel assigned to him for that purpose in such manner as may be prescribed by regulations under section 10 of this Act.” In addition, The Legal Aid - Custody Issues Scheme (formerly known as the Attorney General’s Legal Aid Scheme) provides payment for legal representation in the High Court and the Supreme Court for certain types of cases not covered by civil legal aid or the Criminal Legal Aid Scheme. The cases covered include Habeas Corpus (Article 40.4.2) Applications, High / Supreme Court Bail Motions, certain types of Judicial Review, Extradition and European Arrest Warrant Applications.

“Where a man's liberty is at stake, or where he faces a very severe penalty which may affect his welfare or his livelihood, justice may require more than the application of normal and fair procedures in relation to his trial. Facing, as he does, the power of the State which is his accuser, the person charged may be unable to defend himself adequately because of ignorance, lack of education, youth or other incapacity. In such circumstances his plight may require, if justice is to be done, that he should have legal assistance. In such circumstances, if he cannot provide such assistance by reason of lack of means, does justice under the Constitution also require that he be aided in his defence? In my view it does.”²¹²

O’Higgins CJ went on to state that the recognition of the right requires something more when an person facing a criminal charge, because of a lack of means, cannot provide his own lawyer for his defence. It required that in such circumstances the person charged must be afforded the opportunity of being represented. It was held that the only way justice could be done was if this opportunity was provided by the State:

“To hold otherwise would be to tolerate a situation in which the nature and extent of a man's ability to defend himself, when accused, could depend on the nature and extent of his means; that would be to tolerate injustice.”²¹³

The constitutional right to criminal legal aid was expanded upon in the relatively recent past in *Carmody v Minister for Justice*,²¹⁴ wherein it was held that the right could not preclude representation by counsel in appropriate cases before the District Court.²¹⁵ Legal aid in the District Court is confined to legal

²¹² *op. cit.* at 350.

²¹³ *ibid.* at 350 – 351.

²¹⁴ *Carmody v Minister for Justice* [2010] 1 IR 635

²¹⁵ In response to the decision in *Carmody*, *op. cit.* an Ad-Hoc District Court (Counsel) Scheme came into force in October 2009. The District Court can issue a Legal Aid (District Court) (Counsel) Certificate and a Legal Aid (Circuit Court (Counsel) Appeal) Certificate. The Scheme allows for a Legal Aid (Circuit (Counsel) Appeal Certificate to be issued by the

representation by a solicitor for the preparation and conduct of an accused's defence.²¹⁶ The defendant in *Carmody* argued that the lack of a general statutory or other right to free legal aid for representation by counsel in the District Court was both unconstitutional and incompatible with the ECHR. Having failed in the High Court,²¹⁷ he appealed to the Supreme Court. He contended that a defendant in a criminal trial before the District Court, who does not have the means to pay for his own legal representation, has a right under the Constitution to apply for legal aid so that he may be legally represented by both a solicitor and counsel where such representation is essential in the interests of justice. It was contended on his behalf that this is a constitutional requirement in order that the trial of a defendant before the District Court is conducted in accordance with due process of law. He claimed that section 2 of the 1962 Act was repugnant to the Constitution because it prevents the District Court from considering whether, in the particular circumstances of a given case, it is in the essential interests of justice that a defendant be represented not only by a solicitor but also by counsel.

The appellant emphasised the complex nature and sources of the law underlying the charges which had been brought against him and the seriousness of the consequences which would flow from a conviction and the legal resources available to the State.²¹⁸ A solicitor with over forty years experience

District Court for the preparation and conduct of an appeal to the Circuit Court but only where counsel was assigned for the District Court hearing.

²¹⁶ The defendant was charged with forty two offences before the District Court all of which related either to the wrongful movement of cattle, failure to keep a register of certain cattle and failure to deliver an identity card in relation to cattle. The only exception specified in the section is that where the accused is charged with murder, and the Court thinks fit, counsel may be assigned in addition to a solicitor. However, this exception has been effectively rendered redundant by the abolition of the preliminary examination procedure in the District Court for persons charged with indictable offences, as a consequence of the Criminal Justice Act 1999.

²¹⁷ Laffoy J in the High Court found that the court was entitled to assume that a solicitor on a legal aid panel will represent his client according to the standard of conduct expected of his profession. A finding that a qualified solicitor exercising ordinary professional skill and care could not effectively and adequately defend an accused person on such charges in the District Court was not open on the evidence. See *Carmody v Minister for Justice* [2005] 2 ILRM 1.

²¹⁸ It was submitted on behalf of the appellant that the Department of Agriculture, Food and Rural Development had at their disposal a panel of ten barristers comprising of both junior and senior counsel. Prosecuting counsel were usually instructed by the State Solicitor for the

gave evidence on behalf of the appellant in the High Court that, while all the offences in question were minor offences, because of the volume of offences alleged, the matter has serious consequences. He himself had instructed counsel to represent a client who faced similar charges. He was of the opinion that the plaintiff should be represented by counsel because of the risk of imprisonment and the possible detriment to his reputation.

The Supreme Court found that because of the limited jurisdiction contained in section 2 of the 1962 Act that whatever “the gravity of the charge”, whatever “exceptional circumstances” may exist and whatever “the interests of justice” might require, a defendant in a trial before the District Court has no right to apply for legal aid to include counsel. However, it declined to hold that section 2 was unconstitutional. Rather, it held that the denial of an opportunity to apply for and be granted, where appropriate, legal aid for the appointment of counsel in the District Court is a denial of a constitutional right and that the appellant in this case could not be tried unless and until he is afforded an opportunity to apply for legal aid to include solicitor and counsel and have that application determined on its merits.

The Supreme Court referred to Henchy J in *Healy* where he stated that “a defendant is entitled to have his or her trial conducted in the manner which would not “shut him out from a reasonable opportunity of establishing his innocence; or... of receiving a sentence appropriate to his degree of guilt and his relevant circumstances.”²¹⁹ The Supreme Court focused on the constitutional right to a fair trial and why this was violated in this particular case and, as mentioned above, did not dwell on ECHR arguments.

An interesting and helpful aspect of the Supreme Court’s judgment was the awareness on behalf of the court of the change in the legal landscape since the introduction of the 1962 Act. Therefore, *Carmody* is a perfect example of the Irish courts willing to accept the evolving nature of Article 38.1. Murray CJ said that “account must however be taken of the fact that the legal environment

locality in which the offences were being prosecuted. Counsel had already been briefed for Carmody’s prosecution. Murray CJ made reference to the fact that, and curiously in his opinion, that the State counsel were not in a position to confirm or reject the existence of the panel but only acknowledged that counsel were engaged in the prosecution of Carmody. The evidence in the High Court was that most of the prosecutions of the kind involved in this case were conducted by counsel on behalf of the State.

²¹⁹ *Carmody op. cit.* at 661, *State (Healy) v Donoghue, op. cit.* at 353.

to which the District Court exercised its criminal jurisdiction has changed significantly since the Act of 1962 was introduced”.²²⁰ Also, the District Court now has jurisdiction to deal with a wide range of potentially complex offences created in recent decades.²²¹

The right to criminal legal aid was strenuously enforced by the Supreme Court in *Joyce v Judge Brady*²²² when it held that legal aid may have to be provided even where the defendant is not at risk of imprisonment. In that case, the applicant faced theft charges and O'Donnell J considered that the implications of such a charge on employment prospects rendered the charge serious. He stated:

“If the trial of a person in the District Court on a given charge, without legal aid, would be unfair, then the charge is of sufficient gravity or the circumstances are sufficiently exceptional so as to require legal aid. There is no doubt that the real risk of imprisonment is one compelling indicator that a trial without legal aid would be unfair, but the perceived absence of such a risk is not the sole or decisive test justifying a refusal of legal aid.”²²³

²²⁰ In 1962 any consecutive term of imprisonment which could be imposed by the District Court could not exceed 12 months, by virtue of s. 5 of the Criminal Justice Act 1951. This section was amended by the Criminal Justice Act 1984 which substituted the period of 12 months with a period of two years. Since then, where the District Court imposes two or more sentences to run consecutively the aggregate term of imprisonment may be twice the amount which it was in 1962.

²²¹ Such offences arise in areas such as competition law, (enforced by the Competition Authority), consumer protection (enforced by the Consumer Protection Agency), environmental law including illegal dumping, handling of hazardous waste, environmental pollution, and planning (enforced by the Environment Protection Agency, local authorities, planning authorities and other agencies), food safety (enforced by the Food Safety Authority), consumer protection (enforced by the Consumer Protection Agency), company law including corporate governance (Director of Corporate Enforcement) to name at least some. The Supreme Court drew specific attention to the regulation of the farming industry which has seen a host of regulatory measures designed to protect a vital industry from the hazards of animal disease and also public health.

²²² [2011] 3 IR 376

²²³ *ibid.* at 387.

Perhaps the best place to decipher the rationale behind the constitutional right to criminal legal aid are cases which distinguish criminal legal aid from civil legal aid, and which decide that the latter is not deserving of constitutional status. Such a case is *Magee v Farrell*.²²⁴ The plaintiff's son had died in Garda Síochána custody and she wished to be legally represented at the Coroner's Inquest into his death. She did not have the financial means and her application for civil legal aid was refused as there was no publicly funded provision for legal aid for an inquest.

The High Court found that the requirement of fair procedures under the Constitution meant that she be provided with legal aid. On appeal, the Supreme Court found that there was no constitutional right to civil legal aid. Finnegan J in the Supreme Court was very clear about the rationale:

"The jurisprudence of this court in *The State (Healy) v Donoghue* is clear. A right to legal representation does not carry with it a right to State funded legal aid. Where, however, the liberty of the individual is in issue before the Criminal Courts there is an entitlement to State funded legal aid."²²⁵

Therefore it is clear that rationale behind the constitutional right to criminal legal aid is that the liberty of the accused is at stake. However, this case should be read in light of the recent comments of O'Donnell J in the Supreme Court in *Joyce*. The significance of the decision in *Joyce* is that it shows a willingness on the part of the present composition of the Supreme Court to interpret the right to criminal legal aid in a broader manner than that which was originally envisaged, and provides significant, albeit indirect, support for the right to an expert witness at the State's expense.

It should also be remembered that the ECHR provides for a right of criminal legal aid under Article 6(3)(c). In addition, the right applies in all stages of the criminal proceedings.²²⁶ The guarantee is not an absolute one. A member state's obligation to provide free legal assistance is based on two types

²²⁴ [2009] 4 IR 703

²²⁵ *ibid.* at 711.

²²⁶ *Murray v United Kingdom* [1996] ECHR 3

of requirement: lack of sufficient means and the “interests of justice”.²²⁷ The latter means that the ECtHR will consider the severity of the potential sentence, or what is “at stake” for the defendant, as well as other factors such as the complexity of the case.²²⁸ These will be returned to below.

(iii) South Africa

The grounds for examining South African legal developments in the context of an Irish discussion on the right of an accused to an expert witness at the State’s expense are two-fold. The South African legal system can be described as a mixed or hybrid system in that it displays a blend of institutions, procedures, doctrines and rules inherited from the Dutch and English legal systems.²²⁹ South African law was traditionally heavily influenced in part by the English legal system. As a result, the law of evidence in South Africa is, like Ireland, based on common law tradition and employs many of the traditional rules of evidence referred to in Chapter 2.

In addition, the post-apartheid South African Constitution, which has been described as “avant-garde”,²³⁰ contains a lengthy list of socio-economic rights.²³¹ The South African Constitutional Court has required the Government to implement these rights, without fearing separation of powers arguments. The court acknowledged that there is a nexus between the government meeting socio-economic needs and people exercising their civil and political rights. In its *First Certification Judgment*²³² the South African Constitutional Court noted that when a court enforces civil and political rights, such as the right to a

²²⁷ See *Artico v Italy* (1981) 3 EHRR 1.

²²⁸ *Quaranta v Switzerland* [1991] ECHR 33

²²⁹ Meintjies-Van der Walt, Meintjies-Van der Walt, *Expert Evidence in the Criminal Justice Process: A Comparative Approach*, Series Criminal Sciences, Amsterdam: (Rozenburg Publishers, 2001) at 9.

²³⁰ Hogan, “Judicial Review and Socio-Economic Rights” in Sarkin & Binchy (eds.), *Human Rights, the Citizen and the State: South African and Irish Perspectives* (Round Hall, 2001) 1 at 7.

²³¹ For example, rights to housing, health care, food and water. See Section 35 of the South African Constitution. See Heyns & Brand, “Introduction to Socio-economic rights in the South African Constitution”, (1998) *Law Democracy & Development* 153.

²³² *Certification of the Constitution of the RSA, 1996, ex p Chairperson of the Constitutional Assembly, 1996* 1996 (10) BCLR 1253 (CC)

fair trial, this will have implications for budgetary matters, and cited the provision of legal aid as an example.

It has been acknowledged that both Ireland and South Africa were concerned to test their domestic law by the standards of contemporary international human rights norms.²³³ Therefore, South Africa is a jurisdiction in which, similar to Ireland, the law of evidence is informed both by common law rules and constitutional considerations, as discussed in Chapter 2. While South Africa has often been used as a comparison to Ireland in respect of the justiciability of socio-economic rights, it does not appear that the interaction between the laws of evidence of the respective jurisdictions have been tested against each other. It is proposed to perform this exercise in search for the right to an expert at the State's expense.

South African courts have entertained claims of breaches of both positive and negative rights.²³⁴ It has moved from a minimal rationality standard of review²³⁵ to a more demanding one, which tests the reasonableness of government policy in light of its probable impact.²³⁶ Section 35 of the South African Constitution deals with the right to a fair trial. It is similar to Article 6 of the ECHR in that it guarantees that every person has the right to a fair trial, which includes the rights *inter alia* to have adequate time and facilities to prepare a defence²³⁷ and to adduce and challenge evidence.²³⁸ Section 35(3)(i) provides for the right to adduce and challenge evidence. This right covers denials of the accused's right to call witnesses. It is a twofold right, in that the

²³³ Sarkin & Binchy (eds.), *Human Rights, the Citizen and the State: South African and Irish Perspectives*, *op. cit.* at Introduction.

²³⁴ Section 36 provides that the rights in the Bill of Rights may be limited only in terms of law of general application to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors, including: (a) the nature of the right; (b) the importance of the purpose of the limitation; (c) the nature and extent of the limitation; (d) the relation between the limitation and its purpose; and (e) less restrictive means to achieve the purpose.

²³⁵ *Soobramoney v Minister for Health* 1997 (12) BCLR 1696

²³⁶ *Government of the Republic of South Africa v Grootboom* (2000) 9 BCLR 1169 (CC); *Minister for Health v Treatment Action Campaign* (2002) 10 BCLR 1033. See also discussion by Whyte, *op. cit.* at 74 *et seq.*

²³⁷ Section 35(3)(b) of the South African Constitution.

²³⁸ Section 35(3)(i) of the South African Constitution.

adducing of evidence by the accused in a criminal trial actually represents his or her challenge to the state's evidence.

Like the Irish Supreme Court in *State (Healy) v Donoghue*, the South African Courts have been mindful of the fact that the State has more resources than the accused in a criminal trial. Nicholson J alluded to this reality in *S v M*.²³⁹

“At the outset it must be stated unequivocally that, if the criminal trial of an accused is regarded as a contest, the State has a number of advantages over the defence. I mention but a few. The State has first choice of the witnesses and there are rules relating to the right of the defence to speak to them. It is an invariable and salutary principle that the accused should not interfere with State witnesses while released on bail. The State has resources which are denied to most accused persons, which include forensic pathologists and other men and women of science to assist in obtaining conviction. The State also has deep, though presumably not limitless pockets of the taxpayers to finance the prosecution.”²⁴⁰

In the South African Supreme Court case of *S v Huma*,²⁴¹ the two accused were facing charges of murder, robbery, attempted murder, and contravention of the Arms and Ammunition Act 75 of 1969. The prosecution proposed to call a ballistics expert to prove that a bullet found at the scene of the crime was fired from the firearm found in possession of one of the accused. The accused denied that he was found in such possession. The *pro deo*²⁴² counsel acting for the defence made an application for the assistance of a ballistic expert witness. The state argued that the accused's defence disentitled him to the assistance of a ballistics expert. Despite this argument, Classen J granted the application for the appointment of an expert witness. In so doing, he touched on certain aspects relating to the availability and purpose of expert evidence in general. However, the court did indicate that care should be taken

²³⁹ *S v M* (2000) 8 BCLR (N)

²⁴⁰ *ibid.* at 939.

²⁴¹ *S v Huma* (1) (1995) 2 SACR 407 (W)

²⁴² *Pro bono.*

in the granting of such applications, as the appointment of experts entailed additional expenses which had not been budgeted for.²⁴³ Classen J held that a court will only appoint an expert if such assistance “is necessary in order that proper justice may be done”.

A number of South African commentators have used the above case to campaign for a right on the part of an accused to an expert witness at the State’s expense. Two such commentators, Meintjies-Van der Walt and Mbodla, are of the opinion that if an accused person is unable to afford his own expert, and therefore unable to contest prosecution expert evidence, then his right to a fair trial is essentially compromised as a result.

Meintjies-Van der Walt comments that the above indication by the court highlights an inherent problem with the adversary system and the evidence of expert witnesses. If experts are called by the prosecution and the defence, because of lack of funds or other means is not able to contest such evidence, the dice will be overwhelmingly loaded in favour of the State.²⁴⁴ These views are shared by Mbodla, who says that the present system works well for lawyers and judges, but that ordinary people are being kept out of litigation. Given this background, he asks whether and, if so, under what circumstances it would be permissible to imply into the fair trial provision the unexpressed right to expert witness at the state’s expense.²⁴⁵

Mbodla refers the issue back to aforementioned principle of equality of arms, which, as mentioned above has already been recognised by the South African courts. There should be, so far as possible, a level playing field between the state and the ordinary people of unequal financial or other resources. Problems arise where the state has easily available sources of expertise to which the accused does not have access. As outlined in Chapter 2, cross-examination, an inherent feature of adversarial systems, is artificial in the context of expert evidence. It was stated that cross-examination needs a form

²⁴³ *ibid.* at 410(b).

²⁴⁴ Meintjies-Van der Walt, “S v Huma (1) 1995 (2) SACR 407 (W) Shooting at science: expert evidence and equality of arms” (1996) 9 South African Journal of Criminal Justice 361 at 361. See also Meintjies-Van der Walt, *Expert Evidence in the Criminal Justice Process: A Comparative Approach*, Series Criminal Sciences, Amsterdam (Rozenburg Publishers, 2001) at 183.

²⁴⁵ Mbodla, “Leveling the playing field: The accused’s right to an expert witness at the state’s expense” (2001) 14 South African Journal of Criminal Justice 81 at 82.

of expert assistance in order to be effective. Mbodla alludes to this fact, which is that cross-examination, the constitutionally recognised tool to ensure checks and balances, becomes increasingly more difficult for a defence dealing with scientific evidence. Mbodla submits that the appointment of an expert for the accused will not only assist the accused in cross-examination but will also improve the probative value of the expert evidence given by the state and that something that will assist the court to come to a right decision.²⁴⁶

These remarks may mean that a person would only be entitled to an expert witness at the State's expense where the State seeks to call its own expert, as the right claimed in South Africa is related to the right to adduce and challenge evidence in Section 35(3)(i). This is of course related to the notion of equality of arms under the ECHR and Irish law.

(iv) The United States

As outlined above in the context of the discussion of the right to present evidence, the United States has recognised a right of an accused to present favourable evidence in their defence. The Supreme Court has also held that an indigent defendant is entitled, at state expense, to certain "basic tools" which will enable him to present his defence. This was first recognised initially through the recognition of the right to assistance from counsel, in *Griffin v Illinois*.²⁴⁷ Here it was held that the failure to provide free trial transcripts in order to prosecute an appeal was unconstitutional. Black J, for the majority, embraced the idea that the US Constitution mandated equality in the judicial arena without regard to economic status and stated:

"In criminal trials a State can no more discriminate on account of poverty than on account of religion, race or color. Plainly the ability to pay costs in advance bears no rational relationship to a defendant's guilt or innocence and could not be used as an excuse to deprive a defendant of a fair trial."²⁴⁸

²⁴⁶ Mbodla, *op. cit.* at 85.

²⁴⁷ *Griffin v Illinois* 351 US 12 (1956)

²⁴⁸ *ibid.* at 17.

However, the US Supreme Court initially approached the requirement of criminal legal aid as an equal protection problem. The question then arises as to the extent of “equality” in this context. McGrath notes that there may be a difficulty with this principle when the rationale of the *Griffin* decision is sought to be extended beyond the provision of trial transcripts to other, more expensive ancillary services.²⁴⁹ Indeed, Harlan J, in dissent, criticised the majority’s “broad brush” approach in approaching the issue by reference to the Equal Protection Clause.²⁵⁰

In *Gideon v Wainwright*²⁵¹ the US Supreme Court recognised an unqualified right to counsel for an indigent accused in adversarial criminal proceedings.²⁵² It held that the Sixth Amendment’s guarantee of counsel is a fundamental right essential to a fair trial and, as such, applies to the states through the Due Process Clause of the Fourteenth Amendment. However no mention was made of the Equal Protection Clause. This and the next case preferred a due process based analysis.

The decision in *Ake v Oklahoma*²⁵³ undoubtedly provides support for the right sought. However, its impact on US constitutional law is limited. The US Supreme Court held that that when a defendant demonstrates that his sanity at the time of the offence is likely to be a significant factor at trial, the US Constitution mandates that the state provide access to a psychiatrist whether the defendant can afford one or not. The accused was charged with *inter alia* murder. Prior to the trial, he was diagnosed as incompetent to stand trial, but was treated and later deemed competent. At his trial, the court denied the accused access to a psychiatric evaluation at the state’s expense that focused on

²⁴⁹ K. McGrath, “*Sommers v. Commonwealth: An Indigent Criminal Defendant’s Right to Publicly Funded Expert Assistance Other than the Assistance of Counsel*” (1995-1996) 84 Kentucky Law Journal 387 at 392-393.

²⁵⁰ *Griffin v Illinois*, *op. cit.* at 34.

²⁵¹ 372 US 335 (1963). A previous decision of the Supreme Court, *Betts v Brady*, 316 US 455 (1942), held that the refusal to appoint counsel for an indigent defendant charged with a felony in state court did not necessarily violate the Due Process Clause of the Fourteenth Amendment.

²⁵² See also *Douglas v California* 372 US 353 (1963) where the US Supreme Court declared that an indigent defendant had a constitutional right to the assistance of counsel on appeal. However, there is no such right where discretionary appellate proceedings are taken *Ross v Moffitt* 417 US 600 (1974). See Brew, “*Ross v Moffitt: The End of the Griffin-Douglas Line*” (1975) 24 Catholic University Law Review 314.

²⁵³ *Ake v Oklahoma* 470 US 68 (1985) at 72.

his mental condition at the time of the offence. He was unable to procure the evaluation himself, but his legal representation had raised insanity as a defence. The trial court disagreed that the defendant has a constitutional right to expert assistance when such assistance was necessary for the preparation and presentation of a defence.

The Supreme Court reversed the decision and directed a new trial.²⁵⁴ It noted that “justice cannot be equal where, simply as a result of his poverty, a defendant is denied the opportunity to participate meaningfully in a judicial proceeding in which his liberty is at stake.”²⁵⁵ Marshall J also stated:

“We recognized long ago that mere access to the courthouse doors does not, by itself, assure a proper functioning of the adversary process, and that a criminal trial is fundamentally unfair if the State proceeds against an indigent defendant without making certain that he has access to the raw materials integral to the building of an effective defense. Thus, while the Court has not held that a State must purchase for the indigent defendant all the assistance that his wealthier counterpart might buy,²⁵⁶ ... it has often reaffirmed that fundamental fairness entitles indigent defendants to “an adequate opportunity to present their claims fairly within the adversary system,” ... To implement this principle, we have focused on identifying the “basic tools of an adequate defense or appeal,”²⁵⁷ and we have required that such tools be provided to those defendants who cannot afford to pay for them.”²⁵⁸

The question for the court, therefore, was whether Mr Ake’s requested expert qualified as such a “basic tool”. The US Supreme Court employed a balancing test²⁵⁹ and held that there were three factors²⁶⁰ relevant to its

²⁵⁴ After the Supreme Court’s reversal of his original conviction and capital sentence, Ake received a psychiatric expert at his second trial; he was convicted and sentenced to life in prison: *Ake v State*, 778 P 2d 460, 461–62 (Okla Crim App 1989).

²⁵⁵ *Ake v Oklahoma* 470 US 68 (1985) at 76.

²⁵⁶ Citing *Ross v Moffitt*, 417 US 600 (1974)

²⁵⁷ Citing *Britt v North Carolina*, 404 US 226, 404 US 227 (1971)

²⁵⁸ *Ake v Oklahoma* 470 US 68, 77 (1985)

²⁵⁹ *Mathews v Eldridge* 424 US 319, 335 (1976)

²⁶⁰ *op. cit.* at 78-79.

determination:- (a) the private interest that will be affected by the action of the state; (b) the governmental interest that will be affected if the safeguard is to be provided; and (c) the probable value of the additional or substitute procedural safeguards that are sought, and the risk of an erroneous deprivation of the affected interest if those safeguards are not provided. In relation to the first, the Supreme Court found that the private interest in the accuracy of a criminal proceeding that places an individual's life or liberty at risk is "uniquely compelling". Regarding the second, the US Supreme Court rejected the defendant's assertion that to provide the accused with psychiatric assistance would result in a "staggering burden" to the state, as many States, as well as the Federal Government, at that time made psychiatric assistance available to indigent defendants, and they had not found the financial burden so great as to preclude this assistance. Finally, it considered the pivotal role that psychiatry had come to play in criminal proceedings and again cited the fact that many states had already made this available.

The Supreme Court in *Ake* relied upon a due process evaluation in concluding that it had "no occasion to consider the applicability of the Equal Protection Clause, or the Sixth Amendment".²⁶¹ The Supreme Court held that:

"...when a defendant has made a preliminary showing that his sanity at the time of the offence is likely to be a significant factor at trial, the Constitution requires that a State provide access to a psychiatrist's assistance on this issue if the defendant cannot otherwise afford one."

It was held that the accused had succeeded in making this preliminary showing due *inter alia* to the fact that his sole defence was insanity and Oklahoma recognised a defence of insanity, the burden of proving which was placed on the accused.

Therefore it appears from *Ake*, that the court will balance the state's fiscal interest with the rights of an indigent accused. However, it clear from the italicised portions of the following quote that the Supreme Court considered that the fiscal interest would yield in only very exceptional circumstances:

²⁶¹ *ibid.* at 87.

“It is in such cases that a defense may be *devastated* by the absence of a psychiatric examination and testimony; with such assistance, the defendant might have a *reasonable chance of success*. In such a circumstance, where the potential accuracy of the jury's determination is so *dramatically enhanced*, and where the interests of the individual and the State in an accurate proceeding are *substantial*, the State's interest in its fisc must yield.”²⁶²

Therefore, the indigent accused is to be afforded “an adequate opportunity” only to present their defence. The Supreme Court did not require that indigent criminal defendants be provided with an opportunity to defend themselves on the same level as a defendant with unlimited financial resources.²⁶³ Marshall J held that while an indigent defendant was entitled to his own expert advocate, he or she was subject to the state's determination of how to implement that right.²⁶⁴ Therefore, according to *Ake*, an indigent was not entitled to an expert of his choice. By invoking this balancing test and incorporating the state's economic interests, the US Supreme Court curtailed a “broad brush” approach that seemed to impose on the states an affirmative responsibility to equalise differences between indigent and moneyed defendants.²⁶⁵

Has the *Ake* decision led to greater access to expert assistance for indigent defendants? It undoubtedly should have. In a later case, admittedly in dissent, Marshall J equated the right to the right to a competent attorney under the Sixth Amendment.²⁶⁶ However, the impact of *Ake* is widely regarded in the United States as being underwhelming,²⁶⁷ for a number of reasons.

²⁶² *ibid.* at 83.

²⁶³ *ibid.* at 77.

²⁶⁴ *ibid.* at 83.

²⁶⁵ McGrath, *op. cit.* at 394.

²⁶⁶ *Brown v Dodd* 484 US 874 (1985) at 876.

²⁶⁷ See Harris, “*Ake* Revisited: Expert Psychiatric Witnesses Remain Beyond Reach for the Indigent”, (1990) 68 North Carolina Law Review 764; Bailey, “*Ake v Oklahoma* and an Indigent Defendants ‘Right’ to an Expert Witness: A Promise Denied or Imagined” (2002) 10 William & Mary Bill of Rights Journal 401; McCormick, “The constitutional right to psychiatric assistance: cause for re-examination of *Ake*” 30 (1993) American Criminal Law Review 1329; Giannelli, “*Ake v. Oklahoma*: The Right to Expert Assistance in a Post Daubert,

First, *Ake* was a capital murder case,²⁶⁸ and some later decisions sought to confine it to capital cases. However, it is now mostly agreed that it applies to non-capital felony cases.²⁶⁹ Secondly, it was initially unclear whether the constitutional right to expert assistance was limited to expert witnesses for an insanity defence. However, some state courts have held that it applies to non-psychiatric experts.²⁷⁰

Thirdly, the US Supreme Court's failure to articulate clearly the circumstances in which due process requires the court to appoint a psychiatric expert has led subsequent decisions reading it narrowly,²⁷¹ and denying such assistance in a large number of cases,²⁷² except where the appointment of an expert witness is absolutely necessary. The implementation of the right was left to the states themselves. Even in the aftermath of the decision, judges routinely refused requests for expert assistance.²⁷³

Finally, the finding in *Ake* was seriously undermined by the subsequent decision of the US Supreme Court in *Medina v California*.²⁷⁴ This case disavowed the use of the balancing test in criminal proceedings, and left *Ake* without its foundation, as it did not base its decision on any other grounds.²⁷⁵ Equal protection and right to counsel grounds are now frequently cited as the

Post-DNA World", (2004) 89 Cornell Law Review 1305; Groendyke, "*Ake v Oklahoma*: Proposals for Making the Right a Reality" (2007) 10 Legislation and Public Policy 367.

²⁶⁸ Burger J in his concurring opinion had stated: "The facts of the case and the question presented confine the actual holding of the Court. In capital cases the finality of the sentence imposed warrants protections that may or may not be required in other cases". *Ake v Oklahoma*, *op. cit.* at 87.

²⁶⁹ See Gianelli, *op cit.* at 1369.

²⁷⁰ *ibid.* at 1367.

²⁷¹ Harris, *op. cit.* at 764.

²⁷² *Caldwell v Mississippi* 472 US 320 (1985); *Vickers v Arizona*, 497 US 1033, 1033 (1990); *Johnson v Oklahoma*, 484 US 878, 880 (1987). See also McCormick, *op cit.*

²⁷³ Marcia Coyle "Fatal Defense: Trial and Error in the Nation's Death Belt, National Law Journal June 11 1990, at 30, referred to in Groendyke, *op. cit.* at 371.

²⁷⁴ 505 US 437 (1992). See Giannelli, *op. cit.* at 1363 – 1365 and Groendyke, *op. cit.* at 373.

²⁷⁵ In *Medina v California*, *op. cit.* the Supreme Court stated that it was not clear that the balancing test was essential to the finding in *Ake*. The Court continued at 444-445 that "[t]he holding in *Ake* can be understood as an expansion of earlier due process cases holding that an indigent criminal defendant is entitled to the minimum assistance necessary to assure him 'a fair opportunity to present his defense.'"

basis for the right to expert assistance.²⁷⁶ However, pure equality in a criminal trial may be an impossible ideal given the proliferation and cost of experts' services.

In short, Bailey states that "an indigent's use of... expert assistance has been severely compromised by the Court's failure to clarify *Ake*, and by the lower federal courts' inability to agree on its purpose."²⁷⁷

V. Conclusion

Securing the services of experts to examine evidence, to advise counsel and to testify is critical in modern criminal litigation. It was evident from a study carried out by Roberts²⁷⁸ that defence lawyers rely heavily on experts' advice and assistance. Defence experts advise defence lawyers about the strength of the prosecution evidence, suggest alternative avenues for scientific investigation or alternative interpretation of prosecution data and results, and assist generally in the development of case management strategies.²⁷⁹ It was stated that expert assistance is virtually a prerequisite to any line of defence which incorporates a direct challenge to prosecution expert evidence.²⁸⁰ It is clear from the above discussion that standards of fairness in criminal proceedings must be kept under review so that a defendant can be afforded his or her constitutional rights according to contemporary circumstances.²⁸¹

Keeping this in mind, this chapter sought to examine the basis for the constitutional right to an expert in Irish law, while bearing in mind at all times that criminal trials are underpinned by rights-based process considerations. This right has both a positive and negative aspect. Firstly, it is submitted that there is a sound constitutional argument for the recognition of such a negative right, *i.e.* the right to present expert evidence without interference from the

²⁷⁶ Gianelli, *op. cit.* at 1364; Groendyke *op. cit.* at 373.

²⁷⁷ Bailey *op. cit.* at 401.

²⁷⁸ Roberts, "Science in the Criminal Process" (1994) 14 OJLS 469, referring to Roberts & Willmore, *The Role of Forensic Science Evidence in Criminal Proceedings*, Royal Commission on Criminal Justice Research Study No 11, (London; HMSO, 1993) or "the Bristol Study."

²⁷⁹ *ibid.* at 489.

²⁸⁰ *ibid.* at 490.

²⁸¹ *State (Healy) v Donoghue*, *op. cit.* at 647.

State. In Part III, it was outlined that Irish law recognises a principle of equality of arms which transcends even the ECHR. However, the ECHR jurisprudence is helpful in defining the parameters of the right. The expert evidence sought to be adduced by the accused must be relevant, and it must be in response to evidence adduced on behalf of the prosecution. It must also be necessary for the preparation of the accused's defence. The accused would also not be entitled to absolute equality. If these limits are not adhered to, then the right is open to abuse. A proportionality test would also be employed by the courts in assessing any legislative limits on the right, in line with the decision in *Markey*.

Secondly, it is acknowledged that the positive aspect of the right is much more problematic. However, it is argued that there is a definite basis for such a right in Irish law. The right was recognised in South Africa, where equality of arms is also a major feature. While the remit of the right to expert assistance for an indigent accused remains uncertain in the US, and is therefore of limited persuasive value, it is submitted that the recognition of this right as an extension of the right to counsel lends support to the analogy made in this chapter between the right sought and the right to criminal legal aid. It is argued that this right could be given effect to through the current criminal legal aid system.

There is also no doubt that the courts have been willing to interpret the right to criminal legal aid progressively and in accordance with modern circumstances. However, a right to an expert witness at the State's expense necessarily entails increased public expenditure. In a country where socio-economic rights are not expressly justiciable, and where the courts have been reluctant to engage in distributive justice, it will be difficult for a litigant to argue the existence of such a right.

However, despite this apparent reluctance, the present composition of the Supreme Court has not shied away in the recent past from pronouncing upon constitutional rights which are likely to have economic implications in the evidential arena. One such example is *Joyce v Judge Brady*, discussed above. Another area worthy of a brief mention is the area of confessions. In *DPP v Gormley*,²⁸² Clarke J in the Supreme Court had no difficulty in finding,

²⁸² [2014] ILRM 377. See Beirne, "Evidence", in Byrne & Binchy eds, *Annual Review of Irish Law 2014* (Round Hall, 2015).

in accordance with the consistent international position,²⁸³ that the guarantee of a trial in due course of law carried with it an entitlement not to be interrogated after a request for a lawyer had been made and before that lawyer had become available to give advice. The question as to whether a suspect is entitled to have a lawyer present during questioning did not arise on the facts of that case. However, following the decision in *Gormley*, the DPP advised the Garda Commissioner that, if requested, a suspect was entitled to have a solicitor present during interview in custody and this is indicative of the current practice.²⁸⁴ This undoubtedly places an increased economic burden on the State.

Of course, there would have to be limits on any such right, in addition to the criterion that an accused demonstrate a financial need. While acknowledging that the ECHR does not aid the discussion on socio-economic rights, the limits placed on the right to criminal legal aid by the ECtHR could provide criteria for the existence of the right: the seriousness of the alleged offence in conjunction with the severity of the penalty that the accused risks; and the complexity of the case.

²⁸³ Clarke J referred to ECHR and US jurisprudence (*Salduz v Turkey* (2009) 49 EHRR 19 and *Miranda v State of Arizona* 384 US 436 (1966) respectively) where it had been held that there is, at a minimum, an obligation in most circumstances (possibly subject to some exceptions) on investigating police to refrain from interrogating a suspect at a time after the suspect has requested a lawyer and before that lawyer has arrived to advise the suspect concerned.

²⁸⁴ An Garda Síochána, *Code of Practice on Access to a Solicitor by Persons in Garda Custody*, April 2015. The Department of Justice considered providing for this in response to Directive 2013/48 EC on Access to a Lawyer in Criminal Proceedings. See Department of Justice and Equality Working Group to Advise on a System Providing for the Presence of a Legal Representative During Garda Interviews, Final Report, July 2013.

“For lawyers, jurors and judges a forensic scientist conjures up the image of a man in a white coat working in a laboratory, approaching his task with cold neutrality, and dedicated only to the pursuit of scientific truth. It is a sombre thought that the reality is sometimes different.”¹

I. Introduction

As outlined in the Introduction, this thesis concerns certain aspects relating to the incorporation of expert evidence in Ireland. This chapter, and the next, examine the incorporation in a certain type of expert evidence in a criminal trial: expert scientific evidence. Scientific evidence is hugely prevalent in criminal trials, due to advances in scientific knowledge. For scientific evidence to be incorporated, it first has to be admitted.

However, the admission of scientific expert evidence in the criminal context raises significant and difficult questions. While the international debate about expert scientific evidence rages on, as well as the debate about its admissibility and reliability, the issue of expert scientific evidence has received little by way of judicial or academic commentary in this jurisdiction and is, therefore, ripe for analysis.² There is an understandable tension between, on the one hand, the court wishing to embrace scientific advances and, on the other hand, to ensure that defendants are not convicted on the basis of unreliable evidence. While it is acknowledged that expert scientific evidence is presented regularly in civil trials,³ the discussion will be confined to the criminal sphere for the reasons outlined in the Introduction. In addition, the problem of novel

¹ *R v Ward* (1993) 96 Cr App R 1, at 52.

² But see generally Heffernan in the specific context of fingerprints and DNA, Heffernan, *Scientific Evidence: Fingerprints and DNA* (Firstlaw, Dublin, 2006). Elsewhere see, Roberts, *Expert Evidence and Scientific Evidence and Proof in Criminal Trials* (2014, Ashgate), Jones, *Expert Witnesses: Science, Medicine and the Practice of Law* (London, Clarendon Press, 1994). Jasanoff, *Science at the Bar*, (Harvard University Press, 1995), Beecher-Monas, *Evaluating Scientific Evidence: An Interdisciplinary Framework for Intellectual Due Process* (Cambridge University Press, 2007).

³ See generally Heffernan, “Gauging the Reliability of Scientific Evidence in Tort” (2006) 6(1) JSIJ 140.

scientific techniques is likely to be more of a concern in criminal trials for the reasons outlined below.

Expert scientific evidence as expert evidence will be discussed and the tensions between the competing disciplines of law and science will be explored. Some examples of historic miscarriages of justice which have had scientific evidence as their defining feature will be discussed. Then, the vexed question of whether a reliability standard should be introduced into the test for the admissibility of expert evidence in Ireland will be discussed, while referring to developments in the United States and England and Wales. This chapter will conclude with a case study on an emerging area of scientific expertise of questionable reliability: facial mapping evidence. Given that CCTV footage is used widely in criminal trials in Ireland, the issue of reliability of facial mapping is likely to arise before an Irish court. Indeed, it has already been tendered as evidence in criminal trials.

This chapter also aims to set the scene for the next chapter, which concerns how expert scientific evidence can be incorporated into the criminal trial, and deals with jury comprehension and methods of presentation of expert scientific evidence. In order to address those issues, an understanding of expert scientific evidence, and the parameters of its admissibility, must be understood.

II. Scientific Evidence

As stated in Chapter 2, expert evidence has progressed beyond the old sciences such as medicine and is now given on a variety of scientific matters.⁴ The importance of DNA to criminal investigation was recognised by the enactment of the Criminal Justice (Forensic System and DNA Database) Act 2015.⁵ There are the well-established forensic sciences, such as fingerprinting and ballistics evidence. However, expert evidence on novel “scientific” methods, such as Low Template DNA (LTDNA),⁶ ear print analysis,⁷ voice identification⁸ and

⁴ *R v Robb* (1991) 93 Cr App R 161

⁵ See Heffernan & Ni Raifertaigh, *op. cit.*, at 560 *et seq.*

⁶ *R v Dlugosz* [2013] 1 Cr App R 32, *R v Reed* [2010] 1 Cr App R 23

⁷ *R v Dallagher* [2003] 1 Cr App R 195

⁸ *DPP v Crowe* [2015] IECA 9

recognition,⁹ footwear mark analysis,¹⁰ gait analysis,¹¹ have appeared in both Irish courts and elsewhere. Later in this chapter the reliability of facial mapping as a novel scientific method of giving expert evidence will be considered.

In Chapter 2, the inherent contradiction within expert evidence was referred to, as espoused by Learned Hand: how can the jury decide between two statements each founded upon an experience confessedly foreign in kind to their own? Expert evidence is admissible to assist the finder of fact in deciding the matter in issue, and the ultimate issue rule is designed to prevent the expert from deciding the case himself or herself. In addition, expert evidence is only admissible where it falls outside the knowledge and experience of the tribunal of fact. The contradiction arises where the finder of fact is required to choose between two conflicting lines of expert testimony. Indeed, the contradiction is more likely to arise in the context of expert scientific evidence, where the matter in issue is a source of great disagreement within the relevant specialist field. When expert scientists themselves cannot agree with respect to a particular piece of expert scientific evidence, it is even more difficult for non-scientists, such as jurors, to weigh the testimony of one scientific testimony against another.¹²

The expert scientific witness sits between two disciplines: law and science. However, the engagement between law and science in this regard is nothing new. It was outlined in Chapter 2 that the law has sought the assistance of science long before the rules of evidence developed. Hodgkinson and James make the point that the reception of much expert evidence in court proceedings entails an implicit acceptance of the scientific method.¹³ The authors refer to the old case of *Buckley v Rice Thomas*,¹⁴ and the passage therein quoted in Chapter 2 of this thesis. However, the disciplines of law and science have not

⁹ *R v Robb* (1991) 93 Cr App R 161; *R v Flynn and St John* [2008] 2 Cr App R 266; *DPP v O'Brien & Stewart* [2015] IECA 312

¹⁰ *R v T* [2011] 1 Cr App R 9

¹¹ *R v Otway* [2011] EWCA Crim 3

¹² Kennedy "Psychological Syndrome Evidence" in Krauss and Lieberman (eds.), *Psychology in the Courtroom, Volume II: Psychological Expertise in Court* (Ashgate Publishing, 2009).

¹³ Hodgkinson and James, *Expert Evidence: Law and Practice* (4th ed, Sweet & Maxwell, 2015) at [1-033].

¹⁴ [1554] Plowden 124; 75 ER 182

sat so easily with one another.¹⁵ Nelken,¹⁶ in attempting to ascertain how law and science can be organised in legal proceedings, identified three approaches to the disagreements between the two disciplines. The first was the “trial pathology” approach, which is concerned with the alleged malfunctioning of the adversarial process. This views science as a normally reliable institution which provides true or false answers. However, the evidence is given in trials by hired experts. The problem was also alluded to in Chapter 2 of this thesis. Nelken remarked that the law reaches out to science for certainty but also has to adjudicate on the boundaries of science.¹⁷ The expert scientific witness is caught between these two stools.

The second is the “competing institutions” approach,¹⁸ which focuses on the disciplines of law and science as competing with each other. This views science as a collective communal enterprise and stresses the point that it is the tactics which are used for reaching agreement amongst scientists that produce its aura of reliability. This approach acknowledges that science and law approach the pursuit of truth in different ways. The third approach is the “incompatible discourses” approach,¹⁹ in that law and science are observed as clashing discourses. This approach assumes that law and science have different relationships to the social functioning of distinguishing truth and falsehood and that little is gained by encouraging their direct confrontation.

These approaches, or combinations of them, are seen in other literature. Heffernan has noted law and science are founded in very different principles:

“Lawyers and scientists are creatures of their respective cultures; they neither approach litigious issues in the same way nor speak the same professional language. The search for scientific truth is a markedly different enterprise from the law’s inquiry into the proof of allegation and counter-allegation.”²⁰

¹⁵ See Lawless, *Forensic Science: A Sociological Introduction*, (Routledge, 2016), at 83

¹⁶ Nelken, “A Just Measure of Science” in Freeman & Reece (eds) *Science in Court* (Ashgate, 1998), at 11.

¹⁷ *ibid.*

¹⁸ *ibid.*

¹⁹ *ibid.*

²⁰ Heffernan “Gauging the Reliability of Expert Witnesses (2006) 6 JSIJ 140 at 150.

However, on the face of it, the two disciplines may be deceptively similar.²¹ Omerod has remarked that medicine, science and the law all share the same fundamental objective, namely the discovery or ascertainment of the truth to the greatest degree to which their techniques allow and their functions require.²² However, this similarity fades away when one realises that law and science both seek truth in different ways.

“Science seeks truth through an analysis of physical facts and phenomena. It is based on the material and posits that which can be done. Law seeks justice through a philosophical inquiry. It is based on rights and duties and posits that which may be done.”²³

Therefore, there is a difference between scientific fact-finding and legal fact-finding.²⁴ A criminal trial is not a pure exercise in fact finding in the way that a scientific investigation is, as the main question is whether the accused is guilty. Science is concerned with getting the facts “right”, while the law must take a position based on the facts at hand, and is limited in its inquiry to the facts of the case. Scientific evidence is also filtered through the adversarial process, which may lead to it becoming distorted, as outlined in Chapter 2. Jasanoff stated:

“‘Science’ for the law’s purposes is simply the composite of testimony presented in and around an adjudicatory proceedings, and its quality

²¹ See the extrajudicial comments of Lord Neuberger in “Science and Law: Contrasts and Cooperation” Speech to the Royal Society, London, 24 November 2015. Available at: <https://www.supremecourt.uk/docs/speech-151124.pdf> (Accessed on 30 September 2016). He stated at [9]: “On a relatively high level of analysis, science and law are both concerned with imposing order on chaos, and identifying laws which work - in the one case with the observable universe, and in the other case with human beings in society. And both scientific thinking and legal thinking rely in general on logical reasoning and on the evaluation of evidence. Scientists and lawyers each search for and assess hard facts from which they can establish the truth, whether of a particular theory or in a particular case, and they each use principles and reasoning to enable them to reach what they hope is the right conclusion.”

²² Omerod, “Evidence and Proof: Scientific and Legal”, (1972) 12 *Med Sci Law* 10. See also Jasanoff, *Science at the Bar*, (Harvard University Press, 1995), at 7.

²³ Omerod, *op cit.*, at 10.

²⁴ Jasanoff, *op. cit.*, at 9.

depends heavily on the skill and intentions of the lawyers who elicit the presentation.”²⁵

Regarding science seeking truth, it has been accepted that this is not a complete, universal, immutable and eternal truth.²⁶ The very nature of the scientific method means that it is constantly changing. Kennedy has stated that often the “truths” in science are accepted unquestioningly without recognition that science changes far more rapidly than constructs in the law change.²⁷ However, a number of cases have established that scientific knowledge has only provisional validity rather than certainty, and that, arguably, “there are no certainties in science.”²⁸ In addition, many people insist on a distinction between “hard” and “soft” science, with the former being perceived to be more reliable than the latter.²⁹

On the other hand, Haack³⁰ does not see the epistemic independence of science as being problematic. In fact, it is her opinion that this is what gives scientific evidence its forensic value in legal proceedings. In fact, the main problem may be that scientific evidence has an aura of infallibility. One Canadian judge remarked that if expert evidence is:

“... dressed up in scientific language which the jury does not easily understand and submitted through a witness of impressive antecedents, this evidence is apt to be accepted as virtually infallible and having more weight than it deserves.”³¹

²⁵ Jasanoff, *op. cit.*, at 10.

²⁶ Meintjies-Van der Walt, *Expert Evidence in the Criminal Justice Process: A Comparative Approach*, Series Criminal Sciences, Amsterdam: (Rozenburg Publishers, 2001), at 82 – 83.

²⁷ Kennedy “Psychological Syndrome Evidence” in Krauss and Lieberman eds, *Psychology in the Courtroom, Volume II: Psychological Expertise in Court*, (2009, Routledge)

²⁸ *Daubert v Merrell Dow Pharmaceuticals, Inc* 509 US 579 (1993) at 590.

²⁹ Meintjies-Van der Walt, *op. cit.*, at 73.

³⁰ Haack, “Of Truth, In Science and Law” (2008) *Brooklyn Law Review* 985

³¹ *R v Mohan* [1995] 2 SCR 9, *per Sopinka J* at 21.

There is a public perception of infallibility surrounding the evidence adduced from DNA technology.³² For example, in the context of DNA evidence, the perception of such evidence as irrefutable or infallible is often referred to as the “CSI effect”³³ This relates to the effect the exaggerated portrayal of forensic science in crime dramas³⁴ has on jurors. Traditionally, it postulates that a juror's judgments and perceptions of evidence in a case are potentially clouded when presented with DNA evidence. Research in the United States has indicated that jurors often associate DNA with guilt and have difficulty separating the two, and that they expect scientific evidence in most cases.³⁵

However, it is wrong for jurors to expect scientific evidence, as the presence of scientific findings is not necessarily consistent with the prosecution having proved the guilt of the accused beyond a reasonable doubt. In the same way, the absence of a scientific finding is not determinative of it having failed to do so. As outlined in Chapter 2, the expert evidence is not binding on the finder of fact, and must be viewed in the context of all the other non-scientific evidence presented.

Unfortunately, the fact that an accused's DNA is not present is associated with innocence, while its presence is associated with guilt. In reality, there may be different explanations. Scientific findings are probabilistic, but the burden of proof in a criminal trial can prompt juries to wrongly conclude that science produces certainties rather than probabilities. For example, trace evidence was used to convict the accused in the Birmingham Six case, which is discussed below. However, as Willis notes,

³² See O'Dwyer, “DNA Profiling and the Criminal Process: Demystifying the Criminal Process Part 1” (2014) 32(1) ILT 6 and O'Dwyer, “DNA Profiling and the Criminal Process: Demystifying the Criminal Process Part 2” (2014) 32(2) ILT 22. See also *People (DPP) v Allen* [2003] 4 IR 295, discussed below.

³³ See generally Schweitzer & Saks, “The CSI Effect: Popular Fiction about Forensic Science Affects the Public's Expectations about Real Forensic Science” (2006-2007) 47 *Jurimetrics* 357.

³⁴ Examples include *CSI*, *Law and Order*, *Bones* and *Cold Case*. The author is a viewer of none.

³⁵ Shelton, Kim & Barak, “A Study of Juror Expectations and Demands Concerning Scientific Evidence: Does the “CSI Effect Exist?” (2006) 9 *Vanderbilt Journal of Entertainment and Technology Law* 331

trace evidence cannot be generically evaluated as material such as paint or fibres will have different significance depending on their frequency of occurrence within a given population along with the likelihood of transfer and persistence.³⁶ The approaches to scientific proof are examined in the next chapter.

One advantage of scientific examinations is that the findings are available for as long as records and materials are retained. However, technological advances occur and a case re-examined some time after the initial examination can result in findings and interpretations that differ from the original one.³⁷ This is true in relation to advances in knowledge concerning multiple sudden infant deaths, as will be considered below.

The introduction of scientific expert evidence without a sufficiently reliable basis has led to a number of high-profile miscarriages of justice in the past. There have been a number of instances of wrongful convictions involving unreliable expert evidence adduced by the prosecution. These cases establish that “today’s orthodoxy may become tomorrow’s outdated learning,”³⁸ and that special caution is needed where expert opinion is fundamental in obtaining a criminal conviction.

Generally, judges at home and abroad are mindful of the fact that science is constantly changing. In *R v Cannings*³⁹ the English Court of Appeal accepted that “what was confidently presented to the jury as virtually overwhelming expert evidence providing the necessary proof ... should now be approached with a degree of caution”.⁴⁰ A similar point was made subsequently in *R v Holdsworth*,⁴¹ where it was warned that caution should be exercised where the scientific knowledge was incomplete,⁴² especially in cases where the scientific knowledge was not merely supplemental but fundamental to the outcome of the case.

³⁶ Willis, “Forensic Science: Associated Risks” (2011) Criminal Law and Procedure Review 60, at 61.

³⁷ *ibid.*

³⁸ *R v Holdsworth* [2008] EWCA Crim 971, at [57].

³⁹ [2004] EWCA Crim 1

⁴⁰ *ibid.*, at [156].

⁴¹ [2008] EWCA Crim 971

⁴² *ibid.*, at [57].

The Irish Court of Criminal Appeal has also been sceptical of scientific evidence, and was wise to the danger of the jury regarding it as infallible. In *People (DPP) v Allen*,⁴³ an expert witness testified that the possibility of matching DNA profiles was one in 1,000,000,000, but that a match was “more likely” in the case of siblings. The court, in ordering a retrial, considered that the lack of actual statistics concerning brothers had the potential to mislead the jury into believing that the increased possibility in the case of brothers was so remote that they could disregard it. McCracken J, for the court, stated:

“Expert evidence comparing DNA profiles is a comparatively recent technique and indeed it would appear that it is still being perfected. As in many scientific advances, the jury have to rely entirely on expert evidence. One of the primary dangers involved in such circumstances is that, the matter being so technical, a jury could jump to the conclusion that the evidence is infallible. That, of course, is not so in the case of DNA evidence, at least in the present state of knowledge.”⁴⁴

However, scientific evidence is notoriously difficult to test for reliability, especially where it is a new and emerging scientific technique that may not have been subject to testing yet. As mentioned above, the hard sciences are perceived to be more reliable than the soft ones. In Ireland, as in many other common law jurisdictions, neither law nor practice recognises scientific evidence as a distinct subset within the general field of expert evidence.⁴⁵

Forensic scientists have tried various methods to present expert scientific evidence and to highlight the significance of findings in the context of a criminal case. However, there is a lack of a framework to suit all scientific evidence types. In 2009, the Association of Forensic Service Providers (“AFSP”) published a paper⁴⁶ where they set out standards to be followed in formulating forensic expert opinion in the evaluative or evidential mode. They

⁴³ [2003] 4 IR 295

⁴⁴ *ibid.*, at 299.

⁴⁵ Heffernan, *Scientific Evidence: Fingerprints and DNA* (Firstlaw, 2006), at 207.

⁴⁶ Association of Forensic Science Providers, “Standards for the formulation of evaluative forensic science opinion” (2009) 49 *Science and Justice* 161-164.

specifically applied the standard to all scientific disciplines. The paper envisaged that the expert would base his opinion upon four principles: balance, logic, robustness and transparency. The approach discussed by the AFSP is based on Bayes' Theorem, the merits of which as a method of presentation will be discussed in the next chapter.

III. Miscarriages of Justice

History has shown that the misuse of expert scientific evidence can lead to miscarriages of justice. They cast doubt on the competence of the jury to deal with complex scientific evidence. Questions arise as to how scientific evidence can be better incorporated into a trial, through its presentation, in order to preserve an accused's right to a fair trial. Prior to assessing these questions, it is important to reflect on some miscarriage of justice cases in order to inform our understanding of the role of the scientific expert.

It is important first to consider the definition of a miscarriage of justice. The phrase is exceptionally broad, and covers a broad range of justice related issues, including unreliable scientific evidence. In defining a "miscarriage of justice", one can adopt an individualistic rights based approach or a more communitarian approach.⁴⁷ Under the former, a miscarriage of justice occurs as follows: whenever suspects or defendants or convicts are treated by State in breach of their rights, whether because of, first, deficient processes or, second, the laws which are applied to them, or, third, because there is no factual justification of the applied treatment or punishment; fourth, whenever suspects or defendants or convicts are treated adversely by the State to a disproportionate extent in comparison with the need to protect the rights of others; fifth, whenever the rights of others are not effectively or proportionately protected or vindicated by State action against wrongdoers or, sixth, by State law itself.⁴⁸ Production of unsound scientific evidence appears to come within the first category: deficient processes. Walker observes that miscarriages result from a multiplicity of causes, and individual prisoners have

⁴⁷ Walker and Starmer (eds), *Miscarriages of Justice: A Review of Justice in Error* (1999, Blackstone Press Limited), at 33.

⁴⁸ *ibid.*

often been subjected to more than one form of abuse of authority.⁴⁹ He cites the overestimating of the evidential value of expert testimony as one of these and lists the Maguire Seven and Birmingham Six cases as examples.⁵⁰

As acknowledged above, science is constantly changing. The courts frequently find themselves confronted with appeals on the basis of fresh scientific evidence.⁵¹ To take one high-profile example, convictions have been rendered unsafe on the basis of fresh scientific ballistics evidence in the case of *R v George (Barry)*.⁵² In Ireland, section 2 of the Criminal Procedure Act 1993 makes provision for the Court of Criminal Appeal to review miscarriage of justice cases. It is important to note that expert evidence can form the basis of “newly discovered fact: within the meaning of that act.”⁵³ In *DPP v Kelly*⁵⁴ the Court of Criminal Appeal had held that, generally, evidence of opinion could not constitute a newly discovered fact. However, there are exceptions in some cases and Kearns J, for the court, held that:

“[t]here might be cases where a state of scientific knowledge as of the date of trial might be invalidated or thrown into significant uncertainty by newly developed science. There might also be cases where the opinion of an expert at trial might be shown to have been tainted by dishonesty, incompetence or bias to such a degree as to render his evidence worthless or unreliable. Once such “facts” were established, expert opinion evidence must be admissible so that such new “facts” could be properly interpreted.”⁵⁵

⁴⁹ *ibid.*, at 52.

⁵⁰ *ibid.*, at 54.

⁵¹ The English Court of Appeal has not approved of the concept of “expert shopping” until one is found which supports an alternative conclusion to that reached at trial. See *R v Horton* [2007] EWCA Crim 607 at [16] and *R v Chato* [2012] EWCA Crim 190 at [70] and [71].

⁵² [2007] EWCA Crim 2722. See also *R v George (Dwayne)* [2014] EWCA Crim 2507 and *R v Joseph* [2010] EWCA Crim 2580.

⁵³ For an analysis of the legislative scheme of the Criminal Procedure Act 1993 and the case law thereon dealing with miscarriages of justice in Ireland, see Langwaller, “Miscarriages of Justice in Ireland: A Survey of the Jurisprudence with Suggestions for the Future” (2011) 2(1) *IJLS* 22.

⁵⁴ [2008] 3 IR 697

⁵⁵ *ibid.*, at 711.

That section 2 applies to a newly discovered scientific test for a piece of real evidence was confirmed in *McDonagh v Garda Commissioner*.⁵⁶ Two notorious types of collective miscarriages of justice will be examined which will be referred to, for ease of reference, as the “IRA Bombing Cases” and the “Sudden Infant Death Cases”.

(i) *IRA Bombing Cases*

A number of cases arose out of IRA bombing incidents in the UK during the 1970's, out of which there were a number of prosecutions. A common feature of most of the cases was that the evidence presented to the court by the prosecution consisted of alleged confessions by the various accused, which was alleged to be supported by scientific evidence that they had recently handled explosives. Explosives commonly contain nitroglycerine. It emerged later that police, lawyers and experts had mishandled evidence, including the scientific evidence. While these cases throw up a range of issues regarding expert scientific evidence, the discussion will be confined to issues regarding the reliability of the scientific evidence.

After the Guildford Four⁵⁷ case, Sir John May was appointed to inquire into concerns about the reliability of scientific testing for nitroglycerine.⁵⁸ His interim report unearthed miscarriages of justice in the handling of scientific evidence that were also relevant to the other cases. In the Birmingham Six case,⁵⁹ the accused had been convicted of the bombings of three Birmingham

⁵⁶ [2015] IEHC 390

⁵⁷ *R v Richardson & Ors*, The Times, 20 October 1989. The Guildford Four had originally been convicted of bombings at Guildford and Woolich. However, another group accused of a different bombing at Balcombe Street (the Balcombe Street Four) then claimed responsibility for the Woolich and Guildford bombs. This cast doubt on the convictions of the Guildford Four.

⁵⁸ Sir John May, *Inquiry into the convictions arising out of the bomb attacks in Guildford and Woolwich: interim report* (HMSO, London, 1990), Sir John May, *Report of the Inquiry into the circumstances surrounding the convictions arising out of the bomb attacks in Guildford and Woolich in 1974, Final Report* (1993-1994) HC 449

⁵⁹ *R v McIlkenny & Ors* (1991) 93 Cr App R 287. The six were Patrick Hill, Gerry Hunter, Richard McIlkenny, Billy Power, Johnny Walker and Hughie Callaghan. See Edmond, “Constructing Miscarriages of Justice: Misunderstanding Scientific Evidence in High Profile Criminal Appeals” (2002) 22 OJLS 53.

pubs in 1974. Five of the accused had been arrested en route from Birmingham by train to the ferry to Ireland from Heysham. They had been playing cards on the train. They were taken to a police station where they were subjected to forensic tests carried out by Dr Skuse, a forensic scientist. He tested the hands of the suspects for traces of nitroglycerine using three different tests: the Greiss test, the TLC and Gas Chromatography test and a test for ammonium nitrate. On the basis of his findings from the Greiss test, Dr Skuse said that he was 99 per cent sure that two of the accused were handling explosives.⁶⁰ On the basis of the TLC and Gas Chromatography results, he declared himself 100 per cent certain that one of the previous accused had been handling explosives.⁶¹ The final ammonium nitrate test resulted in positive results for three of the accused and Dr Skuse himself.⁶²

However, Dr Skuse's conclusions turned out to be wrong, and "demonstrably wrong," judged even by the state of forensic science in 1974.⁶³ The Greiss test had fallen into disuse and there were some doubts about it at the time of the trial. These concerns were not made known to the defence or, subsequently, the Court of Appeal. At trial, the defence did not attempt to introduce doubts about the reliability of the tests used. The defence expert witness was a Dr Black, an independent consultant, formerly HM Chief Inspector of Explosives for the Home Office. He claimed that the tests used could not discriminate between nitroglycerine and other commonly found

⁶⁰ The Greiss test obtained positive results for Hill's right hand and Power's right hand. All other swabs tested were negative.

⁶¹ The *TLC and Gas Chromatography tests produced a negative reaction for Power, negative result for Hill's right hand, but a positive result for Hill's left hand.*

⁶² The trial judge clearly preferred Dr Skuse's evidence and was not shy about showing it. In his charge to the jury he posed the following question: "Of course, if in forming your own judgment on this matter you prefer Dr Black's view to Dr Skuse's view, then you will obviously conclude that the forensic evidence of Dr Skuse is of no value. Indeed, Dr Black's theory logically seems to imply not only that Dr Skuse's theories were of no value, but that Dr Skuse had been spending and must have spent much of his professional life wasting his time because, if Dr Black is right, the Griess test was not worth carrying out... Do you think that Dr Skuse has been wasting most of his professional time? It is a matter entirely for you." See *R v McIlkenny & Ors op. cit.*, at 297.

⁶³ These comments were actually made by the Court of Appeal in *R v Ward* (1993) 96 Cr App R 1 where Dr Skuse had employed the same tests.

substances.⁶⁴ Therefore, the tests could not be relied upon as having isolated and identified nitroglycerine.⁶⁵

On appeal, doubt was cast on the method of testing used by Dr Skuse. It was held that the Griess test should only be relied upon as a gateway or preliminary test that must be supported by more sensitive tests undertaken in a laboratory. Fresh evidence was led at the appeal which led to the conclusion either that if Dr Skuse used weak solution (as he stated) the test could have only reacted positively if the appellants' hands had been "dripping with nitroglycerine", which was "an absurdity."⁶⁶ Fresh evidence also emerged that the positive results could have arisen from contamination with everyday chemicals, including laboratory detergents that could have been used to wash the test containers. The test procedure could have been reacting to nitrite in some soaps, and was not specific for nitroglycerine.

The positive result in the Gas Chromatography test was also called into question on appeal. Fresh evidence proved that the test was not exclusive for nitroglycerine, that other substances could produce the identical positive result and be mistaken for nitroglycerine. The Court of Appeal concluded that the positive Gas Chromatography test may have equally been due to the presence of some other chemical. In a later decision where Dr Skuse had employed the same tests, his evidence was regarded by the Court of Appeal as "valueless,"⁶⁷ and that it should have been excluded. The Court of Appeal concluded:

"[T]here is before us an impressive body of expert opinion to the effect that Dr Skuse's tests, notwithstanding his confident assertions at the trial, were of no value in establishing contact between the appellant and the explosives in 1974. The fact that Dr Skuse apparently got the Griess test result, which he described, cannot be regarded as more than an initial

⁶⁴ *R v McIlkenny & Ors, op. cit.*, at 318.

⁶⁵ A positive result could equally imply contamination by nitro-cellulose commonly used in everyday substances used by the majority of the population. Nitro-cellulose may be used in the production of paints and varnishes; one could pick it up from shiny services such as public house furniture, soap, patent shoes, and playing cards. He also contended that the tests used could equally show positive for varnishes, fungicides, insecticides, and petrol additives found in the soil as well as the atmosphere. See Jones, at *op. cit.* 263.

⁶⁶ *R v McIlkenny & Ors, op. cit.*, at 297 – 298.

⁶⁷ *R v Ward* (1993) 96 Cr App R 1, at 53.

step towards the identification of nitroglycerine: it was not evidence of the presence of nitroglycerine. Dr Skuse relied on one TLC test spot, despite the fact that it was not pink. It is established to our satisfaction that this conclusion was wrong. The scientific evidence before us further shows that the interval of some 57 hours between the alleged handling of explosives at Latimer and the taking of samples by Dr Skuse rendered unlikely the suggestion of the explosives on Miss Ward's hands as a result of planting explosive devices. Moreover the very fact that the TLC test did not work puts a substantial question mark over the condition of the preliminary Griess test. In our judgment, if the trial judge had known what we know, he would have excluded Dr Skuse's evidence as valueless.”⁶⁸

(ii) Sudden Infant Death Cases

In a separate context, the Court of Appeal in England has been required to decide upon the reliability of apparently settled pediatric views in several cases where mothers were accused of the murders of their infant children.

The reliability of an accepted scientific view was called into question in *R v Cannings*.⁶⁹ Here, a mother had been convicted of the murder of her two infant sons, and a total of three of her children had died. At the time of the trial, experts for the prosecution gave evidence regarding the generally accepted view that an inference of murder could be drawn from the deaths of three infants in the same family. The expert pediatrician for the prosecution, Profesor Meadow, gave the following evidence:

“Firstly, the investigations and the pathologists did not find a reason for him dying. For me, the unusual feature is death so soon after being seen well, the fact that there had been previous deaths in the family and the fact that he had had an episode of some sort only nine days before he died that caused him to be assessed in hospital, because those features are ones that are found really quite commonly in children who have been smothered by their mothers. So the diagnosis for me, the clinical

⁶⁸ *ibid.*, at 54.

⁶⁹ [2004] 2 Cr App Rep 7

diagnosis, would be this was characteristic of smothering. ... One then goes on to say 'Well, is it possible it is a condition that is not yet understood by doctors or described by them?', and that must always be a possibility, but nevertheless as a doctor of children I am saying these features are those of smothering."⁷⁰

However, subsequent research regarding the multiple sudden deaths of infants was made available to the Court of Appeal, which revealed that the most common cause of multiple cot deaths was natural causes, and also that there may be a specific genetic cause (yet unidentified)⁷¹ or these multiple deaths. The Court of Appeal was of the opinion that this made the convictions unsafe. It held:

"While the speed of research is gratifying, one unintended consequence is that it sometimes creates doubt about what were once thought to be certainties. And what was confidently presented to the jury as virtually overwhelming expert evidence providing the necessary proof that Jason and Matthew's deaths resulted from the infliction of deliberate harm, should now be approached with a degree of healthy scepticism."⁷²

The Court of Appeal also acknowledged that "never say never" is a phrase which is commonly heard from experts, and that many will acknowledge the possibility that later research may undermine the accepted wisdom of today.⁷³ It also stated that the correct approach going forward was to acknowledge that three unexplained infant deaths was indeed rare, but that it did not lead to the inexorable conclusion that they resulted from the deliberate infliction of harm.⁷⁴ The court held that where the outcome of the trial depended exclusively or almost exclusively on a disagreement between reputable experts regarding the cause of two or more sudden infant deaths in

⁷⁰ *ibid.*, at [133].

⁷¹ The appellant's half sister came forward and there was a history of multiple infant death in her family. See [34] of the judgment.

⁷² *op. cit.*, at [156].

⁷³ *op. cit.*, at [178].

⁷⁴ *op. cit.*, at [148].

the same family, then it would be unwise to proceed.⁷⁵ However, this last statement is only intended to apply to cases that depended on inferences based on coincidence, or the unlikelihood of two or more infant deaths in the same family, or one death where another child had suffered unexplained apparent life-threatening events. This was confirmed by the Court of Appeal in *R v Kai-Whitewind*.⁷⁶ The defence unsuccessfully argued that *Cannings* extended to other sudden infant death cases where there was a conflict of expert opinion. The allegation against the appellant in *Kai-Whitewind* arose from a single death and could be distinguished from *Cannings*. Moreover, unlike *Cannings*, the conviction here had not been based entirely on conflicting expert opinion; there was additional cogent evidence.

Following the judgment in *Cannings*, an interdepartmental group was set up in the UK to review the convictions of defendants in a number of infant death cases. This resulted in the decision in *R v Harris (Lorraine)*⁷⁷ where the Court of Appeal held that expert pediatric opinion of a unified hypothesis that non-accidental injury to the head of a baby (“NAHI”) could be inferred from the existence of a particular triad of inter-cranial injuries⁷⁸ was discredited as a result of new evidence. The Court of Appeal in *R v Henderson*⁷⁹ acknowledged that in cases involving the death of an infant there was a temptation to believe that it is always possible to identify the cause of injury to a child.⁸⁰ Where the prosecution is able, by advancing an array of experts, to identify a non-accidental injury and the defence can identify no alternative cause, it is tempting to conclude that the prosecution has proved its case. However, such a temptation has to be resisted. The Court of Appeal acknowledged that in this, as in so many fields of medicine, the evidence might be insufficient to exclude, beyond reasonable doubt, an unknown cause. Even where, on examination of all the evidence, every possible known cause has been excluded, the cause may still remain unknown.

⁷⁵ *op. cit.* at [178]. This view was echoed in *R v Holdsworth* [2008] EWCA Crim 971 another infant death case, albeit not one where the mother was implicated.

⁷⁶ [2005] 2 Cr App R 457.

⁷⁷ [2006] 1 Cr App R 5

⁷⁸ *ibid.*, at [72] – [80].

⁷⁹ [2010] 2 Cr App R 24

⁸⁰ *ibid.*, at [1].

In addition, the court made it very clear that the complex medical issues arising in cases of alleged NAHI in infants must be dealt with by counsel and judges suitably experienced and who are able clearly to set out the points made by each expert in a way that assists the jury to consider the evidence.⁸¹ The court rejected the unified hypothesis. It issued a number of guidelines including that it will usually be necessary for the court to direct a meeting of experts so that a statement can be prepared on areas of agreement and disagreement.⁸² The essential medical issues which the jury have to resolve should be clear by the time the trial starts. In addition, the fact that an expert is in clinical practice at the time he makes his report is of significance as they can learn and develop from continuing experience.⁸³ Also, any conclusion of any court as to the medical evidence depends upon the evidence before that court, as no appellate jurisprudence can provide authority for a medical proposition.

An Irish court has rejected the submission that the English infant death cases required that a specific direction be given to the jury regarding the expert scientific evidence in *DPP v Doyle*.⁸⁴ The appellant was accused of the manslaughter of his partner's infant son. He alleged that the child's injuries were caused by an accidental fall. A number of medical experts testified for both sides. It was held that the English cases were concerned with clashes between medical experts as to medical science itself and the implications of finding a certain cluster of symptoms. In addition, they were mostly dealing with internal head injuries in the absence of other evidence of trauma. *Doyle* was wholly different in that there was not conflict with one specialist asserting the contrary to others as to areas of their expertise. By contrast, the question in *Doyle* was whether the jury were satisfied beyond reasonable doubt that the baby's injuries, which it was common case were traumatically caused, were inflicted by the appellant otherwise than by an accidental fall.

⁸¹ *ibid.*, at [5].

⁸² *ibid.*

⁸³ The court referred (at [207]) to "Sudden Unexpected Death in Infancy: The Report of a Working Group Convened by the Royal College of Pathologists and The Royal College of Paediatrics and Child Health" chaired by Baroness Kennedy QC and published in September 2004.

⁸⁴ [2015] IECA 131

A discussion of miscarriages of justice in infant death cases would not be complete without a reference to *R v Clark*⁸⁵ where Sally Clark was convicted by a jury of two counts of murder of her two infant sons. The appeal concerned two difficulties with the scientific evidence adduced: Firstly, the prosecution expert had failed to disclose information in microbiological reports, which meant that important aspects of the case which should have been before the jury were never considered at trial. Secondly, Prof Meadows had also given expert testimony on possible causes of death and the statistical probabilities of a family suffering two such deaths, suggesting that the odds of two such unexplained deaths occurring in the same family were some 73,000,000 to 1. Despite the fact that he was not an expert in statistics,⁸⁶ these calculations were seriously flawed and the Court of Appeal overturned the convictions on the basis that they were likely to have misled the jury.

A couple of points emerge from both the IRA Bombing Cases and the Sudden Infant Death Cases. The courts must be cautious when a prosecution is based solely on expert scientific evidence. It is also clear that the expert must be transparent. In addition, the method of presentation of the expert scientific evidence to the jury becomes important. This is addressed in the next chapter. There was also an acknowledgement on the part of the courts that the state of scientific knowledge does not remain stagnant. Therefore, it is possible that, as scientific knowledge advances, convictions based on previous scientific knowledge may be questioned. The question therefore arises as to how the court can guard against unreliable scientific evidence.

VI. The Reliability Debate

It has been demonstrated that expert scientific evidence has resulted in miscarriages of justice. Therefore, the criteria for the admissibility of expert scientific evidence are important. As outlined in Chapter 2, the test for admissibility in Ireland is governed by the common law. For expert evidence to be admissible it must be relevant and the expert must be sufficiently qualified in his or her field. The Irish courts do not have in place a formal admissibility test which requires that the expert evidence has a sufficiently reliable basis.

⁸⁵ *R v Clark (Sally)* [2004] EWCA Crim 1020; [2004] 2 FCR 447

⁸⁶ See Chapter 2.

Reliability is generally a question affecting the weight to be attached to the evidence by the finder of fact.⁸⁷ Therefore, much faith is placed in the finder of fact. We will see in the next chapter the potential effect that expert evidence can have on juries.

The arguments in favour of an increased scrutiny of scientific evidence carry more weight in the context of a criminal trial. It has been acknowledged⁸⁸ that there is a degree of circularity in asking the finder of fact to determine whether a body of knowledge or experience is reliable unless it is first admitted into evidence and then scrutinised by the ordinary adversarial process (including cross-examination and the calling of rebuttal evidence). It could be more appropriate, for the court to evaluate the reliability of the body of knowledge or experience at the weight stage rather than at the admissibility stage. Evaluation of reliability at this stage has the advantage of being able to weigh up the credibility of the expert at the same time. However, this carries more weight in a civil trial, where the finder of fact is the same individual who takes the initial decision as to whether or not to admit the evidence in the first place.

Concerns about reliability include: the potential for undue weight to be given to opinion evidence from professional witnesses who are impressive and highly credentialed; anxiety that expert evidence may be misunderstood or misconstrued; worry that experts may be problematically partisan in their methodology, interpretation of data and expression of opinions; and recognition that such defects may not be exposed effectively in cross-examination.⁸⁹ There are, of course, no certainties in science and any standard

⁸⁷ While not relevant in legal terms, reliability is distinguished from validity in scientific terms. In science, reliability is the capacity of a test to achieve consistent results. Validity, on the other hand, is determined by reference to the context, such as the purpose for which a test is applied. Reliability is a criterion in respect of validity and when it is absent, so too is validity. Generally, as reliability decreases, validity will also do so. See Freckelton, Goodman-Delahunty, Horan & McKimmie, *Expert Evidence and Criminal Jury Trials* (OUP, 2016) at [2.21] – [2.22]. See also Edmond, Biber, Kemp & Porter “Law’s Looking Glass: Expert Identification Evidence Derived from Photographic and Video Images” (2009) 20(3) CJCJ 337, at 351.

⁸⁸ Hodgkinson & James, *op. cit.*, at [3-001].

⁸⁹ Freckelton *et al*, *op. cit.*, at [2.01].

to be adopted must be capable of adapting to cater for new areas of scientific expertise.

(i) *United States*

In contrast to Ireland, the United States has developed a formal and strict admissibility test for scientific evidence, and expert evidence in general.⁹⁰ As part of this test, it has been recognised that trial judges should vet the reliability of the expert evidence when assessing admissibility. However, the standard which should govern that assessment of reliability has been the subject of some controversy. In *Frye v US*⁹¹ the United States Court of Appeals for the District of Columbia Circuit formulated a “general acceptance” test:

“Just when a scientific principle of 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 recognised, and while the courts will go a long way in admitting expert testimony deduced from a well recognised 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.”⁹²

Under this test, a court had to decide if the procedure, technique or principles in question were generally accepted by a meaningful proportion of the relevant scientific community. In *Frye*, the scientific validity of the polygraph (lie detector) was rejected as the technology did not have general acceptance at that time. This standard prevailed in the federal courts and some states for many years. During this time, the United States Congress enacted Rule 702 of the Federal Rules of Evidence which dealt with the use of

⁹⁰ See generally, Kaye, Bernstein & Mnookin, *The New Wigmore: A Treatise on Evidence: Expert Evidence* (Aspen, 2004) at Chapters 5 and 6.

⁹¹ (1923) 293 F 1013

⁹² *ibid.*, at 1014.

scientific, technical or other specialised knowledge by the courts.⁹³ In essence, Rule 702 is a relevance and reliability standard.

However, the *Frye* standard for reliability was rejected by the US Supreme Court in *Daubert v Merrell Dow Pharmaceuticals Inc.*⁹⁴ The plaintiffs in this case had sought to adduce novel expert evidence that the anti-nausea drug Bendectin could cause limb defects in babies when taken by pregnant women. The federal court refused but the US Supreme Court reversed.⁹⁵ In doing so, the US Supreme Court rejected *Frye* and formulated a new standard for the admissibility of expert evidence. It held that Rule 702 had impliedly overruled *Frye* because it did not specify that general acceptance was a precondition to admissibility.⁹⁶ The court, looking to Rule 702, formulated a test that firstly, the court should ensure that the expert's evidence rests on a reliable foundation and, secondly, that is relevant to the task at hand. Blackmun J, delivering judgment for the majority, formulated a standard of empirical validation:

“[I]n order to qualify as ‘scientific knowledge,’ an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by an appropriate validation – i.e. ‘good grounds,’ based on what is known. In short, the requirement that an expert’s testimony pertain to ‘scientific knowledge’ establishes a standard of evidentiary reliability.”⁹⁷

⁹³ Rule 702 read at the time: “If scientific, technical, or other 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.”

⁹⁴ 509 US 579. The Canadian courts have taken a similar view. See *R v Mohan* [1994] 2 SCR 9 and *R v Trochym* [2007] 1 SCR 239. See Dufrainmont, “New Challenges for the Gatekeeper: The Evolving Law on Expert Evidence in Criminal Cases” (2011-2012) 58 Crim. LQ 531.

⁹⁵ The federal court’s decision was upheld on appeal by the US Court of Appeals for the Ninth Circuit.

⁹⁶ *Daubert*, *op. cit.*, at 588-589.

⁹⁷ *Daubert*, *op. cit.*, at 590.

Blackmun J listed a number of non-exhaustive factors to assist the court in establishing whether a particular theory or technique was reliable or not. These are:

1. Whether the theory or technique can be tested empirically;
2. Whether it has actually been tested. The technique or theory has to be literally “put to the test;”
3. Whether it has a known or potential error rate;
4. Whether it has been subjected to peer review and publication;
5. Whether there are standards controlling its usage , and whether these standards can be maintained;
6. Whether it has attracted general acceptance. (This was the main focus of the *Frye* test and is just one of the factors to be considered under the new test.)

Daubert can be seen as a response to American concerns surrounding “junk science”⁹⁸ This phrase refers to the abuse of science and scientific terminology in a court setting in order to advance a party’s case.

Daubert is generally seen as conferring on judges the role of gatekeeper⁹⁹ regarding the admissibility of expert evidence in general, and not just scientific evidence. This role was confirmed in *General Electric v Joiner*¹⁰⁰ where it was made clear that courts could scrutinise the reliability of an expert’s reasoning process as well as the expert’s general methodology. Courts were free to conclude that “there is simply too great an analytical gap between the data and the opinion proffered.”¹⁰¹ *Joiner* made it clear that the decision of the trial court judge as to whether to admit particular scientific evidence was to be reviewed only for an abuse of discretion. In *Kumho Tire Co*

⁹⁸ This phrase was first coined in Huber’s *Galileo’s Revenge: Junk Science in the Courtroom* (Basic Books, 1991). See also Giannelli “‘Junk Science’: The Criminal Cases” 84 *Journal of Criminal Law and Criminology* 105.

⁹⁹ The court referred to a “gatekeeping” role for the judge at 597, *op. cit.* While the decision is known for conferring such a role, the reality is that it was not a significant part of the judgment.

¹⁰⁰ 118 S Ct 512, 1997

¹⁰¹ *ibid.*, at 146, *per* Rehnquist J.

*Ltd et al v Carmichael*¹⁰² the US Supreme Court expanded on the *Daubert* test and held that the test was not just confined to the scientific community, but was applicable to all types of expert evidence. *Kumho* added another criterion, “that an expert whether basing testimony on professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.”¹⁰³

Although *Daubert* was a civil case, it was to be equally applicable to criminal trials.¹⁰⁴ However, its impact in the criminal sphere is questionable. While there is limited empirical research available, some post-*Daubert* research in the United States showed that, not only is civil expert evidence more closely scrutinised for admissibility by the courts than criminal expert evidence, but criminal prosecutors and civil defendants appear to be treated more favorably than criminal defendants and civil plaintiffs.¹⁰⁵

The role of the judge as “gatekeeper” has been controversial. Some argue that judges are better suited than the jury to carry out this task:

“First the structured-reasoning process undertaken in a *Daubert* inquiry improves performance in cognitive tasks. Second, judges are repeat players in the way that juries are not. Repeat exposure to the decision-making task - at least in the presence of feedback - can improve performance. Third, judges are accountable, at least in some respects. They must present bases for their decisions, and those bases are subject to scrutiny and to being overruled by a higher court. Accountability, which is difficult to achieve for group judgments like those made by the jury, is more effective for individual decision makers like trial judges. Individual judgments under conditions of accountability are more likely to be careful and thoughtful.”¹⁰⁶

¹⁰² 526 US 137 (1999)

¹⁰³ *ibid.*, at 152. Collectively, these three cases were referred to as the “*Daubert* trilogy.” For an analysis of the degree to which the *Daubert* Trilogy has been accepted by the state courts, see Bernstein & Jackson, “The *Daubert* Trilogy in the States” (2004) 44(3) *Jurimetrics* 351.

¹⁰⁴ See Giannelli, *op. cit.*

¹⁰⁵ Dwyer, “(Why) are Civil and Criminal Expert Evidence Different?” 43(2) (2007) *Tulsa Law Review* 381

¹⁰⁶ Beecher-Monas, *Evaluating Scientific Evidence: An Interdisciplinary Framework for Intellectual Due Process* (Cambridge University Press, 2007), at 15.

A survey of judges in the United States revealed differing perspectives on the impact of *Daubert*. While the overwhelming majority of judges felt that the role of gatekeeper was appropriate for judges, they found that their education had left them inadequately prepared to make admissibility decisions.¹⁰⁷ Both of these observations were echoed by Rozelle,¹⁰⁸ who noted that judges in the United States may be “in over their heads.”¹⁰⁹ The question of whether judges are adequately trained and educated to deal with complex expert evidence is one which will be returned to later in this thesis. The discussion on the merits of a reliability standard is continued further below.

(ii) *England & Wales*

In England, the courts have adopted quite a flexible approach to the admissibility of scientific evidence.¹¹⁰ It appears that a jury is entitled to rely on an expert opinion notwithstanding that it falls short of scientific certainty.¹¹¹ The test for admissibility of expert evidence¹¹² that has been followed in England is that which was set out the South Australian Supreme Court in *R v Bonython*.¹¹³ King CJ stated:

¹⁰⁷ Gatowski, Dobblin, Richardson, Ginsburg, Merlino, & Dahir, “Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World” (2001) 25(5) *Journal of Law and Human Behaviour*. For a summary see Freckelton et al at [2.62]. See also Moreno, “Eyes Wide Shut: Hidden Problems and Future Consequences of the Fact-Based Validity Standard (2003) *Seton Hall Law Review* 89.

¹⁰⁸ Rozelle, “*Daubert*, Schmaubert: Criminal Defendants and the Short End of the Science Stick” (2007) *Tulsa Law Review* 597

¹⁰⁹ See also Allen, “Expertise and the *Daubert* Decision” (1994) *Journal of Criminal Law and Criminology* 1157.

¹¹⁰ For an analysis of the admissibility of expert evidence in England, see Law Commission Consultation Paper (April 2009), *Admissibility of Expert Evidence in Criminal Proceedings in England and Wales* and Law Com No. 325 *Expert Evidence in Criminal Proceedings in England and Wales*. See also Roberts, “Rejecting General Acceptance, Confounding the Gate-Keeper: the Law Commission and Expert Evidence” [2009] *Crim LR* 551.

¹¹¹ Keane & McKeown, *The Modern Law of Evidence*, (11th ed, OUP, 2015) at 590.

¹¹² As opposed to expert scientific evidence.

¹¹³ (1984) 38 SASR 45

"The first is whether the subject matter of the opinion falls within the class of subjects upon which expert testimony is permissible. This ... may be divided into two parts: (a) whether the subject matter of the opinion is such that a person without instruction or experience in the area of knowledge or human experience would be able to form a sound judgment on the matter without the assistance of witnesses possessing special knowledge or experience in the area, and (b) whether the subject matter of the opinion forms part of a body of knowledge or experience which is sufficiently organized or recognized to be accepted as a reliable body of knowledge or experience, a special acquaintance with which by the witness would render his opinion of assistance to the court. The second question is whether the witness has acquired by study or experience sufficient knowledge of the subject to render his opinion of value in resolving the issues before the court."¹¹⁴

Regarding the second limb of the *Bonython* test, the authors of *Cross & Tapper on Evidence* have stated:

"... the better, and now more widely accepted, view is that so long as the field is sufficiently well-established to pass the ordinary tests of relevance and reliability, then no enhanced test of admissibility should be applied, but the weight of the evidence should be established by the same forensic techniques applicable elsewhere."¹¹⁵

This passage has been approved in a number of cases in England and Wales,¹¹⁶ including *R v Luttrell*.¹¹⁷ This was first case in the common law world to consider the admissibility of expert lip-reading evidence about the content of a conversation captured on a silent video.¹¹⁸ The appellants argued

¹¹⁴ This was followed in *R v O'Doherty* [2003] 1 Cr App R 77; *R v G* [2004] 2 Cr App R 38.

¹¹⁵ *Cross and Tapper on Evidence*, 9th ed, (OUP, 1999) at 523. This passage is located at page 545 of the most recent edition of *Cross and Tapper on Evidence*, (12th ed, OUP, 2010).

¹¹⁶ *R v Dallagher* [2003] 1 Cr App R 195; *R v O'Doherty* [2003] 1 Cr App R 77; *R v G* [2004] 2 Cr App R 38; *R v Reed* [2010] 1 Cr App R 23; *R v Henderson* [2010] EWCA Crim 1269; *R v Ahmed* [2011] EWCA Crim 184, [2011] Crim LR 734.

¹¹⁷ [2004] 2 Cr App R 520

¹¹⁸ See comment by Pattenden at (2004) 8 E & P 248.

in the Court of Appeal that lip-reading evidence founded on video footage is so intrinsically unreliable that it should be inadmissible. This argument was supported by expert evidence that many spoken sounds do not involve lip movements while many other sounds involve the same or similar lip movements. The Court of Appeal, however, decided that lip-reading evidence is admissible in principle: it satisfies the tests for admissibility of expert evidence (including the ordinary test of reliability) and is capable of being relevant.¹¹⁹ Rose LJ also dealt with the question of the admissibility of expert evidence and held that two conditions determine its admissibility:¹²⁰

“(a) whether the subject matter of the opinion is such that a person without instruction or experience in the area of knowledge or human experience would be able to form a sound judgment on the matter without the assistance of witnesses possessing special knowledge or experience in the area, and;

(b) whether the subject matter of the opinion forms a body of knowledge or experience which is sufficiently organised or recognised to be accepted as a reliable body of knowledge or experience, a special acquaintance with which by the witness would render his opinion of assistance to the court.”¹²¹

The Court of Appeal held that the question of the reliability of expert testimony goes to the weight of the evidence and not its admissibility and approved the passage in *Cross and Tapper*, quoted above. However, Rose LJ acknowledged that the decision in each case is likely to be highly fact sensitive, and that in some instances the reliability of evidence may be relevant to the question of admissibility.¹²² *R v Luttrell* establishes that use of a rigorous

¹¹⁹ *ibid.*, at [38].

¹²⁰ Approving *R v Bonython* (1984) 38 SASR 45.

¹²¹ *ibid.*, at [321]. Pattenden remarks ((2004) 8 E & P 248, at 250) that the English Court of Appeal appear to have followed the advice of Redmayne and others to introduce an exclusionary rule for scientific evidence that addresses reliability concerns. See Redmayne, *Expert Evidence and Criminal Justice* (OUP, 2001) at 95-100.

¹²² *ibid.* Rose LJ did state at [38] that “[a] judge may properly take into account: whether consistency with extrinsic facts confirms or inconsistency casts doubt on the reliability of an interpretation; whether information provided to the lip-reader might have coloured the reading;

scientific method is not a test for admissibility and Rose LJ stated that “a skill or expertise can be recognised and respected and thus satisfy the conditions for admissible expert evidence, although the discipline is not susceptible to this sort of scientific discipline.”¹²³

In *R v Dallagher*¹²⁴ the Court of Appeal, after rejecting *Frye* and *Daubert*, and approving the aforementioned passage from *Cross & Tapper*, concluded that the field of ear print analysis was sufficiently well established to pass the relevance and reliability tests. Similarly, in *R v Ahmed*¹²⁵ the Court of Appeal held that evidence of an internationally recognised expert on international terrorism was correctly admitted. The matter of accuracy and reliability were held to be a matter for the jury.¹²⁶

However, in the context of scientific evidence, it appears to be settled that there is a threshold of reliability which has to be met before the expert evidence will be deemed admissible. In *R v Reed*¹²⁷ the Court of Appeal approved *Cross & Tapper*’s test and held that while “expert evidence of a scientific nature is not admissible where the scientific basis on which it is advanced is insufficiently reliable for it to be put before the jury,” there is “no enhanced test of admissibility for such evidence”.¹²⁸ However, the reliability

and whether the probative effect of the evidence depends on the interpretation of a single word or phrase or on the whole thrust of the conversation.” He also stated at [44] that “lip-reading evidence requires a warning from the judge as to its limitations and the concomitant risk of error, not least because it will usually be introduced through an expert who may not be completely accurate.”

¹²³ [2004] 2 Cr App R 520, at [34].

¹²⁴ [2003] 1 Cr App R 195

¹²⁵ [2011] EWCA Crim 184, [2011] Crim LR 734

¹²⁶ *ibid.*, at [69]. The study of terrorism was said to be “a well recognised and accepted area of academic study,” at [64]. The Court of Appeal has held that it is permissible to adduce expert evidence to establish historical facts: *R v Sawoniuk* [2002] Cr App R 220 where expert evidence had been called at trial on a number of topics, including Nazi policy towards Jews during the 1930s and 40s.

¹²⁷ [2009] EWCA Crim 2698, [2010] 1 Cr App R 23. See also Jamieson, “LCN DNA analysis and opinion on transfer: *R v Reed & Reed*” (2011) 15 E & P 161; Naughton & Tan, “The need for caution in the use of DNA evidence to avoid convicting the innocent” (2011) 15 E & P 245

¹²⁸ *ibid.*, at [111].

threshold appears to be a relatively easy one to overcome. *R v Reed* was approved in a number of cases.¹²⁹

The observations in relation to admissibility of expert evidence of the Court of Appeal in *R v Reed* (which concerned DNA evidence) were stated to apply with equal force to cases concerning medical expert evidence of baby shaking in *R v Henderson*.¹³⁰ The same point was made by the Court of Appeal in *R v T*¹³¹ where the court stated that “the principles for the admissibility of expert evidence were summarised recently in *Reed* ... the court will consider whether there is a sufficiently reliable scientific basis for the evidence to be admitted ... ”¹³²

In *R v Dlugosz*¹³³ the Court of Appeal articulated a clear test, in the context of low template DNA evidence:

“It is essential to recall the principle which is applicable, namely in determining the issue of admissibility, the court must be satisfied that there is a sufficiently reliable scientific basis for the evidence to be admitted. If there is then the court leaves the opposing views to be tested before the jury.”¹³⁴

The experience of experts is important in determining whether their evidence is to be judged reliable. This is evident from the comments of the Court of Appeal in *R v Weller*¹³⁵ (which were made in the context of forensic scientific evidence):

¹²⁹ For example, *R v Broughton* [2010] EWCA Crim 549 where the court stated at [32]: Although the Courts of England and Wales have adopted a more flexible approach in admitting expert evidence than some jurisdictions, a court must consider whether the subject matter of the evidence is part of a body of knowledge or experience which is sufficiently well organised or recognised to be accepted as a reliable body of knowledge or experience. If the field is sufficiently well established to pass the ordinary tests of reliability and relevance, then that is sufficient. The weight of the evidence should then be established by our familiar adversarial forensic techniques.”

¹³⁰ [2010] 2 Cr App R 24, at [206].

¹³¹ [2011] 1 Cr App Rep 9

¹³² *ibid.*, at [70].

¹³³ [2013] 1 Cr App R 32

¹³⁴ *ibid.*, at [13]

¹³⁵ [2010] EWCA Crim 1085

“A court in determining whether there is a sufficiently reliable scientific basis for expert evidence to be given and a jury in evaluating evidence will be entitled to take into account the experience of experts and, if their experience is challenged, to test that. If the evidence upon which they rely for the basis of their experience is challenged, then that can be evaluated by cross-examination.”¹³⁶

In 2011, the Law Commission of England and Wales undertook a review of the standards for the admissibility of expert evidence.¹³⁷ The Commission proposed a statutory admissibility test which would have provided that an expert’s opinion in criminal proceedings is admissible only if it is sufficiently reliable to be admitted; namely if the opinion is soundly based and the strength of the opinion is warranted, having regard to the grounds on which it is based.¹³⁸ Due to concerns regarding additional costs involved in pre-trial hearings, the English government never enacted the proposals.¹³⁹

While not given statutory recognition, those proposals were given effect to procedurally in by way of a practice direction to Part 33 of the English

¹³⁶ *ibid.*, at [48].

¹³⁷ Law Commission, *Expert Evidence in Criminal Proceedings in England and Wales*, Law Com No. 325 (2011). This was in response to the recommendation of the House of Commons’ Science and Technology Committee report on *Forensic Science on Trial: Seventh Report of Session 2004-05* (London: The Stationery Office, 2005). See also Heffernan & Coen, “The Reliability of Expert Evidence: reflections on the Law Commission’s Proposals for Reform (2009) 73 J Crim L 488.

¹³⁸ Section 4(1) of the Draft Criminal Evidence (Experts) Bill. It was proposed, under section 4(2), that there should be the following reasons why an expert’s opinion is not sufficiently reliable: (a) the opinion is based on a hypothesis which has not been subjected to sufficient scrutiny (including, where appropriate, experimental or other testing), or which has failed to stand up to scrutiny; (b) the opinion is based on an unjustifiable assumption; (c) the opinion is based on flawed data; (d) the opinion relies on an examination, technique, method or process which was not properly carried out or applied, or was not appropriate for use in the particular case; (e) the opinion relies on an inference or conclusion which has not been properly reached.

¹³⁹ See Ministry of Justice, *The Government’s Response to the Law Commission’s Report: “Expert Evidence in Criminal Proceedings in England and Wales”* (Law Com No 325) 21 November 2013, at 4.

Criminal Procedure Rules.¹⁴⁰ The Practice Direction cites *R v Dlugosz* for the proposition that the common law test for the admissibility of expert evidence is that there must be "a sufficiently reliable scientific basis for the evidence to be admitted".¹⁴¹ The Practice Direction states that nothing at common law precludes the assessment by the court of the reliability of an expert opinion by reference to substantially similar factors to those the Law Commission recommended as conditions of admissibility. The courts are then encouraged actively to enquire into such factors. Eight such factors are listed in the Practice Direction.¹⁴² In addition, courts are further urged to be astute to identify potential flaws in expert opinion which might detract from its reliability. Examples include cases where the opinion is based on a hypothesis which has not been subjected to sufficient scrutiny, or where the opinion is founded on an unjustifiable assumption or on flawed data, or where it is based

¹⁴⁰ Part 33 of the Criminal Procedure Rules now contains a catalogue of important provisions on expert witnesses' duties, the form of forensic reports and the procedures for adducing expert evidence in criminal proceedings. Emphasis is placed on thorough pre-trial preparation, full disclosure and sensible dialogue between the parties in relation to any scientific aspects of the case. Rule 33.4(h) provides that an expert report must include such information as the court may need to decide whether the expert's opinion is sufficiently reliable to be admissible as evidence.

¹⁴¹ Practice Direction 33A.4.

¹⁴² Practice Direction 33A.5: (a) the extent and quality of the data on which the expert's opinion is based, and the validity of the methods by which they were obtained; (b) if the expert's opinion relies on an inference from any findings, whether the opinion properly explains how safe or unsafe the inference is (whether by reference to statistical significance or in other appropriate terms); (c) if the expert's opinion relies on the results of the use of any method (for instance, a test, measurement or survey), whether the opinion takes proper account of matters, such as the degree of precision or margin of uncertainty, affecting the accuracy or reliability of those results; (d) the extent to which any material upon which the expert's opinion is based has been reviewed by others with relevant expertise (for instance, in peer-reviewed publications), and the views of those others on that material; (e) the extent to which the expert's opinion is based on material falling outside the expert's own field of expertise; (f) the completeness of the information which was available to the expert, and whether the expert took account of all relevant information in arriving at the opinion (including information as to the context of any facts to which the opinion relates); (g) if there is a range of expert opinion on the matter in question, where in the range the expert's own opinion lies and whether the expert's preference has been properly explained; and (h) whether the expert's methods followed established practice in the field and, if they did not, whether the reason for the divergence has been properly explained.

on an examination or process that was inappropriate or not properly carried out, or where it includes an inference or conclusion that was not properly reached.¹⁴³

As a result of the Practice Direction, it has been suggested that the previous decisions of the Court of Appeal indicating a relaxed approach to the admissibility of expert evidence should be treated with some caution.¹⁴⁴ Subsequent to the Law Commission recommendations, but prior to the introduction of the Practice Direction, Ward was of the opinion that the enhanced approach would not lead to exclusion of significant amounts of expert evidence that previously would have been admitted.¹⁴⁵ He argued that a judge might be more likely to edit the evidence at the admissibility stage, so that there was no danger that expert evidence of questionable reliability would be overstated before the jury.

There is no doubt that the Practice Direction confers on judges a more active “gatekeeping” role. This was acknowledged in *R v H*¹⁴⁶ where it was stated that the changes called for the adoption of a new and more rigorous approach on the part of advocates and courts to the handling of expert evidence. However, Dennis acknowledges the permissive nature of the provision.¹⁴⁷ While judges are actively encouraged to enquire into the reliability of the expert evidence, they are not mandated to do so. Judges in England and Wales will require more training, and until they receive it, they may just prefer to leave the question of reliability to the jury.

(iii) Ireland

The question now is whether a reliability requirement should be introduced for scientific evidence in Ireland? Perhaps it would be preferable to exclude expert evidence in new and emerging areas of science until they have been sufficiently accepted or regarded as reliable? This could reduce the potential

¹⁴³ Practice Direction 33A.6.

¹⁴⁴ Keane & McKeown, *The Modern Law of Evidence*, (11th ed, OUP, 2015) at 592.

¹⁴⁵ Ward, “Expert Evidence and the Law Commission: Implementation without Legislation?” (2013) Crim LR 561

¹⁴⁶ [2014] EWCA Crim 155

¹⁴⁷ Dennis, “Tightening the Law on Expert Evidence” [2015] Crim LR 1, at 2.

for miscarriages of justice like the ones mentioned above. After all, requiring juries to decide what weight to be attached to a novel scientific technique is a daunting and potentially dangerous task. Ireland is faced with the option of codifying a test, with or without a reliability standard, or developing the common law to require that scientific evidence meets a reliability threshold before it will be admitted.

The American commentator Imwinkelried is of the view that the Irish courts could do well to heed US developments, in light of the proliferation in use of expert witnesses in Ireland.¹⁴⁸ However, a number of arguments have been put forward as to why a reliability requirement might not be appropriate in this jurisdiction. It has been stated, in line with what was discussed in Chapter 2, that because our system is adversarial in nature, unreliable testimony tends to be weeded out through cross-examination.¹⁴⁹ This could mean that a reliability requirement is not needed at the admissibility stage. However, as acknowledged in Chapter 2, the tool of cross-examination becomes less effective when counsel is dealing with complex scientific evidence. While the expert's evidence may be discredited, this is probably not on the basis of any defect in the scientific evidence and more to do with the skill or the cross-examiner or the personality of the expert. Also, there are a number of procedural differences between the two legal systems, one being the summary judgment mechanism in the US which aims to resolve proceedings at a pre-trial stage. Admissibility issues are often resolved here. Ireland has no such system, and a *Daubert* based test might not be as procedurally conducive here.¹⁵⁰

Another concern is cost. Complex arguments regarding admissibility pre-trial are likely to increase the length and costs of legal proceedings. Experts will be required to do more work in terms of their reports and court appearances, and thus are entitled to demand a higher fee. Counsel will also be required to familiarise themselves more with scientific methods from an earlier stage. While the English Law Commission anticipated a saving of £3.5 million

¹⁴⁸ Imwinkelried, "'Junk Science' in the Courtroom: Will the Changes in the American Law of Expert Testimony Influence the Irish Courts?" (2004) 26 DULJ 83

¹⁴⁹ Heffernan, "Gauging the Reliability of Expert Witnesses (2006) 6 JSIJ 140, at 147.

¹⁵⁰ *ibid.*, at 168.

over 10 years,¹⁵¹ it is clear that the indigent accused, referred to in Chapter 3, would face a heavier burden than the prosecution.

In their 2008 Consultation Paper,¹⁵² the LRC provisionally recommended a *Daubert*-esque test for the admissibility of all¹⁵³ expert testimony that focuses on the evidence itself in terms of its underlying methodologies and results to examine its reliability. It set out a number of factors against which the trial judge would assess and validate the expert evidence,¹⁵⁴ while acknowledging that the suitability of the various factors would vary depending on the nature of the evidence presented. Instead of recommending a statutory test like the English Law Commission, it provisionally recommended the introduction of a judicial guidance note outlining the above factors.

According to the LRC, the trial judge should start with the proposition that the evidence is inherently unreliable and then assess its merits on the basis of the factors.¹⁵⁵ If the evidence does not satisfy any of the factors, then it should be excluded from the outset.¹⁵⁶ However, where the extent of the reliability is uncertain, or where the trial judge feels it appropriate or necessary, it was recommended that he or she may consider it appropriate that the evidence be admitted subject to a warning to the jury about its uncertain reliability.

While the LRC did acknowledge one defect, that not all areas of expertise will be conducive to empirical validation, principally those that do not have a scientific or technical basis,¹⁵⁷ it was of the opinion that this was outweighed by the advantages. According to the LRC, the reform would be easily facilitated in practice due to its flexibility, and it would assist the trial judge in their assessment of novel theories. They also opined that it would prevent the risks of contamination or errors being presented to the court.¹⁵⁸

¹⁵¹ Law Commission, *Expert Evidence in Criminal Proceedings in England and Wales*, Law Com No. 325 (2011). Appendix C, Impact Assessment.

¹⁵² Law Reform Commission *Consultation Paper on Expert Evidence* (LRC CP 52-2008)

¹⁵³ The LRC, unlike their English counterparts, did not confine the new test to criminal cases.

¹⁵⁴ *ibid.*, at [2.396].

¹⁵⁵ *ibid.*, at [2.397].

¹⁵⁶ *ibid.*, at [2.401].

¹⁵⁷ *ibid.*, at [2.402].

¹⁵⁸ *ibid.*

The LRC confidently stated that that there were few arguments that could be made against its proposed test.¹⁵⁹ However, this fails to deal with the climate post *Daubert* in the United States and the concerns stated above. Like their English counterparts, the LRC in its Consultation Paper was too optimistic about judges acquiring sufficient knowledge to deal with the enhanced test. For example, one of the factors listed by the LRC asks the trial judge to decide whether the principles behind the theory are consistent, in that its proponents are in agreement about its constituent elements which would enable it to be *empirically testable and falsifiable*. Another factor asks whether the conclusions reached by the expert are backed up by sufficient supporting authority and *logical* based on the principles underlining the theory. Focusing on the italicised portions, it is a grand stretch of the imagination to assume that a basic understanding of scientific principle will suffice to answer these questions. These questions are, in truth, requiring a trial judge to engage in complex scientific analysis.

In *Daubert* itself, there was discord between the members of the court as to whether judges were equipped to pronounce upon the empirical validity of expert evidence. While Blackmun J was of the opinion that judges possessed such capacity,¹⁶⁰ Rehnquist CJ (in dissent) doubted that the Federal Rules of Evidence conferred on judges the obligation or the authority to become “amateur scientists.”¹⁶¹ Another question which emerges is whether legal representatives are competent to count challenges to the admissibility of scientific evidence. If they are not, then this could have an adverse effect on an accused’s defence and adversely affect their right to a fair trial.

Undertaking an inquiry into the empirical validation of scientific evidence necessitates some training in the sciences for judges. Indeed, this has been acknowledged by Dennis in the context of the new English provisions. However, it is no secret that the judiciary in Ireland is under resourced. While there is statutory provision for training,¹⁶² this author is unaware of any

¹⁵⁹ *ibid.*, at [2.399].

¹⁶⁰ *Daubert op. cit.*, at 593.

¹⁶¹ *Daubert op. cit.*, at 600-601.

¹⁶² Section 19 of the Courts and Court Officers Act 1995 provides that: “A person who wishes to be considered for appointment to Judicial office shall undertake to the Board (The Judicial Appointments Advisory Board) his or her agreement, if appointed to Judicial Office, to take

specialist training for judges on the basic sciences. However, it is likely that scientific training may have a limited effect, given the vast range of subjects which an Irish judge has to adjudicate upon. One Australian judge,¹⁶³ albeit speaking in the civil context, did not regard scientific education as a panacea for the perceived ills of the present system:

“For example, a judge in our Court might go, in the space of a few months, from a competition law case with economic evidence as to market definition, to a copyright case involving architectural plans, to an Admiralty collision case involving seamanship and navigation, to a patent case involving DNA and molecular biology. One doubts whether there can be general scientific education (presumably at public expense) which can make the judge an expert in these disparate disciplines, and others. Moreover, the judge needs time for work on non-scientific cases and important activities like watching television and going to the football.”¹⁶⁴

Eight years have passed since the LRC’s Consultation Paper and a report is still eagerly awaited. However, as is evident from the above discussion of the law in other jurisdictions, events may have overtaken the LRC recommendations and it may be to the Irish courts, through the development of the common law, to adopt a position similar to that taken in England and Wales prior to the introduction of the Practice Direction.

The debate surrounding the test for the admissibility of expert evidence has received little judicial consideration in Ireland to date. The only real case to deal with the issue obliquely is the Supreme Court decision in the civil case of *Wright v AIB Finance & Leasing*.¹⁶⁵ In *Wright*, the trial judge had been faced with conflicting expert engineering evidence. On appeal, counsel had suggested to the Supreme Court that there may be a requirement that expert

such course or courses of training or education, or both, as may be required by the Chief Justice or President of the Court to which that person is appointed.” Section 48 of the same Act further provides that: “The Minister [now the Minister for Justice & Equality] may, with the consent of the Minister for Finance provide funds for the training and education of Judges.”

¹⁶³ Heery, “Expert Evidence: The Australian Experience” (2002) 7 Bar Review 166

¹⁶⁴ *ibid.* at 167

¹⁶⁵ [2013] IESC 55

evidence be of some minimal weight in order for it to be considered further by a court. Counsel had referred to the LRC Consultation Paper¹⁶⁶ and formulated, at the request of the court, the following proposition:

"The proposed evidence of an expert witness should be assessed for reliability by the Court before admitting it into evidence to determine:

1. if it is based on other admissible evidence;
2. if the opinion is supported by scientifically valid principles and criteria which enable the judge to test the accuracy of the expert's conclusions;
3. whether the proposition advanced by the expert is both capable of being empirically tested and has, if practicable, been tested by the expert (or, where appropriate, by somebody else)."¹⁶⁷

However, on the facts of *Wright*, Clarke J was not persuaded that it was necessary to reach any conclusions on the precise current state of the law in this jurisdiction on either the admissibility of, or weight to be attached to, expert evidence.

As the LRC noted in their report, the Irish courts have remained vigilant regarding the admissibility of novel areas of expertise. There have been some recent examples of Irish criminal cases where so-called "expert" scientific evidence has been rejected due to concerns regarding its reliability. There is evidence that the Irish courts are subconsciously filtering unreliable expert scientific evidence without expressly adopting a reliability standard for its admission. In *DPP v Kelly*,¹⁶⁸ one of the issues for the Court of Criminal Appeal was whether evidence in relation to the Cumulative Sum Control Chart ("CUSUM") was admissible as a newly discovered fact. CUSUM is a method used to determine authorship, and the applicant claimed that it suggested that there had been more than one contributor to the making of his statement so that it could no longer be safely regarded as the applicant's own statement. The expert conceded in cross-examination that CUSUM evidence had never been accepted by any court in the US, and that it was a "minority interest" which

¹⁶⁶ LRC *op. cit.*, at [2.396].

¹⁶⁷ [2013] IESC 55, at [6.10].

¹⁶⁸ [2008] 3 IR 697

was perhaps most usefully deployed in literary detective work. He could point to no scientific peer review supporting the accuracy of the technique, other than his own and his wife's.¹⁶⁹ The respondent's expert gave evidence that CUSUM has absolutely no established scientific validity.¹⁷⁰

The Court of Criminal Appeal was not satisfied that held that CUSUM had "a properly established scientific provenance or that it has achieved the requisite degree of expert peer approval." However, it refrained from making any declaration which would have the effect of treating the CUSUM technique as bereft of scientific value. The court confined itself to saying that the onus of proof has not been discharged in this case to satisfy the court that CUSUM is a science upon which reliance can be placed in this particular case. It was acknowledged by the court that there may well be further scientific advances in this area may yield a quite different result and outcome in other cases in future years.

In *DPP v PM*¹⁷¹ the Court of Appeal considered a suggestion by the appellant that his offending behaviour would have been low on the COPINE scale, a scale used to categorise the severity of images of child sexual abuse.¹⁷² Edwards J remarked that the court had not received any expert evidence concerning the scale, concerning how it was developed, concerning the methodology used, concerning its statistical reliability concerning how it should be applied in practice, concerning what skills or training might be required to apply it correctly in an individual case, and concerning how specifically it might be applied with reference to the facts of that case. In the circumstances the Court was not prepared to endorse the COPINE scale.¹⁷³ However the Court did leave open the possibility that it might be prepared to do so in another case or other cases should a proper evidential basis for adopting it be put forward.

The decisions of the Irish courts to date would seem to accord with the comments of Flaherty J, wherein he remarked (extra-judicially) that:

¹⁶⁹ *ibid.*, at 716.

¹⁷⁰ *ibid.*, at 717 – 719.

¹⁷¹ [2016] IECA 49

¹⁷² COPINE stands for "Combating Paedophile Information Networks in Europe". The scale has received judicial approval by the Court of Appeal (Criminal Division) in England and Wales in *R v Oliver* [2003] 1 Cr App R 28.

¹⁷³ [2016] IECA 49, at [24].

“the categories of situations that would benefit from the evidence of an expert are not closed. But some have to win their spurs before they can properly be accepted as suitable for the reception of expert testimony.”¹⁷⁴

One could wonder from these decisions whether an express reliability standard is required at all in this jurisdiction. It has already been outlined above that if judges are going to be required to actively inquire into reliability at the admissibility stage then they will require training, which is unlikely to happen. A permissive requirement, such as the one introduced in England and Wales and recommended by the LRC, will both require training and suffer from the defect that it is not mandatory. In the English context, Ward was of the opinion that the general discretion on the part of the courts at common law in criminal cases to exclude evidence when its probative value is outweighed by its prejudicial effect may guard against unreliable evidence.¹⁷⁵ This discretion was referred to briefly in Chapter 2.

This principle is well established in Irish law. In *People (DPP) v Meleady (No 3)*,¹⁷⁶ Geoghegan J held:

“A judge, as part of his inherent power, has an overriding duty in every case to ensure that the accused receives a fair trial and always has discretion to exclude otherwise admissible prosecution evidence if, in his opinion, its prejudicial effect on the minds of the jury outweighs its true probative value.”¹⁷⁷

This principle is present in Ireland cases where expert scientific evidence is a feature. For example, in *DPP v White*¹⁷⁸ the Court of Criminal Appeal held that it was applicable to fingerprint evidence, as well as all other types of evidence.

¹⁷⁴ O’Flaherty, “The Expert Witness and the Courts” (1997) 3 MLJI 3, at 16.

¹⁷⁵ Ward, “Expert Evidence and the Law Commission: Implementation without Legislation?” (2013) Crim LR 561

¹⁷⁶ *DPP v Meleady (No 3)* [2001] 4 IR 16

¹⁷⁷ *ibid.*, at 31.

¹⁷⁸ [2011] IECCA 78. While not expressly stated, the principle is also inherent in the decision in *DPP v Crowe* [2015] IECA 9.

The LRC proposals are not a panacea for all the concerns regarding expert evidence. As Heffernan has noted, the system must guarantee that not only is the expert evidence inherently sound, that it is incorporated into the trial process in a trustworthy fashion.¹⁷⁹ The LRC's proposals only address the first of these concerns. As Willis points out, reliability is not the only safeguard relating to expert opinion.¹⁸⁰ The dangers attaching to scientific evidence can be mitigated through its presentation at trial. In the next chapter, a method of presenting scientific evidence through the employment of a mathematical probability model known as Bayes' Theorem is examined.

Facial mapping is a type of expert scientific evidence, which is being proffered in the Irish courts, but the reliability of which has not been conclusively established. A short comparative study of facial mapping will now be offered.

V. Case Study: Facial Mapping

(i) Introduction

Due to the proliferation of CCTV footage and images being used in criminal trials, facial mapping evidence has been proffered, admitted and adjudicated on by juries in criminal trials in this jurisdiction.¹⁸¹ Facial mapping evidence is essentially expert identification evidence based on images, and is a relatively novel area of expert scientific evidence.¹⁸² As such novel methods have been

¹⁷⁹ Heffernan, *op. cit.*, at 43

¹⁸⁰ Willis, "Does the Court Need to Look Beyond the Reliability of the Test?" (2012) Criminal Law and Procedure Review 56, at 60

¹⁸¹ Facial mapping evidence was adduced on behalf of the prosecution in *DPP v Kavanagh & Ors* [2012] IECCA 65. The accused were convicted, but the convictions were later overturned by the Court of Criminal Appeal in light of the decision in *Damache v DPP* [2012] IESC 11. A retrial is scheduled for January 2017 (Private correspondence with counsel for the Director of Public Prosecutions, September 2016).

¹⁸² See generally Valentine & Davis, (eds), *Forensic Facial Identification: Theory and Practice of Identification from Eyewitnesses, Composites and CCTV*, (Wiley-Blackwell, 2015)

found to be unreliable on appeal in a number of cases,¹⁸³ it is obvious that care should be taken when admitting it as a species of expert evidence in Ireland. The parameters of its admission as a species of expert scientific evidence have yet to be given the Irish judicial treatment.¹⁸⁴

Of course, facial mapping is but one of a host of emerging areas of scientific expertise referred to earlier in this chapter. I have chosen to examine this particular field as it has been considered by our nearest neighbours in England and Wales, but also in a number of other common law jurisdictions such as New Zealand and Australia. These jurisdictions have placed a number of restrictions on admissibility of facial mapping evidence and are likely to be instructive for an Irish court. In addition, serious concerns have been raised regarding the reliability of facial mapping as a species of expert evidence, with many commentators believing that, given its present state of development, it is not reliable enough to be admitted at all.

Before discussing the nature of facial mapping evidence, it should be borne in mind that it is, as mentioned above, a species of expert identification evidence. Therefore, the law in Ireland relating to identification evidence, and in particular identification from CCTV and photographs, must be briefly considered in order to inform the subsequent discussion.

(ii) Identification Evidence

Criminal evidence jurisprudence has traditionally preferred the evidence of eyewitnesses in the area of visual identification evidence. Where a witness has identified an accused person during the course of their testimony, this is referred to as the visual identification evidence. The witness's testimony can be bolstered by evidence that they previously identified the accused, either at a

¹⁸³ One example is *R v Dallagher* [2003] 1 Cr App R 195 in which the accused was convicted on the basis of ear print evidence. DNA analysis of his ear print which was available at the retrial revealed that he was not the source of the ear print.

¹⁸⁴ Facial recognition software has been used by the Department of Social Protection to detect welfare fraud. See O'Brien, "Facial recognition helps detect welfare benefits fraud" *The Irish Times*, 5 September 2015. Available at <http://www.irishtimes.com/news/ireland/irish-news/facial-recognition-helps-detect-welfare-benefits-fraud-1.2340900>

formal identification parade, or informally, with the preference being for the former.¹⁸⁵

In every trial where visual identification evidence is admitted, the trial judge must administer a warning in relation to it. This is known informally as a *Casey* warning, originating from the Supreme Court decision of the same name in *The People (AG) v Casey (No 2)*.¹⁸⁶ Kingsmill Moore J stated:

“It is desirable that in all cases, where the verdict depends substantially on the correctness of an identification, [the jury’s] attention should be called in general terms to the fact that in a number of cases such identification has proved erroneous, to the possibility of mistake in the case before them, and to the necessity for caution.”¹⁸⁷

The rationale behind the warning is to exclude any risk of injustice which is thought to arise from the frailties of visual identification.¹⁸⁸ This law relating to the warning has evolved and, as Heffernan and Ní Raifeartaigh have pointed out, a warning will only be adequate when it has the following elements: (a) a generic caution; (b) particulars of the identification (c) the pre-trial procedure; and (d) the other evidence, if any, in the case.¹⁸⁹ It has been acknowledged that warnings should be tailored to draw any special features of the case to the jury’s attention. For example, in *DPP v Christo*¹⁹⁰ the applicant’s conviction for assault was quashed because the warning failed to address the issue of inter-racial recognition.

Roberts has remarked, in the English context, that there is a disparity in the way that the law deals with eyewitness identification evidence and

¹⁸⁵ The evidence of the pre-trial identification is regarded as an exception to the rule against narrative. See generally Heffernan & Ní Raifeartaigh, *Evidence in Criminal Trials*, (Bloomsbury, 2014), at Chapter 10.

¹⁸⁶ [1963] IR 33

¹⁸⁷ *ibid.*, at 39.

¹⁸⁸ *The People (DPP) v Lee* [2004] 4 IR 1666

¹⁸⁹ Heffernan & Ní Raifeartaigh, *op. cit.*, at 523.

¹⁹⁰ [2005] IECCA 3

evidence of identification from images.¹⁹¹ In Ireland, identification based on CCTV footage or photographs is deemed to be inferior, but the courts have enumerated a number of circumstances where such identification is permissible. In *DPP v Maguire*¹⁹² Barron J in the Court of Criminal Appeal identified three situations¹⁹³ in which CCTV footage would be admissible and the use to which it could be put by the jury. One of those situations was where the prosecution relies on the footage in its own right as evidence of the identity of the culprit, even though it is unsupported by any other evidence. Barron J held that CCTV footage is admissible for this purpose in exceptional cases, as it involves the jury identifying the accused from the footage. In these cases, the footage can only be used where its probative value outweighs its prejudicial effect and the jury must be given a strong warning emphasising the danger of relying upon unsupported video footage and outlining the possibility that the person on the footage merely bears a strong resemblance to the accused. In *DPP v Allen*,¹⁹⁴ the jury was asked to identify the accused as the perpetrator of a robbery from CCTV footage. The trial judge, having administered the *Casey* warning and told the jury that there had been cases in which innocent persons were found guilty by juries relying on visual identification, went on to say:

“[i]t is the visual identification by yourselves to a certain extent that I am warning you about. In other words, you may think that the person in the video is the accused, . . . but I am warning you that such views can be mistaken.”

The use of CCTV footage in criminal trials is not a new phenomenon. It was remarked recently in the Irish Court of Appeal that, while there may have been a point in time when CCTV footage was so new and so unusual that some

¹⁹¹ Roberts, “Eyewitness Identification and Facial Image Comparison Evidence,” in Valentine & Davis, (eds), *Forensic Facial Identification: Theory and Practice of Identification from Eyewitnesses, Composites and CCTV*, (Wiley-Blackwell, 2015), at 308.

¹⁹² [1995] 2 IR 286

¹⁹³ The other situations identified by Barron J were (1) where the CCTV footage is used to show whether or not an witness had an opportunity to see a criminal and, (2) where the CCTV footage is used to allow persons who know the accused but were not at the scene of the crime to identify the accused as the person on the footage.

¹⁹⁴ [2003] 4 IR 295

element of explanation as to what was involved was required, CCTV cameras are now ubiquitous.¹⁹⁵ Almost every investigation of any significance by the gardaí involves accessing CCTV footage and footage is now played during a very large number of trials. The footage that is generated by the cameras is real evidence, and the law of evidence has always permitted expert evidence to be adduced to assist a finder of fact in interpreting real evidence.¹⁹⁶ In addition, footage can be taken on digital devices such as smartphones and appear on social media.¹⁹⁷

The definition of facial mapping as a form of expert scientific evidence will now be considered in order to ascertain whether experts in the field are in fact free from the dangers which ordinary eyewitnesses are suspected to be subject to, and whether there are any limits on and concerns over the admissibility of such novel expert scientific evidence.

(iii) Facial Mapping

Facial mapping¹⁹⁸ evidence is, simply put, expert identification evidence based on images. However, it has been described as “epistemologically flimsy,”¹⁹⁹ as there does not appear to be any accepted definition of the field. As Edmond, Biber, Kemp & Porter note, the phrase “facial mapping” is used to cover a wide range of practices and techniques which are not standardised through teaching institutions, formal qualifications and regulatory bodies, and have not been evaluated through published experimental studies.²⁰⁰ The authors quoted the following description of facial mapping given by Kemp and Coulson:²⁰¹

¹⁹⁵ *DPP v Kirwan* [2015] IECA 228, at [38] *per* Birmingham J.

¹⁹⁶ *R v Stockwell* (1993) 97 Cr App R 260

¹⁹⁷ See O’Floinn & Omerod, “Social Networking Sites as Criminal Evidence” (2012) Crim LR 486

¹⁹⁸ It is sometimes referred to as “facial comparison” evidence but I will adopt the phrase “facial mapping”.

¹⁹⁹ Edmond, Biber, Kemp & Porter “Law’s Looking Glass: Expert Identification Evidence Derived from Photographic and Video Images” (2009) 20(3) CICJ 337, at 371.

²⁰⁰ *ibid.*, at 338.

²⁰¹ Kemp & Coulson 2008a “Facial mapping and forensic photographic comparison” An international survey’ (in preparation).

“[The contents of] [t]wo or more photographic, video or other images are compared to determine whether they depict the same person. or a photographic, video or other image is compared to a ‘live’ (i.e. corporeal) target ... to determine whether the image is of the target individual. The process of comparison might involve taking measurements, noting characteristics, or other techniques, and might concentrate on the face alone or might include other parts of the body.”²⁰²

In *R v Tang*²⁰³ the New Zealand Court of Appeal described the two most common approaches) to facial mapping (morphology analysis and photo-anthropometry) as follows:

"Morphology analysis (is a) feature by feature approach to evaluating faces, heads and bodies. It involves the comparison of two images – one from the crime scene and one of the suspect. It involves subdividing the face, head and body into components to obtain a thorough qualitative analysis and to determine visual similarities or differences.

Photo-anthropometry is a technique that attempts to metrically compare the proportional relationships of one photo to another rather than determine absolute visual similarities, as is done in morphological comparisons. It involves the analysis of anthropometric landmarks, dimensions and angles [simply] to quantify facial characteristics and proportions from a photograph.”²⁰⁴

Therefore, it appears that facial mapping evidence is classified quantitatively, *i.e.* relying on measurement of the key features of the face and body by morphology analysis, and qualitatively, *i.e.* by determining the presence or absence of characteristic features, degrees of similarity and proportionality by photo-anthropometry.²⁰⁵ Another approach to facial mapping is superimposition, which refers to the process where the CCTV

²⁰²*ibid.*, at 338.

²⁰³ [2006] NSWCCA 167, [2006] 65 NSWLR 681

²⁰⁴ *ibid.*, at [18].

²⁰⁵ Edmond, Biber, Kemp & Porter, *op. cit.*, at 339.

image is superimposed on to the pictures and the features are substituted.²⁰⁶ This diversity in the range of practices has led commentators to hesitate in referring to facial mapping as a credible field of expertise.²⁰⁷

Even if one method were to be agreed upon, it is doubtful that it would be completely reliable as all of the methods currently used appear to suffer from some defect which would affect its reliability. It has been remarked that facial mapping would probably not pass a *Daubert* standard.²⁰⁸ While this is not the standard in place in Ireland, there are still concerns about the reliability of the various techniques.

For example, photo-anthropometry appears to be highly dependent on the quality of the image.²⁰⁹ While morphology does not suffer from this defect, it is affected by changes in facial expressions and light.²¹⁰ Superimposition is undermined by the lack of a database emphasising the rarity of features and it is preferable that the images are capable of perfect alignment.²¹¹ The courts have not yet determined the validity of these methods in any of the jurisdictions which are mentioned below. Other issues affecting the reliability of evidence of facial mapping include: the quality of the image, including the length of the footage, distortions, shadowing and changes in light; the various elements of the process which could affect the quality, including pixilation; the possibility that two people may appear indistinguishable; and the fact that there is no database to draw a comparison from.²¹²

Psychological concerns also come into play, both on the part of the expert and the jury. Bias on the part of experts was addressed in Chapter 2. Facial mapping experts are subject to a form of bias known as confirmation

²⁰⁶ See Edmond, Davis & Valentine, "Expert Analysis: Facial Image Comparison", at 250 in Valentine & Davis, (eds), *Forensic Facial Identification: Theory and Practice of Identification from Eyewitnesses, Composites and CCTV*, (Wiley-Blackwell, 2015).

²⁰⁷ Edmond, Biber, Kemp & Porter, *op. cit.*, at 338.

²⁰⁸ Davis, Valentine & Wilkinson, "Facial Image Comparison" in Wilkinson & Rynn (eds), *Craniofacial Identification*, (Cambridge University Press, 2012), at 150.

²⁰⁹ Edmond, Davis, & Valentine, *op. cit.*, at 248 – 249.

²¹⁰ *ibid.* at 250.

²¹¹ *ibid.*, at 251. See also Davis, Valentine & Wilkinson, "Facial Image Comparison" in Wilkinson & Rynn (eds), *Craniofacial Identification*, (Cambridge University Press, 2012), at 136.

²¹² These were the factors which the expert in *R v Atkins R v Atkins* [2009] EWCA Crim 1876 recognised could affect the reliability of his findings.

bias. This refers to a tendency to perceive or interpret information in such a way as to reinforce prior beliefs and expectations.²¹³ A facial mapping expert may often be aware of the other evidence incriminating the accused and this could have an effect on their, already subjective, evaluations.²¹⁴ In addition, empirical studies show that while humans are generally able to recognise familiar faces from poor quality images, we struggle to identify unfamiliar faces, even when the image quality is good.²¹⁵ In relation to juries, studies show that jurors are likely to make identification errors based upon photographic and video evidence and to place considerable weight upon the opinions of expert witnesses even when they are wrong.²¹⁶

Two major concerns have emerged from the comparative common law jurisprudence. The first is that there is an absence of a national statistical database detailing the number of people who share facial features. Therefore, all the facial mapping expert is expressing is their subjective opinion based on their own experience of analysing images. As will be discussed in the next chapter, the lack of a statistical base proved to be fatal in a case involving the admissibility of expert footwear mark evidence.²¹⁷ Secondly, there is the issue of whether facial mapping experts should be permitted to give an expression of value to their findings, rather than confining their evidence to identifying similarities and dissimilarities between the faces compared. Facial mapping experts sometimes use a scale, such as the Bromby scale,²¹⁸ which employs phrasing such as “lends support” or “lends strong support.” However, there is concern that this comes dangerously close to making a positive identification.

²¹³ Valentine & Davis, “Forensic Facial Identification: A Practical Guide to Best Practice”, in Valentine & Davis, (eds), *Forensic Facial Identification: Theory and Practice of Identification from Eyewitnesses, Composites and CCTV*, (Wiley-Blackwell, 2015) at 325. See also Dror, Charlton & Peron “Contextual information renders experts vulnerable to making erroneous identifications” (2006) *Forensic Science International* 74.

²¹⁴ *ibid.*, at 325 – 329. See also Edmond, Davis & Valentine, *op. cit.*, at 252.

²¹⁵ See Edmond, Biber, Kemp & Porter, *op. cit.*, at 360 citing a study by Burton, Wilson, Cowan & Bruce “Face recognition in poor-quality video: Evidence from security surveillance” (1999) *10 Psychological Science* 243.

²¹⁶ Edmond, Biber, Kemp & Porter, *op. cit.*, citing a study by Kemp & Coulson “Facial mapping and forensic photographic comparison” An international survey’ (in preparation).

²¹⁷ *R v T* [2011] 1 Cr App R 9

²¹⁸ Bromby, “At face value?” (2003) *153 New Law Journal Expert Witness Supplement* 302

The utilisation of a scale can give the impression to a jury that some scientific weight should be attached to the evidence.

(iv) England and Wales

Before outlining the instances in which facial mapping has been deemed admissible, I will first address a restriction on its admissibility, which relates to matters discussed in Chapter 2. It was outlined there that, if the finder of fact, whether judge or jury, can form its own conclusions without any assistance, then the opinion of an expert is unnecessary. In the context of facial mapping evidence, it is well established that such evidence will only be permitted where an image is not clear enough for the jury to form a conclusion themselves as to whether the accused and the person in the image are one and the same.

*R v Dodson & Williams*²¹⁹ establishes that where the image is sufficiently clear, the jury may make its own comparisons of images with the accused without the need for additional expertise.²²⁰ Watkins LJ held that a jury, in performing such task, were not acting as experts, but were doing no more than the average person "in domestic social and other situations" does from time to time, "namely to say whether he is sure that a person shown in a photograph is the person he is then looking at or who he has seen recently."²²¹ However, *R v Stockwell* acknowledges the assistance that expert evidence can provide:²²²

"Where ... there is a clear photograph and no suggestion that the subject has changed his appearance, a jury could usually reach a conclusion without help. Where, as here ... the appellant had grown a beard shortly before his arrest, and ...the robber may have been wearing clear

²¹⁹ [1984] 79 Cr App R 220

²²⁰ Also a witness known to the defendant may recognise that defendant from the images and give evidence accordingly: *Taylor v Chief Constable of Cheshire* [1987] 1 All ER 225. In addition, a witness not known to the defendant may make repeated viewings of the imagery and acquire special knowledge of the footage that can be presented to the court: *R v Clare & Peach* [1995] Cr App R 333.

²²¹ [1984] 79 Cr App R at 228. This was cited with approval in *Attorney-General's Reference (No 2 of 2002)* [2002] EWCA Crim 2373; [2003] 1 Cr App R 21.

²²² (1993) 97 Cr App R 260

spectacles and a wig for disguise ... expert evidence ... can provide the jury with information and assistance they would otherwise lack...”

Facial mapping as a species of expert scientific evidence is an area where it has been acknowledged that the law of evidence must evolve in order to keep up with developing technology. This is evident from was evident from the comments of Taylor LCJ in *R v Clare & Peach* where he stated:²²³

“If admitting evidence of this kind seems unfamiliar and an extension of established evidential practice, the answer must be that as technology develops, evidential practice will need to be evolved to accommodate it. Whilst the courts must be vigilant to ensure that no unfairness results, they should not block steps which enable the jury to gain full assistance from the technology.”²²⁴

While outside the scope of this thesis, the view of psychologists appears to be that jurors have difficulty in “encoding” unfamiliar faces on their own.²²⁵ Therefore, it would seem that jurors require all the assistance they can from an expert, provided of course, that the evidence is reliable and presented in a fair and non-prejudicial manner.

²²³ [1995] Cr App R 333

²²⁴ *ibid.*, at 339. This was echoed in *R v Luttrell*: “Although at one time a more conservative approach had been adopted, the policy of the English courts has been to be flexible in admitting expert evidence and to enjoy ‘the new advantages to be gained from new techniques and new advances in science’.” *per* Rose LJ at [37], citing Steyn LJ in *R v Clarke* [1995] 2 Cr App R 425 at 430.

²²⁵ Costigan, “Identification from CCTV: the risk of injustice” (2007) Crim LR 591, at 597 – 604. She refers to a study by Davies & Thasen, “Closed-circuit television: How Effective an Identification Aid?” (2000) 91 *British Journal of Psychology* 411, which held that “the results from research on video-mediated identification suggest that, despite the presence of a permanent record of events, human observers are prone to the same vagaries which have produced the miscarriages of justice based on eyewitness evidence of the more conventional type” and confirmed “the surprising fallibility of witnesses in identifying previously unknown faces from CCTV footage.”

The United Kingdom has been referred to as a “world leader in visual surveillance.”²²⁶ It is therefore appropriate that my comparative discussion should begin with England and Wales. Aside from the limitation discussed above regarding the competency of the jury to recognise faces where the image is clear enough,²²⁷ it is clear from the case law in England and Wales that, in accordance with the *laissez faire* attitude of the English courts to expert evidence in general, evidence of facial mapping/comparison is generally admissible.²²⁸ This was confirmed by the Court of Appeal in *Attorney General's Reference (No 2 of 2002)*.²²⁹ It was held that:

“... a suitably qualified expert with facial mapping skills can give opinion evidence of identification based on a comparison between images from the scene, (whether expertly enhanced or not) and a reasonably contemporary photograph of the defendant, provided the images and the photograph are available for the jury.”²³⁰

A contrary view had been expressed in the earlier case of *R v Gray*²³¹ where Mitting J had held that, unless a national database, agreed formula, as for fingerprints, or other objective measure were to be established, it was doubtful that opinions should be expressed by facial mapping experts.

²²⁶ *ibid.*, at 591, citing Surveillance Studies Network, *A Report on the Surveillance Society* (2006); available from the Information Commissioner's Office: <http://www.ico.gov.uk>.

²²⁷ The English Court of Appeal has even gone so far as to say that, even in a case where the similarities and absence of distinguishing features referred to were obvious to the lay eye, and therefore a matter of ordinary observation, having the points made through evidence in chief from the mouth of an expert witness was a useful and time-saving exercise by way of presentation. See *R v Nugent & Anor* [2003] EWCA Crim 3434, at [50]. These comments may suggest that expert facial mapping evidence might be admissible as a matter of convenience.

²²⁸ The willingness of the English courts to admit novel forms of expert anatomical evidence is also evident from the decision in *R v Luttrell* [2004] EWCA Crim 1344 in relation to lip reading evidence and *R v Otway* [2011] EWCA Crim 3 in relation to gait analysis.

²²⁹ [2003] 1 Cr App R 21. It should be noted that the court in that case was concerned with non-expert evidence of recognition from camera footage.

²³⁰ *ibid.*, at [19]. *R v Stockwell* (1993) 97 Cr App R 260, *R v Clarke* [1995] 2 Cr App R 425 and *R v Hookway* [1999] Crim LR 750 were cited in this regard.

²³¹ [2003] EWCA Crim 1001

However, *Gray* was later confined to its own facts in *R v Atkins*²³² where it was held that what the court was dealing with in that case was an expert who had over-stepped the mark and whose reliability had subsequently appeared seriously questionable. It had later transpired that his findings as to the height of the photographed person had been directly refuted at trial by another comparison expert. After the trial, his evidence in two other cases had been proven wrong.²³³

In any event, the Court of Appeal affirmed the general admissibility of facial comparison evidence in *R v Gardner*.²³⁴ The court suggested that the facial mapping expert was not confined to giving evidence of similarities and dissimilarities, but did not address the issue of whether a scale was permitted:

"There is no rule...that in a case such as the present an expert witness cannot go further than saying 'there are the following similarities' leaving the ultimate decision to the jury, as opposed to the expert witness actually giving a view as to the degree of probability of the images being the same."²³⁵

In the earlier decision in *Gray*, the court found it was permissible for an expert to demonstrate particular facial characteristics in order to permit the jury to reach its own conclusion, but held that the evidence should go no further.²³⁶

Some recent guidelines for the reception of facial mapping evidence were set down in *R v Atkins*.²³⁷ The prosecution expert had given evidence comparing images of a man from a CCTV camera with photographs of the two accused, Dean and Michael Atkins, a third man alleged to have been involved

²³² [2009] EWCA Crim 1876

²³³ *ibid.*, at [18]. *R v Gray* was dismissed as nothing more than an, *obiter*, "powerful expression of opinion."

²³⁴ [2004] EWCA Crim 1639

²³⁵ *ibid.*, at [43].

²³⁶ [2003] EWCA Crim 1001, at [16].

²³⁷ [2009] EWCA Crim 1876. See Roberts "*R v Atkins* (D and M): evidence — expert — 'facial mapping'" (2010) 2 Crim LR 141; Edmond, Kemp, Porter, Hamer, Burton, Biber & San Roque, "Atkins and The Emperor: the 'cautious' use of unreliable 'expert' opinion" (2010) 14 (2) E & P 146; Ward, "Surveillance Cameras, Identification and Expert Evidence," (2012) Digital Evidence and Electronic Signature Law Review 9.

in the offence (but who had died before trial) and approximately 20 other men who were known criminals from the area. The expert witness was able to eliminate Michael Atkins, the third man, and the 20 known burglars. He could not eliminate Dean Atkins. He could find no differences between the photograph of Dean Atkins and the man captured by the CCTV camera. Indeed, he discovered similarities in eight different areas of the face. However, the expert conceded there were factors which could affect the reliability of his findings. These included the quality of the image (the images were described as partial, fleeting and of low quality); various elements of the process used to analyse the material which could affect the quality of the images; the possibility that two people might appear indistinguishable and the fact that there was no database from which to draw a comparison.

The expert utilised the following scale to express his conclusions: 0 = lends no support; 1 = lends limited support; 2 = lends moderate support; 3 = lends support; 4 = lends strong support and 5 = lends powerful support.²³⁸ This is identical to the Bromby Scale mentioned above. His findings were that the similarities which he had identified gave support to the proposition that the man on the camera was Dean Atkins, which he put somewhere between the top of category 3 (lends support) and into category 4 (lends strong support).

The English Court of Appeal held that it was permissible for an expert in facial mapping to express conclusions as to the similarity between two images on a conventional scale of ascending significance ("limited support", "moderate support", "strong support" and so on). However, it was held that allotting such categories numerical values should be avoided as inappropriately suggesting to a jury that they had an arithmetical or statistical significance. It was held that these conclusions were admissible as long as their status as subjective opinion were made "crystal clear" to the jury.²³⁹ The Court of Appeal also did not regard the absence of a database as fatal to the admission of the evidence. It continued:

"An expert who spends years studying this kind of comparison can properly form a judgment as to the significance of what he has found in any particular case. It is a judgement based on his experience. A jury is

²³⁸ *ibid.*, at [8].

²³⁹ *ibid.*, at [31].

entitled to be informed of his assessment. The alternative, of simply leaving the jury to make up its own mind about similarities and dissimilarities, with no assistance at all about their significance, would be to give the jury raw material with no means of evaluating it."²⁴⁰

Here, the court appears to be placing much emphasis on the experience of the facial mapping expert, rather than the validity of the techniques employed. It accepted that there may be proper anxiety surrounding new areas of expertise, but that the remedy was not to exclude expert evidence altogether. It proposed three remedies to safeguard reliance on such evidence: (1) have evidence examined and, if appropriate, criticised by an independent expert of equal experience and skill; (2) subject the expert evidence to rigorous testing in the witness box through cross-examination; (3) give careful judicial warnings about factual comparison and examination based on scientific authority and informed judgment.²⁴¹ It is clear from *Atkins* that the Court of Appeal has placed great faith in the adversarial process to weed out unreliable facial mapping evidence. This is consistent with the attitude to date of the English courts to novel scientific expert evidence, as outlined above.²⁴²

²⁴⁰ *ibid.*, at [23].

²⁴¹ *ibid.*, at [27].

²⁴² *R v Hookway* [1999] Crim LR 750 is sometimes cited as an authority for the proposition that a jury is entitled to convict on the basis of facial mapping evidence alone. Five masked men had robbed a bank in Manchester. The evidence against the appellant consisted solely of expert evidence of facial mapping. The expert explained the process and accepted that he could not say for definite that the robber and the appellant were the same person; as he made clear, facial mapping was not the same as a fingerprint. He conceded that if a trawl was made through Manchester, it might be possible to find one or two people of similar appearance. His opinion remained that what he had seen was very powerful evidence that the appellant was the offender, although he could not prove scientifically that there was not someone else of similar appearance. Rose LJ held that no criticism could be made of the trial judge in leaving the case to the jury.

The Australian courts adopt a more conservative approach than England and Wales. This is evident from the decision in *R v Tang*.²⁴³ The relevant law was contained in s. 79 of the New South Wales Evidence Act 1995, which provides that expert opinion evidence is admissible if the witness has specialised knowledge based upon training study or experience and the opinion is wholly or substantially based on that knowledge.

The Crown relied on expert evidence of identified points of resemblance between surveillance images of one of the offenders and photographs of him. The expert produced two reports, her conclusions being expressed using the Bromby Scale. The first report concluded there was “limited support” for the conclusion that the offender and the appellant were the same person while the second report concluded there was “support”. The court initially expressed some doubts as to whether facial mapping constituted “specialised knowledge” within the meaning of the statutory test.²⁴⁴ However, it was of the opinion that the expert was an *ad hoc* expert, because of her experience.²⁴⁵ Spigelman CJ, delivering the leading judgment for the court, stated:

“In the absence of an objective standard or database which is capable of leading to a quantification of probabilities, such as is given in the context of DNA evidence, evidence of similarity may have a cumulative effect, by reason of the number of points of similarity.”²⁴⁶

The court concluded that it was permissible for the expert to give evidence of similarities between the images and the appellant to add strength to the Crown's circumstantial case. The court dismissed the need for reliability under the statutory test.²⁴⁷ However, it was held that the expert should not

²⁴³ [2006] 65 NSWLR 681. See also *R v Murdoch (No 4)* (2005) 195 FLR 421; *Murdoch v R* (2007) 167 A Crim R 329.

²⁴⁴ [2006] 65 NSWLR 681, at [146].

²⁴⁵ *ibid.*, at [120].

²⁴⁶ *ibid.*, at [143].

²⁴⁷ *ibid.*, at [130].

make positive identifications.²⁴⁸ It was on this basis that the appeal was allowed, as the expert had positively identified that person of interest as the appellant.

The court in *Tang* did not specifically address the issue of whether it was permissible for the expert witness to express her conclusions using the Bromby Scale. It did however cite the dicta from *Gray* that in the absence of a national database or agreed formula, facial mapping experts should not express opinions as to levels of support. The court then noted that the scale had no scientific basis and was “no more than a series of convenient labels, arranged in an ascending hierarchy, that state a conclusion.”²⁴⁹

(vi) *New Zealand*

In *Shepherd v R*,²⁵⁰ a decision from the Court of Appeal in New Zealand,²⁵¹ the court could see no reason in principle why facial mapping evidence should not be admitted in appropriate cases. The Court did not view the absence of a database, which would provide a means of quantifying the statistical likelihood of a match between, for example, an image of an offender captured on CCTV and a photograph of the accused, as being a disqualifying factor.²⁵² The court held:

“Evidence of this character, given by an appropriately qualified expert, is not different in substance from the evidence of a witness who gives circumstantial evidence tending to identify an accused such as features of

²⁴⁸ Referred to in the judgment as “conclusory opinions,” *ibid.*, at [157].

²⁴⁹ *ibid.*, at [88].

²⁵⁰ [2011] NZCA 666, [2012] 2 NZLR 609

²⁵¹ Admissibility of expert evidence in New Zealand is governed by section 25 of the Evidence Act 2006. Section 25(1) of that act provides that an opinion by an expert that is part of expert evidence offered in a proceeding is admissible if the fact-finder is likely to obtain substantial help from the opinion in understanding other evidence in the proceeding or in ascertaining any fact that is of consequence to the determination of the proceeding. On “substantial help” see *R v Aymes* [2005] 2 NZLR 376 (CA); *Aryan v R* [2010] NZCA 57; *M v R* [2011] NZCA 191; *Tuhura v R* [2010] NCA 246. Section 25(2) of that act goes on to provide that an opinion by an expert is not inadmissible simply because it is about an ultimate issue to be determined in a proceeding or a matter of common knowledge.

²⁵² [2011] NZCA 666, [2012] 2 NZLR 609 at [59].

the offender's clothing, physical appearance or other characteristics. Such evidence does not positively identify the accused as the offender but may, in conjunction with other circumstantial evidence, tend to identify the accused as the offender.”²⁵³

Like *Atkins*, it was held that there should be no reference to a numerical scale. On the other hand, the Court did not consider it to be inappropriate to refer in narrative terms to expressions such as those used in the Bromby Scale so long as the other safeguards identified in *Atkins* are met. It agreed with the view expressed in *Atkins* that the jury should not be left without the benefit of the expert's opinion of the significance of any identified similarities or dissimilarities.²⁵⁴

(vii) Conclusion

The first thing to bear in mind is that facial mapping evidence would only be admissible in Ireland when the image is unclear, consistent with the position in *Turner* and *Kehoe*, as outlined in Chapter 2. If an Irish jury were able to identify the accused from an image without any assistance, then this would be regarded as being within their knowledge and the expert evidence is unnecessary.

If an Irish court were to follow the common law jurisprudence outlined then facial mapping evidence would be admissible, as long as the expert confined himself or herself to expressing his or her opinion on the similarities and dissimilarities between two images. He or she could express their opinion by reference to a scale such as the Bromby Scale, but would be precluded from attributing a numerical value. Matters affecting the reliability of the facial mapping evidence such as the technique involved, the quality of the images, the availability of a database would be left to the jury to attach or remove weight as they see fit. Confidence would be placed in the adversarial process, in the form of defence experts, cross-examination and judicial warnings, to assist the jury in this regard. This is consistent with the current Irish approach to expert evidence as outlined in Chapter 2, and the current test for

²⁵³ *ibid.*, at [60].

²⁵⁴ *ibid.*, at [87].

admissibility outlined above. However, this could have the effect of placing an excessive burden on the defence where the prosecution adduces facial mapping evidence, and bolsters the argument made in Chapter 3 for the recognition of a right to an expert.

The general view of legal commentators is that the legal system has taken no significant steps to ensure that facial mapping evidence is reliable. Valentine and Davis recommend that expert evidence purporting to match unfamiliar faces from similarity in the proportions, ratios, and angles of facial features should not be presented in court at all. The common law courts considered have shied away from assessing the relative merits and demerits of the techniques, but it universally acknowledged that the various techniques have failed to produce a credible and reproducible technique for overcoming image distortions.²⁵⁵ Many methods of facial mapping are dependent on the resolution of the image. High-resolution images are not always available and CCTV images are designed to be displayed on monitors and not for comparative analysis.²⁵⁶ Courts should exercise great caution if seeking to rely on expert facial image comparison using any method. The adequacy of the research base for the method used should be carefully examined.²⁵⁷

One of the main concerns surrounding facial mapping evidence is the lack of a national database. Without a database, a facial mapping expert cannot tell the jury how many other individuals are likely to possess the apparent features noted in the images. This means that there are no standards set down for facial comparisons. Therefore, it is not known how common various combinations of features are. However, developing this type of database would be a significant undertaking. In circumstances where a DNA database was only established in Ireland in 2015,²⁵⁸ this particular development appears unlikely. In addition, it has been remarked that it is not enough just to know how frequently a facial characteristic occurs within the relevant population; information would also be required about the statistical independence of

²⁵⁵ Factors affecting the quality of the image are discussed in detail in Edmond, Biber, Kemp & Porter (2009), *op. cit.*, at 352 - 356.

²⁵⁶ *ibid.*, at 335.

²⁵⁷ Valentine & Davis, "Forensic Facial Identification: A Practical Guide to Best Practice", in Valentine & Davis, (eds), *Forensic Facial Identification: Theory and Practice of Identification from Eyewitnesses, Composites and CCTV*, (Wiley-Blackwell, 2015), at 342.

²⁵⁸ Criminal Justice (Forensic Evidence and DNA Database) Act 2014

features.²⁵⁹ Of course, it has to be acknowledged that there are many other areas of expert evidence where there is no database available, and this has not proved to be a bar to its admissibility in Ireland, e.g. comparison of handwriting.²⁶⁰

While the authorities demonstrate that expression of opinion by reference to a numerical scale is not permissible, recourse to any scale does carry with it the danger that the jury will attach an objective value to what is, in reality a subjective determination. However, the English courts have expressly held that experts are permitted to express subjective opinions.²⁶¹

Other concerns regarding facial mapping evidence stem from the fact that there is no empirical research available which is needed to demonstrate reliability. In the case of facial mapping, a standard validation study would ask subjects to evaluate pairs of images which the person administering the test knew to be of either the same or different people. In this way we could compare conclusions against the right answer.²⁶² Edmond *et al* sum up the extent of the facial mapping expert's evidence:

“In the end the inability to overcome distortion *in conjunction* with the lack of a database means that all the witness can say is that in his opinion parts of the mouth, nose and chin *appear similar*...”²⁶³

Another worrying feature of the comparative facial mapping jurisprudence to date is that the courts are willing to accept the evidence of *ad hoc* facial mapping “experts”, the expertise of which is based largely on experience only.²⁶⁴ The court appears to be preferring experience to

²⁵⁹ Edmond *et al*, *op. cit.*, at 357.

²⁶⁰ *R v Silverlock* [1884] 2 QB 766

²⁶¹ In *R v Otway* [2011] EWCA Crim 3 the Court of Appeal held at [19] that “[t]he proposition that evidence of a comparison cannot be admitted if its evaluation is expressed in terms subjective experience is simply wrong in law.”

²⁶² Edmond, Biber, Kemp & Porter, *op. cit.*, at 351 – 352.

²⁶³ Edmond, Biber, Kemp & Porter. *op. cit.*, at 357. Emphasis in the original.

²⁶⁴ The Court of Appeal also placed reliance on experience in *R v Henderson*, *op. cit.* See also Edmond, Biber, Kemp & Porter *op. cit.* at 361 stating that “... there is no facial mapping 'field' or discipline, no specialised facial mapping knowledge, no university courses, no qualifications, no dedicated journals or textbooks, no attempts to standardise or regulate

qualifications and training.²⁶⁵ The Court of Appeal in *Atkins* specifically stated that the expert in that case was permitted to make a judgement regarding similarities and dissimilarities, and that this judgement was “based on experience.” Similarly in *Tang*, the New Zealand Court of Appeal were willing to accept the evidence of what it admittedly described as an *ad hoc* expert. While it was acknowledged in Chapter 2 that expertise can be based on experience, the focus in recent years has tended to be on formal qualifications. However, it is unclear how much inspection is required for identification to be as reliable as someone familiar with the accused.²⁶⁶

Irish courts would do well to heed the following guidelines set out by the National Policing Improvement Agency in England & Wales where it recommended that the expert should have the following qualifications or experience:²⁶⁷

“Sound knowledge of human facial anatomy, anthropometry and physiology together with an in-depth knowledge of photo interpretation and image analysis techniques ...

Be able to demonstrate an ability to compare facial morphology and facial proportions, observing the spatial relationships of features and facial landmarks between images, from more than one source.

Be aware of the significance of probability factors, likelihood of repetition and likely range of variation in images, thus demonstrating awareness and an ability to analyse the effects of distortion...”²⁶⁸

techniques, and no serious attempt to test or validate the range of methods used by its disparate practitioners.”

²⁶⁵ Similarly in *R v Weller* [2010] EWCA Crim 1085 the Court of Appeal held that it was possible to draw scientific conclusions from experience in relation to DNA evidence, in spite of the absence of professional qualifications.

²⁶⁶ Davis, Valentine & Wilkinson, “Facial Image Comparison” in Wilkinson & Rynn (eds), *Craniofacial Identification*, (Cambridge University Press, 2012), at 137 – 138.

²⁶⁷ National Policing Improvement Agency, *Facial Identification Guidance 2009*. Available at <http://library.college.police.uk/docs/acpo/facial-identification-guidance-2009.pdf> (Accessed on 28 September 2016).

²⁶⁸ *ibid.*, at 17.

Despite all of the above concerns, there is no doubt that facial mapping evidence is relevant. It has been remarked by Ward that:

“...the world would have to be a very strange place for the similarities and differences discerned by forensic identification techniques to have no bearing on the question whether the items examined came from a common source.”²⁶⁹

The question arises as to whether such evidence can be incorporated in a manner which addresses concerns regarding its reliability. As is apparent above, the Irish courts have accepted that the infirmities associated with identification evidence and the risks attendant upon its admission are capable of being ameliorated or managed by an appropriate warning to the jury. However, this warning has to be tailored to the circumstances of the case. Such a warning is not new, and has been required in a number of cases concerning novel expert scientific evidence. *R v Luttrell*²⁷⁰ concerned lip-reading evidence, which is another type of anatomical expert evidence. The Court of Appeal acknowledged that lip-reading evidence fell short of perfection, and was of the opinion that a special warning was required. The strength of the warning and its terms would depend on the nature of the evidence, its reliability or lack of it, and the potential problems it poses.

The question now arises whether an altered *Casey* warning would suffice in an Irish court to ease the above concerns. It appears from a recent decision of the Irish Court of Appeal concerning another form of novel evidence that this could be the route that the Irish courts will take. *DPP v O'Brien & Stewart*²⁷¹ was the first Irish decision to consider voice recognition evidence.²⁷² The effect of this decision is that the voice recognition evidence would be admissible if: it was sufficiently clear and cogent in its terms; fully capable of being properly and effectively cross-examined upon and tested in

²⁶⁹ Ward, “Expert Evidence and the Law Commission: Implementation without Legislation?” (2013) Crim LR 561, at 574.

²⁷⁰ *R v Luttrell* [2004] EWCA Crim 1344

²⁷¹ [2015] IECA 312

²⁷² Voice identification evidence had been considered for the first time in the Court of Appeal in *DPP v Crowe* [2015] IECA 9, but in that particular instance was judged to be inadmissible.

terms of its credibility and reliability; and coupled with an adapted *Casey* warning.²⁷³ These safeguards echo the English Court of Appeal in *Atkins* and *Luttrell* and are instructive regarding the approach an Irish court may take. Couple this with the fact that the Irish Court of Appeal have sometimes looked to their English counterparts for guidance on new forms of expert scientific evidence.²⁷⁴

VI. Conclusion

This chapter has outlined the nature of scientific expert evidence, set against the backdrop of the seemingly tempestuous disciplines of law and science. In the early 1990's, scientific evidence left a bad taste in the mouth of the judiciary, and indeed the public, due to its appearance in a number of miscarriages of justice. Scientific expert evidence may be incorrectly perceived as infallible. As demonstrated by these cases, scientific knowledge is ever evolving and there can be no certainties. How then does a court guard against the reception of expert evidence, which might later be discredited by advances in scientific knowledge?

One potential solution is to impose a threshold for reliability in any assessment of the admissibility of expert scientific evidence. This has been recommended by the LRC in response to the decision in *Daubert*. A similar recommendation was made by its English counterpart for criminal cases and has been given effect to in the form of a practice direction. The difficulties in accepting any sort of binding obligation on judges to engage in a detailed scientific investigation have been outlined above. However, the concerns of the author do not relate to the appropriateness of such an investigation, as in a perfect world judges would be able to do so.²⁷⁵ They relate to Ireland's already under resourced judiciary. Until such time as training is provided to judges in

²⁷³ [2015] IECA 312, at [52].

²⁷⁴ In *DPP v Crowe*, *op. cit.*, the Court of Appeal was reliant on the decision in *R v Flynn and St John* [2008] 2 Cr App R 266.

²⁷⁵ Lord Neuberger, *op. cit.*, notes the following at [35]: "... it is fair to say that scientific ignorance has not prevented some judges with no significant scientific education proving themselves to be very fine judges of scientific issues" and cites Lord Hoffmann as an example.

the basic sciences, entrusting them with the task of assessing the reliability of complex scientific evidence seems entirely premature.

As some evidence to date in the United States suggests, judges deem themselves to be unqualified to act as “gatekeeper”. Some of the concerns regarding scientific evidence relate to the fact that jurors are not equipped to deal with scientific evidence. While there is evidence to suggest that juries may rely on peripheral cues when dealing with complex evidence,²⁷⁶ with no adequate resources and training, judges are not so well equipped either. The advocates of a reliability standard presuppose that the judge will perform their role as gatekeeper effectively and fails to realise that an expert for the defence will still be required to argue that the evidence is not sufficiently reliable at an earlier stage.

Despite this debate, the reliability issue has not been addressed to date by the Irish courts. As mentioned above, the courts have already weeded out scientific techniques which they perceived to be unreliable. Facial mapping has been exposed above as a potentially unreliable source of expert scientific evidence, yet it is one which has been offered in Irish courts. The comparative common law jurisprudence analysed above provides some guidance to an Irish court, but the question is unlikely to arise until such evidence is actively challenged. Of course, a major theme of this chapter and the next has been the recognition that science is always evolving. Therefore, any concerns about reliability and validity may be resolved into the future. It may also be premature to conclude, that facial mapping is inefficient, until the most powerful methods of analysis have been tried and found wanting.²⁷⁷ Facial mapping is undoubtedly relevant evidence, and it is submitted that it is open to the courts to admit such evidence provided that it is accompanied by a strong warning.

The above discussion would presuppose that a reliability standard is the only way of guarding against suspect scientific expert evidence. Willis argues

²⁷⁶ See Chapter 5.

²⁷⁷ Allen, “Exact solutions to Bayesian and maximum likelihood problems in facial identification when population and error distributions are known” (2008) 179 *Forensic Science International* 211.

that reliability is not the only safeguard relating to expert opinion.²⁷⁸ Returning to the inquiry of this thesis, the question may instead turn on how the expert scientific evidence is incorporated into the criminal trial, through its presentation. If judges are to be the gatekeeper, then resources will have to be employed to educate them better. If juries, on the other hand, are going to be the final arbiters of reliability, then the law must allow a method of presentation which best captures the strength of the scientific evidence and this is discussed in the next chapter.

²⁷⁸ Willis, "Does the Court Need to Look Beyond the Reliability of the Test?" (2012) Criminal Law and Procedure Review 56, at 60.

CHAPTER 5:

JURY COMPREHENSION AND PRESENTATION OF SCIENTIFIC EVIDENCE IN CRIMINAL TRIALS

“How, then, can an honest man be free from all reasonable doubt of the truth of a false proposition which has been discussed before him with all the case which practised skill can supply?”¹

I. Introduction

The previous chapter described the nature of expert scientific evidence and the issue of whether such evidence has to pass a reliability threshold before a trial judge is to deem it admissible. As there is no such reliability standard in Ireland, the question of how the expert scientific evidence is incorporated into the criminal trial becomes important. If the expert scientific evidence is deemed admissible without an assessment of its reliability, then there is a danger that potentially unreliable expert scientific evidence is before the jury. Therefore, it is vital to consider how juries consider expert scientific evidence, and whether there is a method of presentation that addresses reliability concerns. At the end of the last chapter, it was acknowledged that there may be other ways, relevant to the incorporation question, to guard against unreliable scientific evidence. This chapter discusses the interaction between the jury and expert evidence, and whether a particular controversial method of presentation can guard against reliability concerns.

It has been noted that the manner in which expert evidence is presented to a jury and the ways in which the jury receives, processes and weighs it in conjunction with the other evidence in the trial raise a myriad of challenging issues and concerns.² Following on from the miscarriage of justice cases discussed in the previous chapter, the competency of the jury to evaluate complex scientific expert evidence may have been undermined. As will be mentioned below, the Court of Appeal in one such miscarriage of justice case

¹ Stephens, “A General View of the Criminal Law of England” (1863), at 210.

² Coen & Heffernan “Juror Comprehension of Expert Evidence: A Reform Agenda” [2010] Crim LR 195, at 210.

even expressed sympathy for the jury in its evaluation of the expert scientific evidence.

This chapter considers the primacy of jury trial in Ireland briefly, and proceeds to examine juror comprehension models to ascertain how juries evaluate evidence in general, and how they may be affected by expert evidence. Some limited empirical evidence is then evaluated. Following on from this discussion, the incorporation problem is addressed, *i.e.* how complex expert scientific evidence is to be presented to the jury. Then the merits of a particular mathematical probability model favoured by forensic scientists for presentation of scientific evidence will be assessed. This model has been the subject of a judicial rejection in England and intense academic debate internationally. However, the issue has received little attention in Ireland,³ let alone attention by the Irish courts.

The jury is a central feature of the Irish criminal justice system.⁴ Trial by jury is recognised, subject to a number of important exceptions, in Article 38.5 of the Irish Constitution.⁵ The right to trial by jury has been emphasised as being a fundamental constitutional right by the Irish courts.⁶ The purpose of trial by jury was described in *O'Callaghan v Attorney General*⁷ by O'Flaherty J as follows:

“ ... to provide that a person shall get a fair trial, in due course of law, and be tried by a reasonable cross-section of people acting under the guidance of the judge, bound by his directions on law, but free to make

³ But see Heffernan & Ní Raifeartaigh, *Evidence in Criminal Trials*, (Bloomsbury, 2014), at 284 *et seq.*

⁴ For a history of the jury in Ireland, see Howlin, “The Terror of Their Lives: Irish Juror’s Experiences” (2011) 29(3) *Law and History Review* 703 and Jackson, Quinn & O'Malley, “The Jury System in Ireland: In the Shadow of A Troubled Past?” (1999) *Law and Contemporary Problems* 202.

⁵ Article 38.5 provides as follows: “Save in the case of the trial of offences under section 2, section 3, or section 4 of this Article no person shall be tried on any criminal charge without a jury.”

⁶ *De Burca v Attorney General* [1976] IR 38

⁷ [1993] 2 IR 17. This case upheld the constitutionality of section 25(1) of the Criminal Justice Act 1984 which provides that “[t]he verdict of a jury in criminal proceedings need not be unanimous in a case where there are not fewer than eleven jurors if ten of them agree on the verdict.”

their findings as to the facts. The essential feature of a jury trial is to interpose, between the accused and the prosecution, people who will bring their experience and commonsense to bear on resolving the issue of the guilt or innocence of the accused.”⁸

However, the Irish Constitution fails to set out a definition of the jury and is silent as to what features and functions are fundamental to the constitutional notion of a jury, leaving much unclear regarding the implications of Article 38.5 for jury trial in Ireland.⁹ Hogan and Whyte remark that the question of the exact delimitation of the criminal jury’s role, and whether it would be constitutionally permissible to reduce, qualify or dilute it, has not been settled.¹⁰ Most of the public rows arising from the problem of trial by jury relate nowadays, in one way or another, to the process of selecting jurors.¹¹ The LRC considered that the competency of the jury in criminal trials is an inherent requirement of the Constitution to a fair hearing by an independent and impartial court.¹² The role of a juror is extremely important and is integral to the administration of justice. A jury decides the facts of a case and delivers a verdict as to the criminal liability of a defendant. Therefore, a juror should be capable of comprehending all evidence, including expert evidence, in criminal proceedings.

As outlined in Chapter 2, the finder of fact is not bound to accept the expert evidence. The courts remain mindful of the fact that the jury may surrender its fact-finding function by accepting the expert’s opinion without cavil. If the expert’s opinion supplants the tribunal of fact then the accused’s constitutional right to trial by jury is infringed. Because of this danger, the judge’s charge plays an important role in instructing the jury on the expert

⁸ *ibid.*, at 25.

⁹ Jackson, Quinn & O’Malley, *op. cit.*, at 207-208.

¹⁰ Hogan and Whyte, *Kelly: The Irish Constitution* (Round Hall, 2004) at [6.5.381].

¹¹ The Law Reform Commission in their *Consultation Paper on Jury Service* (LRC CP 61 – 2010) did not discuss the representative roles of judge or jury. Its remit was restricted to a review of the law concerning the criteria on which persons are ultimately selected for jury service.

¹² *ibid.*, at [2.20].

evidence.¹³ The trial judge must instruct the jury that it is not bound to accept the expert's opinion and that the issue upon which the expert has given his opinion is one for the jury alone to decide. A good example of such a direction can be found in the Canadian case of *R v Millar*:¹⁴

“When issues in a trial concern a highly specialized art or expertise of which the ordinary citizen is likely to have little or no knowledge, the jury and the Court may have to rely on expert evidence. The purpose of the expert evidence is to explain the effect of technical evidence, but that is not the end of the matter. You are entitled to give such weight as reasonably and justly belongs to an expert's opinion evidence. But that opinion evidence is not binding upon you, if it is against your judgment. You are the only and the sole judges of the facts. You are the only ones who have heard all of the evidence during this trial. And, based on all of the evidence you have heard, you may believe all, or part, or nothing of what any witness says and that includes an expert.”

The trial judge is also required to summarise the expert evidence and explain to the jury, in plain terms, why it is relevant. This may be a difficult task for the trial judge, especially where the evidence is of a complex scientific nature. It was submitted in the last chapter that expert evidence of facial mapping should be accompanied by a strong warning.

II. The Jury

(i) The Dilemma: The Jury and Expert Evidence

Most researchers are agreed that the main factor that influences jurors is the evidence.¹⁵ As stated in Chapter 2, the very rationale behind the introduction of

¹³ See generally Coonan & Foley, *The Judge's Charge in Criminal Trials*, (Round Hall, 2008) at Chapter 30.

¹⁴ (1989) 49 CCC (3d) 193

¹⁵ Darbyshire, Maughan and Stewart “What can the English Legal System Learn from Jury Research Published up to 2001?” Research Papers in Law Kingston Law School 2001, at p 10, citing Bridgeman and Marlowe “Jury Decision Making: An Empirical Study Based on Actual Felony Trials” 64 *Journal of Applied Psychology* 1979 No 2 at 91-98.

expert evidence in a criminal case is that it is beyond the knowledge and experience of the jury. It is a general rule that all relevant issues of fact must be left to the jury for their consideration. The ultimate issue rule, as discussed previously, reflects the importance attached to juries “thinking for themselves” about the facts of a particular case.¹⁶ However, the LRC in their Consultation Paper on Expert Evidence remarked that, with this rule all but abandoned in a criminal trial, there is a risk of an effective “trial by expert”.¹⁷ Kenny explains that experts may usurp the function of the jury by giving a conclusion on the ultimate issue in the case rather than providing information to the jury to enable them to reach a more informed conclusion.¹⁸

It is well established that jurors are required to reach their verdict through consideration of the evidence that is deemed admissible by the trial judge. This is connected to the right to a fair trial.¹⁹ Therefore, it is necessary for jurors to comprehend the evidence presented in court and to be able to communicate with other jurors during the deliberation process.²⁰ However, Zander²¹ sums up a contradiction inherent in the notion of trial by jury as follows, stating that the very idea of a jury is, at one level, “improbable”:

“Citizens who mostly have no experience of legal procedures, or of the law or of listening to cases in court, or of concentrating on evidence and retaining facts over what may be many hours, days or even weeks are expected to understand and remember enough of what they have heard to do justice to a fellow citizen. It is extraordinary it works at all – let alone that it has given reasonable satisfaction over hundreds of years.”²²

In recent years, a debate has emerged concerning the suitability of the jury system in complex trials. In particular, academic comment has focused on

¹⁶ Ward, “Experts, Juries and Witch-Hunts: From Fitzjames Stephen to Angela Cannings” 31(3) *Journal of Law and Society* 369, at 374.

¹⁷ LRC, *op. cit.*, at [2.283].

¹⁸ Kenny, “The Expert in Court” (1983) 99 LQR 197

¹⁹ *Kelly v O'Neill* [2000] 1 ILRM 507

²⁰ LRC, *Consultation Paper on Jury Service* (LRC CP 61 – 2010) at [4.76].

²¹ Zander, *A Matter of Justice: The Legal System in Ferment*, (1989 Oxford University Press)

²² *ibid.*, at 209.

the issue of juries' understanding of scientific evidence and their ability to cope with serious fraud cases. In the case of scientific evidence, a perception has emerged that juries might be incapable of understanding the complex nature of the evidence presented.²³

While it has already been explained in Chapter 2 that the finder of fact is not bound by the expert's view, there exists another dilemma in the adversarial trial process: how is the jury to evaluate conflicting pieces of expert evidence? Learned Hand concluded that the jury "will do no better with the so-called testimony of experts than without, except where it is unanimous."²⁴ If the jury must decide between conflicting experts, then "they are as badly off as if they had none to help them."²⁵ When trial by jury fails to secure the effective administration of justice, one is forced to consider whether or not the benefits are outweighed by this failure. It seems logical to assume that jurors, randomly selected from the population at large, might have some difficulties interpreting and understanding scientific evidence. Is placing "blind trust" in juries to competently evaluate expert scientific evidence naive?²⁶

The traditional criticism of the jury regarding expert evidence is helpfully summarised by Vidmar and Diamond:²⁷ juries are alleged to be intellectually incompetent to understand much expert evidence, to rely on superficial characteristics of the experts in judging their testimony, to abdicate their responsibility to evaluate the testimony, and to be confused by a battle of experts.²⁸ However, the authors remarked at that time that "the legal debate on how juries respond to experts is based on assertions and opinions rather than

²³ See Edmond & Mercer, "The politics of jury competence", with commentaries by Berstein and Freckleton and a reply by the authors in Martin (ed) *Technology and Public Participations* (Wollongong, Australia: Science and Technology Studies, University of Wollongong, 1999) at 85.

²⁴ Learned Hand, "Historical and Practical Considerations Regarding Expert Testimony" (1901) 15 *Harvard Law Review* 40, at 56.

²⁵ *ibid.*

²⁶ Darbyshire, Maughan and Stewart "What can the English Legal System Learn from Jury Research Published up to 2001?" *Research Papers in Law Kingston Law School* 2001 at 3

²⁷ Vidmar and Diamond, "Juries and Expert Evidence" (2000-2001) 66 *Brooklyn Law Review* 1121

²⁸ *ibid.*, at 1126.

any systematic empirical base.”²⁹ This is a technocratic criticism of the jury, one which questions their intellectual or experiential competence either to discharge their task at all or to do so in particular types of cases. The technocratic argument takes a narrower form when it is confined to trials involving the presentation of scientific evidence and cases which are otherwise complex or highly technical, such as fraud trials.³⁰

Harding³¹ believes that the technocratic argument must be confronted. Reversals of trial verdicts and classifications as miscarriages of justice is likely to be seen as adversely reflecting, at least in part, upon the competence of the jury in scientific matters.³² This is evident from the infant death cases which were examined in the previous chapter. In *R v Clark*³³ the jury were likely to have been unduly influenced by the evidence of the renowned pediatrician, Professor Meadows, who gave expert testimony on possible causes of death and the statistical probabilities of a family suffering two such deaths. He suggested that the odds of two such unexplained deaths occurring in the same family were some 73,000,000 to 1, and compared it to winning the Grand National. These calculations were seriously flawed and the Court of Appeal overturned the convictions.

²⁹ *ibid.*, at 1127.

³⁰ In England and Wales, the Fraud Trials Committee was set up in 1983 under Lord Roskill (“the Roskill Committee”) to inquire into the performance of juries in serious fraud cases. The Roskill Committee concluded that long fraud trials were so complex that it was not reasonable to expect jurors to be able to cope. The committee recommended that there should be a different system in the most complex fraud cases. It would consist of a special tribunal consisting of a judge and two lay members selected from a panel of persons chosen by the Lord Chancellor, with expertise in complex business transactions. A powerful dissent was delivered by Mr Walter Merricks. See Roskill, Report of the Fraud Trials Committee Report, (1986). The English Government never implemented the proposals. See Harding, “Jury Performance in Complex Cases” in Findlay & Duff eds, *The Jury Under Attack*, (Butterworths, 1998), at 83 where he remarks that the Roskill Committee Report did not make out even a *prima facie* case of jury incompetence and that its attitude is more an article of faith than a construct of empirical evidence (at 77). For an Irish perspective on the suitability of expert juries for white collar crime offences, see Howlin, “White-Collar Crimes and Expert Juries: Precedents, Alternatives and Implications” 22(2) (2012) ICLJ 40

³¹ Harding, “Jury Performance in Complex Cases” in Findlay & Duff eds, *The Jury Under Attack*, (Butterworths, 1988), at 83.

³² *ibid.*

³³ [2004] EWCA Crim 1020; [2004] 2 FCR 447

In *R v Cannings*,³⁴ the Court of Appeal expressed some sympathy for the jury, and calls into question the effect that the expert evidence had on it:

“We have some sympathy for the jury. We have to reflect an anxiety which has struck us throughout our own deliberations, whether notwithstanding these clear directions, the whole course of the trial, the sheer number of experts called by the defence, and the complex specialist fields in which these distinguished men and women worked, the jury may not, inadvertently, unconsciously, have thought to itself that if between them all, none could offer a definitive or specific explanation for these deaths, the Crown's case must be right.”³⁵

It is clear from this quote that the Court of Appeal that it was aware that the jury may have been subconsciously influenced by the expert scientific evidence. Ward remarked that the Court of Appeal accepted that there were some cases where a jury's decision to rely on the prosecution expert would *never* be safe, while still upholding the safety of jury decisions on expert evidence in general.³⁶

(ii) Jury Comprehension of Expert Evidence

As noted in Chapter 2, juries are required to consider expert evidence and come to a decision as to how to evaluate this evidence against all the other lay evidence at trial. They are not bound to accept it, and are free to reject it. The following question will now be considered: To what extent do juries assess to the content of the expert evidence, and to what extent are they influenced by other non-legal factors?

Although the legal system assumes that jurors can be rational processors of information, research has illustrated that jury decision-making is more complex. Little is known of the thought process of a juror, as jury deliberations must be conducted in secret. Walsh J in *de Burca* commented on

³⁴ [2004] 2 Cr App Rep 7

³⁵ *ibid.*, at [170].

³⁶ Ward *op. cit.*, at 371.

the desirability of this.³⁷ In *The People (Attorney General) v Longe*,³⁸ Haugh J, giving the judgment of the Court of Criminal Appeal, held that “the principle is well established that the nature of the deliberation of a jury in a criminal case should not be revealed or inquired into.”³⁹ This was reiterated by the Supreme Court in *O’Callaghan v Attorney General*,⁴⁰ where O’Flaherty J said that the course of deliberations of a jury should not be published after a trial.⁴¹ The LRC stated that jury secrecy is regarded as being central in maintaining confidence in the criminal justice system and in protecting jurors and ensuring frankness in their deliberations.⁴² Secrecy is also seen as important in ensuring the finality of verdicts reached by juries. The LRC conclude that lifting the veil of secrecy would require the introduction of safeguards to protect jurors and the criminal justice system. England and Wales has also been limited by statute in its inability to investigate the decision-making process of jurors.⁴³

However, jury research is vital to understand how juries cope with complex scientific evidence. Until relatively recently, there was an absence of empirical studies specifically designed to evaluate the impact of complex expert testimony on jurors.⁴⁴ Commentators looked to social psychological studies for guidance. It should be borne in mind that most empirical research to date has used mock jurors. This research has limitations in terms of its “ecological validity,”⁴⁵ and lacks the realism of a trial.⁴⁶ In addition, most of

³⁷ *De Burca v Attorney General*, *op. cit.*, at 67.

³⁸ [1967] IR 369

³⁹ *ibid.* at 377

⁴⁰ [1993] 2 IR 17

⁴¹ *ibid.* at 26.

⁴² Law Reform Commission, *Consultation Paper on Jury Service* (LRC CP 61 – 2010) at [8.31].

⁴³ Section 8 of the UK Contempt of Court Act 1981. A majority of the House of Lords in *R v Mirza* [2004] 1 WLR 665 held that the rule that a jury’s deliberations are to remain confidential is to be adhered to. This was reiterated in *R v Smith; R v Mercieca* [2005] UKHL 12. See also *A Review of the Criminal Courts of England and Wales by the Right Honourable Lord Justice Auld* (September 2001)

⁴⁴ Cooper, Bennett and Sukel, “Complex Scientific Testimony: How Do Jurors Make Decisions?” (1996) 20(4) *Law and Human Behavior* 379, at 381.

⁴⁵ Freckelton, Goodman-Delahunty, Horan & McKimmie, *Expert Evidence and Criminal Jury Trials*, (OUP, 2016) at 1.

⁴⁶ Heffernan & Coen, *op. cit.*, at 198.

the previous research on juries has been conducted in the United States,⁴⁷ where there are substantial differences in how jury trials are conducted and in how scientific evidence is admitted. In addition, the research in the United States has tended to focus on civil trials, where the civil jury is still used widely. Further difficulties with the artificial nature of these studies are outlined below.

Freckelton, Goodman-Delahunty, Horan & McKimmie note that a considerable amount of research has examined how people use their life experience and common sense to make decisions.⁴⁸ Those findings show that people use a number of strategies such as relying on schemas, stereotypes and heuristics. Schemas and stereotypes are based on our prior knowledge of things. A stereotype is a specific example of a schema. A stereotype is a mental representation of information about a social category, and can include information about whether we feel positively or negatively about people in that category, and also information about what people in that category are like, the sorts of behaviours they perform, and roles they occupy. Schemas apply to other types of constructs, such as roles or events. Heuristics, on the other hand, are cognitive shortcuts that enable people to make rapid decisions in complex situations. Stereotypes, schemas and heuristics can influence juror's decisions and make it less likely that they are relying on the content of the expert evidence. It must be borne in mind that jurors are people, and are affected by these no more or no less than ordinary people.

We must consider how jurors make their decisions in order to ascertain where expert evidence fits in. Behavioural scientists have long searched for a model which adequately describes a juror's thought process. The Cognitive Story Model, as developed by Pennington and Hastie,⁴⁹ is widely accepted as a general description of how jurors process information.⁵⁰ This model suggests that the juror organises the information into a narrative story by using the trial evidence, personal knowledge of similar events, and personal knowledge of what makes a complete story. Having constructed the story, the juror then takes

⁴⁷ Hans, "Judges, Juries and Scientific Evidence" (2007-2008) 16 *Journal of Law & Policy* 23

⁴⁸ Freckelton *et al*, *op. cit.*, at [5.05] *et seq.*

⁴⁹ Pennington and Hastie, "A Cognitive Theory of Juror Decision Making: The Story Model" (1991) 13 *Cardozo Law Review* 519

⁵⁰ Freckelton *et al*, *op. cit.* at [5.05].

the judge's instructions on the law, combined with their prior ideas of crime, and forms verdict categories. It is for this reason that evidence should be presented to the jury in a fashion which most easily enables its formation into a structured story.

The ability of jurors to construct a story in which to interpret events will be dependent upon the quality of the information available and its mode of presentation.⁵¹ There are many factors which bear on juror decision making, but the important point to note is that the various parts of trial evidence including the testimony of experts are not viewed in isolation. Instead, they are integrated into stories derived from pre-existing cognitive frameworks and from the other trial evidence, including the testimony of plaintiffs, defendants and other witnesses.⁵²

An alternative method of looking at how a juror evaluates evidence is to look at a dual process model. There are many variations of this model, but they all share common features. There are two ways people can process information, either by carefully considering the content or by using some less effortful cognitive processing. Generally, when decision makers are motivated and have an adequate amount of time and ability, the information involved in the decision-making will be processed carefully and systematically. When decision-makers are rushed, unmotivated and/or are lacking in ability, they will process the information involved in the decision heuristically, rapidly and carelessly. A dual process model has the advantage of taking into account non-legal information. One such method⁵³ is the Elaboration Likelihood Model,⁵⁴ which recognises that there are two ways in which people can process

⁵¹ Matthews, Hancock and Briggs, "Jurors' perceptions, understanding, confidence and satisfaction in the jury system: a study in six courts" Centre for Criminology, Middlesex University, Home Office Online Report 05/04, at 13.

⁵² Vidmar and Diamond, *op. cit.*, at 1138.

⁵³ Another method is the Heuristic Systematic Model, which relies on many of the same principles as the Elaboration Likelihood Model in that it also assumes two processing routes based on the ability and motivation of the individual. However it also assumes that a person can process information heuristically and systemically at the same time, and predictions are made about when this is likely to occur. See in this regard, Chaiken, Liberman & Eagly "Heuristic and Aystematic Information Within and Beyond the Persuasion Context" in Uleman & Bargh (eds) *Unintended Thought*, (New York; Guildford Press, 1989).

⁵⁴ Petty & Cacioppo, "The Elaboration Likelihood Model of Persuasion" in Berkowitz (ed) *Advances in Experimental Social Psychology*, vol 19 (New York: Academic Press, 1986).

information, either by carefully considering the content (the central route) or by using some less effortful processing (the peripheral route).

In the central route to persuasion, information is carefully, actively, and elaboratively processed. In the peripheral route to persuasion, information affects decisions without much cognitive effort. The route to persuasion that will be activated depends on the individual's motivation and ability to focus on and understand the message. When the listener is unmotivated or unable to attend on the message, or where the message is difficult or complex, it is more likely that peripheral processing will occur. Also, if the message is processed peripherally, the listener will rely on peripheral cues, such as the communicators credibility or demeanour which is readily understandable, in order to make a decision. When the listener is motivated and the message is simple, the decision-maker is more likely to engage in careful processing.

The peripheral versus central processing dichotomy is very relevant to juror judgments about the persuasiveness of trial evidence. Cooper, Bennett and Sukel,⁵⁵ in a study on expert evidence in a mock civil trial, manipulated the complexity of the testimony provided by the expert to determine if at increased levels of complexity, peripheral processing and reliance on credibility cues would be observed. They predicted that when complexity was high, jurors would be more likely to rely on the amount of expertise the witness had as a peripheral cue to the expert's credibility.⁵⁶ As hypothesised, when the complexity was high the highly credentialed expert persuaded more jurors. When complexity was low the highly and moderately credentialed experts equally persuaded jurors. Cooper *et al* interpreted this as demonstrating that when testimony is simple, central processing occurs. The jurors were equally persuaded by the highly and moderately credentialed expert because they were attending to the content of the message itself, and did not rely on peripheral credibility cues. However, when jurors have difficulty understanding the evidence, they rely on peripheral cues to judge credibility and make verdict determinations, resulting in the increased reliability on the expert's credentials to make decisions.

⁵⁵ Cooper, Bennett and Sukel, "Complex Scientific Testimony: How Do Jurors Make Decisions?" (1996) 20(4) *Law and Human Behavior* 379

⁵⁶ *ibid.* at 379

Later research⁵⁷ is consistent with the earlier work. This research assessed the effect of the expert being identified in court as paid for his or her services, or the “hired gun” effect. It was found that jurors only used the peripheral information regarding the expert’s remuneration to determine credibility when the testimony was complex. These results are consistent with the general research on persuasion, in that central processing was used in decision-making and evidence evaluation when the message was simple, but peripheral cues became influential when the testimony presented was complex. It is likely that the systematic elaboration of the expert’s message was blocked when the testimony was too complex to be easily understood. In those conditions mock jurors seem to have based their assessments on variables unrelated to the content of the message, such as the credentials and remuneration of the experts.

Vidmar and Diamond state that this body of research would suggest that if two experts provide testimony of equal quality, but one expert is perceived to be of higher quality than the other, the higher prestige person would tend to prevail in persuasiveness.⁵⁸ However, psychological research findings must be qualified by the fact that they have been derived in settings quite different from the settings in which juries make their decisions. A trial setting places greater emphasis on the importance of the verdict for people’s lives. Judicial instructions specifically inform jurors that peripheral cues such as credentials are to be considered along with the central cues bearing on the content of the testimony. Also, the research only demonstrated the effect of heuristic cues on judgments of expert testimony by individual jurors, and do not take into account the deliberative process of the jury. It is possible that, as jurors discuss the issues, they may become cognisant that their opinions were based more on the expert’s credentials than on the substance of his or her testimony. This cognisance may shift opinions away from the heuristic cue and toward the substance of the testimony.

These limitations aside, it can be stated with some degree of confidence from the outcome of the psychological studies that, there is at least a danger

⁵⁷ Cooper and Neuhaus “The ‘Hired Gun Effect’: Assessing the Effect of Pay, Frequency of Testifying, and Credentials on the Perception of Expert Testimony” (2000) 14(2) *Law and Human Behavior* 149

⁵⁸ Vidmar and Diamond, *op. cit.*, at 1139.

that juries dealing with complex scientific evidence are quite likely to rely on peripheral cues, such as credentials, and appearance of the expert witness. However, these studies suffered from the drawback that there was a lack of empirical evidence available to support them.

Freckelton *et al* carried out a ground breaking empirical study of expert evidence in criminal trials, which was funded by the Australian Government.⁵⁹ The authors were allowed access to Australian jurors and carried out written surveys and interviews with jurors, as well as interviews with lawyers, judges and experts.⁶⁰ Jurors were asked whether they found the evidence presented by each expert difficult to comprehend. The majority of jurors indicated that they did not find the evidence difficult to understand, except in the case of DNA evidence.⁶¹ The authors acknowledge the limitations of the study. The findings rely on the jurors' self-reports about their comprehension, and caution is needed before concluding that juror's adequately understand expert evidence. In the study, jurors evaluated the presentation of expert evidence by each expert witness in the criminal trial in which they participated, and rated the relative strength of the prosecution and defence cases, as well as whether the

⁵⁹ Freckelton *et al*, *op. cit.* While the findings were published in 2015, the study has its roots in a project which commenced in the 1990s. See Freckelton, Reddy & Selby, *Australian Judicial Perspectives on Expert Evidence: An Empirical Study* (1999, Australian Institute of Judicial Administration Incorporated) and Freckelton, Reddy & Selby, *Australian Judicial Perspectives on Expert Evidence: A Comparative Study* (2001, Australian Institute of Judicial Administration Incorporated).

⁶⁰ The authors analysed written survey responses of 296 jurors and interview responses from a further 111 jurors who were asked about their perception of the expert evidence that was presented in 55 criminal trials (one of which was a retrial). These responses were compared and contrasted with 43 interviews with judges, 115 interviews with barristers and instructing solicitors, and 80 interviews with expert witnesses, at (vii). The most common type of case was murder/manslaughter (46%), followed by sexual assault. 10 The majority of the types of experts interviewed were DNA experts (28.7%), followed by medical experts (23.7%), forensic pathologists (15%) and psychiatry (13.8%). See *ibid* at 12.

⁶¹ Freckelton *et al*, *op. cit.* at [5.40]. For example, when asked about the first expert who presented expert evidence, 80.6% said that they did not find the evidence difficult, and the remaining 19.4% said that they did. When asked about the second expert, 74.1% said that they did not find the evidence difficult, and the remaining 25.9% said that they did.

expert evidence influenced their verdict and the extent to which they relied on the prosecution or defence experts.⁶²

Interestingly, the jurors were more influenced by peripheral factors in the case of prosecution experts than they were for defence experts. The credentials of the prosecution expert were important for the jurors' evaluations of the prosecution case and their verdicts. Juror's perceptions of the prosecution expert as confident, scientific, and wise, as well as the juror's perception of the expert's evidence as clear, were all positively associated with juror's reliance on the prosecution expert evidence in reaching a verdict. The more the prosecution expert was perceived as confident, the more jurors evaluated the prosecution case positively, the more they thought they understood that expert's evidence, and the more they relied on that evidence to reach a verdict. However, defence experts who were seen as confident, evaluations of the defence case as positive and greater self-report understanding of that evidence did not have any influence on juror's reliance on the defence expert evidence to reach a verdict.⁶³

From the responses, the study identified a number of barriers to juror comprehension, upon all of which jurors, experts, lawyers and judges were agreed. These included overuse of technical language, lack of experience in providing evidence and lack of confidence on the part of the expert witness.⁶⁴ However, while the study found that technical language and complexity of evidence might be a barrier to juror comprehension in the case of prosecution experts, this was not the case for defence experts. For example, despite the association of the use of technical language and complexity in prosecution witness evidence with difficulty understanding, both evidence features were associated with perceptions that the prosecution's case was stronger. These, along with demeanour, reflect the possible influence of peripheral cues, especially when one compares their impact on the evaluation of the defence expert.⁶⁵

⁶² *ibid.* at [5.63].

⁶³ *ibid.* at [5.62] – [5.69].

⁶⁴ *ibid.* at [5.62]

⁶⁵ *ibid.* at [5.76].

While Heffernan & Coen warn of the dangers of reading into the results of one particular study,⁶⁶ the findings are of some limited assistance. There is now at least some empirical evidence of jury's relying on peripheral cues where complex evidence is presented. As much expert scientific evidence is complex, the jury is bound to have a difficulty with it. Indeed, the study found that the juries surveyed admitted that they had a difficulty with DNA evidence. This means that the method of presentation of complex expert scientific evidence becomes critical. If the expert scientific evidence is presented in a manner which enables the jury to better comprehend it, then they are less likely to rely on peripheral cues.

III. Presentation of Scientific Evidence

As outlined above, one factor which influences jury comprehension is the mode of presentation of scientific evidence.⁶⁷ Scientific evidence, and in particular forensic scientific evidence, is often expressed in numerical terms. The jury is faced with the task of determining the probability that forensic evidence from the scene of a crime matches that found on the accused. This evidence is not capable of being moulded into a story. As we have seen earlier in this chapter, complex scientific evidence can result in the jury relying on peripheral cues. Therefore, an appropriate method of presenting expert evidence must be found in order to achieve the optimum level of jury comprehension. The presentation issue is a problem, and a difficult one,⁶⁸ and it is not clear whether there is any one solution or method that can be employed to resolve it. As already outlined in relation to facial mapping, no method of presentation is going to be completely objective and will almost always have a subjective element.

In the last chapter, the differences between the competing disciplines of law and science were outlined. Prior to embarking on a discussion assessing the merits of a mathematical model for the presentation of expert evidence, the

⁶⁶ Heffernan & Coen, *op. cit.*, at 200.

⁶⁷ Harding *op. cit.* at 84. Other factors include "the role and professionalism of forensic scientists, and the capacity of the legal profession (judges and counsel) to control and direct the evidence of forensic witnesses."

⁶⁸ Redmayne, *Expert Evidence and Criminal Justice*, (OUP, 2000), at 82.

scientific approach to proof must be briefly outlined. First, there are differences between legal and scientific proof.⁶⁹ The legal standard is proof beyond a reasonable doubt. Therefore, the question posed to the jury is not the mathematical probability of the prosecution hypothesis. It is rather whether, having regard to all the evidence before the court, the prosecution hypothesis is the only explicable hypothesis, in the sense that no reasonably possible defence hypothesis remains open.⁷⁰ The legal standard of proof appears to aspire to certainty, and to eliminate all reasonable doubts. Science takes a mathematical view of proof in that it expressly accepts that facts cannot be definitively determined and that their existence can only be inferred from evidence as a matter of mathematical probability. The challenge for experts is to present scientific evidence in a form that can be accommodated within the legal standard of proof.

However, it has already been demonstrated that there are no certainties in science. Aitken and Taroni stated that both “[s]cientists and jurists have to abandon the idea of absolute certainty in order to approach the identification process in a fully objective manner.”⁷¹ Once it is accepted that nothing is absolutely certain then it becomes logical to determine the degree of confidence that may be assigned to a particular belief.⁷² It is possible to make quantitative judgments and present certainties mathematically.⁷³

There are different methods to presenting such uncertainties in court: through statistics or through probability. Aitken and Taroni point out that statistics and probability must be differentiated, and inductive and deductive reasoning must be differentiated. Probability is a deductive process which

⁶⁹ See Kaye, “Proof in Law and Science” (1992) 32 *Jurimetrics* 313 in which the author concludes that finding facts in law involves the same inductive logic but quite different procedures than scientific fact-finding.

⁷⁰ Ligertwood & Edmond, “Discussion paper: A just measure of probability” (2012) 11(4) *Law Probability & Risk* 363

⁷¹ Aitken & Taroni, *Statistics and the Evaluation of Evidence for Forensic Scientists*, (2nd ed, Wiley, 2004), at 5.

⁷² *ibid.*

⁷³ *ibid.* See Tribe, “Trial by Mathematics” (1971) 84 *Harvard Law Review* 129 who argued against any attempt to quantify doubt in a criminal trial.

argues from the general to the particular.⁷⁴ On the other hand, statistics is an inductive process which argues from the particular to the general.⁷⁵ The classical statistical analysis is the frequentist approach relates to a relative frequency obtained in a long series of trials, assumed to be performed in an identical manner, physically independent of one another.⁷⁶ The expert is permitted to testify in terms of relative frequency only.⁷⁷

However, another method is to allow the expert to testify in terms of probabilities.⁷⁸ Here, the interpretation of scientific evidence may be thought of as the assessment of a comparison. For example, this comparison is that between evidential material found at the scene of a crime and evidential material found on a suspect. However, a traditional problem with this method was the lack of suitable statistical data from relevant populations.⁷⁹ In addition, forensic scientists have not been able to agree to an agreed method. What is established is that DNA is deemed to have an adequate statistical basis to allow experts to testify in terms of statistical probabilities.⁸⁰ As will be demonstrated, in other contexts, courts remain wary of experts testifying in terms of

⁷⁴ Aitken & Taroni, *op. cit.*, at 6, consider the following example: "Consider a fair coin, that is, one for which, when tossed, the probability of a head landing uppermost equals the probability of a tail landing uppermost equals 1/2. A fair coin is tossed ten times. Probability theory enables a determination to be made of the probability that there are three heads and seven tails, say. The general concept of a fair coin is used to determine something about the outcome of the particular case in which it was tossed ten times."

⁷⁵ Aitken & Taroni, *op. cit.*, at 6, consider the following example: "Consider a coin which is tossed ten times and there are three heads and seven tails. Statistics enables the question as to whether the coin is fair or not to be addressed. The particular outcome of three heads and seven tails in ten tosses is used to determine something about the general case of whether the coin was fair or not."

⁷⁶ Aitken & Taroni, *op. cit.*, at 6 – 7.

⁷⁷ Aitken & Taroni, *op. cit.*, at 7, consider the following example: "...consider tossing a coin n times. It is not known if the coin is fair. The outcomes of the n tosses are to be used to determine the probability of a head occurring on an individual toss. There are two possible outcomes, heads (H) and tails (T). Let $n(H)$ be the number of H and $n(T)$ be the number of T such that $n(H)+n(T) = n$ Then the probability of tossing a head on an individual toss of the coin is defined as the limit as $n \rightarrow \infty$ of the fraction $n(H)/n$."

⁷⁸ *ibid.* at 16.

⁷⁹ *ibid.*

⁸⁰ Heffernan, *Scientific Evidence: Fingerprints and DNA* (Firstlaw, Dublin, 2006) at 209.

probabilities as to evidential support where there is no empirical statistical basis for the numbers used.

(i) Bayes' Theorem

It has been suggested that the mathematical formula known as Bayes' Theorem ("Bayes")⁸¹ may be a suitable method for the presentation of scientific evidence by which a jury can interpret expert scientific evidence, and in particular where they are required to combine different probabilities.⁸² Bayes' is a statistical approach to probability, and is distinguishable from a frequentist approach.

Bayes' is a mathematical formula for calculating conditional probabilities and the weight of evidence is usually expressed in terms of likelihood ratios.⁸³ This likelihood ratio lies at the heart of the Bayesian approach and it measures the probative force of a piece of evidence relative to two hypotheses. Hypotheses are put forward by either side in adversarial trial proceedings. There can be prosecution hypotheses (H_P) and defence hypotheses (H_D). An example of a prosecution hypothesis is that the accused is guilty or that the accused was at the scene of the crime. An example of a defence hypothesis is that the accused is innocent or that the accused was not at the scene of the crime.

In the context of expert scientific evidence, the following example can be given: DNA evidence has been found at the scene of a murder. It is analysed and is found to contain characteristics shared by one in a thousand members of the population. The DNA of the accused is also found to contain these characteristics. The prosecution hypothesis is that the DNA at the crime scene

⁸¹ Bayes' Theorem is named after the eighteenth century parson Reverend Thomas Bayes (1702-1761) who discovered it. There has been debate over the correct term to be employed. In this thesis, when "Bayes' Theorem" and "Bayesian" is referred to, it is to be taken to refer to the employment of likelihood ratios. See Berger & Sjerps, "Discussion paper: Reaction to Hamer and Thompson in LPR" (2012) 11(4) *Law Probability & Risk* 373.

⁸² This was suggested by Lindley in 1977 in "A Problem in Forensic Science" (1977) 64 *Biometrika* 207. The idea was developed by Robertson and Vignaux in *Interpreting Evidence* (1995).

⁸³ Redmayne, "Doubts and Burdens: DNA Evidence, Probability and the Courts," (1995) *Crim LR* 467, at n. 21.

is that of the accused, while the defence hypothesis is that the DNA at the crime scene is not that of the accused.

The employment of Bayes' theorem uses a likelihood ratio to assess the probability of finding the DNA of the accused at the scene of the murder in light of the two hypotheses. It is the task of the expert to present the likelihood ratio to the court. This likelihood ratio represents:

$$\frac{P(E|H_P)}{P(E|H_D)}$$

$P(E|H_P)$ refers to the probability of the evidence given the prosecution hypothesis, *i.e.* that the DNA at the crime scene is that of the defendant, and $P(E|H_D)$ refers to the probability of the evidence given the defence hypothesis, *i.e.* that the DNA at the crime scene is not that of the accused. The likelihood ratio is $P(E|H_P)$ is divided by $P(E|H_D)$. Thinking in terms of the likelihood ratio, the Bayesian expert's conclusions will be in terms of how much more (or less) likely E is to occur if H_P is true than if H_D is true. Here, the expert is addressing the probability of the evidence given the particular hypothesis.⁸⁴

However, the likelihood ratio only grades the probative value of the evidence in terms of the hypothesis concerned and does not reflect whether or not the accused committed the murder. The ultimate objective of the fact-finder is to discover the relative probabilities of H_P and H_D given all the evidence that they have heard. To achieve this, the odds form of Bayes' Theorem is applied. This provides that:

Likelihood ratio	x	Prior odds	=	Posterior odds
$\frac{P(E H_P)}{P(E H_D)}$	x	$\frac{P(H_P)}{P(H_D)}$	=	$\frac{P(H_P E)}{P(H_D E)}$

⁸⁴ Redmayne, *Expert Evidence and Criminal Justice*, (OUP, 2000), at 45.

The prior odds refer to the probability that a person chosen at random from the relevant population is guilty, and can be calculated, in the absence of any other information, by dividing 1 by the number of people in the relevant population.⁸⁵ The prior odds represent the relative probabilities of H_P and H_D prior to the hearing of the expert's evidence. They are assessed on the basis of any other evidence the fact-finder has heard. Although it is conventional to use the term "prior odds", the information on which those odds are based need not have been heard prior to hearing the expert evidence; they can be conceptualised as an assessment of the strength of support for H_P and H_D on consideration of all the evidence heard by the fact finder at any stage during the trial, apart from the expert evidence.⁸⁶ The expert has no role in assessing the prior odds. This role is exclusively reserved for the jury, based on the other non-expert evidence they have heard.

The likelihood ratio is multiplied by the prior odds to give the posterior odds, *i.e.* the probability that the accused is guilty, taking into account both the expert evidence and the other evidence. The posterior odds refer to the probability of guilt for a person chosen at random from the population on whom the evidence has been found is taken to be 1 divided by the number of people in that population. It is for the jury to multiply the prior odds by the likelihood ratio to come up with the posterior odds. The expert should not testify in terms of the posterior odds as these are also exclusively within the range of the jury. This appears to be a mathematical formulation of the ultimate issue rule, as discussed in Chapter 2. In any event, the posterior odds can only be arrived at by assessing the prior odds which, as mentioned above, are also for the fact finder to decipher, mentioned above.

⁸⁵ Aitken & Taroni, *op. cit.*, at 189. For example, if we know that there are 1000 people in the relevant population, one of whom is guilty, the probability of any individual chosen at random being the guilty individual is 1/1000. This is a numerical representation of the belief that the person chosen at random is just as likely, and no more likely to be guilty as anyone else similarly chosen at random from the relevant population. This is called the prior probability (of guilt). The complement to the prior probability of guilt is the prior probability that a person chosen at random from the relevant population is innocent. This probability may be taken to the number of people in the population minus 1, divided by the total number of people in the relative population. $(1000 - 1/1000) = 999/1000$. The ratio of these two prior probabilities is 1:999 – this is known as the prior odds in favour of guilt.

⁸⁶ Redmayne, *Expert Evidence and Criminal Justice*, (OUP, 2000), at 46.

Bayes' has been championed by many as a model for the presentation of scientific evidence. Aiken and Taroni refer to it as a "powerful tool" for interpreting evidence, not least for forensic scientists and other experts who write reports submitted to court and sometimes testify in person at trial.⁸⁷ Its proponents submit that Bayes' forces one to think carefully about the events to which probabilities need to be assigned, and to be explicit about the propositions on which and statement of probability is conditioned. It also requires the forensic practitioner to view physical evidence from opposing viewpoints, since, in order to calculate the likelihood ratio, it is necessary to consider both: (i) the probability of the evidence, *assuming that the accused is guilty*; and (ii) the probability of the evidence, *assuming that the accused is innocent*.

Redmayne remarked that one of the significant features of the Bayesian approach is that it can produce important evidence that might otherwise be overlooked.⁸⁸ He argues that it leads to decision makers receiving more information, and information which is more relevant, than they would otherwise. He submits that, because all the relevant information can be factored into the Bayesian framework, the expert's results can be more carefully focused on the hypotheses the fact finder is thought to be addressing. In an application of Bayes' the subjective beliefs of the finder of fact are important in making the assessment of probability. As mentioned in the last chapter, Willis argues that a Bayesian analysis is a safeguard relating to expert opinion.⁸⁹ She claims that this logical approach of considering the probability of the evidence in two competing scenarios will prompt both the expert and the court to pursue avenues which will raise key questions relevant to the issue and thus ensure that the expert opinion is relevant as well as robust.⁹⁰

Willis argues that a Bayesian analysis leads to the prompting of more relevant questions. She claims that if Bayesian analysis was employed in *R v Clark (Sally)* then it may have led to a different result. While Professor Meadow's testimony regarding statistics was pandered, the outcome of the

⁸⁷ Aiken & Taroni, *op. cit.*, at 203.

⁸⁸ Redmayne, *Expert Evidence and Criminal Justice*, (OUP, 2000), at 52.

⁸⁹ Willis, "Does the Court Need to Look Beyond the Reliability of the Test?" (2012) *Criminal Law and Procedure Review* 56, at 60.

⁹⁰ *ibid.*

case, and the appeal, probably more concerns the state of knowledge at the time regarding Sudden Infant Death Syndrome. Willis argues that if the finding of two unexplained deaths were viewed from the probability of two competing hypotheses, *i.e.* murder or natural causes, someone would have had to review the probability of the findings from natural causes which may have prompted the knowledge gap to be explored.⁹¹

However, the application of Bayes' is undermined if the prosecutor's fallacy is committed. This is expressed in mathematicians' terms as the "fallacy of the transposed conditional" and is the fallacy of equating (1) the probability of the presence of the evidence, assuming innocence, to (2) the probability of innocence, assuming presence of the evidence. Using the example above, it will be committed where the following two questions are confused:

- (i) What is the probability of finding the DNA evidence, given that the accused is innocent?
- (ii) What is the probability that the accused is innocent, given the DNA evidence?

In *R v Doheny & Adams*⁹² Philips LJ described the prosecutors fallacy as follows:

- "(1) Only one person in a million will have a DNA profile which matches that of the crime stain.
- (2) The Defendant has a DNA profile which matches the crime stain.
- (3) Ergo there is a million to one probability that the Defendant left the crime stain and is guilty of the crime."⁹³

⁹¹ *ibid.* at at 58.

⁹² [1997] 1 Cr App R 369

⁹³ *ibid.*, at 372 – 373. The difference between the two questions is colourfully illustrated by Redmayne at 188 who considered the following two questions: (1) What is the probability that an animal has four legs given that it is a cow? (2) What is the probability that an animal is a cow, given that it has four legs?

Therefore, Bayes' Theorem insists on a distinction between the probability of the evidence given the hypothesis $P(E|H)$ and the probability of the hypothesis given the evidence $P(H|E)$. There are a number of rationales behind this distinction. The first is the degree of deference that expert opinions are treated with by fact-finders.⁹⁴ Secondly, experts sometimes give evidence involving statistics and probability statements, and here confusing $P(E|H)$ and $P(H|E)$ may significantly distort the value of the evidence.⁹⁵ A more subtle reason for insisting on the distinction is that it may force the expert to think more clearly about their evidence, for example, about how its value will be affected by changes in H_P and H_D .⁹⁶ If $P(E|H)$ is confused with $P(H|E)$ then the prosecutor's fallacy is committed.

An illustration of the prosecutor's fallacy is provided by *R v Deen*⁹⁷ where the accused was on trial for rape. DNA evidence was presented which had a match probability of one in three million. This meant that the probability that a person picked at random from the relevant population would have that profile was one in three million. However, the expert stated that the likelihood of the DNA evidence being from any person other than the accused was one in three million, and concluded that the DNA evidence originated from the accused. This case illustrates that experts themselves are not immune from committing the prosecutor's fallacy.

(ii) Reception of Bayes' Theorem

The appropriateness of Bayes' as a method of presenting scientific evidence represents a significant area of disagreement between the scientific community and the courts. The English courts have rejected its application as a method of presenting expert evidence. It has been held there that this approach to evaluating evidence should be confined to types of evidence for which there exist an established statistical database, such as DNA.

⁹⁴ Redmayne *Expert Evidence and Criminal Justice*, (OUP, 2000), at 47. He goes on to suspect that while fact-finders will not always take claims at face value, it might be more sensible to play on the safe side, by enforcing the distinction.

⁹⁵ *ibid.*

⁹⁶ Redmayne, *Expert Evidence and Criminal Justice*, (OUP, 2000), at 48

⁹⁷ *The Times* 10 January 1994. See Balding & Donnelly, "The Prosecutor's Fallacy and DNA Evidence" [1994] Crim LR 711.

The uneasiness of the English courts with Bayes' was initially evident in *R v Adams (Denis)*.⁹⁸ The appellant was convicted of rape at least partly on the basis of expert testimony that his DNA profile matched the profile of DNA found on a swab taken from the victim. The prosecution claimed that the DNA evidence had a match probability of 1 in 200 million – the DNA profile was calculated to occur in the general population with a frequency of 1 in 200 million. The defence challenged this claiming that a figure of 1 in 20 million or even 1 in 2 million would be more appropriate. However, all the non-scientific evidence presented in the case supported the defence.⁹⁹ Redmayne describes *Adams* as a “hard case”¹⁰⁰ because it was difficult to combine the DNA evidence with the exculpatory, non-scientific evidence.

An expert witness for the defence was permitted to instruct the jury on Bayes'. The expert explained how to compose a likelihood ratio for all of the evidence and not just the DNA evidence.¹⁰¹ The jury returned a verdict of guilty and the appellant's main argument on appeal was that the trial judge had failed to explain the Bayesian method clearly to the jury on his summing up. Adams appealed, his conviction was quashed and a retrial ordered. During the appeal, however, it was clear that the Court of Appeal was not overly impressed with Bayes':

“Whatever the merits or demerits of the Bayes Theorem in mathematical or statistical assessments of probability, it seems to us that it is not

⁹⁸[1996] 2 Cr App R 467

⁹⁹ Adams was considerably older than the description given of her attacker by the victim to the police. She described him as being between 20 and 25 years old, while Adams was 37 and the victim put his age at 40 to 42. The victim failed to pick Adams out of an identification parade. The victim also gave a description of her attacker which did not reconcile with the Adams. Adams also had an alibi, which was supported by his girlfriend. However, Adams did live within a few miles of the crime scene.

¹⁰⁰ Redmayne, *Expert Evidence and Criminal Justice*, (OUP, 2000), at 59. See also Redmayne, “Doubts and Burdens: DNA Evidence, Probability and the Courts,” (1995) Crim LR 467.

¹⁰¹ A probability of 0.1 was assigned to the weak identification evidence on the assumption that Adams was guilty, as against a probability of 0.9 assuming his innocence. The alibi evidence was assigned a probability of 0.25 if Adams were guilty and a probability of 0.50 if he were innocent. The jury were then instructed to combine these probabilities with prior odds of guilt of 200,000 to 1 against and DNA evidence of 1 in 20 million (as calculated by the prosecution).

appropriate for use in jury trials, or as a means to assist the jury in their task ... [T]he attempt to determine guilt or innocence on the basis of a mathematical formula, applied to each separate piece of evidence, is simply inappropriate for the jury's task. Jurors evaluate evidence and reach a conclusion not by means of a formula, mathematical or otherwise, but by joint application of their individual common sense and knowledge of the world to the evidence before them.”¹⁰²

Despite this, the defence at the retrial, with the agreement of the prosecution, presented the jurors with a questionnaire which was intended to elicit from them the probabilities required to use Bayes' to analyse the case. The probabilities could then be inserted at the end of the questionnaire. The accused was convicted again. Once again, the case went to appeal, but in *R v Adams (Denis) (No 2)*,¹⁰³ the appeal was dismissed. The Court of Appeal again condemned the approach of the defence. The Court of Appeal regarded reliance on evidence of this kind as “a recipe for confusion, misunderstanding, and misjudgement, possibly even among counsel, but very probably among judges and, as we conclude almost certainly among jurors.”¹⁰⁴ The court went on to say:

“We are very clearly of the opinion that in cases such as this, lacking special features absent here, expert evidence should not be admitted to induce juries to attach mathematical values to probabilities arising from the non-scientific evidence adduced at trial.”¹⁰⁵

The Court of Appeal's response here is indicative of the adversarial approach to forensic fact-finding outlined in Chapter 2 where juries are expected to use their own common sense reasoning arising from their own knowledge and experience.¹⁰⁶ However, in *Adams* it is important to note that the invitation to the jury was to assign numerical values, not just to the DNA

¹⁰² [1996] 2 Cr App R 467 at 481.

¹⁰³ [1998] 1 Cr App R 377

¹⁰⁴ *ibid.* at 384.

¹⁰⁵ *R v Adams (Denis) (No.2) op. cit.*, at 385.

¹⁰⁶ Roberts & Zuckerman, *Criminal Evidence* (2nd ed, OUP, 2010) at 162.

evidence, but to all the information before the jury. Roberts and Zuckerman also state that the troubling feature of *Adams* was not probabilistic evidence, but the defence expert's invitation to jurors to engage in formalised probabilistic reasoning.¹⁰⁷ Berger, Buckleton, Champod, Evett & Jackson¹⁰⁸ state:

"It is a matter of concern to us that an exercise where Bayes' theorem was employed for the non-scientific evidence in a trial has been the cause of a direction against the notion of applying the principles of logic to the evaluation of scientific evidence."¹⁰⁹

Despite these reservations, *Adams* became authority for the proposition that Bayes' and probabilistic reasoning should not be employed in the presentation of scientific evidence.¹¹⁰

In 2009, the Association of Forensic Service Providers ("AFSP") published a paper¹¹¹ where they set out standards to be followed in formulating forensic expert opinion in the evaluative or evidential mode. It expressly advocated for the use of the likelihood ratio. They specifically applied the standard to all scientific disciplines. The paper envisaged that the expert would base his opinion upon four principles: balance, logic, robustness and transparency. On the basis of the case circumstances and the agreed key

¹⁰⁷ *ibid.*

¹⁰⁸ Berger, Buckleton, Champod, Evett & Jackson, "Evidence evaluation: A response to the Court of Appeal judgement in *R v T*" (2011) 51 Science and Justice 43

¹⁰⁹ *ibid.* at 48.

¹¹⁰ Similarly, in *R v Doheny & Adams* [1997] 1 Cr App R 369 the Court of Appeal insisted, at 374, that a scientist "should not be asked his opinion on the likelihood that it was the defendant who left the crime stain, nor when giving evidence should he use terminology which may lead the jury to believe that he is expressing such an opinion." It held that expert testimony should be confined to the random occurrence ratio (random match probability).

¹¹¹ Association of Forensic Science Providers, "Standards for the formulation of evaluative forensic science opinion" (2009) 49 Science and Justice 161. The Association of Forensic Service Providers aim to "represent the common interests of the providers of independent forensic science in the UK and Ireland with regard to the maintenance and development of quality and best practice in forensic science and expert witness in support of the Justice System from scene to court, irrespective of commercial pressures associated with the competitive forensic marketplace."

issues¹¹² the expert would identify the relevant prosecution proposition and the relevant defence proposition. The expert would then predict the potential outcomes of scientific examinations and assign estimated probabilities to each outcome given the propositions set and relevant information. The expert then would estimate likelihood ratios for each outcome. The conclusions in the report would be applied to the propositions addressed and the estimated likelihood ratio.¹¹³ The paper advised that the strength of evidence would be expressed either in terms of a value of a likelihood ratio or using a verbal scale related to the value of the likelihood ratio. The verbal scale was to be adopted by all AFSP organisations.

(iii) *R v T*

Despite the above endorsement of Bayes' by the forensic science community, the English Court of Appeal in *R v T*¹¹⁴ has made it clear that the Bayesian approach to evaluating evidence, such as employing likelihood ratios, should be confined to types of evidence for which there exist firm statistical databases. As there existed no established statistical database for footwear mark evidence, the Court of Appeal held in that case that expert evidence in footwear mark comparison should be limited to the expression of non-probabilistic evaluative opinions.

While the judgment concerned footwear mark evidence,¹¹⁵ more general remarks were made by the court which were predicted to have wider implications for other areas of forensic science. At the time, the decision provoked a significant reaction from the forensic science community, not just in England and Wales, but around the world.¹¹⁶

¹¹² This was done by considering all available, relevant information, and, where necessary, requesting additional information, *ibid.*, at 161.

¹¹³ The paper says that propositions set and probabilities assigned will not be changed at any stage unless: the key issue on the case changes and/or the conditioning information changes, *ibid.*, at 162.

¹¹⁴ [2011] 1 Cr App R 9. The facts in the case were fully redacted.

¹¹⁵ The Court of Appeal did say that they were solely concerned with the use of likelihood ratios in relation to footwear mark evidence, *ibid.*, at [32].

¹¹⁶ The decision prompted a special edition of the journal *Law Probability & Risk*. See generally (2012) 11(4) *Law Probability and Risk*.

The issue in the appeal in *R v T* was in relation to footwear marks and the use of likelihood ratios in forming an evaluative opinion on the degree of likelihood that a mark had been made by a particular item of footwear.¹¹⁷ The appellant had been convicted, in the Crown Court, of murder. He appealed against his conviction on the ground, *inter alia*, that the way in which the expert evidence on footwear marks was put before the jury was unreliable. The expert had carried out a comparison between the evidence of footwear marks at the scene and with pieces of footwear with which he was provided, including footwear from the trainers found in the appellant's house after his arrest. He considered two alternative propositions: (1) The shoe in question has made the mark it has been compared with and; (2) The shoe has not made the mark. Having regard to my analysis above, these represent the prosecution and defence hypotheses, respectively.

The expert then used available data as to pattern, size, distribution and damage to calculate a likelihood ratio to reflect the degree of likelihood that the marks were made by a particular shoe. He ascribed each factor a likelihood ratio and these were then multiplied together to provide an overall likelihood ratio.¹¹⁸ This was said to be the standard practice of the Forensic Science Service ("FSS"). The expert used the internal database of the FSS to examine the frequency of the pattern.¹¹⁹ His findings indicated that the pattern was one of the most frequently encountered and 20 per cent were of this pattern in the years 2005 to 2007. This meant that the probability of finding a matching pattern if the accused's shoes had not made the mark was calculated at 0.2. The ratio of these two probabilities was $1/0.2$ which is 5. This meant that the odds in favour of the proposition that T's shoes made the marks would be five times greater after finding a match between the pattern on the accused's trainers and the crime.¹²⁰ The expert calculated further likelihood ratios relating to the size, wear and damage.¹²¹ The expert used a verbal scale adopted by the FSS to

¹¹⁷ [2011] 1 Cr App R 9 at [15].

¹¹⁸ *ibid.*, at [35].

¹¹⁹ The FSS database comprised approximately 0.00006 per cent of all shoes sold in a year, *ibid.*, at [36].

¹²⁰ Redmayne, Roberts, Aiken & Jackson "Forensic Science Evidence in Question" (2011) Crim LR 347, at 348.

¹²¹ In relation to frequency of size, the expert considered that the size was 11. The database of the Shoes and Allied Trade Research Association indicated that approximately 3 per cent of

translate likelihood ratios into a verbal summary of the strength of the evidence. According to this scale, a likelihood ratio between 10 and 100 should be expressed as “moderate support” for the proposition that the appellant’s shoes had left the marks. Therefore, the expert concluded that there was a “moderate” degree of scientific proof to support the view that the Nike trainers recovered from the appellant had made the footwear marks found at the crime scene.

One significant feature of the case was that there was no reference in the expert’s reports to any of the statistics, to the formula or to the use of a likelihood ratio or to the scale of numerical values. He expressed his conclusions solely by reference to the verbal scale.¹²² An issue with the presentation of the evidence arose only after a professor at The Forensic Institute in Glasgow, a leading expert in DNA evidence, reviewed the papers of the expert. He characterised the expert’s approach as “the Bayesian approach” of using likelihood ratios. The expert then accepted that he had indeed used likelihood ratios.¹²³ Therefore, at the heart of the appeal was the way in which the scale related back to the likelihood ratios.

shoes of the population would have size 11 footwear. The likelihood ratio for this factor was therefore 1/0.333. The expert moderated this figure to 0.1 by excluding 90 per cent of footwear, to take into account manufacturing practices, the effect of additional wear and the possibility of counterfeits. The moderated likelihood factor for size was this 1/0.1 which is 10. In relation to wear, the expert felt he could exclude half of the trainers of this pattern type and the approximate size/configuration. The likelihood ratio for wear was 1/0.5 which is two. In relation to the amount of damage, the expert calculated the likelihood ratio as 1/1. He considered that he could exclude very few pairs of shoes that could not previously have been excluded by the other factors. The figure would have been close to 1. He used < 1 in the formula to indicate that the damage to the shoes made it less likely that they had made the marks thereby reducing the likelihood ratio, *ibid.*, at [36].

¹²² The expert’s explanation for the omission was that it was not standard practice for the detail relating to statistics and likelihood ratios to be included in a report. He made clear that the data were not available to an exact and precise level and it was only used to confirm an opinion substantially based on his experience and so that it could be expressed in standardised form, *ibid.*, at [38].

¹²³ The court then heard evidence from the expert along with two scientists at the FSS. The Forensic Science Regulator also submitted a note to the court.

The Court of Appeal traced the initial adoption of a Bayesian approach to footwear mark evidence in England and Wales back to 1998¹²⁴ and 2001.¹²⁵ The court also noted that while it was clear (as outlined above) that the FSS had in 2009 accepted the application of Bayesian reasoning and the likelihood ratio, the evidence of the adoption of a Bayesian approach in other jurisdictions was “not as full as would have been desirable.”¹²⁶ The court heard evidence that the European Network of Forensic Science Institutes (“ENFSI”) had demonstrated a reluctance to fully adopt the Bayesian approach.¹²⁷ Evidence was also given about the practice in the United States where the vast majority of forensic examiners of footwear there did not evaluate their findings using likelihood ratio calculations.¹²⁸

The Court of Appeal said that it was clear that the likelihood ratio is permitted as a means of expressing statistical opinion in DNA cases.¹²⁹ However, it held that a mathematical formula was not appropriate where it has no proper statistical basis. The court said that an approach based on mathematical calculations is only as good as the reliability of the data used.¹³⁰ In making this assertion, the court was expressly disagreeing with members of the FSS, who had taken the view that the approach is inherently sound.¹³¹

¹²⁴ Evett, Lambert & Buckleton “A Bayesian approach to interpreting footwear marks in forensic casework” (1998) 38 Science and Justice 241

¹²⁵ Jackson, Champod & Evett, “Principles of interpretation – application of the likelihood ratio in marks cases” Presentation to a European meeting of shoe print and tool mark examiners in Berlin in 2001.

¹²⁶ [2011] 1 Cr App R 9 at [48].

¹²⁷ *ibid.*, at [63].

¹²⁸ *ibid.*, at [64]. The court cited Bodziak in this regard who, unsurprisingly, fully agrees with their decision. See Bodziak, “Traditional conclusions in footwear examinations versus the use of the Bayesian approach and likelihood ratio: a review of a recent UK appellate court decision” (2012) 11(4) Law Probability & Risk 279 and Bodziak, “A Final Comment” (2012) 11(4) Law Probability & Risk 363.

¹²⁹ [2011] 1 Cr App R 9 at [77].

¹³⁰ *ibid.*, at [80] The court said that the acceptance of a mathematical approach to the calculation of a match probability in DNA cases is based on the reliability of the statistical database, though an element of judgment is required.

¹³¹ Jackson *et al*, *op. cit.* in 2001 had rejected the suggestion that hard data were needed to evaluate a likelihood ratio. “Certainly the more data that is available the more informed would be the scientist’s probabilities. But ultimately, all the probabilities are subjective and based on

Therefore, the Court of Appeal proceeded to examine the reliability of the data in relation to footwear.

The court came to the conclusion that there was not a sufficiently reliable basis. There was no precision in the way that the expert identified the figures to be used in the formula for pattern and size.¹³² Also, the FSS database could not have produced reliable figures as it had only 8,122 shoes whereas the expert himself testified that around 42 million shoes were sold every year.¹³³ The Court of Appeal stated:

“An attempt to assess the degrees of probability where footwear could have made a mark based on figures relating to distribution is inherently unreliable and gives rise to a verisimilitude of mathematical probability based on data where it is not possible to build that data in a way which enables this to be done; none in truth exists for the reasons we have explained.¹³⁴

The Court of Appeal regretted that there was, at present, insufficient data for a more certain and objective basis for expert opinion on footwear marks. However, it did indicate that this was an issue which could be explored for the future.¹³⁵ The Court of Appeal’s conclusion that there was no reliable basis rendered it unnecessary to decide how likelihood ratios should be used in expert footwear mark evidence and how the use of likelihood ratios should be explained to a jury. However, the judgment did refer to the issues briefly. It did say that it is:

a combination of personal experience and the available data. The likelihood ratio accommodates the uncertainty.” See *R v T* [2011] 1 Cr App R 9 at [79].

¹³² [2011] 1 Cr App R 9 at [81]. The figure for pattern could never be accurately known e.g. there were only distribution figures for the UK of shoes distributed by Nike, which didn’t take into account Footlocker shoes and counterfeits. Also, the expert himself accepted that there is no certainty as to the data for pattern and size.

¹³³ *ibid.*, at [83]. The court also took issue with the fact that the data is the property of the FSS and was not routinely available to all examiners.

¹³⁴ *ibid.*, at [86].

¹³⁵ *ibid.*, at [82].

“... quite clear therefore that outside the field of DNA (and possibly other areas where there is a firm statistical base), this court has made it clear that Bayes theorem and likelihood ratios should not be used.”¹³⁶

The court later went so far as to say that:

“the practice of using a Bayesian approach and likelihood ratios to formulate opinions placed before a jury without that process being disclosed and debated in court is contrary to the principles of open justice.”¹³⁷

However, the court held that the fact that there was no reliable statistical basis does not mean that a court cannot admit an evaluative opinion. This has been defined as:

“An opinion of evidential weight (evaluation of a likelihood ratio) based on case specific propositions and clear conditioning information (framework of circumstances) that is provided for use as evidence in court. An evaluative opinion is an opinion based on the estimation of a likelihood ratio.”¹³⁸

Therefore, an evaluative opinion is subjective and is based on experience. A court can admit an evaluative opinion where there is some other sufficiently reliable basis for its admission. The court noted that the principles

¹³⁶ *ibid.*, at [90]. The Court of Appeal did refer to *R v George* [2007] EWCA Crim 2722 where it seemed that the expert there had used a likelihood ratio approach. Lord Phillips CJ did not consider the merits of the approach in the judgment or how it was consistent with earlier cases. The Court of Appeal in *R v T* [2011] 1 Cr App R 9 said at [90] said that “it appears simply to have formed part of the background to the court’s consideration of the overall evidence in the case.”

¹³⁷ [2011] 1 Cr App R 9 at [108].

¹³⁸ Association of Forensic Science Providers, “Standards for the formulation of evaluative forensic science opinion” (2009) 49 Science and Justice 161, at 161. This was also adopted by the Court of Appeal in *R v T* [2011] 1 Cr App R 9 at [53].

for the admissibility of expert evidence had been summarised in the previous case of *R v Reed and Reed; R v Garmson*.¹³⁹

“In our judgment, an expert footwear mark examiner can therefore in appropriate cases use his experience to express a more definite evaluative opinion where the conclusion is that the mark “could have been made” by the footwear. However, no likelihood ratios or other mathematical formula should be used in reaching that judgment for the reasons we have given.”¹⁴⁰

The court even claimed that the use of the term “could have made” is a more precise statement of the evidence and that it enabled the jury to better understand the true nature of the evidence than the more opaque “moderate scientific support.”¹⁴¹ The court also disavowed the use of the term “scientific” when presenting an evaluative opinion, as it was likely to give an impression of a degree of precision and objectivity that was not present given the state of footwear mark expertise at the time.¹⁴²

(iv) Analysis

R v T appeared to halt the Bayesian turn in forensic science. However, the decision has been widely criticised, referred to as an “inept judicial opinion”¹⁴³ and a “judicial blunder.”¹⁴⁴ Numerous defects and fallacies have been identified in the decision. Robertson, Vignaux and Berger state that the decision, if allowed value as a precedent, has the potential to halt progress in forensic science and to reduce forensic scientific evidence to “unanalysable

¹³⁹ *R v Reed and Reed; R v Garmson* [2010] 1 Cr App R 23 310.

¹⁴⁰ [2011] 1 Cr App R 9 at [95]. *C.f.* Nordgaard & Rasmusson, “The likelihood ratio as value of evidence—more than a question of numbers” (2012) 11(4) *Law Probability & Risk* 303.

¹⁴¹ [2011] 1 Cr App R 9 at [73].

¹⁴² *ibid.* at [96].

¹⁴³ Thompson, “Discussion paper: Hard cases make bad law—reactions to *R v T*” (2012) 11(4) *Law Probability & Risk* 347 at 347.

¹⁴⁴ *ibid.*

impressionistic conclusory statements by experts.”¹⁴⁵ Commentators have been keen to confine the ratio of the ruling to expert evidence of footwear marks,¹⁴⁶ as the Court of Appeal did remark that they were “solely concerned” with the use of likelihood ratios in relation to footwear mark evidence.¹⁴⁷ Berger, Buckleton, Champod, Evett and Jackson say that the ratio is thus:

- (i) evidence can be given evaluating the significance of footwear mark evidence, but
- (ii) “mathematical formulae” are not to be used in reasoning to an evaluation of that significance, they must be based only on “judgment” and “experience”

However, arguably a more expansive reading of the ratio would preclude the use of likelihood ratios in fields where there is no statistical base. In addition, the first limb to the ratio put forward by Berger *et al* appears to be too general.

Despite the Court of Appeal remarking that the ENFSI had been reluctant to adopt Bayes Theorem, the Board of the ENFSI covering 33 countries, signed the “Position Statement” in the aftermath of *R v T*.¹⁴⁸ In this statement, the writers insist that probability theory provides the only coherent logical foundation for the interpretation of scientific evidence. They claim that

¹⁴⁵ Robertson, Vignaux & Berger “Extending the confusion about Bayes” [2011] 74(3) MLR 444 at 455.

¹⁴⁶ Redmayne, Roberts, Aiken & Jackson “Forensic Science Evidence in Question” (2011) Crim LR 347

¹⁴⁷ [2011] 1 Cr App R 9 at [32].

¹⁴⁸ Aitken, Berger, Buckleton, Champod, Curran, Dawid, Evett, Gill, Gonzalez-Rodriguez, Jackson, Kloosterman, Lovelock, Lucy, Margot, McKenna, Meuwly, Neumann, Daeid, Nordgaard, Puch-Solis, Rasmusson, Redmayne, Roberts, Robertson, Roux, Sjerps, Taroni, Tjin-A-Tsoi, Vignaux, Willis & Zadora, “Expressing evaluative opinions: a position statement” (2011) 51 Science and Justice 1. This sparked a lively debate in subsequent issues of Science and Justice: Facey & Davis, “Re: expressing evaluative opinions: A position statement” (2011) 51 Science and Justice 212 Faigman, Jamieson, Noziglia, Roberston, & Wheate, “Response to Aitken et al on R v T (2011) Science and Justice 213; Berger, Buckleton, Champd, Evett & Jacson, Response to Faigman et al (2011) 51 Science and Justice 215; Jamieson. “More on the Bayesian approach and the LR” (2012) 52 Science and Justice 202; Berger, Buckleton, Champod, Evett, & Jackson, “Response to Jamieson regarding ‘More on the Bayesian Approach and the LR’” (2012) 52 Science and Justice 203.

the Court of Appeal in *R v T* confused the Bayesian approach with Bayes' Theorem, and that the Bayesian approach does not necessarily involve the use of Bayes' Theorem. When employing Bayes' Theorem, it is necessary to assign prior probabilities and manipulate them, via the likelihood ratio, to arrive at posterior possibilities. A Bayesian approach has derived from the subjective view of probability.

It is quite clear that the Court of Appeal was unnerved by two factors: the unreliability of the underlying data and the way the evidence was presented by the expert, *i.e.* the calculations which he had used were not put before the jury. Regarding the unreliability of the data, the court regretted that there was, at that time, insufficient data for a more certain and objective basis for expert opinion on footwear marks. However, they did indicate that it was an issue which could be explored for the future.¹⁴⁹ The Position Statement acknowledged that probabilities should be informed by data, along with knowledge and experience. In addition, it also makes the point that all data collections are imperfect and incomplete and it necessarily follows that different experts might legitimately assign different probabilities to the same set of observations.¹⁵⁰

It has been pointed out since *R v T* that whenever one is making an inference from a sample the data are always an incomplete representation of the full picture; furthermore, their relevance is a matter of judgment and the uncertainty that concerned the court is an unavoidable feature of such inference. Berger *et al*¹⁵¹ stated:

“The court does not explain why the logical structure of an argument should differ according to how quantifiable the evidence is and there is no reason why it should. The Court also assumes that there is a clear distinction between cases where a “firm statistical base” is available and where it is not. All probability assessments involve uncertain and incomplete data; conversely there are several areas, such as glass and

¹⁴⁹ Aitken *et al op. cit.*, at [82].

¹⁵⁰ Aitken *et al*, “Expressing evaluative opinions: a position statement”(2011) 51 Science and Justice 1

¹⁵¹ Berger, Buckleton, Champod, Evett & Jackson, “Evidence evaluation: A response to the court of appeal judgement in *R v T*” (2011) 51 Science and Justice 43

fibres, where the statistical data available is better than for footwear marks but not so complete as for DNA.”¹⁵²

Therefore, it is not logical to suggest the Bayesian approach or likelihood ratios could be used in some areas and not in others. Redmayne *et al* remark that it is a question of fitness for purpose and not fitness at large, so the right question to ask is: were the data utilised by the expert in *R v T* good enough to justify his – quite restrained – conclusion of moderate support?¹⁵³ Another question one could ask is: which database is likely to provide the best comparators, relative to the task in hand?

“It would be foolish to maintain that memory and experience are never superior to quantified probabilities in criminal litigation, as it would be to insist that memory and experience are always preferable to and should invariably displace empirical data and quantified probabilities in the courtroom.”¹⁵⁴

It is Berger *et al*’s position that the concept of the likelihood ratio should be central to every logical evaluation, irrespective of the extent to which the expert’s judgement has been informed by data.¹⁵⁵

Regarding the issues of disclosure, the expert’s explanation for this was that it was not standard practice for the detail relating to statistics and likelihood ratios to be included in a report. He made it clear that the data were not available to an exact and precise level and it was only used to confirm an opinion substantially based on his experience and so that it could be expressed in a standardised form.¹⁵⁶ While there was no personal criticism of the expert (as he was just following FSS practice), the Court of Appeal held that it was simply “wrong in principle” for an expert not to set out the way in which he

¹⁵² *ibid.* at 45.

¹⁵³ Redmayne *et al*, *op. cit.* at 354.

¹⁵⁴ Redmayne *et al*, *op. cit.* at 355.

¹⁵⁵ Berger *et al*, *op. cit.*, at 47.

¹⁵⁶ [2011] 1 Cr App R 9 at [38].

has reached his conclusion in his report.¹⁵⁷ It has been commented that the methodology employed by the expert in *R v T* conforms well with the general principles of logical reasoning. Whether the process was transparent or not, it is argued that this should not invalidate the process as such.¹⁵⁸ In contrast to the Court of Appeal's demands for disclosure, the Position Statement warns that candour and full disclosure in court can undermine comprehensibility when scientific evidence involves technicalities. It advocates pre-trial hearings in order to resolve any differences between experts.¹⁵⁹

At the heart of the court's decision is a desire for transparency, and this aspect of the decision is one that not even its detractors can bring themselves to disagree with. However, it has been acknowledged that there is a difference between transparency and clarity.¹⁶⁰ Discussing a scientific analysis in full technical detail in a report or in court conflicts with clarity and experts may be judged to be incomprehensible.

In addition, much of the criticism directed at the Court of Appeal's decision in *R v T* is centred on the accusation that the court itself has committed the "prosecutor's fallacy". The Court of Appeal described a likelihood ratio as follows:

"(i) The ratio of two probabilities – the probability of the evidence given that a proposition is true divided by the probability of the evidence given that the alternative proposition is true ... In the present case it was expressed as the probability that the Nike trainers owned by the appellant had made the marks discovered at the scene divided by the probability that the Nike trainers had not made the marks."¹⁶¹

¹⁵⁷ [2011] 1 Cr App R 9 at [108]. The court referred at [97] to the experts duties under Part 33 of the Criminal Procedure Rules.

¹⁵⁸ Biedermann, Taroni & Champod "How to assign a likelihood ratio in a footwear mark case: an analysis and discussion in the light of *R v T*" (2012) 11(4) Law Probability & Risk 259, at 274.

¹⁵⁹ Aitken *et al*, *op. cit.*

¹⁶⁰ See Sjerps & Berger "How clear is transparent? Reporting expert reasoning in legal cases" (2012) 11(4) Law Probability & Risk 317.

¹⁶¹ [2011] 1 Cr App R 9 at [33].

The last sentence does not follow from the first. It is clear that the court has committed the error of transposing the conditional.¹⁶² The likelihood ratio in this context is the probability of the observations *given that* the Nike trainers owned by the appellant had made the marks; divided by the probability of the observations *given that* the Nike trainers had not made the mark.¹⁶³ However, this alleged fallacy has been dismissed as an easy and relatively harmless slip and explained away on the basis that natural language lacks the precision of mathematical notation.¹⁶⁴

It must be recalled also that the Court of Appeal claimed that the use of the term “could have made” is a more precise statement of the evidence and that it enabled the jury to better understand the true nature of the evidence than the more “opaque” “moderate scientific support.”¹⁶⁵ The court was also strongly critical of the expert’s use of the phrase “scientific support” which suggested that his opinion was based upon a more precise empirical basis than the speculative statistics used and arguably led the court to go out of its way to criticise likelihood ratios.¹⁶⁶

According to Redmayne *et al*, the real objectionable feature of this “could have” testimony is that it creates a real risk that the jury will overestimate its probative value. The jury might easily infer that the statement

¹⁶² Robertson *et al*, *op. cit.* at 450 claim that the sentence should have read: “In the present case, it was expressed as the probability that the marks discovered at the scene would have been observed if the Nike trainers owned by the appellant had made the marks divided by the probability that the marks would have been observed if those Nike trainers had not made the marks.” See also Thompson, “Discussion paper: Hard cases make bad law—reactions to *R v T*” (2012) 11(4) Law Probability & Risk 347 at 347.

¹⁶³ Berger *et al op. cit.* at 48 (Emphasis in original.) The Court of Appeal again appears to commit the prosecutor’s fallacy in the following paragraph at [91]: “If there was a sufficient database in footwear cases an expert might be able to express a view reached through a statistical calculation of the probability of the mark being made by the footwear, very much in the same way as in the DNA cases ...” Berger *et al op. cit.* state at 48 that “[t]he scientist should not address the “probability of the mark being made by the footwear” rather, the probability of the observations given that the mark was made by the footwear.”

¹⁶⁴ Hamer, “Discussion paper: The *R v T* controversy: forensic evidence, law and logic” (2012) 11(4) Law Probability & Risk 331, at 342.

¹⁶⁵ [2011] 1 Cr App R 9 at [73].

¹⁶⁶ Ligertwood & Edmond, “Discussion paper: A just measure of probability” (2012) 11(4) Law Probability & Risk 363

“the shoe could have made the mark” effectively means that “the accused’s shoe probably made the mark” or “almost certainly made the mark.”¹⁶⁷ “Moderate support,” they argue, is an attempt, however imperfect, to convey some impression of the weight of the evidence.¹⁶⁸ Redmayne *et al* argue that there has to be some attempt at quantification if experts are going to continue to give evaluative opinions, in order to promote juror comprehension.¹⁶⁹ Also, quantification promotes transparency. The likelihood ratio allows expert evidence to be broken down into separate elements and facilitates scrutiny by other experts.¹⁷⁰

As against this, Bodziak has noted that there does not appear to be consensus among Bayesians on the values used for the verbal equivalent wording.¹⁷¹ He argues that, by requiring the expert to express their opinion in everyday language instead of a level of support that is based on notional or inexact numerical data, this makes it easier for the jury to understand and weigh the evidence.¹⁷² Berger *et al* stated that probabilities can legitimately be informed by experience, and even that different experts can “legitimately assign different probabilities to the same set of observations.” Other commentators suggest that if a scale is to be used, then it will be necessary for the practitioner to be able to demonstrate which experiences provide the basis for those probabilities, as a scale may conceal the subjective nature of an opinion.¹⁷³

¹⁶⁷ Redmayne *et al*, *op. cit.* at 353. The authors note that one possible interpretation of the court’s remarks is that, absent better data or unusual features, a expert should not go beyond saying that a shoe “could have made” a particular mark. They quickly dismiss this phrase as not standing up to logical or empirical scrutiny. The phrase is logically consistent with any other shoe in the world having made the mark. Robertson *et al*, *op. cit.* make the point (at 448) that the statement “could have”, which was advocated by the court, has no evidential value. It is just another way of stating that it cannot be excluded.

¹⁶⁸ Berger *et al*, *op. cit.*, at 47.

¹⁶⁹ Redmayne *et al*, *op. cit.*, at 352.

¹⁷⁰ Redmayne *et al*, *op. cit.*, at 352-353.

¹⁷¹ Bodziak, Traditional conclusions in footwear examinations versus the use of the Bayesian approach and likelihood ratio: a review of a recent UK appellate court decision (2012) 11(4) Law Probability & Risk 279, at 286.

¹⁷² *ibid.*

¹⁷³ Faigman, Jamieson, Noziglia, Roberston, & Wheate, “Response to Aitken *et al* on R v T (2011) Science and Justice 213. The authors state that the practitioner may have a degree of

Other commentators, while not taking issue with a Bayesian approach to scientific evidence itself, understand the outcome in *R v T* by considering the limitations of the common law adversarial trial process.¹⁷⁴ A Bayesian approach raises compliance issues with many of the traditional rules of evidence relating to experts outlined in Chapter 2. Expert evidence should be confined to the area of the witness's expertise. As the court put it in *R v T*, the expert should only express "opinion on the matters within his expertise ...[I]t is not his function to evaluate the other evidence in the case." However, the requirement that the expert be provided with the specific details of the competing cases, to come up with the prosecution and defence hypotheses presents difficulties in that this is not consistent with burden of proof¹⁷⁵ and, also, may be a danger of confirmation bias. Second, the expert should explain fully to the jury the reasoning by which he or she reached his conclusion. As outlined above, there was a clear lack of transparency in *R v T*, and the court's decision is justifiable on that basis.¹⁷⁶

The outcome in *R v T* may also be understood by reference to the differing approaches to legal and scientific proof. Ligertwood and Edmond offer two arguments against presenting forensic science conclusions in court in the form of likelihood ratios. Their first claim is that likelihood ratios are fundamentally incompatible with our system of legal proof. This is because juries are "not directed to find a criminal matter proved when it acquires a certain degree of mathematical probability" but rather to find guilt only if there is no reasonable explanation for the evidence consistent with innocence. In other words, they claim that jurors are unable to evaluate a case properly under a reasonable doubt standard when expert witnesses frame their conclusions in

belief in their opinion, but that does not properly represent the significance of the findings as a point on a scale, as a different observer may conclude a different point on the scale. The likelihood ratio takes no account of any difference in the confidence to be attached to the numerator and the denominator.

¹⁷⁴ See Ligertwood & Edmond, *op. cit.* and Hamer "Discussion paper: The *R v T* controversy: forensic evidence, law and logic" (2012) 11(4) *Law Probability & Risk* 331

¹⁷⁵ See Faigman, Jamieson, Noziglia, Roberston, & Wheate, "Response to Aitken et al on *R v T* (2011) *Science and Justice* 213. See the reply by Berger, Buckleton, Champod, Evett & Jackson, Response to Faigman et al (2011) 51 *Science and Justice* 215

¹⁷⁶ Hamer, *op. cit.*, at 333.

terms of likelihood ratios.¹⁷⁷ Their second claim is that jurors are likely to misunderstand likelihood ratios, which has been conceded.¹⁷⁸

Ligertwood and Edmond also propose that experts use frequencies rather than likelihood ratios to characterise the strength of forensic evidence. Using DNA evidence as an example, they suggest that it is better to tell juries that the expected frequency of the matching DNA profile in some reference population is one in a million (a random match probability) than to tell the jury that the observed profile is a million times more likely if it came from the accused than from a randomly selected suspect (a likelihood ratio). They argue that the random match probability is easier for jurors to understand and easier for them to integrate with other evidence when judging whether the traditional standard of proof has been met. However, not all forensic evidence can be characterised correctly using random match probabilities.¹⁷⁹ It is only appropriate in pure DNA cases, and not where there is mixed DNA.¹⁸⁰ As technology advances, there is more likely to be an increase in mixed DNA.¹⁸¹

(v) Bayes' for Ireland?

An advantage of a probabilistic approach is that encourages logical thinking. It requires the expert to think in terms of competing defence and prosecution explanations and to take account of all aspects of the evidence relevant to forming a scientific opinion.¹⁸² Research has shown that jurors actually undervalue statistical evidence when it is presented in the context of other

¹⁷⁷ Cf. Thompson, "Discussion paper: Hard cases make bad law—reactions to *R v T*" (2012) 11(4) Law Probability & Risk 347 at 354.

¹⁷⁸ *ibid.* See also Bodziak, Traditional conclusions in footwear examinations versus the use of the Bayesian approach and likelihood ratio: a review of a recent UK appellate court decision (2012) 11(4) Law Probability & Risk 279, at 287.

¹⁷⁹ See also Thompson, *op. cit.*, at 355.

¹⁸⁰ Mixed DNA contains DNA from two or more contributors, and compounds DNA analysis by combining DNA from one or more major contributors with small amounts of DNA from potentially numerous minor contributors.

¹⁸¹ I am grateful to Dr Sheila Willis, Director General of Eolaíocht Fhóiréinseach Éireann, for this clarification.

¹⁸² Redmayne *et al*, *op. cit.*, at 353.

evidence.¹⁸³ Other research suggests that while jurors are susceptible to the same fallacies when reasoning about probabilities, these tend to favour the defence, and not the prosecution.¹⁸⁴

The Irish courts are not opposed to probability theory in general as a method of presenting expert scientific evidence.¹⁸⁵ To date, there has been no discussion of the appropriateness of experts presenting their scientific evidence in terms of Bayes' Theorem or through the employment of the likelihood ratio. The Director of the Forensic Science Laboratory in Ireland has stated that the use of Bayes' Theorem should improve the transparency of expert reports and promote the use of balanced and logical frameworks to identify potential and limitations.¹⁸⁶ It recognises the limitations of scientific evidence, in that, however robust, it cannot be used to produce certainty. The application of science in the trial process must acknowledge uncertainty and allow the jury to incorporate this into the totality of the information available to it. She acknowledges that Bayes' will not be appropriate in all cases. Frequently there is insufficient information available at the time of initial examinations to allow the scientist to use this method. Nevertheless, if an evaluative opinion is needed at trial, this is undoubtedly a better method of militating against the risks associated with the over (or under) interpretation of forensic findings.

The decision in *R v T* has been controversial among the forensic science community as it has effectively discouraged expert witnesses from testifying in court using probabilistic reasoning, and might be perceived as a return to more subjective expertise.¹⁸⁷ However, while the decision may have impacted upon how experts present their evidence in court, it has not affected the desire on the part of some scientists to use it in their investigations. In the most recent ENFSI

¹⁸³ Freckelton *et al*, *op. cit.*, at [5.18] citing Koehler, "When Are People Persuaded by DNA Match Statistics? (2001) 25(5) *Journal of Law and Human Behaviour* 493.

¹⁸⁴ Freckelton *et al*, *op. cit.*, at [5.18] citing Kaye *et al* "Statistics in the Jury Box: How Jurors Respond to Mitochondrial DNA Match Probabilities" (2007) 4(4) *Journal of Empirical Legal Studies* 797.

¹⁸⁵ *DPP v Finnamore* [2009] 1 IR 153; *DPP v Connolly* [2011] IESC 6

¹⁸⁶ Willis, "Forensic Science: Associated Risks" (2011) *Criminal Law and Procedure Review* 60 at 67 – 68.

¹⁸⁷ Lawless, *Forensic Science: A Sociological Introduction*, (Routledge, 2016) at 2 – 4.

guidelines,¹⁸⁸ a likelihood ratio is recommended as a framework for formulating evaluative reports. It is noteworthy that this is suggested for a number of different types of evidence, including footwear mark evidence and facial mapping.¹⁸⁹

One worrying point is that the decisions of the English Court of Appeal relating to scientific evidence are wholly inconsistent. *R v T* appeared to demand a reliable statistical base for the admission of expert scientific evidence. However, it was observed in the previous chapter that this requirement was jettisoned in *R v Atkins* where the expert was permitted to express their conclusions by reference to a verbal scale. This goes further than “could have” testimony, despite the absence of any clear empirical foundation. However, the decision in *R v T* is understandable¹⁹⁰ in that the methodology behind the expert’s opinion was not disclosed to the court.

As to whether Bayes’ should be approved by the Irish courts, this remains to be seen. One very interesting aspect of the above discussion is that forensic science commentators actually disagree amongst themselves as to whether Bayes’ Theorem and the likelihood ratio is the logical method of forensic science interpretation.¹⁹¹ In order for the courts to accept Bayes’

¹⁸⁸ European Network of Forensic Science Institutes, *ENFSI Guideline for Evaluative Reporting in Forensic Science: Strengthening the Evaluation of Forensic Results across Europe*, Approved version 3.0, March 2015.

¹⁸⁹ See also Moggadham, Jebbera & Pentland “Bayesian Model of Facial Similarity” (2000) 33(11) *Pattern Recognition* 1771 propose a new technique for direct visual matching of images for the purposes of face recognition and image retrieval, using a probabilistic measure of similarity, based primarily on a Bayesian (MAP) analysis of image differences.

¹⁹⁰ Fenton & Neil, “On limiting the use of Bayes in presenting forensic evidence” Draft Paper, January 2012 (Available at: https://www.eecs.qmul.ac.uk/~norman/papers/likelihood_ratio.pdf). Much of the work in this unpublished draft paper has subsequently been published in the following Fenton, Berger, Lagnado, Neil & Hsu, “When ‘neutral’ evidence still has probative value (with implications from the Barry George Case)” *Science and Justice*, (2014) 54, 274 and Fenton, Neil & Hsu, “Calculating and understanding the value of any type of match evidence when there are potential testing errors” (2014) 22 *Artificial Intelligence and Law* 1.

¹⁹¹ See the discussion between Faigman, Jamieson, Noziglia, Roberston, & Wheate, “Response to Aitken et al on *R v T* (2011) *Science and Justice* 213 and Berger, Buckleton, Champd, Evett & Jacson, Response to Faigman et al (2011) 51 *Science and Justice* 215.

Theorem as a valid method of presenting scientific evidence, there needs to be more consensus amongst the forensic science community.

IV. Conclusion

This chapter firstly considered how juries assessed complex evidence and came to the conclusion that, despite the limited empirical evidence available, when evidence is of a complex nature, they might be susceptible to relying on peripheral cues. This may distort the value of the expert scientific evidence. Second, a mathematical model of presentation for scientific evidence was considered, whose proponents would argue makes the jury's task of evaluating complex evidence much simpler. This has not been judicially well received in England and Wales. There, the expert is confined to utilising the likelihood ratio to come to their conclusion, as long as they confine their expression in terms of an evaluative opinion. It seems strange that the jury should be allowed to hear the expert's opinion but not the methodology behind it. This seems to go directly against what was discussed in Chapter 2. The exact *ratio* of *R v T* is unclear and it is at odds with the general relaxed attitude of the English courts to admissibility generally. One would hope that this might be resolved into the future when English judges start considering the recent practice direction mentioned in the last chapter.

One could easily describe the debate regarding Bayes' Theorem addressed in this chapter as one that reflects a conflict between law and science. However, this would be too narrow. The debate also reflects conflicts within science itself. Unless and until there is a comprehensive empirical study carried out which specifically addresses Bayes' and the jury, then the debate as to whether it is an appropriate method of presentation in court may quietly continue. It is not the law's task to intervene to decide which view should prevail. The law is confined to the traditional rules of evidence. Williams remarked to the effect that it would be a fallacy to suppose that by abandoning the notion of numerical probability for legal proof we escape having to consider whether there has been a miscarriage of justice, that problem will always be with us.¹⁹² The jury *may* assess a piece of scientific evidence in terms of probabilities, it is simply not known unless directed empirical studies

¹⁹² Williams, "The Mathematics of Proof - I" (1979) Crim L R 297 at 304.

are carried out. One thing is certain and that is that this discussion reinforces the need for scientific training for judges advocated for in the previous chapter. It is obvious that an Irish judge cannot decide whether or a particular scientific method of presentation is acceptable within the context of the legal burden and standard of proof unless he or she is firstly educated on the various approaches to scientific proof.

CHAPTER 6: THE EXPERT IN CIVIL PROCEEDINGS

“Long cases produce evils...”¹

I. Introduction

This chapter considers the concerns surrounding the incorporation of expert evidence in civil proceedings. There will be a focus on civil proceedings as a whole in this chapter, which includes both the pre-trial and trial phases. In reality, there are fewer civil trials, compared to the number of cases which are instituted each year. Civil cases tend to settle. For example, during the calendar year 2015, some 3,803 of the 10,091 personal injuries cases resolved in the Republic of Ireland were resolved by means of an out of court compromise.² This equates to approximately 38% of such cases.

As will be seen below, experts are involved at an early stage in civil proceedings. As briefly alluded to in Chapter 2, the proliferation of experts renders civil proceedings immensely expensive and protracts the court time required for even simple cases.³ It is therefore not surprising that the Irish courts have, in recent times, been highly critical of the approach taken to expert evidence in civil proceedings.

Civil procedure in Ireland is governed by the Rules of the Superior Courts 1986 (the “RSC”), and by some statutes.⁴ A previous draft of this chapter had criticised Irish law for having no formal measures in place governing the communication between experts prior to and during the trial process, as well as a lack of provision governing the ability of the expert to communicate with the court. However, the area has been subjected to very recent procedural reform⁵ and these reforms will be examined against the backdrop of similar procedural reforms in England and Wales.

¹ *Graigola Merthyr Co. Limited v Swansea Corporation* [1928] 1 Ch 31 at 38 *per* Tomlin J.

² See *Courts Service Annual Report 2015*, published on 12 July 2016.

³ See *Flynn v Bus Atha Cliath* [2012] IEHC 398 at [9] where Charleton J expressed his disapproval that five medical experts had been called regarding the plaintiff’s bruising to his leg and his sore back.

⁴ For example, the Civil Liability and Courts Act 2004 considered below.

⁵ Rules of the Superior Courts (Conduct of Trials) 2016 (S.I. No 254 of 2016)

Civil expert evidence must be viewed in both the context of civil litigation as a whole and in the Irish constitutional context. This chapter discusses the main concerns surrounding expert evidence in civil trials, which relate mainly to cost and delay. The pre-trial involvement of the expert in civil proceedings will be discussed given that it cannot be divorced from the actual trial itself. The court's power to restrict the incorporation of expert evidence, whether inherent or pursuant to procedural rules, is then examined.

From the outset, it must be remembered that the test for the admissibility of expert evidence in civil cases is the same as in criminal cases, as set out in Chapter 2 and elaborated upon in Chapter 4 in the context of the discussion on scientific evidence. Thus, the expert evidence in a civil case must be relevant and the expert must be sufficiently qualified in their field.⁶ There is no threshold of reliability which expert evidence has to meet in a civil case. In Chapter 4, it was recognised that judges may not be equipped to make an assessment of reliability. This strengthens the argument for more effective judicial control of expert evidence in civil cases. However, like criminal cases, it may be more than a question of reliability. The test for admissibility is just one aspect of judicial control over experts. Wilson describes twin challenges for judges, over and above the question of admissibility, namely the effective comprehension of complex expert evidence and its synthesis into the judicial determination.⁷ This all relates back to the manner in which expert evidence is incorporated into civil proceedings.

In civil proceedings, expert evidence is one of the first things to be considered by legal representatives. Indeed, this chapter later discusses particular types of cases where expert evidence must be obtained prior to instituting proceedings. It is necessary to distinguish and separate the roles of the expert as "adviser" to a party's litigation team, and the expert as a witness.⁸

⁶ The Supreme Court did not think it necessary to pronounce on the test for admissibility when it was argued before it in *Wright v AIB Finance & Leasing* [2013] IESC 55.

⁷ Wilson, "Concurrent and court-appointed experts? From Wigmore's "Golgotha" to Woolf's "proportionate consensus" (2013) 32(4) CJK 493

⁸ For an insightful practical perspective see Fitzgerald, "The Practicalities of the Presentation and Challenge of Expert Evidence" Paper presented to the Construction Bar Association of Ireland, 23 November 2015.

Available at <http://www.cba-ireland.com/wp-content/uploads/2016/02/FitzGerald1.pdf> (Accessed on 29 September 2016).

The expert adviser is part of the litigation team and can advise on matters of strategy. They will be most useful in identifying where expert evidence may be needed to support claims or defence, and can advise on the choice of expert.⁹ To preserve the expert's duty of independence and to counter any danger of bias and partisanship, it is always advisable the expert witness who will be giving evidence at trial should be kept at a distance from the litigation team.

As outlined in Chapter 2, the adversarial system is party led. Ordinarily, the plaintiff calls their evidence of fact, followed by their experts, who are all subject to cross-examination by the defendant. The defendant then calls their evidence of fact, and followed by their experts, who all subject to cross-examination by the plaintiff.¹⁰ The effect of this is that, in complex cases, there may be days or even weeks between the hearing of each party's expert evidence. Of course, the parties retain a discretion, as in the case of any witness, as to whether they will call the expert to give evidence at all. Traditionally, the judge in a civil trial sat and heard the case as it was presented to him by the parties, with very limited active participation, and gave his or her decision based on the facts and law. The old common law concept of *laissez faire* continued into the latter part of the 20th century.

A word must also be said about the civil burden and standard of proof before delving into a discussion of the incorporation of expert evidence in civil proceedings.¹¹ Under the traditional adversarial model discussed in Chapter 2, he who asserts must prove. The burden of proof in a civil case rests on the plaintiff. McGrath points out that this means that the proof of the facts necessary to establish a cause of action will rest on the plaintiff.¹² Take a negligence action for example. The plaintiff will have to prove the existence of a duty of care, a breach of that duty and that damage was suffered by him or her as a result thereof. However, it would be misleading to suggest that the defendant has to prove nothing. If the defendant wishes to raise a defence, such as a defence of contributory negligence in a negligence claim, then he or she bears the burden of proving the elements of the defence. In addition, the burden

⁹ *ibid.* at 8.

¹⁰ Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* (3rd ed., Sweet & Maxwell, 2013) at [22.34] – [22.37].

¹¹ See generally McGrath, *Evidence* (2nd ed., Round Hall, 2014) at Chapter 1C.

¹² *ibid.* at 64.

of proof may be placed on the defendant in limited circumstances by statute,¹³ agreement, or through the operation of the peculiar knowledge principle, *i.e.* where the knowledge is uniquely within the knowledge of the defendant.¹⁴ Presumptions also play a role in civil proceedings.¹⁵ In certain circumstances, the law will presume the existence of another fact upon proof of another fact. For example, there is a presumption of death where a person has been missing for seven years.¹⁶

The party bearing the burden of proof in a civil case bears the burden of establishing all necessary elements of their claim, or defence where appropriate, on the balance of probabilities. The general rule in civil cases is that the party bearing the legal burden also bears the evidential burden. A party will have discharged the evidential burden when they have made out a *prima facie* case, *i.e.* when the tribunal of fact would be entitled to enter a verdict for that party if no other evidence was given.¹⁷ Similar to the application for no case to answer in a criminal trial, the defendant in a civil trial can make an application that the plaintiff has failed to make out a *prima facie* case and has thus not discharged the burden of proof.¹⁸ The Irish courts have reiterated this on numerous occasions in civil cases. Clarke J held in *Moorview Developments Ltd v First Active plc*:¹⁹

“The law is that a Plaintiff is required to establish a *prima facie* case in respect of any issues arising on the pleadings on the basis of admissible evidence tendered on behalf of the Plaintiff. Furthermore, if the Plaintiff fails to establish a *prima facie* case on such evidence, then a Defendant is entitled to a non-suit and is not required itself to go into evidence.”²⁰

¹³ For example, section 3 of the Proceeds of Crime Act 1996.

¹⁴ *Hanrahan v Merck Sharpe and Dohme* [1988] ILRM 629. The operation of the principle is uncertain; see McGrath, *op. cit.* at [2-214]–[2-130].

¹⁵ *Sweeney v Fahy* [2014] IESC 50 provides a useful recent exposition of the law relating to presumptions. See also McGrath, *op. cit.* at Chapter 1D.

¹⁶ McGrath, *op. cit.*, at 81.

¹⁷ *O’Toole v Heavey* [1993] ILRM 343

¹⁸ For the standards to be applied in such applications, see *Hetherington v Ultra Tyre Services Limited* [1993] 2 IR 535; *O’Toole v Heavey* [1993] 2 IR 544; and, more recently *Moorview v First Active* [2010] IEHC 349 and *Murphy v Callanan* [2013] IESC 30.

¹⁹ *Moorview Developments Ltd v First Active plc* [2009] IEHC 214

²⁰ *ibid.* at [3.18].

If this does not happen, or if such an application is unsuccessful, then the defendant will present his or her evidence.

As mentioned above, both sides are in control of their evidence and retain discretion as to whether they are going to call their experts to give evidence, and whether they wish to cross-examine the opposing experts. The Irish courts on a number of occasions have reiterated that no adverse inference can be drawn from the failure to call a witness in a civil trial.²¹ It has been held recently by Ryan P in the Court of Appeal in *O'Leary (A minor) v HSE & Ors*²² that the defendant putting expert statements or reports to the plaintiff's experts, to attempt to contradict them, did not constitute the defendant's experts going into evidence. Ryan P stated:

“[T]he nature of litigation is that one party presents and the other party defends, and if the Claimant does not succeed in asking out a *prima facie* case, then the other parties entitled, as of right, to have the action dismissed. To do otherwise is to impose on a Defendant an obligation to prove a negative, that the Defendant is obliged, in the case of a claim made against him or her, to positively demonstrate by evidence that he or she was not to blame in the circumstances. There is no such obligation.”²³

The effect of this is that the defendant is still permitted to make an application to dismiss at the end of the of the plaintiff's evidence.²⁴ Therefore, it is clear that the rights of a defendant may be affected if expert evidence has the effect of altering the burden and standard of proof in a civil trial.

Finally, it needs to be remembered that the jury has ceased to play a role in civil trials in Ireland. At one time, juries featured in civil personal

²¹ For example, see *Fyffes plc v DCC plc* [2009] 2 IR 417 and *Flynn v NALM* [2014] IEHC 408.

²² [2016] IECA 25. See the earlier decision in *Schuit v Mylotte & ors* [2010] IESC 56.

²³ *ibid.* at [56].

²⁴ For the standards to be applied in such applications, see *Hetherington v Ultra Tyre Services Limited* [1993] 2 IR 535, *O'Toole v Heavey* [1993] 2 IR 544 and more recently in *Moorview v First Active* [2010] IEHC 349 and *Murphy v Callanan* [2013] IESC 30.

injuries cases. However, this has been abolished,²⁵ and they are now retained in very few types of cases.²⁶ In contrast to criminal cases, this means that civil jury practice does not raise any major concerns relating to expert evidence, given the types of cases which still retain experts. However, this should not be interpreted as diluting the need for judges to be educated on basic matters of science, as suggested in Chapter 4 of this thesis.

II. Experts in the Civil Courts

(i) Concerns in Civil Proceedings: Costs and Delay

Expert evidence in civil proceedings must be viewed in the context of civil proceedings generally. Civil proceedings involve disputes between private parties and, as such, it would be easy to suggest that there is no major public interest in the adjudication of private disputes. However, there is a growing awareness in common law jurisdictions of civil justice within a rights framework. The adjudication of civil disputes cannot just be considered as a form of dispute resolution.²⁷ Zuckerman²⁸ views civil adjudication as a law enforcement service, which transcends the interests of the immediate parties.²⁹ The public has an interest in rights being respected and wrongs being remedied. He claims that an adequate law enforcement service is one that determines rights with reasonable accuracy, at proportionate cost, and within a reasonable time. His argument is that, like all other public services it must be

²⁵ The Courts Act 1988 abolished the right to have High Court personal injuries actions decided by a jury.

²⁶ The Defamation Act 2009 retained juries for High Court defamation actions. Other examples include false imprisonment and intentional trespass to the person; see *DF v Garda Commissioner* [2013] IEHC 5.

²⁷ See Jolowicz, "Civil Litigation: What is it for?" in Dwyer, (ed) *The Civil Procedure Rules: Ten Years On* (OUP, 2009) at 51.

²⁸ Zuckerman, "Three-dimensional Imperatives of Law Enforcement" in Dwyer, (ed) *The Civil Procedure Rules: Ten Years On* (OUP, 2009). See also Zuckerman, *The Continuing Management Deficit in the Administration of Justice* (2015) 34(1) CJQ 1.

²⁹ Zuckerman, "Three-dimensional Imperatives of Law Enforcement" in Dwyer, (ed) *The Civil Procedure Rules: Ten Years On*, *op. cit.* at 90 – 91.

adequately managed and adequately resourced to deliver the expected benefits at an appropriate time and at an appropriate cost.

However, it has been acknowledged³⁰ that civil justice has a resource dimension too.³¹ Therefore, a civil litigant is not entitled to the best possible system of civil adjudication regardless of how much it costs. They are entitled to such a system as can reasonably be afforded by taxpayers. In this regard, a balance needs to be struck between the rights of the citizen and the interests of the State. This was recently recognised by the Irish Supreme Court in *Talbot v Hermitage Golf Club*.³²

“The resources of the courts are there for litigants. Those resources are not, however, unlimited. No litigant is entitled to more than what is reasonably and necessarily required for the just disposal of a case within the context of the other demands on court time. Whether it is an unrepresented litigant or not, the resources which the courts decide to assign to a case must depend upon: the importance of the legal issues involved; the gravity of the wrong allegedly suffered by the moving or counterclaiming party; the monetary sum involved; and the public interest in the outcome of the case. Courts are entitled, and indeed are required, to foster their resources. This is both a matter of public and private interest. Court resources used in litigation are funded by public money.”³³

As discussed below, there is an unenumerated right of access to the courts under the Irish Constitution. The courts are bound to uphold that right. Zuckerman³⁴ claims that to regard court adjudication as one of the many forms

³⁰ *ibid.* at 91.

³¹ The Courts Service was established under the Courts Service Act 1998 and is responsible for the administration and management of the courts in Ireland. Its primary functions are to manage the courts, support the judges, provide information on the courts system to the public, and provide court buildings and facilities for court users.

³² [2014] IESC 57

³³ *ibid.*

³⁴ Zuckerman, “Three-dimensional Imperatives of Law Enforcement” in Dwyer, (ed) *The Civil Procedure Rules: Ten Years On*, *op. cit.* at 90 – 91. See also Zuckerman, *The Continuing Management Deficit in the Administration of Justice*, *op. cit.*

of private dispute resolution is to debase its constitutional function in a system governed by the rule of law. In the same way that the criminal trial should not be seen as a dispute resolution service, neither too should the civil trial be so viewed. A former Chief Justice of the Supreme Court of Ireland remarked that it would probably be generally agreed that it is the duty of the State to provide its citizens with a system of both civil and criminal justice that is accessible to all and which functions in a manner that is impartial, open and expeditious.³⁵

Lawyers and commentators have been complaining about delay and cost in civil court systems for over one hundred years,³⁶ and dissatisfaction with the administration of justice is as old as law itself.³⁷ In 1996, three main problems were identified in the courts system in Ireland: delay in litigation, high cost of litigation and ineffective management of litigation.³⁸ This echoes the findings of Lord Woolf in his review of the civil litigation system in England and Wales:

“The defects I identified in our present system were that it is too expensive in that the costs often exceed the value of the claim; too slow in bringing cases to a conclusion and too unequal: there is a lack of equality between the powerful, wealthy litigant and the under-resourced litigant.”³⁹

Along with discovery, Lord Woolf identified expert witnesses as being the point of greatest concern to those involved in civil litigation.⁴⁰ He stated that the need to engage experts was “a source of excessive expense, delay and, in some cases, increased complexity through the excessive use of experts.”⁴¹

³⁵ Keane, “The Irish Courts System in the 21st Century: Planning for the Future” (2001) 1(1) JSIJ 1

³⁶ Jeremy Bentham, *Equity Dispatch Court Proposal* (1830)

³⁷ Pound, “The Causes of Popular Dissatisfaction with the Administration of Justice” (1906) 40 American LR 729

³⁸ Working Group on a Courts Commission, *First Report: Managing and Financing of the Courts*, April 1996 (Government Publications)

³⁹ Lord Woolf, *Access to Justice: Interim Report to the Lord Chancellor on the Civil Justice System in England and Wales* (HMSO, 1995) at [1].

⁴⁰ *ibid.*

⁴¹ *ibid.*

Subsequently, in his review of costs in civil proceedings in England and Wales, Lord Jackson considered that expert evidence had been identified as “a substantial, and ever increasing, cost of litigation”.⁴² In the submissions received by him, all those who addressed expert evidence were fairly critical, and many appeared to think that expert evidence is more of a costs burden than witness statements.⁴³ While it is difficult to find information on the fees charged by experts in Ireland, a decision of the Taxing Master of the High Court in 2012 held that €155 per hour was an appropriate fee for a expert report, and €450 per day was acceptable for a court appearance.⁴⁴

Regarding delays, Lord Jackson stated in his Final Report⁴⁵ that:

“[C]ourts at all levels have become too tolerant of delays and non-compliance with orders. In so doing they have lost sight of the damage which the culture of delay and non-compliance is inflicting upon the civil justice system. The balance therefore needs to be redressed.”⁴⁶

In Ireland, costs “follow the event”.⁴⁷ Therefore the successful party is entitled to obtain an order for their costs to be paid by the losing party, unless the court for special cause otherwise directs.⁴⁸ Rising legal costs in civil proceedings are never far from the headlines. In 2005, the Working Group on Legal Costs reported on costs in civil litigation.⁴⁹ However, in the absence of a convincing case for change and given the paucity of research on this topic, the Working Group did not recommend abandoning the principles underpinning Ireland’s system of costs recovery. The Report focused on greater

⁴² Lord Jackson, *Review of Civil Litigation Costs: Preliminary Report*, May 2009, Vol 2 Part 8: Controlling the Costs of Litigation, Chapter 42 at [8.1].

⁴³ *ibid.*

⁴⁴ *Colgan v Purcell* [2012] IELCA 14

⁴⁵ Lord Jackson, *Review of Civil Litigation Costs: Final Report*, December 2009, referred to in detail below.

⁴⁶ *ibid.* at 397.

⁴⁷ Order 99, rule 1(3) of the RSC

⁴⁸ See Delany & McGrath, *Civil Procedure in the Superior Courts* (3rd ed., Round Hall, 2012) at 720

⁴⁹ Department of Justice, Equality and Law Reform, *Report of the Legal Costs Working Group*, (Irish Stationery Office, 2005). See also Department of Justice, Equality and Law Reform, *Report of the Legal Costs Implementation Advisory Group* (Irish Stationery Office, 2006).

transparency.⁵⁰ To be fair, the Irish courts have sought to ensure that the time of the courts is not wasted (and that litigants are not put to unnecessary and excessive cost) by providing for nuanced costs orders where costs do not automatically follow in full for the successful party, as exemplified in *Veolia Water UK plc v Fingal County Council (No 2)*.⁵¹

Dissatisfaction with civil litigation has led to an increase in alternative dispute resolution (“ADR”), including arbitration, conciliation and mediation.⁵² However, these are not always appropriate to resolve civil disputes. An inefficient system breeds injustice and the substantive law is of no use if it cannot be invoked and applied with reasonable speed and economy.

(ii) Right of Access to the Courts

It must be borne in mind that constitutional rights considerations are not absent from civil proceedings. In fact, rights-based considerations are related to the process considerations such as costs and delay. It has been recognised that additional costs and the length of a trial may impede the constitutional right of access to the courts.⁵³ In particular, Charleton J has noted that:

⁵⁰ See also Competition Authority, *Competition in Professional Services: Solicitors and Barristers*, (December 2006), which criticised the lack of transparency relating to legal fees. The Legal Services Regulation Act 2015 aims to replace the Office of the Taxing Master with the Office of the Legal Costs Adjudicator under section 139, but this provision has not yet been commenced.

⁵¹ [2006] IEHC 240

⁵² The European Union responded to the growth in the use of mediation by proposing a Directive dealing with this area in 2002: Directive 2008/52 (EC) on certain aspects of mediation in civil and commercial matters. Mediation is also approved and encouraged in the RSC. SI No 502 of 2010 came into force on the 16 November 2010. This inserts Order 56A into the RSC. It also inserts a new Order 99(1)B. Together, these rules facilitate referral by the Superior Courts of proceedings, or issues in proceedings, to ADR and provide that the refusal or failure without good reason of a party to engage in ADR may be taken into account by the court when awarding costs. In addition, the new Order 63C, rule 5(xiii) directly invokes power to stay proceedings for ADR under Order 56A. The LRC published its Report on Alternative Dispute Resolution: Mediation and Conciliation (LRC 98-2010) in 2010. The Mediation Bill 2012 implements many of their recommendations.

⁵³ See, in this regard, the comments of Charleton J in: *Flynn v Bus Átha Cliath* [2012] IEHC 398 at [9]-[10]; *James Elliot Construction Limited v Irish Asphalt Limited* [2011] IEHC 269 at

“[T]he time and expense of litigation are undoubtedly burdens on the constitutional right of the people of Ireland of access to the courts for the settlement of disputes.”⁵⁴

Unlike other jurisdictions in which there is no written Constitution, Irish courts are required to interpret civil statutes and procedure in light of the Constitution of Ireland. However, there is no express right of access to the courts. In a similar way to the right to criminal legal aid and the right to fair procedures discussed earlier in this thesis, the right is protected as an unenumerated personal right under Article 40.3.1° of the Constitution. This right of access was recognised in *McCauley v Minister for Posts and Telegraphs*.⁵⁵ In that case, Kenny J held:

"That there is a right to have recourse to the High Court to defend and vindicate a legal right and that it is one of the personal rights of the citizen included in the general guarantee in Article 40.3, seems to me to be a necessary inference from Article 34.3.1° of the Constitution... if the High Court has this full original jurisdiction... it must follow that the citizens have a right to have recourse to that Court..."⁵⁶

This was described by the Supreme Court in *Tuohy v Courtney*⁵⁷ as “the right to achieve by action in the courts the appropriate remedy upon proof of an actionable wrong causing damage or loss as recognised by law”.⁵⁸

The right of access to the courts is also protected by the ECHR and the case law of the ECtHR provides important guidance. Article 6(1) of the ECHR

[3]; and *Weaver Macro Fixed Income Fund Limited (In Liquidation) v PNC Global Investment Servicing (Europe) Limited* [2012] IEHC 25.

⁵⁴ *Weaver Macro Fixed Income Fund Limited (In Liquidation) v PNC Global Investment Servicing (Europe) Limited* [2012] IEHC 25, at [7].

⁵⁵ [1966] IR 345

⁵⁶ *ibid.* at 359.

⁵⁷ [1994] 3 IR 1

⁵⁸ *ibid.* at 45. In *State (McCormack) v Curran* [1987] ILRM 225 Finlay CJ stated at 237 that "[t]he right of access to the courts, stated in its broadest fashion, is the right to initiate litigation in the courts".

provides that “[i]n the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law”. While delay is but one way in which proceedings can become unfair, the requirement of reasonable time is one which has been upheld by the ECtHR on a number of occasions. In *Buchholz v Germany*,⁵⁹ the court found that:

“[T]he Convention places a duty on the Contracting States to organise their legal systems so as to allow the courts to comply with the requirements of Article 6 par.1, including that of trial within a ‘reasonable time.’”⁶⁰

While the ECtHR has recognised that many jurisdictions require parties to civil proceedings to take the initiative with regard to the progress of civil proceedings, this does not dispense the individual member states from complying with the requirement to deal with cases in a reasonable time. Ireland, as a member state, has been criticised by the ECtHR for the delays inherent in our system of civil litigation.⁶¹ In *McMullen v Ireland*⁶² it was found that Ireland was in breach of Article 6(1) as proceedings, which lasted 16 years, had not been dealt with in a reasonable time. However, shorter periods of four⁶³ and eight⁶⁴ years respectively have also been found to be in contravention on Article 6(1). More recently, in *Superwood Holdings Limited v Ireland*,⁶⁵ Ireland was found to be in violation of Article 6(1) of the ECHR in respect of proceedings which lasted 22 years. The findings of the ECtHR led Hardiman J to state in the Supreme Court in *Gilroy v Flynn*⁶⁶ that:

⁵⁹ [1981] ECHR 2

⁶⁰ *ibid.* at [51]

⁶¹ A violation of Article 6(1) was also found in respect of Irish criminal proceedings in *McFarlane v Ireland*, Application No 31333/06 (Unreported, ECtHR, 10 September 2010).

⁶² [2004] ECHR 404

⁶³ *O'Reilly and others v Ireland* (2004) 38 EHRR 127

⁶⁴ *Doran v Ireland* (2006) 42 EHRR 13

⁶⁵ [2011] ECHR 1309

⁶⁶ [2005] 1 ILRM 290

“[T]he Courts, quite independently of the action or inaction of the parties, have an obligation to ensure that rights and liabilities, civil or criminal, are determined within a reasonable time.”⁶⁷

(iii) Case Management and Expert Evidence

In a country like Ireland where access to justice is a constitutional value, the question arises as to whether it is reasonable or fair that a comparatively simple legal dispute has the potential to bankrupt the ordinary citizen.⁶⁸ The Irish courts have been acutely aware of the rising costs of expert evidence in civil cases. Of particular note, Charleton J⁶⁹ has been highly critical of the consequences in terms of length, complexity and cost of retaining numerous experts. In *Weaving Macro Fixed Income Fund Limited v PNC Global Investment Servicing (Europe) Ltd*,⁷⁰ he alluded to the need for regulation of the number of experts called at trial, “otherwise wealth can unfairly enhance one side of the case to the ostensible impoverishment of the other”.⁷¹ In *Condon v ACC Bank plc*,⁷² he acknowledged that hearings in general are expensive, but that “[l]ong hearings made repetitive by multiple experts addressing the same issue for the same party are prohibitively expensive”.⁷³ He recognised that a balance was required to be struck between those who are rich enough to instruct numerous experts and those who have limited funds.

This balance can be struck through active case management. Lord Jackson’s view was that this was the best way to control expert evidence. Case management generally has been used to combat delays and costs in civil litigation. It represents a fundamental change in approach from the traditional lawyer-led adversarial process. It involves the active oversight of the judge in the prosecution of proceedings.⁷⁴ As outlined in Chapter 2, the adversarial

⁶⁷ *ibid.* at 290. Hardiman J was referring to *McMullen v Ireland*, *op. cit.*

⁶⁸ McDowell, “A Reply to Mr Zuckerman” (2000) 1(2) *Hibernian Law Journal* 198, at 198.

⁶⁹ Charleton J. is, at the time of writing, a judge of the Supreme Court.

⁷⁰ [2012] IEHC 25

⁷¹ *ibid.* at 7.

⁷² [2013] 1 ILRM 113

⁷³ *ibid.* at 124-125.

⁷⁴ Working Group on a Courts Commission, *Second Report: Case Management and Court Management*, June 1996 (Government Publications).

process has traditionally placed a distance between the judge and the parties to a claim. It even allowed and encouraged parties to take the lead and shape proceedings.

Case management has been taken very seriously by the Irish courts in certain contexts. It has been piloted very successfully in the Commercial Court and, as we will see, has recently been extended to other types of proceedings. Hardiman J in *Cruise v Judge O'Donnell*⁷⁵ proclaimed an “era of case management, when a serious attempt is being made to deal with all litigation, civil or criminal, in an efficient manner”.⁷⁶ Denham CJ in *Talbot v Hermitage Golf Club* regarded the use of judicial case management to be “crucial to the effective conduct of litigation”.⁷⁷ Her take on case management would be for the court “to define the key issues and to clarify the responsibilities between the parties”. This was not only to make “the case more understandable for all those concerned” since case management allowed a “managed use of limited court resources”. It is implicit in her judgment that cases should be determined “within a reasonable timeframe”. There is even the danger that a litigant’s case may be dismissed on the basis of failing to comply with case management directions.⁷⁸

It has been recognised by the courts and legislature that case management involves controlling the use and cost of experts. In the context of costs, and consistent with the modern position in *Veolia Water*, Charleton J in *Flynn v Bus Átha Cliath*⁷⁹ was of the opinion that the repetitious experts could be controlled by appropriate orders as to costs focusing on unnecessary experts.⁸⁰ This was echoed recently in the UK Supreme Court in *Kennedy v Cordia (Services) LLP*.⁸¹

Two methods have been used by common law jurisdictions to address the above concerns; concurrent expert evidence and court-appointed experts, and these will be considered in the next chapter. At this point, it is proposed to afford some treatment to the reforms in the area of civil litigation as they apply

⁷⁵ [2008] 3 IR 230

⁷⁶ *ibid.* at 240.

⁷⁷ *Talbot v Hermitage Golf Club*, *op. cit.* at [13].

⁷⁸ See *Moorview v First Active* [2008] IEHC 274

⁷⁹ [2012] IEHC 398

⁸⁰ *ibid.* at [10].

⁸¹ [2016] 1 WLR 597

to expert evidence. Up until very recently, there were no formal measures in place in this jurisdiction governing the communication between experts prior to and during the trial process. Furthermore, there was no provision governing the ability of the expert to communicate with the court.⁸² There were some reforms in the context of experts in the area of commercial and competition law. However, a regime of broader application was introduced in 2016. As will be considered below, the law in its current state appears to draw a distinction between personal injuries cases and other types of cases for reasons which are not entirely clear.

IV. A Culture of Civil Reform

In the past 20 years, attempts have been made in England and Wales and Ireland to address cost and delay concerns in civil litigation as they relate to expert evidence, with varying degrees of success. However, from the outset, it is important to acknowledge that there are important differences between Ireland and its neighbouring jurisdiction. These differences only add to concerns surrounding rising costs in civil litigation in Ireland.

First, England and Wales has in place the track system, which is a form of advanced case management not present in Ireland.⁸³ Claims that are to be defended are allocated to one of three tracks. The small claims track is a quick and informal process and intended for claims of up to £10,000. The fast track deals with claims with a value between £10,000 and £25,000, and are expected to be tried in a one day hearing. The multi-track is reserved for cases of higher value, complexity and importance and are case managed intensively.

Secondly, there is provision for multi-party litigation in England and Wales.⁸⁴ This permits the taking of representative legal proceedings where

⁸² Contrast this with the position in England and Wales; under Rule 35.14 CPR the expert has an explicit right to ask the court for directions.

⁸³ CPR 26. See Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* (3rd ed., Sweet & Maxwell, 2013) at Chapter 12.

⁸⁴ English 'multi-party' litigation can take one of four forms: (1) test case litigation, supported by the staying of related individual actions; (2) consolidated litigation or joinder, so that claims are coupled together into a single but long case; (3) representative proceedings (CPR 19, Section II); and (4) numerous claims under a "Group Litigation Order" (CPR 19, Section III; and Practice Direction 19B)

large numbers of persons have suffered from, effectively, the same wrong. This undoubtedly has an effect on costs, in that they are controlled. Ireland has nominal provision for multi-party litigation,⁸⁵ but it has been interpreted restrictively and has been rarely used.⁸⁶ The LRC in 2005 recommended the introduction rules permitting class actions.⁸⁷ Generally, as an alternative, “test cases” are pursued, one case being chosen to determine the issue of liability and thereafter cases are fought on the issue of quantum of compensation.⁸⁸

Thirdly, the law in Ireland on non-party funding of litigation is different to that of England and Wales⁸⁹ in that such practices remain generally impermissible. The Irish courts recently maintained their prohibition on maintenance and champerty,⁹⁰ which means that indigent litigants are on the back foot, in a similar way to the indigent accused is, as discussed in Chapter 3. The reasoning behind the limitation on the right to an expert witness at the State’s expense, which does not extend to civil proceedings, need not be rehearsed again at this juncture. Finally, the categories of cases for which civil legal aid can be granted are wider in England and Wales.⁹¹ Civil legal aid in Ireland tends to be restricted, in practice, to family law.⁹²

⁸⁵ Order 15, rule 9 RSC states: “Where there are numerous persons having the same interest in one cause or matter, one or more of such persons may sue or be sued, or may be authorised by the Court to defend, in such cause or matter, on behalf, or for the benefit, of all persons so interested”. See further Andrews, “Multi-Party Litigation in England”, University of Cambridge Research Paper No. 39/2013.

⁸⁶ *Madigan v Attorney General* [1986] ILRM 136

⁸⁷ Law Reform Commission Report on Multi Party Actions (LRC 76 – 2005)

⁸⁸ In relation to the recent Volkswagen emissions scandal numerous litigants have issued proceedings separately. See O’Faolain & Managh, “Volkswagen seeks to put brakes on claim in Mayo court” *The Irish Times*, 15 September 2016.

⁸⁹ The Criminal Law Act 1967 of England and Wales abolished the offences and torts of maintenance and champerty.

⁹⁰ *Personal Digital Telephony Ltd v Minister for Public Enterprise (No 2)* [2016] IEHC. See also *Thema International Fund v HSBC Institutional Trust Services (Ireland) Ltd.* [2011] IEHC 654.

However “after the event” insurance has been held to not breach the principles; see *Greenclean Waste Management Ltd v Maurice Leahy p/a Maurice Leahy & Co Solicitors* [2014] IEHC 314

⁹¹ Legal Aid, Sentencing and Punishment of Offenders Act 2012

⁹² Civil Legal Aid Act 1995

(i) *England and Wales*

It has been stated that England and Wales represents a significant contemporary form of a common law approach to civil evidence.⁹³ England and Wales has undergone two radical overhauls of its civil procedure rules in the last number of years. These changes impacted significantly on the way expert evidence is incorporated into civil proceedings.

In 1994, Lord Woolf was asked to review the civil procedures of the courts of England and Wales. The aim of this review was stated to be to improve access to justice and to reduce costs of litigation, to reduce the complexity of the rules and improve access to technology and remove unnecessary distinctions of practice and procedure. The inquiry was conducted in two stages: an Interim Report was published in 1995⁹⁴ and a Final Report in 1996.⁹⁵ As noted above, Lord Woolf identified expert witnesses as a source of major cost and delay in civil proceedings. However, he observed that his proposed reforms of expert evidence attracted the most opposition.⁹⁶

Lord Woolf recognised that experts have more than one role to play in civil litigation: (a) to assist a party to establish the facts and to assess the merits of a case and with its preparation; (b) to give to the court, as evidence, their expert opinion where opinion evidence apart from that of an expert would not be strictly admissible; (c) to give factual evidence on a subject, where because of their expertise, their evidence will have greater weight than that of an unqualified witness; (d) to conduct inquiries on behalf of the court and report to the court as to their findings; and (e) to sit as assessors with judges to assist the court to understand the technical evidence which the court has to consider.⁹⁷

⁹³ Dwyer, *The Judicial Assessment of Expert Evidence* (Cambridge University Press, 2008) at 183.

⁹⁴ Lord Woolf, *Access to Justice: Interim Report to the Lord Chancellor on the Civil Justice System in England and Wales* (HMSO, London 1995) (hereinafter "Lord Woolf, Interim Report").

⁹⁵ Lord Woolf, *Access to Justice Part II: Final Report to the Lord Chancellor on the Civil Justice System in England and Wales* (HMSO, London 1996) (hereinafter "Lord Woolf, Final Report").

⁹⁶ Lord Woolf, Final Report. Chapter 23, at [3].

⁹⁷ *ibid.*

The Lord Chief Justice envisaged that the judge would take the lead in distilling the key issues from the parties' statements of case (or, in this jurisdiction, pleadings) and, if necessary specify what expert evidence is needed on each issue. It was then envisaged that the key issues would in turn be narrowed through the exchange of experts' reports and through meetings of experts, so that only areas of outstanding disagreement remain to be decided by the court.⁹⁸ In addition to these case management reforms, he proposed four specific ways in which the situation relating to expert evidence could be improved: (1) the appointment of court experts and expert assessors; (2) a clearer role for experts, and guidance which emphasised their independence and their duty to the court; (3) the appropriate choice and use of experts; and (4) better arrangements for expert evidence at trial.⁹⁹

Lord Woolf's reforms contain a significant commitment to procedural as well as substantive justice, through active case management, the implementation of an overriding objective and the imposition of a duty on litigants and their representatives to assist the court in furthering that objective.¹⁰⁰ The Final Report led to the introduction of the Civil Procedure Rules (the "CPR") in 1998.¹⁰¹ These rules must be read in conjunction with a number of Practice Directions. The CPR contain an "overriding objective", *i.e.* to deal with cases justly and at proportionate cost. Part 35 of the CPR deals with experts.¹⁰² One very important feature of the CPR is that the permission of the court is required before expert evidence can be adduced.¹⁰³ In England and Wales, once a party has convinced the court that the evidence is both relevant and admissible, the court must then make a judgment on whether it should be

⁹⁸ Lord Woolf, Interim Report, Chapter 23 at [18].

⁹⁹ Lord Woolf, Interim Report, Chapter 23 at [19].

¹⁰⁰ Clarke, "The Woolf Reforms: A Singular Event or an Ongoing Process?" in Dwyer, (ed) *The Civil Procedure Rules: Ten Years On* (Oxford University Press, 2009), at 44 – 45.

¹⁰¹ The Civil Procedure Rules 1998

¹⁰² See Dwyer, "The Role of the Expert Under CPR Pt 35" in Dwyer, (ed) *The Civil Procedure Rules: Ten Years On* (Oxford University Press, 2009) at 299.

¹⁰³ Rule 35.4(1). This reflects the position under Order 38 of the English Supreme Court Rules where leave was needed to call expert evidence. The LRC, *op. cit.* at [5.41], invited submissions as to whether there should be a general requirement that court permission is expressly required before parties adduce expert evidence.

allowed into evidence taking account of the overriding objective and, in particular, according to Hodgkinson and James:

- “(a) how cogent the proposed expert evidence will be;
- (b) how helpful it will be in resolving any of the issues in the case; and
- (c) how much it will cost and the relationship of that cost to the sums at stake.”¹⁰⁴

The basic premise of Part 35 is that the expert's function is to help the court, not to advance the case of the side by whom he or she is paid. Lord Woolf was particularly anxious that expert witnesses should not be "partisan advocates" but rather "mutual fact finders or opinion givers".¹⁰⁵ Part 35 contains provisions relating to the expert's duty,¹⁰⁶ and limits the use of experts to what is reasonably required to resolve the proceedings. There is also an express power to restrict expert evidence. It also defines the expert's written report, as well as regulating the use of party experts, single joint experts and assessors.

One area where Lord Woolf's Report was found lacking was the issue of costs, in that it did not grapple effectively with the problems of litigation costs. As mentioned above, an independent review of the costs of civil litigation was more recently carried out by Lord Jackson.¹⁰⁷ This review had as its aim the promotion of access to justice at a more proportionate cost. Lord Jackson concluded that the trial costs were a large proportion of the total costs. In turn, he considered that expert witnesses contributed substantially to trial costs because of cross-examination of the expert witnesses. He also considered that preparation of expert reports can generate excessive costs. The report put forward a number of recommendations designed to reduce the costs associated with expert evidence in civil cases, most of which are now reflected in the CPR.¹⁰⁸ Significantly, Lord Jackson was of the view that the Australian practice of hearing expert evidence concurrently at trial was likely to reduce

¹⁰⁴ Hodgkinson & James, *Expert Evidence: Law and Practice* (4th ed., Sweet & Maxwell, 2014) at [4-009], citing *Mann v Messrs Chetty and Patel (a firm)* [2001] C P Rep 24 CA.

¹⁰⁵ Final Report, Chapter 13, at [5].

¹⁰⁶ CPR 35.3

¹⁰⁷ Lord Jackson, *Review of Civil Litigation Costs: Final Report*, December 2009.

¹⁰⁸ S.I. 2013/262 Civil Procedure (Amendment) Rules 2013

costs. This involves party experts being sworn in together and giving their evidence at the same time, and is considered in the next chapter.

In England and Wales, the cost of expert evidence is now considered when permission to call expert evidence is granted.¹⁰⁹ The parties must provide a costs estimate of the proposed expert evidence, and identify the field in which expert evidence is required and the issues which the expert evidence will address and, where practicable, the name of the proposed expert. Where permission is granted, this is only in relation to the expert named or the field specified in the preceding section, and makes provision that the order granting permission may specify the issues which the expert evidence should address.¹¹⁰ There is also provision for the court to limit the amount of a party's expert's fees and expenses that may be recovered from any other party.

(ii) Ireland

In Ireland, there have been numerous reforms of the courts system over the past decade or thereabouts, which have had as their object of increasing the speed and or reducing the cost of civil proceedings.¹¹¹ In response to "compensation culture", the Personal Injuries Assessment Board Act 2003 ("the 2003 Act") and the Civil Liability and Courts Act 2004 ("the 2004 Act") were enacted to deal with fraudulent and exaggerated personal injury claims, and also to deal with rising costs. The 2003 Act provided that all personal injury claims must be processed through the Personal Injuries Assessment Board.¹¹² In addition, the 2004 Act permitted the appointment by the court of an expert¹¹³ in a personal injuries action. This is considered in the next chapter.

The establishment of the Commercial List of the High Court, commonly referred to as the "Commercial Court" is another obvious example.

¹⁰⁹ CPR 35.4(2)

¹¹⁰ CPR 35.4(3)

¹¹¹ To the following can be added the establishment of the Court of Appeal under the Court of Appeal Act 2014.

¹¹² Now the Injuries Board.

¹¹³ Section 20 of the Civil Liability and Courts Act 2004.

The Commercial Court¹¹⁴ was introduced in Ireland in 2004 and was designed to enable the speedy resolution of commercial disputes.¹¹⁵ Order 63A of the RSC governs its operation.¹¹⁶ It has been commented that Order 63A seeks to achieve “precisely the same object as the relevant provisions of the CPR in England; they seek to bring about a just and expeditious trial whilst seeking to minimise costs”.¹¹⁷ Commercial Court proceedings commence as normal High Court proceedings and an application to have the proceedings admitted to the Commercial List can be made at any time prior to the closure of pleadings.¹¹⁸ “Commercial proceedings” are defined in Order 63A of the RSC as involving claims for not less than €1,000,000 and coming within one of a number of categories.¹¹⁹ The Commercial Court uses active judicial case management¹²⁰ to improve the efficiency of the litigation process itself and also encourages the use of mediation and conciliation. Given the complex nature of commercial disputes, expert evidence is an increasingly common feature.

Significantly, and in addition to providing for case management of commercial cases, Order 63A of the RSC made specific provision for the role of the expert witness in the Commercial Court. The provision provides for consultation between experts¹²¹ and provides for the exchange of an expert’s statement.¹²² Despite the rules relating to the Commercial Court, the Rules of the Superior Courts were distinctly lacking in that they failed to provide for cohesive case management framework in relation to expert evidence in other

¹¹⁴ For a comprehensive discussion of the background to the establishment of the Commercial Court see Dowling, *The Commercial Court* (2nd ed., Round Hall, 2012) generally and in particular Chapter 1.

¹¹⁵ The Commercial Court has been successful in the resolution of disputes. For example, of the 148 cases admitted to the Commercial List in 2015, 111 were disposed of within that year. See *Courts Service Annual Report 2015*, *op. cit.* at 38.

¹¹⁶ As inserted by the Rules of the Superior Courts (Commercial Proceedings) 2004 (SI No 2 of 2004). Order 63A, rule 2 of the RSC provides that, unless otherwise expressly provided for by Order 63A, where a conflict arises between the provision of any rule in Order 63A and any provision of the RSC, the provision in Order 63A shall prevail.

¹¹⁷ *Per Kelly J in Re Norton Healthcare Ltd* [2006] 3 IR 321 at 331.

¹¹⁸ Order 63A, rule 4 of the RSC.

¹¹⁹ Order 63A, rule 1(a) – (g) of the RSC.

¹²⁰ Order 63A, rule 6 of the RSC. See also and generally Dowling, *op. cit.* at Chapter 4.

¹²¹ Order 63A, rule 6(1)(ix) of the RSC.

¹²² Order 63A, rule 22 of the RSC.

types of cases. However, the Rules of the Superior Courts have been amended by Rules of the Superior Courts (Conduct of Trials) 2016 (“the New Rules”),¹²³ which were briefly mentioned in Chapter 2. The New Rules are likely to bring about major procedural changes in the area of expert evidence.¹²⁴ It will undoubtedly take some time before their full effect will be appreciated in practice.

The explanatory note of the New Rules records their purpose as being “to regulate... the procedure for the conduct of the trial and the adducing of expert evidence”. Before the latest amendments, the RSC were derived from the Supreme Court of Judicature (Ireland) Act 1877.¹²⁵ They were therefore in many respects similar to the English regime which existed prior to the adoption in England of the CPR.

A detailed consideration of the New Rules reveals their content may have been influenced by concerns expressed by the courts in recent years regarding the management of expert witnesses in commercial proceedings. In particular, the comments of Charleton J in the decisions mentioned above regarding the proliferation of expert witnesses and the associated cost and use of court time are resonant throughout their provisions. It is likely that they were also influenced by civil procedural reform in England and Wales. The two most interesting features of the New Rules are the provision for a single joint expert and concurrent evidence. These were not previously a feature of Irish law, and represent novel methods of hearing expert evidence. These undoubtedly have the potential to significantly alter the adversarial trial process as outlined in Chapter 2, and therefore it is appropriate to look to other jurisdictions to see how similar rules are implemented there.

Interestingly, and as briefly mentioned in Chapter 2, the New Rules include, for the first time in the RSC, an expression of the duty of an expert to assist the Court as to matters within his or her field of expertise.¹²⁶ This duty

¹²³ S.I. No. 254 of 2016

¹²⁴ While the Regulations are dated 5 April 2016, they were not commenced until 1 October 2016.

¹²⁵ Corresponding to the Supreme Court of Judicature Acts 1873 and 1875 in England and Wales.

¹²⁶ Order 30, rule 57(1) of the RSC. Order 30, rule 57(2) provides that every report delivered pursuant to the Rules shall contain a statement acknowledging the expert’s duty, disclose any financial or economic interest of the expert, or of any person connected with the expert, in any

overrides any obligation to any party paying the fee of the expert. It is also provided that the Court may limit the amount of a party's expert fees and expenses that may be recovered from any other party.¹²⁷

V. Pre-Trial Involvement of the Expert

As previously outlined, this thesis examines the methods by which expert evidence is incorporated, the focus of this chapter being specifically directed towards civil proceedings. However, the law has conceded the need for expert evidence in certain types of case before proceedings are even instituted, such as professional negligence. In addition, the New Rules provide for the disclosure of expert evidence in pleadings. Thus, the pre-trial involvement of the expert must be considered. This issue cannot be divorced from the discussion below, particularly when one takes into account the rationale for both amendments are a reduction in the cost and length of civil proceedings.

(i) *Traditional Common Law Position*

The traditional common law position should be considered briefly. At common law, litigation privilege could be claimed in respect of all communications between a client or his or her lawyer, on the one hand, and experts, on the other, made for the purposes of litigation, in addition to the work product of that expert.¹²⁸ Ordinarily, documents prepared for the purpose of pending or

business or economic activity of the party retaining that expert, including any sponsorship or contribution to any research of the expert or of any University, institution or other body with which the expert was, is or will be connected, other than any fee agreed for the preparation by the expert of the report provided or to be provided in the proceedings concerned and any fee and expenses due in connection with the participation of the expert in the proceedings concerned. The LRC, *op. cit.* had provisionally recommended at [4.133] that an expert witness should be obliged to disclose the existence of any pre-existing relationship with a party to a case or any other potential conflict of interest.

¹²⁷ Order 63C, rule 20 as inserted by the Rules of the Superior Courts (Chancery and Non-Jury Actions and Other Designated Proceedings: Pre-Trial Procedures) 2016 (SI No 255 of 2016).

¹²⁸ It must be shown that "the dominant purpose for the document coming into existence in the first place should have been the purpose of preparing for litigation then apprehended or threatened"; see *Silver Hill Duckling Ltd v Minister for Agriculture* [1987] IR 289 and *Gallagher v Stanley* [1998] 2 IR 267. See also generally Heffernan, *Legal Professional*

contemplated civil proceedings (or in connection with the obtaining or giving of legal advice) would be privileged from disclosure. Following on from this, reports prepared by experts in contemplation of litigation would normally be covered by litigation privilege. Passmore summarises the position helpfully as follows:

“Traditionally, whenever a professional third party has been engaged as an expert witness by or on behalf of a party to actual, pending or contemplated proceedings, litigation privilege has protected (i) confidential communications between any of the client, his solicitors or counsel and the expert, and (ii) the work of the expert prior to its disclosure or use in the litigation, so long as those communications or the expert’s work are referable to the litigation concerned and satisfy the dominant purpose test. This is so, whether the expert has been instructed with a view to assisting his client to understand, for example, the technical aspects of the claim, to assist in the preparation of a claim or its defence, or to provide expert evidence at the trial of the action.”¹²⁹

Thus, there was formerly no obligation on a party to disclose the identity of any experts that he or she intended to call and no obligation to serve an expert report in advance of trial. However, procedural reforms have been introduced in most jurisdictions that have had the effect of diluting the common law rule.

(ii) Professional Negligence

It has been conclusively held that a plaintiff must procure an expert report in advance of instituting proceedings for professional negligence, whether medical or otherwise. It need not be said, and the authorities have acknowledged, that an allegation of negligence against a professional is a most serious one and should not be made lightly. This rule has its genesis in medical negligence proceedings. As Heffernan has remarked, the concept of the expert

Privilege (Bloomsbury Professional, 2011).

¹²⁹ Passmore, *Privilege* (2nd ed, XPL Publishing, 2006) at [3.109]. This passage was approved by Kelly J in *Ahern v Mahon* [2008] 4 IR 704, at 720.

witness is especially prevalent in the area of medical negligence. She notes that there is a discernible disconnect between the theory, which holds that expert evidence is exceptional, and the practice, which demonstrates that it is routine:

“For its own part, medical negligence litigation, by virtue of its complexity and contestability, has become the paradigm for expert witness practice and the evidentiary testing ground for doctrinal and procedural challenges that impact on all manner of civil litigation. The law of expert evidence and the law of medical negligence, it seems, are inextricably intertwined.”¹³⁰

Barr J stated in *Reidy v National Maternity Hospital*¹³¹ that a plaintiff must have reasonable medical grounds to justify the commencement of a medical negligence lawsuit:

“It is irresponsible and an abuse of process of the Court to lodge a professional medical negligence action against institutions such as hospitals and professional personnel without first ascertaining that there are reasonable grounds for so doing. Initiation and prosecution of an action in negligence on behalf of the plaintiff against the hospital necessarily requires the appropriate expert evidence to support it.”¹³²

The practice extended to professional negligence proceedings in general and instituting such proceedings without the benefit of an expert report is generally regarded as an abuse of process. Clarke J remarked in *Greene v Triangle Developments Ltd*,¹³³ which involved an allegation of negligence against a firm of engineers, that:

¹³⁰ Heffernan, “Expert Evidence in Medical Negligence Litigation” in Craven & Binchy (eds.), *Medical Negligence Litigation: Emerging Issues* (Firstlaw, 2008) at 111.

¹³¹ Unreported, High Court, 31 July 1997

¹³² *ibid.*

¹³³ [2008] IEHC 52. See also the decision of the Supreme Court in *Cooke v Cronin* [1999] IESC 54 and *Sugg v O’Keeffe* (Unreported, Supreme Court, 14 October 2005).

“[I]t would be most inappropriate for any party to issue proceedings alleging professional negligence or join a third party against whom professional negligence was to be alleged without having a sufficient expert opinion available that would allow an assessment to be made to the effect that there was a stateable case for professional negligence intended to be asserted.”¹³⁴

While not expressly stated in the authorities, the rationale for this rule could be the fact that the standard which is applied in professional negligence proceedings is that of the reasonable professional.¹³⁵ Obviously, a court would find it difficult to find that a plaintiff had a stateable case in negligence against a professional if there was no expert evidence to support that position.

(iii) Pleadings

The New Rules appear to place a heavy onus on both plaintiffs and defendants in certain civil proceedings regarding the pleading of expert evidence. The new Order 20, rule 12 of the RSC, which applies to all cases other than personal injuries, provides that where a plaintiff intends or proposes to offer expert evidence on any matter at trial, the statement of claim shall disclose that intention or proposal and “state succinctly” the field of expertise concerned and the matters on which expert evidence is proposed to be offered. Similar obligations are placed on defendants in their defence by Order 20, rule 13 of the RSC.

It is clear from this recent amendment that that expert evidence will play an important role at a much earlier stage in proceedings to which the New Rules apply. This will ensure that there is adequate notice of expert evidence and prevents the possibility of adversarial ambush. However, this appears to be a significant departure from the traditional position regarding the role of

¹³⁴ See also [5.16] of the Code of Conduct of the Bar Council of Ireland (adopted on 23 July 2014), which stipulates that barristers “ought not settle a pleading claiming professional negligence unless they have satisfied themselves that expert evidence is or will be available to support such claim”.

¹³⁵ See generally McMahon & Binchy, *The Law of Torts* (4th ed., Bloomsbury Professional, 2013), at Chapter 14.

pleadings play in civil proceedings.¹³⁶ In practice, it means that both plaintiffs and defendants will be likely to require a greater degree of involvement from potential experts at a much earlier stage in proceedings. This may actually be counter-productive to one of the purposes of the New Rules. An expert will require to be paid for this initial involvement, meaning that there will be more onerous cost implications from an early stage. This has the potential to restrict the access of certain litigants to the courts.¹³⁷

It is also curious as to why personal injuries actions are excluded from the remit of the rule. All other classes of civil claim are included. "Personal injuries actions", as defined in section 2(1) of the Civil Liability and Courts Act 2004, include complex medical negligence claims, and rely heavily on medical expert evidence. The plaintiff in a "personal injuries action" which is not a medical negligence action will already have been required to submit a medical report to the Injuries Board and will likely to have the expert evidence to hand when the proceedings are being drafted. Therefore it may be regarded as illogical to exclude them from the application of the new provision.

In addition, the New Rules are silent as to the consequence of a failure to comply with the pleadings requirements. One could assume that the provisions of Order 124, rule 1 of the RSC¹³⁸ will apply as it generally does and that non-compliance will not invalidate any step taken unless the court directs otherwise. However, the silence of the New Rules may serve to limit the effect of the new pleading requirements.

¹³⁶In *Mahon v Celbridge Spinning Company Limited* [1967] IR 1, the role of pleadings was stated to be "to define the issues between the parties, to confine the evidence of the trial to the matters relevant to those issues, and to ensure that the trial may proceed to judgment without either party being taken at a disadvantage by the introduction of matters not fairly to be ascertained from the pleadings".

¹³⁷ There is no provision permitting litigants to serve updated particulars of expert evidence within specified periods without the leave of the court. However, it should be noted that no change has been effected to the provisions of Order 23 of the RSC governing the delivery of a Reply.

¹³⁸ Order 124, rule 1 states: "Non-compliance with these Rules shall not render any proceedings void unless the Court shall so direct, but such proceedings may be set aside either wholly or in part as irregular, or amended, or otherwise dealt with in such manner and upon such terms as the Court shall think fit".

(iv) *Disclosure of Expert Reports*

Traditionally at common law, expert reports are required to be proved by having the author of the report give evidence in chief and then be subject to cross-examination.¹³⁹ The parties can also agree to have expert reports admitted without formal proof.¹⁴⁰ Particular rules apply concerning the disclosure of expert reports in the High Court in personal injury proceedings and commercial proceedings. It is proposed to examine these briefly.

(a) Personal Injuries

This common law rule protecting expert reports from disclosure was modified by statute in 1995¹⁴¹ and a requirement that disclosure of expert reports take place before trial was introduced. This was duly implemented by SI No 391 of 1998 Rules of the Superior Courts (No. 6) (Disclosure of Reports and Statements) 1998 ("SI 391 of 1998") and is reflected in Order 39 of the RSC.¹⁴² These rules were designed to forewarn other parties of expert evidence with which they may be confronted.¹⁴³ This view was expressed by Geoghegan J in the Supreme Court in *Kincaid v Aer Lingus* as follows:¹⁴⁴

"The purpose of the rules is not to disclose the strength and weaknesses of each others case but rather to prevent surprise evidence being thrown up at a trial which the other party at that stage is unable to deal with".¹⁴⁵

¹³⁹ Jennings *et al.* *The Law of Personal Injuries* (Round Hall, 2011), at [2-330]

¹⁴⁰ Under Order 32, rule 2 RSC and Order 31, rule 1 of the Circuit Court Rules 2001 a party can serve a notice to admit upon their opponent and if their opponent does not agree to formally admit the document, they shall bear the costs of proving the document at trial unless the judge certifies that the refusal to admit was reasonable. See also High Court Practice Direction HC10 which encourages the admission of uncontested medical evidence.

¹⁴¹ Section 45 of the Courts and Court Officers Act 1995

¹⁴² The first set of rules introduced to govern this statutory exception were those contained in the Rules of the Superior Courts (No.7) 1997 [S.I. 348 of 1997] but these were later revoked and replaced by S.I. 391 of 1998. See O'Flóinn, "Expert Opinions – No Longer a Closed Book", in Daly (ed.), *The Role of the Expert Witness* (Inns Quay, 1999), at 17.

¹⁴³ *Galvin v Murray* [2001] 1 IR 331

¹⁴⁴ [2003] 2 IR 314

¹⁴⁵ *ibid.* at 318

The disclosure requirement applies to High Court personal injury proceedings only. There is no separate division of the High Court for medical negligence cases nor any effective case management system whereby procedures can be simplified and costs kept to a minimum. SI 391 of 1998 may be seen as an attempt to address some of the difficulties in this area.¹⁴⁶

As a result of SI 391 of 1998, Order 39, rule 45 of the RSC¹⁴⁷ now provides that the disclosure rules apply to “reports or statement[s] from accountants, actuaries, architects, dentists, doctors, engineers, occupational therapists, psychologists, psychiatrists, scientists, or any other expert whatsoever intended to be called to give evidence in relation to an issue in an action.”¹⁴⁸ “Report” is also refined as including as part of the definition that it be “in relation to an issue in the action and containing the substance of the evidence to be adduced...”

It is provided that the plaintiff shall furnish to the other party or parties or their respective solicitors (as the case may be) a schedule listing all reports from expert witnesses intended to be called within one month of the service of the notice of trial in respect of the action or within such further time as may be agreed by the parties or permitted by the Court.¹⁴⁹ In *Kincaid v Aer Lingus*,¹⁵⁰ Geoghegan J suggested that the exchange should be contemporaneous so as to guard against mischief of abuse of the procedure. The rule goes on to provide that the defendant (or any other party or parties) shall furnish to the plaintiff or any other party or parties a schedule listing all reports from expert witnesses

¹⁴⁶ But see *O’Sullivan v Kieran* (Unreported, High Court, 11 February 2004) in which O’Neill J refused to order disclosure from the defendant doctor of a letter he had written to his indemnifier on the basis that disclosure would undermine the important confidence that existed in communications between the defendant and his lawyers and indemnifiers.

¹⁴⁷ As inserted by the Rules of the Superior Courts (No. 6) (Disclosure of Reports and Statements), 1998 [SI No 391 of 1998]

¹⁴⁸ Heffernan remarks that “[t]he wording of rule 45(1)(e) hints at a liberal conception of expertise embracing not only skills and experience traditionally recognised but also scientific or medical knowledge of a novel or unconventional kind”; see Heffernan, “Expert Evidence in Medical Negligence Litigation” in Craven & Binchy (eds.), *Medical Negligence Litigation: Emerging Issues* (Firstlaw, 2008), at 119.

¹⁴⁹ Order 39, rule 46(1) of the RSC

¹⁵⁰ [2003] 2 IR 314

intended to be called within seven days of receipt of the plaintiff's schedule.¹⁵¹ It is then provided in the rule that the parties shall exchange copies of the reports listed in the relevant schedule.

There are some exceptions to the rules of disclosure.¹⁵² In particular, any party to proceedings can make an application that the disclosure rules shall not apply to any particular report or statement (or portion thereof) which he or she maintains should not be disclosed "in the interests of justice".¹⁵³ There is also provision for a non-compliant party to apply to court to permit the adducing of evidence notwithstanding the fact that it has not been disclosed, and the court may make such order as appears "just" in the circumstances.¹⁵⁴

It is common in practice in personal injuries actions for parties to agree that medical reports should be handed into court to be treated as if the doctors had testified in accordance with their contents. Despite the obvious saving of court time and costs that the exchange of expert reports provokes, it is clear that the trial judge faces an unenviable task of evaluating the plaintiff's symptoms against the background of competing expert reports. This adds to the difficulties that a judge has in determining the reliability and credibility of the plaintiff. Irvine J was alive to this obligation in *Nolan v Wirenski*.¹⁵⁵

The Supreme Court in *Payne v Shovlin*¹⁵⁶ has interpreted the disclosure rules as meaning that all preliminary reports must be disclosed. The plaintiff in this medical negligence action had sought directions as to whether a preliminary report which was generated, but which the plaintiff had no intention of relying on at trial, was required to be disclosed under the rules. It was submitted that the expert's views as to liability and causation had evolved and developed since he had furnished his preliminary report. The Supreme Court held that once the report in question formed part of the substance of the evidence it must be disclosed pursuant to the disclosure rules. While Kearns J (as he then was) acknowledged that SI 391 of 1998 introduced an exception to litigation privilege, he stressed that litigation privilege was itself an exception

¹⁵¹ Order 39, rule 46(1) of the RSC

¹⁵² Order 39, rule 50 of the RSC

¹⁵³ Order 39, rule 50(1) of the RSC

¹⁵⁴ Order 39, rule 50(2) of the RSC

¹⁵⁵ [2016] IECA 56 at [48]

¹⁵⁶ [2007] 1 IR 114

to the general principle that all relevant information should be before the court.¹⁵⁷

Kearns J was of the opinion that such disclosure is necessary in the interests of expedition and efficiency:

“[T]he failure to produce an earlier report, providing it contains the substance, or part of the substance, of the evidence which, at the time of its compilation it was intended to give, may lead to a situation where in the course of cross-examination, it may emerge that the author expressed a different view, for example in relation to causation in a medical negligence action, at an earlier time and adverted to same in a first report. How can the interests of expedition and efficiency be served if such information only emerges in cross-examination? It might well require that the trial be adjourned while further lines of enquiry are pursued in the light of the particular revelation. Further, it would always be possible that such additional inquiries might lead to the claim being dropped altogether. All of these costly and undesirable consequences are avoided by disclosure of all reports which contain any of the substance of the evidence intended to be led.”¹⁵⁸

In so deciding, Kearns J distinguished the Irish position with the position reflected in the CPR. The Court of Appeal of England and Wales in *Jackson v Marley Davenport Ltd*¹⁵⁹ held that the CPR only applied to reports that were to be relied upon at trial. The court was of the opinion that the specific and limited exemption from privilege of the instructions given to the expert as the basis on which the report is to be written showed that there cannot have been any intention to abrogate the privilege attaching in other respects, for example, to earlier drafts of a final report or to earlier reports.¹⁶⁰

¹⁵⁷ See *Smurfit Paribas Bank v AAB Export Finance* [1990] 1 IR 469 and *Gallagher v Stanley* [1998] 2 IR 267.

¹⁵⁸ [2007] 1 IR 114 at 131-132.

¹⁵⁹ [2004] 1 WLR 2926. However, see the case of *McHugh v O'Sullivan* (Unreported, High Court, 17 July 2011) referred to at [2-339] of Jennings *et al.*, *The Law of Personal Injuries*, *op. cit.*, where it was held that an expert's comments about the opposing side's expert reports did not come within the definition of “expert report” under the Rules.

¹⁶⁰ *ibid.*, at [15].

A related issue is whether documents referred to in the expert's report are required to be disclosed. In *Doherty v North Western Health Board*,¹⁶¹ the defendant sought disclosure of certain documents of certain third parties which had been referred to in the reports of two expert witnesses in the case. The defendant claimed that such documents came under the definition of items required to be disclosed under SI 391 of 1998 as which refer to "any maps, drawings, photographs, graphs, charts, calculations other like matter referred to in any such report". The documents in question included solicitor/client correspondence and certain statements by witnesses, and the defendant argued this was "other like matter" as mentioned under the rules. Finnegan P held that "other like matter" must be construed *ejusdem generis* with the words preceding it which referred to maps, drawings, photographs *etc.* and that the documents referred to in this case could not be considered as a like matter to those specifically mentioned in the rules.

(b) Other Cases

An analogy can be drawn between the disclosure rules in personal injury proceedings discussed above and Order 63A, rule 22 of the RSC¹⁶² in commercial proceedings. This rule provides that a plaintiff wishing to rely on expert evidence at trial must serve an expert report¹⁶³ at least one month prior to the trial. A defendant is given seven days in which to do so. Similar provisions have been introduced recently for Chancery and Non-Jury cases.¹⁶⁴ In those cases, a party must serve an expert report 30 days before the trial date.

Clarke J, in *Moorview Developments Ltd v First Active plc*,¹⁶⁵ in noting that the plaintiff's expert reports in that particular case were unsatisfactory, made some general comments about the contents of expert reports and the use of discovered documentation when drafting same. He held that there was nothing inappropriate in an expert being furnished with documents which are

¹⁶¹ [2006] 1 ILRM 282

¹⁶² Dowling, *op. cit.* at [8-81]–[8-82].

¹⁶³ This phrasing in the rule is "a written statement outlining the essential elements of that evidence signed and dated by the expert or witness..."

¹⁶⁴ Order 63C, rule 17 as inserted by Rules of the Superior Courts (Chancery and Non-Jury Actions and Other Designated Proceedings: Pre-Trial Procedures) 2016 (SI No 255 of 2016).

¹⁶⁵ [2009] IEHC 214

intended to be proved in the course of a hearing. He was of the view that this was just an aspect of the more general rule that there is nothing inappropriate in an expert being asked his or her view on the basis of hypothetical facts, subject to the obligation on the party calling that expert in evidence to establish the facts on which the expert's view has been expressed.¹⁶⁶

However, a difficulty can arise if there is a lack of clarity in the report as to which documents have been furnished to the experts. He held that it was of particular importance that the expert concerned should state, with some significant degree of clarity, the precise information given and, where relevant, a precise description of any documents supplied to the expert concerned. Clarke J, speaking in the analogous context of hypothetical facts, stated as follows:

“An expert opinion on hypothetical facts is only as good as the facts briefed. In this context I would include in the term ‘hypothetical facts’ those which are briefed to the expert concerned, or those which may be found in documents supplied to the expert concerned. Those matters may turn out to be true and may be established at the trial. However, so far as the expert is concerned, the facts are hypothetical in that the expert does not know of the truth or falsity of them of his her own knowledge.”¹⁶⁷

It is important to note that while these proceedings were not in the Commercial List, they were case managed in accordance with the provisions of Order 63A as if they had been entered into the Commercial List. Therefore, the comments of Clarke J may have some general application outside of commercial proceedings.

(v) Consultation between Experts

As mentioned above, the RSC provide for consultation between experts in the Commercial Court.¹⁶⁸ The provision is in very similar terms to the

¹⁶⁶ See Chapter 2.

¹⁶⁷ *ibid.*, at [4.3]

¹⁶⁸ Order 63A, rule 6(1)(ix) of the RSC

corresponding English provision.¹⁶⁹ Under the Irish provision, a judge may at the initial directions hearing, of his own motion or on the application of a party, direct any expert witnesses to consult with each other to identify the issues and reach agreement on the evidence they intend to give in respect of those issues.¹⁷⁰ Dowling submits that this power can work in tandem with the power of the Commercial Court judge to give directions for the “fixing of any issues to be determined”¹⁷¹ and the “defining of issues by the parties”.¹⁷²

The experts are required to record the outcome of their consultation in a memorandum, albeit that it is not binding on the parties. Dowling remarks that three points are immediately apparent from the provision:

“First, the rule clearly envisages a system of co-operation between experts on either side with a view to narrowing the issues at an early stage, thereby saving time and cost. Secondly, the consultation process can be “guided” by the Commercial Court Judge who can instigate the meeting and who can direct the parties to consider issues during the meeting. Thirdly, the outcome of the consultation is a matter of record, although it is not in any way binding on the parties.”¹⁷³

The judge can also direct the experts to consider “any other matter”.¹⁷⁴ Dowling remarked that this provision may not be as wide as it appears to be, as the principle of party autonomy may prevent the court from forcing parties to include a particular issue in a case.¹⁷⁵

The judge can, without prejudice to the rules about privilege, and to assist him in deciding whether to direct a consultation, direct the parties to furnish information in respect of *inter alia* particulars of any matter of a

¹⁶⁹ Rule 35.12 CPR. Rule 6(1)(ix) stipulates that there should be a “consultation”, while the term “discussion” is used in Rule 35 CPR. See Dowling, *op. cit.* at [8-10].

¹⁷⁰ Dowling, *op. cit.*, observes at [8-09] that the practice which has emerged is that expert consultations take place after the exchange of witness statements and reports.

¹⁷¹ Order 63A, rule 6(1)(ii) of the RSC

¹⁷² Order 63A, rule 6(1)(iv) of the RSC

¹⁷³ Dowling, *op. cit.* at [8-06].

¹⁷⁴ Order 63A, rule 6(1)(ix)(c) of the RSC

¹⁷⁵ Dowling, *op. cit.* at [8.11].

scientific nature which may be at issue or may be the subject of evidence.¹⁷⁶ It is clear from this provision that the judge can direct the parties to provide him with expert statements before deciding whether to direct a consultation.¹⁷⁷ It should be noted that there are similar features in competition proceedings. Order 63B was inserted into the RSC in 2005.¹⁷⁸ Similar to Order 63A, it allows, at the initial directions hearing in “competition proceedings”¹⁷⁹ for a judge to direct consultation between expert witnesses.¹⁸⁰ Order 63A does not envisage participation by lawyers in the consultation between the experts and this also appears to be the practice in England.¹⁸¹

However, the New Rules (which also apply to proceedings in the Commercial List)¹⁸² provide that in situations where the evidence given by the experts contradicts each other,¹⁸³ the court can, on the application of any party or of its own motion, implement the procedure provided for in Order 39, rule 61 of the RSC, where the judge considers it necessary “in the interests of justice”. This procedure requires that the experts “shall” be required to meet privately, without the presence of any party or their legal representative, to discuss amongst themselves their proposed evidence. Following that meeting they shall be required to draw up a “joint report” identifying the evidence which is agreed and that which is not agreed.¹⁸⁴ This provision is couched in more stringent terms than the CPR. It is after this joint report has been furnished that the concurrent evidence procedure can be ordered and this is discussed in the next chapter.

¹⁷⁶ Order 63A, rule 2 of the RSC

¹⁷⁷ Dowling submits, *op. cit.* at [8-16] that, whilst it is not the usual practice in the Commercial List, it is open to the judge to direct that a meeting take place prior to the exchange of expert reports, under Order 63A, rule 6(1)(ix)(a) which provides that experts should meet to identify the issues they intend to give evidence on.

¹⁷⁸ Rules of the Superior Courts (Competition Proceedings) 2005 (SI No. 130 of 2005)

¹⁷⁹ “Competition proceedings” are defined in Order 63B, rule 1 of the RSC.

¹⁸⁰ Order 63B, rule 6(1)(ix) of the RSC

¹⁸¹ See Dowling, *op. cit.* at [8-19] – [8-21].

¹⁸² Order 36, rule 56(1)(a) of the RSC and also applied to the Competition List.

¹⁸³ Order 39, rule 60 of the RSC

¹⁸⁴ Order 39, rule 61(2) of the RSC

VI. Power to Restrict Expert Evidence

It has been acknowledged that the calling of multiple experts to give lengthy evidence is not always fair or helpful.¹⁸⁵ In addition, the length and duration of examination of one expert can have an equally deleterious effect on civil proceedings. Until recently, there was no express provision restricting expert evidence in any civil proceedings. It has been remarked that there must be some regulation of the number of experts, “otherwise wealth can unfairly enhance one side of the case to the ostensible impoverishment of the other”.¹⁸⁶

Even in the absence of any rule or statutory provision, it appears that the court has recognised an inherent jurisdiction to restrict expert evidence. This stems from the general right of the court to exercise control over its own processes. In *PJ Carroll and Co Ltd v Minister for Health (No. 2)*,¹⁸⁷ where Kelly J referred to the jurisdiction inherent in the court which enables it to exercise control over process by regulating its proceedings, by preventing the abuse of process and by compelling the observance of procedure.¹⁸⁸

Such an inherent power had been at least recognised in commercial proceedings, on case management grounds, where the introduction of expert evidence disproportionately adds to the cost and length of proceedings and where its usefulness is doubtful.¹⁸⁹ Charleton J noted in *James Elliot Construction Limited v Irish Asphalt Limited*¹⁹⁰ that, in order to prevent delay and expense defeating the right of access to the courts, could involve the trial judge in taking a step beyond case management and directing appropriate proofs regarding the calling of multiple experts on one topic.¹⁹¹

Such an inherent power to restrict expert evidence was again referred to by Charleton J in the High Court decision in *Weaverling Macro Fixed Income Fund Limited v PNC Global Investment Servicing (Europe) Ltd*.¹⁹² He began

¹⁸⁵ *Weaverling Macro Fixed Income Fund Limited v PNC Global Investment Servicing (Europe) Ltd* [2012] IEHC 25. For the Supreme Court decision see [2012] IESC 60.

¹⁸⁶ *ibid.*

¹⁸⁷ [2005] 3 IR 457

¹⁸⁸ *ibid.*, at 49.

¹⁸⁹ Dowling, *op. cit.* at [8-57].

¹⁹⁰ [2011] IEHC 269

¹⁹¹ *ibid.*, at [3].

¹⁹² [2012] IEHC 25

by explaining the rationale for the Commercial Court as the recognition of the excessive expense which over-reliance on experts could cause and concluded that there must be some regulation of the number of experts. Charleton J drew a comparison with the Federal Courts in the United States of America where a trial judge may make specific orders allocating limited amounts of time to both sides. He noted that the Commercial Court has a power to manage proceedings¹⁹³ and “ample power” was provided for in the provisions of Order 63A for the trial judge to set the issues to be tried, limit evidence to what is appropriate and to measure the time allowed. He referred to *PJ Carroll and Co Ltd v Minister for Health (No 2)* and held that, even in the absence of a specific rule, that the courts also have an inherent discretion to make such directions.¹⁹⁴ He held that the inherent power of the court may extend to the control of unnecessary duplication in expert or any other form of testimony.¹⁹⁵ In *Quinn & Ors v Irish Bank Resolution Corporation*,¹⁹⁶ Charleton J again stated, in stringent terms, that case management could “confine” evidence away from a confusing and wasteful domination of court time in a multiplicity of experts in favour of one expert on each side.¹⁹⁷ In this decision, Charleton J referred with envious approval to the practice in Australia where experts give concurrent evidence. This is referred to in greater detail in the next chapter.

Under the New Rules, there is provision that expert evidence shall be restricted to that which is reasonably required to enable the Court to determine the proceedings.¹⁹⁸ This places an express duty on an Irish court to restrict expert evidence in proceedings to which the rule applies. A provision in almost

¹⁹³ Order 63A, rule 5 of the RSC

¹⁹⁴ *ibid.* at 11. In this regard, he referred to *PJ Carroll and Co Ltd v Minister for Health (No. 2)* [2005] 3 IR 457 at 459 where Kelly J referred to the “jurisdiction inherent in the court which enables it to exercise control over process by regulating its proceedings, be preventing the abuse of process and by compelling the observance of process”.

¹⁹⁵ *ibid.* at 15.

¹⁹⁶ [2012] IEHC 36

¹⁹⁷ *ibid.* at [K5].

¹⁹⁸ Order 39, rule 58(1) of the RSC.

identical terms in contained in the CPR.¹⁹⁹ Aikens J stated of the English rule in *JP Morgan Chase Bank v Springwell*:

“[A]ll too often, the judge is submerged in expert reports which are long, complicated and which stray far outside the particular issue that may be relevant to the case. Production of such expert reports is expensive, time-consuming and may ultimately be counter-productive. That is precisely why CPR Pt 35.1 exists ... And it is the duty of the court, even if it is only for its own protection, to reject firmly all expert evidence that is not reasonably required to resolve the proceedings.”²⁰⁰

The courts of England and Wales have shown a readiness to use these powers and apply the principle of proportionality so as to ensure that cases are dealt with justly and without unnecessary expense.²⁰¹ In *Barings plc (in liquidation) v Coopers & Lybrand (No 2)*,²⁰² it was held that the court retained a residual discretion to exclude expert evidence if it would not help the determination of the issues.

However, the New Rules do not go as far as the CPR, which provide that no party may call an expert or put in evidence an expert's report without the court's permission.²⁰³ The LRC had invited submissions as to whether there should be a general requirement that court permission is expressly required before parties adduce expert evidence.²⁰⁴ It is clear that under Irish law, no such permission is required. However, under the New Rules, there is an express prohibition offering evidence from more than one expert only in a

¹⁹⁹ Rule 35.1 CPR provides that “[e]xpert evidence shall be restricted to that which is reasonably required to resolve the proceedings”. An expert is defined in Rule 35.2 as “a person who has been instructed to give or prepare expert evidence for the purpose of proceedings”.

²⁰⁰ [2006] EWHC 2755 (Comm), at [23].

²⁰¹ Dowling, *op. cit.* at [8-59].

²⁰² [2001] Lloyd's Rep 379

²⁰³ CPR 35.4(1). This reflects the position under Order 38 of the English Supreme Court Rules where leave was needed to call expert evidence. The LRC, *op. cit.* at [5.41], invited submissions as to whether there should be a general requirement that court permission is expressly required before parties adduce expert evidence.

²⁰⁴ LRC, *op. cit.* at [5.41].

particular field of expertise on a particular issue.²⁰⁵ There is to be an exception in situations where the evidence of an additional expert is “unavoidable in order to do justice between the parties”.²⁰⁶

The duty of the courts to restrict expert evidence is arguably not novel, and may exist as part of their inherent jurisdiction. One could doubt the effect this rule is likely to have in practice. If a party says they need an expert, it will be difficult for a judge to say no. This is particularly true given the adversarial nature of civil proceedings. A judge in an adversarial trial is usually able to assuage concerns about fairness by ensuring that the other party has sufficient opportunity to present its own expert evidence. However, this is only likely to lead to more cost and delay. In addition, the provision that only one expert per field of expertise is permitted is unusual. It is likely that parties will attempt to circumvent the rule by arguing slight nuances to differentiate between “fields” of expertise.

VII. Conclusion

This chapter has considered the incorporation of expert evidence in civil proceedings by reference to process considerations in civil proceedings generally. It was outlined initially that civil litigation has both a private and public dimension. The parties to civil proceedings undoubtedly have a vested interest in seeing their cases come to a conclusion. However, there is also a public interest in the effective resolution of disputes.

Concerns have been raised regarding cost and delay in civil litigation for some time. While not the only culprit, expert evidence has been the subject of adverse judicial commentary as contributing to such cost and delay. In a civil case, excessive delays can result in hardship and extreme changes in circumstances for private litigants. Here, we see a cross-over in civil proceedings between rights-based considerations and typical process considerations, such as cost and delay. In a jurisdiction where effective access to the courts is enshrined as a constitutional right, the State is under a duty to prevent its citizens from being denied such access. However, Lord Woolf

²⁰⁵ This is similar to the comments of Charleton J in *Quinn & Ors v Irish Bank Resolution Corporation*, *op cit*.

²⁰⁶ Order 39, rule 58(3) of the RSC

himself acknowledged that it is a nonsense to expect civil justice to be self-financing.²⁰⁷ A balance must therefore be struck between access to civil justice and the resources of the State.

Concerns regarding cost and delay prompted reform both in England and Wales and in Ireland. Jacob²⁰⁸ concluded that the Woolf reforms “produced no great actual innovations for expert evidence. What it did do... was indeed produce an improvement by a change in culture”.²⁰⁹ On the other hand, Dwyer remarks that the use of experts under the CPR has been a success story of English civil procedure. She states that there has been a rise in the professionalism of experts in assisting the court, a decrease in the number of experts instructed and in the range of areas of expertise in any given case. However, it has been acknowledged that by the time Lord Woolf’s inquiry began, there had been consensus that the use of experts had to be curtailed and reformed. The same could be said of Ireland. The Irish courts have shown themselves to be willing to embrace case management, and the Irish judiciary has been acutely conscious for some time of the need to curtail excessive expert evidence. What the Woolf reforms did achieve was to give the English judiciary the express powers to manage the experts.

Regarding express powers, no permission is needed to adduce expert evidence in civil proceedings in Ireland. As outlined in Chapter 3, a requirement of leave to adduce expert evidence in a criminal trial survived constitutional scrutiny.²¹⁰ It is arguable that such a rule in civil cases would allow the court to better control the expert evidence and keep costs down. However, the provision restricting expert evidence to one expert per field of expertise is likely to have the same effect, provided it is not abused and is subjected to appropriate judicial scrutiny.

While these developments provided for in the New Rules are to be welcomed to some extent, it must be questioned why: (a) they have only been introduced by way of statutory instrument, as opposed to being placed on a

²⁰⁷ Lord Woolf, Foreword, Dwyer, (ed.) *The Civil Procedure Rules: Ten Years On* (OUP, 2009), at vi

²⁰⁸ Jacob, “Experts and Woolf: Have Things Got Better?” in Dwyer, (ed) *The Civil Procedure Rules: Ten Years On* (Oxford University Press, 2009), at 293

²⁰⁹ *ibid.*, at 296.

²¹⁰ Section 34 of the Criminal Procedure Act 2010

more solid legislative footing; and (b) they have only been applied directly to proceedings before the Superior Courts.

The overriding duty to the court on the part of the expert in the New Rules is, in truth, nothing new. As outlined in Chapter 2, the expert owes an overriding duty to the court at common law. However, it may now be express that the duty starts before the expert sets foot in the courtroom. In addition, there must be a statement acknowledging the duty,²¹¹ and experts are probably likely to be more careful. The requirement that the expert is required to disclose any interest is likely to keep experts more candid and lead to a more relevant expert report.

The necessity for expert evidence in certain types of civil proceedings, such as professional negligence, only serves to highlight its importance to the resolution of private disputes. Procedures implemented governing the pre-trial measures such as exchange of expert reports and consultation between experts cannot be severed from the discussion. While these may be “pre-trial” in the strict sense of the phrase, they impact to a certain degree on the incorporation of the expert evidence into the proceedings in that they govern how the expert’s conclusions are admitted into evidence. These types of procedures encourage settlement. After all, it is in the public interest and advantageous for the parties from a costs perspective that civil cases settle. The following statement by Lord Mackay of Clashfern in *O’Sullivan v Herdmans Ltd.*²¹² has been cited with approval by the Irish judiciary on numerous occasions:

“The interests of justice are served by the promotion of settlements rather than the prolongation of litigation and by the possibility of early, complete preparation for both parties to a trial rather than by obliging one party to delay its full preparation until after the trial has started.”²¹³

The CPR in England and Wales apply to all types of civil cases which undoubtedly makes it easier for experts to consider giving evidence and for lawyers to advise their clients in civil matters. As seen above, the precise

²¹¹ Order 39, rule 57(1)(a) of the RSC

²¹² [1987] 1 WLR 1047

²¹³ *ibid.*, at 1056. See *McGrory v ESB* [2003] 3 IR 407 at 412 and *Power v Tesco Ireland Ltd* [2016] IEHC 390 at [9].

procedural rules governing disclosure of expert reports vary depending on whether the case can be classified as personal injury, commercial, chancery or non-jury. There are no specific rules for other types of cases in the Superior Courts. Therefore, the jurisprudence may continue to develop along those lines of division, which is unhelpful. There is a need for a coherent common framework for all types of expert evidence in civil proceedings. After all, experts are subject to the same limits and duties irrespective of the type of case, and irrespective of whether the case is civil or criminal.

At present, case management only exists in any real form regarding expert evidence in the superior courts. There are no such rules for the Circuit Court²¹⁴ or District Court. However, this is an area where the lack of congruity between costs and damages is particularly excessive. The financial jurisdiction of the District, Circuit and High Courts was recently extended,²¹⁵ with the motivation appearing to be to reduce the cost of litigation. However, it appeared to one former Attorney General that the financial burden should not be dictated simply by the judicial *locus* in which a dispute is decided and that a broader approach to simplifying and speeding up litigation in whatever locus is called for.²¹⁶ With the jurisdiction of the Circuit Court now extended to €75,000, and €60,000 for personal injuries cases, it is likely that complex civil disputes are being aired without effective case management for expert evidence. While it is possible that the Circuit Court may adopt the new procedures in reliance upon Order 67, rule 16 of the Circuit Court Rules

²¹⁴ However, see Circuit Practice Direction CC08 - Cases whether for breach of contract or recovery of monies where the quality of the building works is in issue, 9 March 2009, which provides that, in construction cases, parties should exchange expert reports to be relied on at trial.

²¹⁵ Part 3 of the Courts and Civil Law (Miscellaneous Provisions) Act 2013, which came into effect on 3 February 2014 (Courts and Civil Law (Miscellaneous Provisions) Act 2013 (Jurisdiction of District and Circuit Court) (Commencement) Order 2013). The current jurisdictions are as follows: District Court in civil proceedings: up to €15,000; Circuit Court in civil proceedings (other than personal injury claims): from €15,001 to €75,000 and Circuit Court for personal injury actions (as defined in Section 2 of the Civil Liability and Courts Act 2004): €60,000.

²¹⁶ McDowell, *op. cit.*, at 200.

2001,²¹⁷ it must be suggested that a more detailed statutory provision of general application would have been preferable.

²¹⁷ This provision provides that where the Circuit Court Rules 2001 do not contain a specific procedure “the practice and procedure in the High Court may be followed”.

CHAPTER 7:
MANAGING EXPERT EVIDENCE IN CIVIL TRIALS: COURT
APPOINTED EXPERTS AND CONCURRENT EVIDENCE

“A man may go and does sometimes to a half dozen experts... He takes their honest opinions, he finds three in his favour ‘will you be kind enough to give evidence’, and he pays the three against him their fees and leaves them alone; the other side does the same.”¹

I. Introduction

There are two main types of procedures designed to curb the excess cost and delay traditionally associated with expert evidence in civil proceedings. These are court appointed experts and concurrent evidence. Both form the basis for civil procedural reform in this jurisdiction and elsewhere.

Ireland is unique in that there has been express provision for the appointment of an expert by the court for some time in personal injuries cases. However, this has not made major waves in practice. Outside the realm of personal injuries, there was no provision allowing for an expert to be appointed by the court in other cases until recently. This is an area where the reforms in England and Wales, referred to in the previous chapter, are very relevant to the Irish discussion going forward. Similarly, assessors are not a new legal phenomenon in Ireland, having frequently being used in complicated admiralty, construction and patent cases. However, the New Rules appear to provide for an extended role for assessors, which will also be considered.

The English reforms are less relevant in the context of concurrent evidence, as its reforms are still only relatively recent. Concurrent evidence represents a radical change in adversarial trial procedure. As the birthplace of concurrent evidence, Australia must be examined to establish the rationales behind its introduction with a view to determining whether they accord with the Irish rationales. An attempt will be made to assess the impact of concurrent evidence on cost and delay by reference to some limited empirical evidence in England and Wales.

¹ *Thorn v Worthington Skating Rink Co* (1876) LR 6 Ch D 415

As will be seen, court appointed experts and concurrent evidence represent a significant departure from the traditional adversarial trial. The main features of the adversarial system have already been outlined in Chapter 2. As discussed in the last chapter, case management generally requires the judge to take a more active role in proceedings, far removed from his or her traditional role as the mere umpire. It will be recalled that evidence in the adversarial process is led mainly by lawyers and the constitutionally recognised right of cross-examination plays a crucial role.

The problems with expert witnesses in the adversarial process were summarised succinctly by Howard as follows:

“The present system is said to be flawed as a result of (i) potential bias of expert witnesses; (ii) risks arising from the expert not being presented with all the data; (iii) the restrictions on the expert’s ability to give his (or her) evidence freely because of the way in which evidence is elicited in court; (iv) the dislike of experts themselves of this procedure; (v) unfairness to the defence due to the lack of resources available to it; (vi) absence of any means of controlling the quality of expert witnesses.”²

As this chapter observes, the procedures of court appointed experts and concurrent evidence aim to address some or all of those concerns. Wilson³ has remarked generally that the courts in Australia and England and Wales have evinced considerable support for trial judges in their assessment and rulings regarding the role and function of concurrent evidence and court appointed experts and have also emphasised the need for counsel to participate actively in their use when adopted.⁴

² Howard, “The Neutral Expert: A Plausible Threat to Justice” [1991] Crim LR 98, at 99.

³ Wilson, “Concurrent and court appointed experts? From Wigmore's "Golgotha" to Woolf's "proportionate consensus"” (2013) 32(4) CJQ 493

⁴ *ibid.*, at 493.

II. Court Appointed Expert

(i) Background

In the last chapter, the different roles of an expert in civil proceedings were distinguished. It will be recalled that the expert can act as an expert witness or merely as an adviser to the litigation team. In these scenarios, the expert is selected and retained by the parties and that expert will be referred to as a “party expert” in the context of the following discussion. Party experts must be distinguished from court appointed experts. These experts are appointed by the court itself, ordinarily of its own initiative. Parties may have no say in the choice of expert, or the court may choose the expert from a list submitted by the parties. Lying between these two types of expert is an expert known as the single joint expert, who is appointed jointly by the parties, although the court can usually direct that a single joint expert give evidence on a particular issue. However, in the case of all experts their duty is to the court, and not to individual parties.

Court appointed experts are not a new legal phenomenon and can be traced back to the 15th century.⁵ In fact, an English civil procedure rule, since repealed, provided for the appointment of a court expert as far back as 1940.⁶ However, they remain an almost unheard of concept in most common law adversarial systems. They are the norm in civil law jurisdictions.⁷ We have already seen from the discussion of the ECHR in Chapter 3 that court appointed experts do not constitute a breach of Article 6 except, of course, where their independence is in question.

⁵ Learned Hand, “Historical and Practical Considerations Regarding Expert Testimony” (1901) 15 Harvard Law Review 40. See also Dwyer, *The Judicial Assessment of Expert Evidence* (Cambridge University Press, 2008) at 269 - 274.

⁶ Order 40 Rules of the Supreme Court. However, this could only be done on the application of a party and was rarely used.

⁷ See Spencer, “Court Experts and Expert Witnesses: Have We a Lesson to Learn from the French?” (1992) 45 CLP 213. See also McKillop, “Forensic Science in Inquisitorial Systems” (1995) 7(1) 37 and Howlin, “Special Juries: A Solution to the Expert Witness?” (2004) 12 ISLR 19 at 29-30.

While the miscarriage of justice cases in the 1990s referred to in Chapter 4 in the context of scientific evidence undoubtedly called into question the competence of the jury, they also reflected poorly on party experts. Therefore, much of the literature relating to expert evidence focuses on the respective merits and demerits of the appointment of a court expert in criminal proceedings.⁸ They are generally not favoured in criminal proceedings due to the effect this would have on the presumption of innocence. However, the literature is also instructive from a civil perspective, given that both are adversarial in nature. The advantages and disadvantages of the court appointed expert have been rehearsed on a number of occasions. In Ireland, there has been provision for a court appointed expert in personal injuries cases since 2004. Many objections were raised to the notion of the court appointed expert at that time in the context of personal injuries cases, and are taken into account as part of the discussion below.

Addressing firstly the concerns outlined in the previous chapter, court appointed experts are likely to reduce the costs and delay in a trial, in that there would no longer be two experts testifying.⁹ In addition, time and cost would be saved in that there no longer needs to be an exchange of party expert's reports and the court has some level of control over the court appointed expert's fees.¹⁰ It may also encourage settlement if the parties are agreed on a single expert, and if the expert reports their findings at an early stage in the proceedings.¹¹

In addition, the court appointed expert is seen to remove the risk of adversarial bias as he or she is not engaged by the parties and is thus more likely to be neutral and impartial.¹² The evidence given by this expert should,

⁸ For example, see Roberts & Zuckerman, *Criminal Evidence*, (2nd ed., OUP, 2010) at 507. See also the discussion between Howard and Spencer: Howard, "The Neutral Expert: A Plausible Threat to Justice" [1991] *Crim LR* 98; Spencer, "The Neutral Expert: An Implausible Bogey" [1991] *Crim LR* 106; and Howard, "Expert Witnesses" [1991] *Crim LR* 569. Under the Criminal Procedure Rules (33.7 and 33.8) in England and Wales, a single joint expert can be appointed in criminal proceedings as between co-defendants but not as between the prosecution and the defence. See S.I. 2636 of 2006: *Criminal Procedure (Amendment No 2) Rule 2006*.

⁹ McKillop, *op. cit.* at 599.

¹⁰ LRC, *op. cit.* at [5.297].

¹¹ *ibid.*

¹² Spencer *op. cit.* at 589; McKillop *op. cit.* at 599; LRC, *op. cit.* at [5.297].

in general, be more likely to be objective. In addition, the expert is free to pursue the issues fully without inhibitions from the interests of the party instructing him or her. This aspect of the procedure is regarded as serving the interest of science.¹³ If the court appoints an expert, it is not required to choose between two divergent opinions and this aids the judge's comprehension of expert evidence. Litigation is best served by consensus opinion.¹⁴

As against this, there is no doubt that a court appointed expert flies in the face of the traditional adversarial system, as outlined in Chapter 2. The previous chapter discussed how, in an adversarial trial, the parties can legitimately decide not to call expert evidence if they wish. In addition, it may be said that, in the absence of an adversarial contest, an expert has far less of an incentive to adopt a firm position and defend it. It has been doubted whether a party who disagrees with the court appointed expert will achieve much by way of cross-examination.¹⁵ It must be recalled at all times that, at a most fundamental level, the evidence of an expert is nothing more than the expression of an opinion. As such, a party may simply be bound by "the luck of the draw".

The argument that the court appointed expert saves costs falls away if the parties are permitted to call their own expert evidence in addition to that of the court appointed expert.¹⁶ Such a situation could actually lead to more experts acting in a particular case than fewer. When one considers that the parties may require their own expert adviser's view to inform their cross-examination of the court appointed expert, there is likely to be little saving in costs. In the case of a single expert, if the parties fail to agree on the identity of the expert, this can lead to more delays and associated costs.¹⁷ The parties may indeed need to seek expert advice on the actual expert itself!¹⁸

There is also danger that a court appointed expert witness might be regarded by the court as offering more reliable expert evidence than the

¹³ McKillop, *op. cit.* at 599.

¹⁴ *ibid.*

¹⁵ *ibid.*

¹⁶ Heffernan, "Expert Evidence in Medical Negligence Litigation" in Craven & Binchy (eds), *Medical Negligence Litigation: Emerging Issues* (Firstlaw, 2008), at 138.

¹⁷ LRC, *op. cit.*, at [5.297].

¹⁸ *ibid.*

parties' experts.¹⁹ Binchy remarks that the evidence of a court appointed expert should be treated the same way as the evidence given by the parties' experts, but "it is somewhat of a different character, being based on a power of investigation backed by compulsion".²⁰ There may also be pressure obliging the court to accept the court appointed expert's conclusions.²¹ Howard has stated:

"The public debate of the parties' respective cases would be supplanted by a decision, reached in secret, on the basis of unidentified information, by a person whose authority had been established in advance, and whose views and competence could not be challenged by the parties."²²

The court appointed expert also might not be appropriate where there are two contrasting, but legitimate, schools of thought on a particular issue.²³ Binchy has argued that a court appointed witness may have an effect detrimental to plaintiffs who are seeking to advance a theory that contradicts orthodox practice,²⁴ meaning that "a plaintiff may have the handicap of having to pitch his or her expert witness, arguing in favour of a new approach, against two expert witnesses".²⁵ He went on to query the position where a scientific controversy is at the heart of litigation.²⁶ The selection by the court of a particular expert may have an influence on the outcome of the case. In addition, if a court rejects the evidence of the court appointed expert (as it is free to do), this could stigmatise the quality of the expert on a sometimes straightforward issue.

¹⁹ Binchy, "The Impact of the New Act on Tort Law" in Binchy & Craven (eds), *Civil Liability and Courts Act 2004: Implications for Personal Injury Litigation* (Firstlaw, 2005), at 59.

²⁰ *ibid.*

²¹ Heffernan, *op. cit.*, at 137.

²² Howard, *op. cit.*, at 105.

²³ McKillop, *op. cit.* at 599. LRC, *op. cit.* at [5.297].

²⁴ Binchy cited a medical example and the case of *Dunne v National Maternity Hospital* [1989] IR 91 and noted that a person chosen by the court from a panel of experts may tend towards the centre of conventional thought within the profession.

²⁵ Binchy, *op. cit.*, at 60.

²⁶ *ibid.*

In addition, the court appointed expert, or single expert, is only as good as their instructions and the information provided to them by the parties and the court. It calls into question the remedy for a party who alleges that either expert has been misinformed. There is a risk that the expert may only present one side of the debate, which means that the court is left uninformed. An advantage of the adversarial system is that the court hears two sides of the debate, and is required to choose between them.

Finally, it has been questioned whether court appointed experts are less likely to be biased at all. Howard doubts experts can be transformed from “venal mountebanks” when engaged by the parties, to “paragons of objectivity”, when employed by the courts.²⁷ In Howard’s view, the adversarial system is better suited to weeding out bias through a thorough analysis of the evidence by cross-examination.²⁸ In any event, it will be recalled from Chapter 2 that there is no real consensus on an interpretative framework for bias, which led some commentators to doubt whether it can legitimately be advanced in opposition to expert evidence at all.

(ii) England and Wales

As outlined in the previous chapter, Lord Woolf identified experts as one of the greatest areas of concern in civil proceedings. One of his recommendations in his Interim Report for improving the dire situation, as he saw it, was through the appointment of neutral court experts. He envisaged that the parties would be free to agree on an expert, but that if they could not agree, then an expert could be appointed by the court.²⁹ However, it was this particular recommendation that attracted the most opposition. The main concerns were as follows: (1) that it would be the expert and not the judge that would decide the case; (2) that there would be increased cost in addition to the parties’ own

²⁷ Howard, *op. cit.*, at 101.

²⁸ *ibid.*

²⁹ Lord Woolf, *Access to Justice: Interim Report to the Lord Chancellor on the Civil Justice System in England and Wales* (HMSO, London 1995) at [23]. Lord Woolf said that there were “numerous professional bodies who would be prepared to make the appointment at the request of the court”.

experts; and (3) that court experts would be unable to handle situations where there was more than one acceptable view.³⁰

Lord Woolf attempted to reassure his opponents in his Final Report by stating that the neutral expert would still function within a broadly adversarial framework, and that where possible that expert would be chosen by agreement between the parties, and not imposed by the court.³¹ The expert would only be appointed by the court if the parties failed to reach agreement. He also stressed that the appointment of a neutral expert would not necessarily deprive the parties of the right to cross-examine.³² However, given the strength of the opposition, he felt that it was not realistic to expect a shift towards neutral court experts in the short term. He was convinced that the concept of a neutral court expert had validity as, according to him, it was likely to save money, and to increase the prospects of settlement. He also viewed it as an effective way of leveling the playing field between parties of unequal resources.³³

Lord Woolf's recommendation was introduced in the modified form of the single joint expert. The CPR provides that a court may direct that the evidence on an issue be given by a single joint expert, where two or more parties wish to submit expert evidence on a particular issue. Where there is disagreement between the parties as to what expert should be selected, the court can select the expert from a list prepared or identified by the relevant parties or alternatively direct that the expert be selected in such other manner as the court may direct.³⁴ When a single joint expert is appointed, any relevant party can give instructions to that expert, as long as they send a copy of the instructions to the other parties.³⁵ Unless otherwise directed, the parties are jointly and severally liable for the payment of the single joint expert's expenses.³⁶

³⁰ Lord Woolf identified these as the concerns. Lord Woolf, *Access to Justice Part II: Final Report to the Lord Chancellor on the Civil Justice System in England and Wales* (HMSO, London 1996) at [13.12].

³¹ *ibid.* at [13.17].

³² *ibid.* at [13.18].

³³ *ibid.* at [13.21].

³⁴ CPR 35.7(2)

³⁵ CPR 35.8(1) – (2).

³⁶ CPR 35.8(5). The court is also empowered to give directions about the payment of fees and expenses and any inspection, examination or experiments which the expert wishes to carry out

Some, but not all, of the concerns mentioned above would be alleviated by making provision for a single joint expert. As the parties can agree to a single joint expert, this means that they are not excluded from the process. In addition, there is transparency as the instructions from the parties to the single joint expert are shared.

Lord Woolf did not attempt to enumerate the particular areas of litigation where a single expert should or should not be used. He put forward a general principle:

“As a general principle. I believe that single experts should be used wherever the case (or the issue) is concerned with a substantially established area of knowledge and where it is not necessary for the court directly to sample a range of opinions.”³⁷

He remarked that large, complex or strongly contested cases, where there are several tenable schools of thought, or where the boundaries of knowledge are being extended, may require the benefit of the full adversarial system.³⁸ As the concept of the single joint expert made its way to appellate level, there was initially some divergence in the guidance on using single joint experts.³⁹ This may be due to the fact that the English provision applies to all classes of civil claim.

Initially, Lord Woolf was clearly of the opinion that single joint experts should be the norm and stated, in a curial context in *P v Mid Kent Area Healthcare NHS Trust*,⁴⁰ that that the starting point should be that, unless there is a reason not to have a single joint expert, then there should only be a single expert.⁴¹ He also was of the opinion that there was no need for the single joint

(Rule 35.8(3)). The court can also, before an expert is instructed, limit the amount that can be paid by way of fees and expenses to the expert and direct that some or all of the relevant parties pay that amount into court (Rule 35.8(4)).

³⁷ Lord Woolf, Final Report, at [19].

³⁸ *ibid.*

³⁹ See Thompson, “The Problem with Single Joint Experts” (2004) 154 NLJ 1134

⁴⁰ [2002] 1 WLR 210

⁴¹ *ibid.*, at [28].

expert's report to be tested by cross-examination.⁴² However, Hodgkinson and James point out that experience in England and Wales suggests that it is certainly not the practice of the courts there to impose a single joint expert in every case where the expert opinion covers a substantially established area of knowledge.⁴³

What is clear is that the court has a wide measure of discretion in deciding whether to appoint a single joint expert. A Practice Direction sets out the circumstances in which expert evidence may be appropriate. Such circumstances include whether:

- “(a) it is proportionate to have separate experts for each party on a particular issue with reference to (i) the amount in dispute; (ii) the importance to the parties; and (iii) the complexity of the issues;
- (b) the instruction of a single joint expert is more speedy and cost effective;
- (c) expert evidence is to be given on the issue of liability, causation or quantum;
- (d) the expert evidence falls within a substantially established area of knowledge which is unlikely to be in dispute or there is likely to be a range of expert opinion;
- (e) a party has already instructed an expert on the issue in question and whether or not that was done in compliance with any practice direction or relevant pre-action protocol;
- (f) questions put are likely to remove the need for the other party to instruct an expert if one party has already instructed an expert;
- (g) questions put to a single joint expert may not conclusively deal with all issues that may require testing prior to trial;
- (h) a conference may be required with the legal representatives, experts and other witnesses which may make instruction of a single joint expert impractical; and

⁴² This was quoted with approval by Dyson LJ in *Popek v National Westminster Bank plc* [2002] CPLR 370.

⁴³ Hodgkinson & James, *Expert Evidence: Law and Practice* (4th ed., Sweet & Maxwell, 2015), at [5-003].

(i) a claim to privilege makes the instruction of any expert as a single joint expert inappropriate.”⁴⁴

Importantly, it has been held in England and Wales that the appointment of a single joint expert does not prevent parties from instructing their own experts. *Daniels v Walker*⁴⁵ concerned unsatisfactory instructions being given to the single joint expert. The defendant was dissatisfied with the joint expert’s report and wished to appoint another expert. It was held by the Court of Appeal that the trial judge should have allowed the defendant to call its own expert. Lord Woolf regarded the appointment of a single joint expert as the first step in what is potentially a two-step process and stated:

"In a substantial case such as this, the correct approach is to regard the instruction of an expert jointly by the parties as the first step in obtaining expert evidence on a particular issue. It is to be hoped that in the majority of cases it will not only be the first step but the last step. If, having obtained a joint expert’s report, a party, for reasons which are not fanciful, wishes to obtain further information before making a decision as to whether or not there is a particular part (or indeed the whole) of the expert’s report which he or she may wish to challenge, then they should, subject to the discretion of the court, be permitted to obtain that evidence.”⁴⁶

However, this case suggests that a party will be more entitled to adduce its own expert evidence if it has first asked questions of, and received replies from, the single joint expert. Interestingly, and in response to reliance on Article 6 of the ECHR as a basis for the defendant’s argument, Lord Woolf remarked that Article 6 had “nothing to add”, and that:

⁴⁴ Paragraph 7 of Practice Direction 35

⁴⁵ [2000] 1 WLR 1382

⁴⁶ *ibid.* at [26].

“[I]t would be unfortunate if case management decisions in this jurisdiction involved the need to refer to the learning of the European Court on Human Rights in order for them to be resolved.”⁴⁷

It is clear from the English jurisprudence that a party will be permitted to appoint their own expert where there might be different schools of thought on an issue, such as in *Oxley v Penwarden*.⁴⁸ This concerned an alleged failure on the part of the defendant to diagnose a vascular condition. The English Court of Appeal recognised that there was a danger that the court would effectively be required to decide on the issue of causation without challenge.

As outlined in Chapter 2, the finder of fact is not obliged to accept the expert evidence, and can prefer lay testimony. There was some initial uncertainty in England and Wales as to whether the judge was obliged to accept the evidence of the single joint expert without question. The difficulty is that there was no alternative expert opinion to which the judge could compare the single joint expert’s opinion. Therefore, the evidence would be uncontroverted. Despite some initial authority which suggested that the evidence of the single joint expert should be disregarded in very rare circumstances,⁴⁹ the Court of Appeal in *Armstrong v First York Ltd*⁵⁰ upheld the decision on the part of the trial judge to prefer the evidence of fact adduced on behalf of the claimants to the evidence of the single joint expert.

Single joint experts are described as being “the norm” in England and Wales in cases allocated to the small claims track and the fast track.⁵¹ The authorities in England and Wales suggest that a court is more likely to permit a party to appoint its own expert in a case where the expert evidence is primarily opinion evidence and relates to liability or causation, as opposed to *quantum*.

⁴⁷ *ibid.* at [24].

⁴⁸ [2001] Lloyd’s Rep Med 347

⁴⁹ *Coopers Payen Ltd v Southampton Container Terminal Ltd* [2003] EWCA Civ 1223

⁵⁰ [2005] 1 WLR 2751

⁵¹ Civil Justice Council, Guidance for the instruction of experts in civil claims” August 2014, at [34]. Available at <https://www.judiciary.gov.uk/wp-content/uploads/2014/08/experts-guidance-cjc-aug-2014-amended-dec-8.pdf>. (Accessed on 30 September 2016.) This guidance came into effect on 1 December 2014, and replaced the former Protocol for the instruction of experts to give evidence in civil claims, which was removed from Practice Direction 35 of the Civil Procedure Rules with effect from that date.

However, what is not clear from the English jurisprudence is how the court is supposed to assess the objectivity and impartiality of the expert in carrying out its responsibilities, and how is the court to test that expert evidence.

(iii) Ireland

As outlined briefly above, the debate surrounding a court appointed expert in Ireland began in the context of personal injuries actions. It has been provided in personal injuries cases that the court may appoint an expert since the enactment of the Civil Liability and Courts Act 2004. Court appointed experts are also provided for in family law legislation, but this thesis will not deal with them due to the difficulties in finding reported decisions on the subject.⁵²

In 2008, the LRC in its Consultation Paper on Expert Evidence considered the position in England and Wales and elsewhere in relation to court appointed experts. It observed that the single joint expert had been functioning well in practice in England and Wales. It invited submissions on the issue of a single joint expert in Ireland. However, it appeared to have a particular difficulty with the situation where the expert was appointed by the court, rather than jointly by the parties, stating that the latter was preferable.⁵³ Events have recently overtaken the LRC's invitation in that a single joint expert is now provided in the RSC in all cases. This will be discussed in further detail below. It is necessary first to consider the provision for court appointed experts in personal injuries proceedings.

⁵² Section 47 of the Family Law Act 1995 provides that the court may procure a report from such person as it may nominate on any question affecting the family law proceedings in question. See Hogan & Kelly "Section 47 Reports in Family Law Proceedings: Purpose, Evidential Weight and Proposals for Reform" (2011) 2 IJFL 27. Also, Order 70, rule 32 of the RSC provides for the appointment of a medical inspector or two medical inspectors, normally a psychologist or psychiatrist, to carry out an independent examination of the parties in nullity cases. See also the High Court Practice Direction: HC51: Family law proceedings, which provides for case management in family law cases.

⁵³ LRC *op. cit.*, at [5.298].

(a) Personal injuries

Section 20 of the Civil Liability and Courts Act 2004 (“the 2004 Act”) permitted the appointment by the court of an expert in a personal injuries action. As outlined in Chapter 6, the 2004 Act formed part of a number of reforms aimed at reducing cost and delay in personal injuries cases. It has been commented that section 20 might be perceived as a further initiative aimed at curbing the excesses of personal injuries litigation.⁵⁴

It was provided that the court, in a personal injuries action, may appoint such “approved persons” as it considers appropriate to carry out investigations into, and give expert evidence concerning, such matters as the court directs.⁵⁵ The parties are required to co-operate with the approved person and provide them with any reports or documents prepared on behalf of the party.⁵⁶ A party is entitled to cross-examine the expert appointed by the court.⁵⁷ While only permissive in nature, this section was seen at the time of enactment as a radical departure from standard adversarial practice.⁵⁸ Some commentators viewed it

⁵⁴ Heffernan, “Gauging the Reliability of Scientific Evidence in Tort” (2006) 6(1) JSIJ 140 at 158.

⁵⁵ Section 20(1) of the 2004 Act.

⁵⁶ Section 20(2) of the 2004 Act. Section 20(3) provides that the costs incurred in the appointment of, and carrying out of an investigation by, a person appointed under that section shall be paid by such party to the personal injuries action concerned as the court hearing shall direct.

⁵⁷ Section 20(4) of the 2004 Act. Section 20(5) provides that the President of the High Court in consultation with the President of the Circuit Court and the President of the District Court shall approve such persons as he or she considers appropriate for the purposes of that section. Heffernan, *op. cit.* at 137, remarks that “no further guidance is offered, for example, as to whether the President will approve standing panels of experts for the purposes of the section or whether the system of approval will operate on an *ad hoc* basis”.

⁵⁸ The Minister sought to justify the provision (which was then section 19) as follows:

“In many personal injuries actions, conflicting evidence from experts must be decided by the court. Section 19 allows a court to appoint approved persons to investigate and give expert evidence on any issue the court may direct. The section also provides that any party to a personal injuries action shall co-operate with an approved person. An “approved person” is a person approved by the President of the High Court, in consultation with the Presidents of the Circuit and District Courts, for the purposes of the section. The intention behind this provision is that an expert, independent of any expert witness retained by the parties, could be appointed to assist the court. To take a medical example, a court might decide to appoint its own medical

as a half-hearted attempt to emulate the corresponding English provisions which followed on from Lord Woolf's recommendations and it was predicted to be limited in its impact.⁵⁹

Binchy's difficulties with the notion of court appointed experts are mentioned above in the context of the general objections thereto. He was of the opinion that section 20 placed a new pressure on judges to accept the evidence of the court appointed expert which was unfair to them and even more unfair to litigants. In addition, Heffernan noted that the effect of casting an additional expert opinion into the adversarial mix was difficult to predict.⁶⁰ A third, independent expert could assist the court in resolving a sharp division between two experts but, conversely, he or she may merely compound the dilemma. From a practical perspective, the 2004 Act did not explain the scope of the court appointed witness' power to carry out investigations into "such matters as the court directs" under section 20(1) of the 2004 Act. Binchy also noted that the effect of the provision is to weaken substantially the protection afforded to the parties by legal professional privilege, since reports which would have been shielded from the scrutiny of the court are now to come within its range of vision, through the agency of the court appointed expert.⁶¹

Heffernan also raised the point that the provision may not be very cost-effective, thus going against the stated objective of the 2004 Act itself. Contrary to the position in England, section 20 of the 2004 Act made no attempt to exclude party experts from the realm of recoverable costs.⁶² Costs should usually follow the event, but this may discourage doctors from acting as court appointed experts, as their fee may have to come from an unsuccessful

assessor, who will testify and be liable to cross-examination, but will give an objective view to the court having listened to the medical experts on either side." Seanad Debates, March 11, col. 1808.

See Binchy, "The Impact of the New Act on Tort Law" in Binchy & Craven (eds), *Civil Liability and Courts Act 2004: Implications for Personal Injury Litigation* (Firstlaw, 2005), at 58.

⁵⁹ Heffernan, "Expert Evidence in Medical Negligence Litigation" in Craven & Binchy (eds), *Medical Negligence Litigation: Emerging Issues* (Firstlaw, 2008), at 136.

⁶⁰ Heffernan, *op. cit.*, at 137.

⁶¹ Binchy, *op. cit.* at 62. See also Heffernan, *op. cit.*, at 138 and Horgan, "Civil Liability and Courts Act 2004: Some thoughts on practicalities" (2006) JSIJ 43, at 51.

⁶² Heffernan, *op. cit.* at 138. See also Horgan, *op. cit.*, at 48.

and potentially impecunious plaintiff. One commentator has suggested that the Courts Service should pay the expert, but there is no provision for that in the 2004 Act and such a proposal would be politically controversial.⁶³

No empirical analysis on court appointed experts under section 20 of the 2004 Act has been carried out. The commentary is limited to the articles cited in this thesis, which were written around the time of the enactment of the provision. Therefore, the only evidence available would be anecdotal evidence, which suggests that the procedure has not been used very much, if at all, in practice. The predictions of its detractors may have been proven to be correct. The limited use in practice of section 20 of the 2004 Act has been recognised by the LRC.⁶⁴ This may be explained on the basis that the provision suffered from a lack of clear guidance as to how to accommodate the inquisitorial element within the adversarial system.⁶⁵

(b) The New Rules

Provision has been made in the New Rules for the use of single joint expert, to at least some degree, in all High Court trials under the new Order 31, rule 58 of the RSC.⁶⁶ As will be observed below, however, not all provisions of the New Rules are of universal application.

Where two or more parties wish to offer expert evidence on a particular issue, the judge has a power to direct that the evidence can be given by a single joint expert. The single joint expert can either be agreed between the parties or, when they disagree, the court can select him or her from a list prepared by the parties or, direct that the expert be selected in “such other manner” as the Court directs. The phrase “such other manner” is troubling, and is identical to the phrasing adopted in England and Wales.⁶⁷ This means that, while there is provision for an expert to be agreed between the parties, the court has a large measure of discretion as to how the expert will be appointed. It at least leaves

⁶³ Horgan, *op. cit.*, at 51.

⁶⁴ LRC, *op. cit.*, at [5-230]. In addition, there are no reported decisions of the Irish courts which discuss section 20.

⁶⁵ Binchy, *op. cit.*, at 61.

⁶⁶ Order 31, rule 58(1)(iv) RSC, as inserted by Rules of the Superior Courts (Conduct of Trials) 2016 (S.I. No 254 of 2016)

⁶⁷ Rule 35.7(1) CPR

open the possibility that the court can appoint its own expert without any reference to the parties. There is also no guidance regarding the circumstances a court can consider when deciding whether expert evidence should be given by a single joint expert, and it is likely that the English position, discussed above, will be instructive.

The New Rules are drafted in a cumbersome manner. It is provided under the new Order 31, rule 59 of the RSC that a party to proceedings is permitted to put concise written questions to the single joint expert.⁶⁸ The new Order 39, rule 59(2) of the RSC prohibits questions which are “disproportionate, unnecessary for the determination of any matter at issue in the proceedings or not within the expert’s field of expertise”.⁶⁹ Where an expert fails to answer a question, the court is permitted but not required to rule: (a) that some or all of the evidence of the expert shall be excluded; and/or (b) that some or all of the fees and expenses associated with the evidence of that expert may not be recovered.⁷⁰ This provision may be open to abuse, in that a party who is dissatisfied with the report of a single joint expert can flood him or her with questions. This can have an impact on costs and delay. However, it would appear that the expert has significant discretion in choosing to respond to these questions.

The most troubling aspect of the new provisions relating to the single joint expert is that Order 31, rule 56 of the RSC states that rules 59 to 61 are stated to only apply to proceedings in the Commercial and Competition Lists, and to proceedings where case management is ordered under the new Order 63C, rule 4 of the RSC, principally Chancery and Non-Jury matters.⁷¹ It would

⁶⁸ Order 39, rule 59(1)(b) of the RSC

⁶⁹ The new Order 39, rule 59(3) of the RSC provides that the questions asked may be put once only and must be put within a period of 28 days’ duration following the service of an expert’s report. They shall be for the purpose of clarification of the report only unless the court directs otherwise or the party retaining the expert agrees to waive this protection. Answers received to the questions posed become part of the expert’s report.

⁷⁰ Order 39, rule 59(5) of the RSC.

⁷¹ Order 63C, rule 4 RSC reads: “A Judge may, at any time and from time to time, of that Judge’s own motion and having heard the parties, or on the application of a party by motion on notice to the other party or parties, give such directions and make such orders, including the fixing of time limits, for the conduct of proceedings, as appears convenient for the

appear, therefore, that parties are not permitted to put questions to a single joint expert in other types of proceedings. This inconsistency is not justified anywhere in the RSC and seems at least somewhat arbitrary.

Apart from the limitation above with respect to written questions in certain types of cases, the provision applies in all cases, including personal injuries. It remains to be seen whether the new provision will be invoked in personal injuries cases. It undoubtedly represents a more attractive option to litigants than section 20 of the 2004 Act, as there is provision for the parties to agree to the single joint expert. This means that it may be employed with more frequency. However, it is likely to be used for questions of *quantum*, rather than issues of liability and causation where there could be divergent views.

It is preferable that experts who have previously advised a party (whether in the same case or otherwise) should only be proposed as single joint experts if the other parties are given all relevant information about the previous involvement. In addition, the parties should try to agree joint instructions to single joint experts, but in default of agreement, each party may give instructions. In particular, all parties should try to agree what documents should be included with instructions and what assumptions single joint experts should make. Where the parties fail to agree joint instructions, they should try to agree where the areas of disagreement lie and their instructions should make this clear. If separate instructions are given, they should be copied to the other instructing parties.

(iv) Assessors

A discussion regarding the incorporation of expert evidence into civil proceedings would not be complete without considering assessors. Assessors were traditionally used in the admiralty courts and served by virtue of their office.⁷² The Admiralty Court is now a special division of the High Court. Viscount Simon in *Richardson v Redpath Brown & Co Ltd*⁷³ defined an assessor as follows:

determination of the proceedings in a manner which is just, expeditious and likely to minimise the costs of those proceedings”.

⁷² See Dwyer, *op. cit.*, at 263 – 269.

⁷³ [1944] AC 62

“He is an expert available for the judge to consult if the judge requires assistance in understanding the effect and meaning of technical evidence. He may, in proper cases, suggest to the judge questions which the judge himself might put to an expert witness with a view to testing the witness’s view or to making plain his meaning. The judge may consult him in case of need as to the proper technical inference to be drawn from proved facts, or as to the extent of the difference between apparently contradictory conclusions in the expert field.”⁷⁴

Lord Woolf suggested that use of assessors be extended in England and Wales. In his Final Report, he clarified that that an assessor would act in complex cases to “educate” the judge.⁷⁵ Assessors are not a new legal phenomenon in Ireland. They already have a foundation in the RSC and have been employed with particular effect in competition law⁷⁶ and patents⁷⁷ cases. However, Order 36, rule 41 of the RSC could scarcely be less instructive. In its full form, it reads:

“Trials with assessors shall take place in such manner and upon such terms as the Court shall direct.”

It is unsurprising that the New Rules include a significant augmentation of this regime, given the vast array of issues which can arise from the appointment of assessors, from the manner in which the appointment is made to the scope of their influence. The new Order 36, rule 41 RSC represents a codification of certain judicial practices which had already developed in this jurisdiction regarding assessors. The new provision permits one or more assessors to be appointed either on the application of any party to proceedings or by the High Court of its own motion, but only having heard submissions

⁷⁴ *ibid.*, at 70-71.

⁷⁵ Lord Woolf, Final Report, *op. cit.*, Chapter 13 at [59].

⁷⁶ *Competition Authority v O'Regan* [2004] IEHC 330

⁷⁷ *Glaxo Group Ltd v Patents Act* [2009] IEHC 277. Section 98 of the Patents Act 1992 enables a court to appoint a scientific assessor to assist the judge on technical aspects of a case.

from the parties on any prospective appointment.⁷⁸ In relation to the role of as assessor, it is provided that the court can direct the assessor to prepare a report for the court on any matter at issue in the proceedings,⁷⁹ attend the whole or any part of the trial to advise the court on any such matter.⁸⁰ This is identical to the provisions of the English CPR.⁸¹

The question of whether an assessor should be required to attend throughout a trial had previously been uncertain in Ireland. In *Hansfield Developments v Irish Asphalt Limited*,⁸² an assessor having expertise in geological matters sought to be excused from the hearings concerning expert engineering evidence for personal reasons. The proposal prompted an unsuccessful application by the defendants, following 88 days of court hearings, to claim that a new trial would be required if the assessor was unable to attend.

Crucially, it is provided in the New Rules that where an assessor provides advice or other information to the court, the court shall inform the parties of such advice or information and afford each of them an opportunity to make submissions in respect of it.⁸³ This provision is absent from the equivalent CPR provision⁸⁴ which makes the CPR susceptible to challenge under Article 6 of the ECHR.⁸⁵ However, the Irish courts had already recognised this in *Competition Authority v O'Regan*.⁸⁶ In that case, Kearns J (as he then was) gave an express commitment to the parties to provide details of all material received from an assessor appointed during the course of a trial

⁷⁸ Order 36, rule 41(1) RSC. Under Order 36, rule 41(3) of the RSC the High Court is required to hear submissions not only regarding the identity of any prospective assessor but it seems also in terms of the remuneration to be paid to him or her. A measure of protection is included in the RSC with regard to assessor's fees for the first time, with the High Court being empowered to require such fees to be either paid the assessor directly or deposited with the Accountant of the High Court: Order 36, rule 41(5) of the RSC.

⁷⁹ Order 36, rule 41(6)(a) of the RSC

⁸⁰ Order 36, rule 41(6)(b) of the RSC

⁸¹ CPR 35.15

⁸² [2010] IEHC 330

⁸³ Order 36, rules 41(7) and 41(8) of the RSC.

⁸⁴ CPR 35.15(2)

⁸⁵ See Blom-Cooper, "Experts & Assessors: Past, Present and Future" (2002) 21 CLQ 341 at 353. See also Dwyer, *op. cit.*, at 325 where she cites *The Bow Spring* [2005] 1 WLR 144

⁸⁶ [2004] IEHC 330

and to sit specially to allow the parties to make submissions arising from that material.⁸⁷

Carey remarks that:

“These new rules allow for greater structure and transparency with regard to the use of assessors and should avoid the prior criticisms of the assessor process potentially involving an unsworn person giving undisclosed guidance to the court ...”⁸⁸

However, as Dwyer has opined in relation to the equivalent English provisions, the assessor has a potentially wide range of functions, not all of which sit comfortably with one another.⁸⁹ Within the scope of the equivalent provision in the CPR, four distinct roles have been identified: tribunal member; court expert; court officer; and scientific adviser. She suggests separating out the various roles in a practice direction, the stated advantage being that judges may be more inclined to use them if their roles are more clearly defined.⁹⁰ This would also render the process more transparent for the parties, and leave challenges less likely if the role of the assessor was clearly delineated.

A scientific adviser was used in a patent case in England and Wales in *Electromagnetic Geoservices ASA v Petroleum Geo-Services*.⁹¹ The court benefited from what was essentially a tutorial, or “teach-in”,⁹² on from the scientific adviser, but she did not sit for the entire trial. Birss J was clearly impressed with the scientific adviser and felt that cost had been saved and the courts comprehension greatly improved. He stated:

⁸⁷ *ibid.* at 28

⁸⁸ Carey, “New Rules Represent Significant Changes to Litigation Practices” (2016) 23(7) CLP 187, at 191

⁸⁹ Dwyer, *op. cit.*, at 318

⁹⁰ *ibid.*

⁹¹ [2016] EWHC 881 (Pat). Section 70 of the Senior Courts Act 1981 provides for the appointment of a scientific adviser in patents cases. However, it was held in *Halliburton v Smith* [2006] EWCA Civ 1599 that the definition of assessor in CPR 35.15 applies to such a scientific adviser.

⁹² This was the phrase used by Birss J at [4]. He had originally pronounced on the necessity of such a “teach-in” in *Electromagnetic Geoservices ASA v Petroleum Geo-Services ASA & Ors* [2016] 1 WLR 2353

“Patent trials inevitably involve the court deciding what can be difficult technical issues on conflicting expert evidence. As has been said in a number of judgments, what matters is not the opinions the experts' express as to the conclusions to be reached but the reasons they give for them. In order to be able to decide the case, the court therefore needs to be able to understand not only the experts' opinions but also the material on which those opinions are based and the reasons for them. That is why the task of educating the judge is of such significance and time spent on it is rarely wasted. One cannot evaluate what one does not understand. In the majority of patent cases the combined efforts of the legal teams and the expert witnesses achieve that result, but experience in this case shows that sometimes the further step like this one is useful and proportionate.”⁹³

Overall, the revised rules concerning assessors are to be welcomed, having particular regard to the laconic provision which they replace. Whether the increased clarity regarding the role and remuneration of assessors, coupled with the provisions requiring transparency, will increase the popularity of the facility remains to be seen. Despite the CPR, assessors are still underutilised in England and Wales, except in admiralty and patents actions, as we have seen. One might think that the availability of the single joint expert procedure may make the appointment of assessors less likely. Both procedures permit of a certain level of input from the parties themselves. The court may prefer to resort to a single joint expert rather than an assessor, particularly when the single joint expert is agreed between the parties. The cost of an assessor, whose presence will most probably be required for a significant portion of any trial, is likely to exceed that of a single joint expert.

Furthermore, while the parties must be heard regarding the appointment of an assessor, it appears that when there is lack of agreement between the parties regarding a single joint expert, the court can proceed to appoint one in any event. The parties would be likely to prefer to agree a single joint expert rather than an assessor, particularly in those types of cases where written questions are permitted to be put the single joint expert. One could suppose

⁹³ *ibid.*, at [7].

that the role of assessor may be restricted to cases where the judge and the parties feel that the presence of the expert is required for the entire trial, and not just for a particular piece of evidence. A competition law case is an example of a situation where the court may require the constant presence of an assessor. In those types of cases, the court is faced with a dual difficulty: highly technical evidence on the principles of economics, together with the necessity to consider policy type matters which rarely fall within the court's jurisdiction.⁹⁴ It has been recommended that assessors are employed for these types of cases⁹⁵ and remarked by judges that they work well.⁹⁶

III. Concurrent Evidence

Concurrent evidence is another method which is designed to curb the cost and delay traditionally associated with expert evidence. Rules providing for concurrent evidence have recently been introduced in Ireland and a similar procedure has existed in England and Wales for a number of years. As the concept originated in Australia, it is necessary to consider how it has worked in practice in that jurisdiction and in England and Wales to ascertain whether it is likely to be a satisfactory method of managing expert evidence in Ireland.

(i) Australia

While Australia is a federation with multiple adversarial jurisdictions within its borders, it has traditionally looked to England and Wales for models of law reform. Australian lawmakers were influenced by Lord Woolf's proposals for reform discussed in the last chapter. Similar to both Ireland and England and Wales, juries were abolished in Australia for most civil cases several decades ago.⁹⁷ Therefore, most civil trials in Australia are determined by a judge sitting alone. Australian lawmakers have also attempted to reduce the cost and delay

⁹⁴ *Report of the Competition and Mergers Review Group* (Dublin, Stationery Office, 2000), at [4.5.39].

⁹⁵ *ibid.*

⁹⁶ *Competition Authority v O'Regan* [2004] IEHC 330

⁹⁷ Section 85 of the Supreme Court Act 1970 (NSW)

associated with expert evidence and to counteract any perception of expert bias.

Australia can be described as the birthplace of concurrent evidence. Interestingly, it did not borrow the concept from England and Wales and, as we shall see, the reverse is actually the case. Concurrent evidence, or “hot-tubbing”,⁹⁸ involves the experts for the parties being sworn and giving their evidence at the same time. The parties are then free to cross-examine and re-examine. Therefore, the evidence is given through a discussion between the experts on the issue. Heerey J, an Australian judge, described the practice in jovial terms as follows:

“The procedure involves the parties' experts giving evidence in the presence of each other after all the lay evidence on both sides has been given. The experts are sworn in and sit in the witness box or a suitably large table which is treated notionally as the witness box. They do not literally sit in a hot tub. Constraints of propriety and court design dictate a less exciting solution. A day or so previously, each expert will have filed a brief summary of his or her position in the light of all the evidence so far. In the box the plaintiff's expert will give a brief oral exposition, typically for ten minutes or so. Then the defendant's expert will ask the plaintiff 's expert questions, that is to say directly, without the intervention of counsel. Then the process is reversed. In effect a brief colloquium takes place. Finally each expert gives a brief summary. When all this is completed, counsel cross-examine and re-examine in the conventional way.”⁹⁹

⁹⁸ Garling notes that it is now quite uncommon for Australian judges to use the term “hot-tubbing”. See Garling, “Concurrent Evidence – The New South Wales Experience”, Paper presented to the University of Oxford Faculty of Law, 1 December 2015. Available at: http://www.supremecourt.justice.nsw.gov.au/Documents/Speeches/2015%20Speeches/Garling_20151201.pdf at [57]. (Accessed on 30 September 2016).

⁹⁹ Heerey, “Recent Australian Developments” (2004) 23 Civil Justice Quarterly 386 at 390-391. See the response by Davies: Davies, “Recent Australian Developments: A Response to Peter Heerey” (2004) 23 CJLQ 388.

The practice developed in what is now the Australian Competition Tribunal,¹⁰⁰ and was subsequently adopted in other courts¹⁰¹ and in the Supreme Court of New South Wales,¹⁰² the largest of the state Supreme Courts of Australia. In addition, concurrent evidence has been a feature of international commercial arbitration for a number of years.¹⁰³ In 1998, the Australian Federal Court Rules were amended to provide for concurrent evidence,¹⁰⁴ but the procedure is not mandatory.

The expert evidence is, essentially, a type of “professional discussion”¹⁰⁵ and experts are given significantly more testimonial latitude than they usually would be under the traditional adversarial procedure. McClellan J, an Australian judge who has been influential in pioneering the procedure, described it as follows:

“A discussion chaired by the judge in which the various experts, the parties, the advocates and the judge engage in a cooperative endeavour to identify the issues and arrive where possible at a common resolution of them. Where resolution of issues is not possible, a structured discussion, with the judge as chairperson, allows the experts to give their opinions

¹⁰⁰ Formerly the Trade Practices Tribunal. See Jackson, *Review of Civil Litigation Costs: Preliminary Report*, May 2009, Chapter 57 at [4.17]. See Delany, ““Hot-tubs” and other Expert Evidence Case Management Techniques: Approach with Caution”, Speech delivered to the London Conference of the Commercial Bar Association of Victoria, 29 June 2016, at [95]. (Sent by the author.)

¹⁰¹ Concurrent evidence procedures have been formally adopted in the Federal Court, the Administrative Appeals Tribunal (AAT), the Land and Environment Court of NSW (LEC) and Children's Court of New South Wales. See Edmond, *op. cit.*, at 58.

¹⁰² Jackson, “Concurrent Expert Evidence – A Gift from Australia” Lecture by Jackson LJ at the London Conference of the Commercial Bar Association of Victoria, 29 June 2016, at 2. Available at: <https://www.judiciary.gov.uk/wp-content/uploads/2016/06/lj-jackson-concurrent-expert-evidence.pdf> (Accessed on 30 September 2016).

¹⁰³ See Article 8(3)(f) of the International Bar Association Rules on the Taking of Evidence in International Commercial Arbitration 2010

¹⁰⁴ Order 34(A) rule 3(2) of the Australian Federal Court Rules

¹⁰⁵ Garling, “Concurrent Evidence – The New South Wales Experience”, Paper presented to the University of Oxford Faculty of Law, 1 December 2015, at [28]. Available at: http://www.supremecourt.justice.nsw.gov.au/Documents/Speeches/2015%20Speeches/Garling_20151201.pdf. (Accessed on 30 September 2016).

without the constraints of the adversarial process and in a forum which enables them to respond directly to each other."¹⁰⁶

It should be observed that preparation on the part of the judge is required prior to the concurrent evidence session taking place. The judge cannot just decide on the day that he or she wishes to hear expert evidence concurrently. Through case management, the experts are directed to meet in the absence of the lawyers,¹⁰⁷ the outcome of which is the production of a joint report.¹⁰⁸ The essence of the report is to clearly disclose the matters agreed upon and not agreed upon, the nature and extent of the disagreement, and the reasons for that disagreement.¹⁰⁹

However, there is no universal practice in Australia, given that the judges are afforded a significant degree of discretion. There appear to be two distinct stages to the actual concurrent evidence session itself. The first stage is presided over by the trial judge. The course of the evidence generally follows the list of issues which has been provided to the experts and which has formed the basis of the joint report. Edmond describes it as follows:

"The experts are asked to comment, sometimes in very general terms, about the case, the issues, their opinions and the differences amongst them. These comments can be protracted and are sometimes punctuated by questions, from the lawyers, the judge and even other experts participating in the session. Once each of the experts has explained their

¹⁰⁶ McClellan "New Method with Experts - Concurrent Evidence" (2010) *Journal of Court Innovation*, 259. This definition was cited in Genn, "Getting to the truth: experts and judges in the "hot-tub"" (2013) 32 *CJQ* 275, at 280.

¹⁰⁷ This does not have to be done in person and can be done via video conferencing or over the phone. Generally it is preferred that this occur once a final hearing date has been fixed, at least three months before that date and, preferably, not more than six months. This timing generally represents a stage of the litigation where the pleadings have been finalised, production of relevant documents has occurred and statements of evidence and primary expert reports have been served. See Garling, *op. cit.*, at [33].

¹⁰⁸ Rule 31.26 of the Uniform Civil Procedure Rules.

¹⁰⁹ Garling, *op. cit.*, at [53].

position, they usually supplement their initial testimony with comments about the opinions and testimony of the other expert(s).”¹¹⁰

It is common at this stage for the judge to suggest topics and to ask lots of questions. This stage is primarily judge led, and therefore represents a significant departure from the adversarial trial. The second stage of the concurrent evidence procedure more closely represents an adversarial trial and involves the lawyers posing questions to the experts. However, as Edmond has remarked, in the context of civil procedure in Australia, some uncertainty on the part of both lawyers and experts exists. Experts tend to be more reserved when the lawyers reassume control, and lawyers are unsure of how aggressively they can cross-examine the experts after the concurrent evidence session.¹¹¹

International interest in the practice has been developing. The idea has been mooted in the United States,¹¹² and is also provided for in Canada.¹¹³ In addition, there is no restriction in Australia on the types of cases in which concurrent evidence can be given. One particular Australian judge noted that he had used concurrent evidence in a wide variety of cases, such as:

“[A]ccounting, quantity surveying, fire protection requirements, pharmaceutical patents, wildlife paths, metallurgy, naval architecture, expert navigation of Panamax size (230m) container ships in a gale, mechanical engineering, the appropriate flooring for elephant enclosures in zoos and the mating of those mammals.”¹¹⁴

¹¹⁰ Edmond, "Secrets of the 'Hot Tub': Expert Witnesses, Concurrent Evidence and Judge-led Law Reform in Australia" (2008) 27 CJQ 51

¹¹¹ *ibid.*, at 56.

¹¹² See, for example, Welch, "From Witness Box to the Hot Tub: How the 'Hot Tub' Approach to Expert Witnesses Might Relax an American Finder of Fact" (2010) 5 Journal of International Commercial Law and Technology 154.

¹¹³ Rule 282.1 of the Federal Courts Rules in Canada.

¹¹⁴ Rares, "Using the Hot-Tub: How Concurrent Expert Evidence Aids Understanding Issues" Paper given to Judicial Conference of Australia Colloquium on 12 October 2013. Available at http://www.fedcourt.gov.au/publications/judges-speeches/justice-ares/ares-j-20131012#_ftn7 (Accessed on 30 September 2016).

There are a number of perceived advantages to concurrent expert evidence. First, the experts give evidence simultaneously, which means that they are answering the same question, on the same basis and at the same time.¹¹⁵ The evidence generally proceeds quickly to the main points of disagreement.¹¹⁶ This means that judges may find it easier to understand the evidence as they do not have to compare an expert giving evidence now with their faded recollection of the evidence of another expert perhaps days, weeks or even months previously,¹¹⁷ with a broad range of other non-expert evidence interposed.¹¹⁸

Secondly, it is thought that experts themselves find this procedure easier, which should result in them giving better evidence.¹¹⁹ The experts feel capable of explaining the matters to the judge and putting their points of view in a way in which they feel free to use their knowledge and experience.¹²⁰

Thirdly, it is thought that the procedure results in a saving of time and cost, as it is quicker and more focused.¹²¹ The experts give evidence at a time when the issues are refined and the areas of real dispute narrowed to the bare minimum.¹²²

The fourth ground relies on the allegedly constraining influence of scientific norms and the efficacy of peer review. Some have remarked that experts are less likely to be partisan and more inclined to give their evidence impartially under this procedure.¹²³ This is due to the physical removal of the witness from his party's camp into the proximity of a (usually) respected professional colleague. Experts are also less likely to obfuscate in an answer

¹¹⁵ Rares, *op. cit.*, at [4].

¹¹⁶ Rares, *op. cit.*, at [34].

¹¹⁷ Heerey, *op. cit.*, at 390. See also Heerey, "Expert Evidence: The Australian Experience" (2002) 7(3) BR 166, at 170.

¹¹⁸ Rares, *op. cit.*, at [28]. Garling, *op. cit.* at [83] – [84].

¹¹⁹ Rares, *op. cit.*, at [44]; See also Australian Law Reform Commission, Report on *Managing Justice: a Review of the Federal Justice System* [1999] ALRC 89 at [6.117]. Available at <http://www.austlii.edu.au/au/other/lawreform/ALRC/1999/89.html> (Accessed on 30 September 2016).

¹²⁰ Rares, *op. cit.*, at [29].

¹²¹ Heerey, *op. cit.*, at 390; Jackson, *op. cit.*, at 6.

¹²² Heerey, *ibid.*

¹²³ Heerey, *ibid.* See also Australian Law Reform Commission, *ibid.*, at [6.117].

because they know that the opposing expert can expose any inappropriate answer immediately.¹²⁴ Thus the scientific ethos is allowed to flourish.

However, debate has emerged over the extent of the advantages. The harshest criticisms of concurrent evidence have come from Australia itself. While Edmond¹²⁵ maintains that he is not an opponent of concurrent evidence, as such, he thinks that its value is exaggerated and its downsides trivialised by its proponents.¹²⁶ He has identified two major concerns relating to the procedure: (a) a lack of adequate justification relating to adversarial bias; and (b) an overly simplistic view of scientific norms. Edmond and Delany¹²⁷ both concede that concurrent evidence results in greater comprehension and understanding of expert testimony.¹²⁸ However, while concurrent evidence may result in costs savings, these are more likely to occur in larger cases, where many experts were due to testify. In the absence of empirical evidence, the overall impact of the procedure on costs and delay is unclear.

Bias, as already discussed in Chapter 3, was the issue which most concerned Australian judges regarding expert evidence.¹²⁹ Therefore, adversarial bias has constituted the main motivation behind the introduction of concurrent evidence in Australia. In addition, the decline in the availability of medical indemnity insurance along with rapid increases in the price of public liability insurance were attributed to civil litigation and unreliable expert evidence.¹³⁰ However, Edmond would say that, because there is limited empirical evidence as to whether experts are actively biased, the absence of

¹²⁴ Rares, *op. cit.*, at [27].

¹²⁵ For example, see Edmond, "Secrets of the 'Hot Tub': Expert Witnesses, Concurrent Evidence and Judge-led Law Reform in Australia" (2008) 27 CJQ 51 and Edmond, "Merton and the Hot-Tub: Scientific Conventions and Expert Evidence in Australian Civil Procedure" (2009) 72 Law and Contemporary Problems 159.

¹²⁶ Edmond, "Impartiality, efficiency or reliability? A critical response to expert evidence law and procedure in Australia" (2010) 42(2) Australian Journal of Forensic Sciences 83 at 92

¹²⁷ Delany, *op. cit.*, at [102].

¹²⁸ Edmond, *op. cit.*, at 66 - 67.

¹²⁹ Freckelton, Reddy & Selby, *Australian Judicial Perspectives on Expert Evidence: An Empirical Study* (Australian Institute of Judicial Administration Incorporated, 1999).

¹³⁰ Edmond, *op. cit.*, at 53. Irish lawyers can sympathise in the current climate: See Barniville, "Insurance industry misleading public over reasons for higher premiums" *The Irish Times*, 26 May 2016. Available at <http://www.irishtimes.com/opinion/insurance-industry-misleading-public-over-reasons-for-higher-premiums-1.2660988> (Accessed on 30 September 2016).

bias does not constitute a proper justification for concurrent evidence.¹³¹ He also regards bias and partisanship as not particularly precise concepts.¹³² This is in some way reinforced by the differing approaches taken to bias, as outlined in Chapter 2. In fact, one Australian judge suggests that the concurrent evidence procedure remains partisan.¹³³

Edmond has also criticised the proponents of concurrent evidence for taking an overly simplistic view of science, and for being overly influenced by Merton's theory of scientific norms.¹³⁴ Merton had identified four norms which he said comprised the ethos of modern science: communalism, openness, disinterestedness and skepticism. However, Edmond suggests that these norms are no longer prescriptive and it is incorrect to promote these norms as some kind of essential pre-requisites or accurate description of authentic scientific activity. Regarding peer review, he questions this as a form of restraint on experts as scientists have resorted to more legalistic solutions to help them assess the value of contributions.¹³⁵ In summary, Edmond doubts that moving experts a few yards in the courtroom and allowing them to give evidence in the same session would produce a change in their performance or make them any less partisan.

The limited empirical evidence in Australia suggests that the reaction to concurrent evidence is generally favourable. A study carried out of the practice in the Australian Administrative Appeals Tribunal ("AAT") in New South Wales¹³⁶ provided support for the continued use of concurrent evidence in that

¹³¹ Edmond, "Secrets of the 'Hot Tub': Expert Witnesses, Concurrent Evidence and Judge-led Law Reform in Australia" (2008) 27 CJQ 51 at 62 – 63.

¹³² Edmond, "Merton and the Hot-Tub: Scientific Conventions and Expert Evidence in Australian Civil Procedure" (2009) 72 Law and Contemporary Problems 159 at B.

¹³³ Davies, "Court Appointed Experts" (2005) 5 Queensland University of Technology Law and Justice Journal 89, at 95. See also Davies, "Recent Australian Developments: A Response to Peter Heerey" (2004) 23 CJLQ 388.

¹³⁴ Edmond, "Merton and the Hot-Tub: Scientific Conventions and Expert Evidence in Australian Civil Procedure" (2009) 72 Law and Contemporary Problems 159 in which he refers to Merton, *Science and Technology in a Democratic Order* (1942).

¹³⁵ Edmond, "Secrets of the 'Hot Tub': Expert Witnesses, Concurrent Evidence and Judge-led Law Reform in Australia" (2008) 27 CJQ 51 at 63 – 64.

¹³⁶ See Downes, "Concurrent Expert Evidence in the Administrative Appeals Tribunal: The New South Wales Experience", 27 February 2004. Available at:

forum. In particular, the findings suggested that the procedure improved the quality of the expert evidence presented, made evidence comparison easier and enhanced the decision-making process. Regarding length of hearings, the study revealed that the concurrent evidence process led either to time savings or was neutral in approximately 80 per cent of cases. It was noted, however, that individual experts tended to spend longer giving evidence and this can have an impact on costs for the parties.¹³⁷ The AAT has published guidelines for the use of concurrent evidence.¹³⁸ It regards concurrent evidence as suitable in the following circumstances:

- Where expert evidence is central to the issues in dispute in the case;
- Where experts will be commenting on the same issues;
- Where the concurrent evidence procedure will assist in clarifying and understanding areas of difference in the expert evidence;
- Where experts are of like disciplines; and
- Where experts have comparable levels of expertise; or use of the concurrent evidence procedure will reduce the length of the hearing.¹³⁹

However, outside the AAT, there does not appear to be any real consensus on the procedure to be applied. Delany¹⁴⁰ refers to an Australian study which highlighted the different ways in which concurrent evidence was used in 12 different cases across eight different Australian jurisdictions. The concurrent evidence session generally lasted between one and eight days. In most, but not all, of the cases counsel cross-examined the experts. In addition, the experts were questioned by the judge in most cases. However, only in some cases did the experts give an opening statement. In addition, experts were

<http://www.aat.gov.au/AAT/media/AAT/Files/Speeches%20and%20Papers/concurrent.pdf>
(Accessed on 30 September 2016).

¹³⁷ See Administrative Appeals Tribunal Final Report 2005–2006, at 37.

¹³⁸ Australian Administrative Appeals Tribunal, “Use of Concurrent Evidence in the AAT”, Available at:

<http://www.aat.gov.au/AAT/media/AAT/Files/Directions%20and%20guides/Guideline-Use-of-Concurrent-Evidence-in-the-AAT.pdf> (Accessed on 30 September 2016).

¹³⁹ *ibid.*, at [2.3]

¹⁴⁰ Delany, *op. cit.* at [47] – [48], referring to KordaMentha, *Expert Evidence – Recent Cases* (2014)

given very limited guidance on the operation of the concurrent evidence procedure. Given this lack in uniformity of approach, the concurrent evidence procedure is difficult to predict and advise in relation to.

In Australia, the courts have not been hesitant to restrict the number of experts taking part in a concurrent evidence session, where there was a risk of repetition and no utility to a party other than “safety in numbers”.¹⁴¹ However, in *Strong Wise Ltd v Esso Australia Resources Ltd*¹⁴², some eight experts were used.

It has also been established in Australia that lawyers are not restricted to a passive role during the giving of concurrent evidence. Garing notes that the function of cross-examination and re-examination is that expert’s opinion is fully articulated and tested against a contrary opinion, perhaps even an opinion elicited by the judge.¹⁴³ He cites a decision of the New South Wales Court of Appeal where it was stated:

"When concurrent evidence is being taken with a degree of direction by the judge, counsel are not passengers. They can and should seek to raise material issues and put material questions to the witnesses ... , if necessary submitting that the judge's view of how the evidence should be brought out should be modified."¹⁴⁴

(ii) England and Wales

As outlined in the previous chapter, Lord Jackson had recognised that expert evidence was a source of significant cost in civil proceedings. In his Interim Report, he mooted the Australian idea of experts giving evidence concurrently as a potential area where savings in costs could be made. His Final Report recommended that concurrent evidence be piloted in cases where all parties consent, and that consideration should be given later to amending the CPR.¹⁴⁵

¹⁴¹ *Harris v Bellemore* [2011] NSWCA 196

¹⁴² (2010) 185 FCR 149

¹⁴³ Garling, *op. cit.*, at [64].

¹⁴⁴ *Turjman v Stonewall Hotel Pty Ltd* [2011] NSWCA 392, at [107] *per* Giles J.

¹⁴⁵ Final Report, Chapter 38, Recommendation 4.3. See also [3.12], [3.23]–[3.24]. The procedure had been case managed *ad hoc* in some cases previously. See Civil Justice Council,

A two-year voluntary pilot study was conducted in Manchester from 2010 to 2012.¹⁴⁶ Concurrent expert evidence orders were made in a wide range of cases, although most later settled. The experts involved in the pilot included valuers, surveyors, accountants, engineers, and handwriting experts. The issues addressed included valuation of land, shares in private companies, pension rights and property developments, tax, defects in and/or value of building works, dilapidations, defective products and disputed signatures.¹⁴⁷ The general consensus from the pilot was that concurrent evidence was more efficient, on the basis that it was easier to present the evidence and to assess it. In addition, the focus on the issues and areas of disagreement prior to trial meant that time was saved at trial and it was easier for the court to compare contrasting evidence. It was generally agreed that the procedure had saved time and costs without compromising the expert's independence. However, it was

"Concurrent Expert Evidence and 'Hot-Tubbing' in English Litigation since the 'Jackson Reforms': A Legal and Empirical Study", 25 July 2016. (Available at <https://www.judiciary.gov.uk/wp-content/uploads/2011/03/cjc-civil-litigation-review-hot-tubbing-report-20160801.pdf> (Accessed on 30 September 2016)) at viii, where they refer to *Harrison v Shepherd Homes Ltd* [2011] EWHC 1811 (TCC) and *Re Baby X* [2011] EWHC 590 (Fam).

¹⁴⁶ This was overseen by Judge David Waksman QC, the Manchester Mercantile Judge at the time. For a summary of his experience of the pilot see the appendix to Jackson, "Concurrent Expert Evidence – A Gift from Australia" Lecture by Jackson LJ at the London Conference of the Commercial Bar Association of Victoria, 29 June 2016. Available at: <https://www.judiciary.gov.uk/wp-content/uploads/2016/06/lj-jackson-concurrent-expert-evidence.pdf> (Accessed on 30 September 2016). The pilot was monitored by Professor Dame Hazel Genn of University College London. For a summary of the interim findings of the pilot, see Genn, *Manchester Concurrent Evidence Pilot, Interim Report*, January 2012, UCL Judicial Institute and for the final findings see Genn, "Getting to the truth: experts and judges in the 'hot-tub'" (2013) 32 CJQ 275.

¹⁴⁷ See Waksman, Appendix to Jackson, "Concurrent Expert Evidence – A Gift from Australia" Lecture by Jackson LJ at the London Conference of the Commercial Bar Association of Victoria, 29 June 2016. Available at: <https://www.judiciary.gov.uk/wp-content/uploads/2016/06/lj-jackson-concurrent-expert-evidence.pdf> at [4]. Accessed on 30 September 2016. See also Genn, "Getting to the truth: experts and judges in the 'hot-tub'" (2013) 32 CJQ 275 at 286.

acknowledged that sufficient reading time had to be afforded to the judge, otherwise the process of structured dialogue would be affected.¹⁴⁸

Regarding bias, the experience of experts involved in the Manchester pilot suggested that, at least tentatively, that there was scope for concurrent evidence to impact positively on potential adversarial bias to the extent that it provides an environment in which experts are prepared to concede an alternative and equally legitimate interpretation of facts, or, on rare occasions, that their own interpretation is simply incorrect. However, Genn acknowledged that the question of bias was a “thorny one”, as there were epistemic and sociological complexities of how scientific knowledge and opinion is arrived at.¹⁴⁹ This is consistent with Edmonds’ view.

Subsequently, provision for concurrent evidence was made in the form of a Practice Direction to CPR Rule 35.¹⁵⁰ It provides that the court can direct, “at any stage in the proceedings”, that expert evidence be given concurrently.¹⁵¹ Provision is made for the setting of an agenda, based on the areas of disagreement identified in the expert’s joint statements, but this is not stated to be mandatory.¹⁵² The normal practice in England and Wales is that, where expert evidence is required, the court will generally direct that the experts participate in a formal “meeting of experts”, and then prepare a joint statement¹⁵³ which is provided to the court for information. Where concurrent evidence is to be used, then in practice that joint statement will typically form the basis for the production of an agreed agenda of issues on which the experts disagree and which forms the basis of the expert oral testimony. The Practice Direction then sets out the following discretionary procedure:

“(1) the judge may initiate the discussion by asking the experts, in turn, for their views. Once an expert has expressed a view the judge may ask questions about it. At one or more appropriate stages when questioning a

¹⁴⁸ *ibid.* at [8]. See also Genn, “Getting to the truth: experts and judges in the “hot-tub”” (2013) 32 CJK 275.

¹⁴⁹ Genn, *op. cit.* at 297 – 298.

¹⁵⁰ Practice Direction 35, which supplements Rule 35 CPR.

¹⁵¹ Practice Direction 35, at [11.1].

¹⁵² Practice Direction 35, at [11.2].

¹⁵³ Pursuant to CPR 35.12(3)

particular expert, the judge may invite the other expert to comment or to ask that expert's own questions of the first expert;

(2) after the process set out in (1) has been completed for all the experts, the parties' representatives may ask questions of them. While such questioning may be designed to test the correctness of an expert's view, or seek clarification of it, it should not cover ground which has been fully explored already. In general a full cross-examination or re-examination is neither necessary nor appropriate; and (3) after the process set out in (2) has been completed, the judge may summarise the experts' different positions on the issue and ask them to confirm or correct that summary.”¹⁵⁴

Like the Australian procedure, the English court has discretion in relation to the process and there have been variations in the form of concurrent evidence adopted. These variations can arise because of: (a) alterations in the role that counsel has been permitted to play during the concurrent evidence; (b) different judicial attitudes towards the interaction which has been permissible among expert witnesses whilst they are “in the hot-tub”; and (c) differences in judicial practice, in that the judge will not always lead the discussion.¹⁵⁵ For example, the case of *Re N*,¹⁵⁶ involved a hybrid type of concurrent evidence, as it was led by counsel and not the judge. However, the experts were permitted to ask questions of each other during the concurrent evidence session.

It is unusual that, in contrast to the New Rules in Ireland (considered below), it is expressly stated in the practice direction that, in general, a full cross-examination or re-examination is neither necessary nor appropriate. However, this has not tended to be the practice in England and Wales, in that it has been found that in many cases counsel tend to conduct either a full cross-

¹⁵⁴ Practice Direction 35, at [11.4].

¹⁵⁵ Civil Justice Council, “Concurrent Expert Evidence and ‘Hot-Tubbing’ in English Litigation since the ‘Jackson Reforms’: A Legal and Empirical Study” 25 July 2016, at 15. Available at: <https://www.judiciary.gov.uk/wp-content/uploads/2011/03/cjc-civil-litigation-review-hot-tubbing-report-20160801.pdf> (Accessed on 30 September 2016).

¹⁵⁶ [2015] EWCOP 76

examination or at least re-examine their own experts again.¹⁵⁷ It is regarded as essential that counsel be permitted to challenge the experts.

Despite initial predictions that concurrent evidence would solely be used in construction disputes in England and Wales, it has traversed a number of areas of litigation including: wardship proceedings;¹⁵⁸ property and succession disputes;¹⁵⁹ motor vehicle accidents;¹⁶⁰ construction and building disputes;¹⁶¹ and medical negligence.¹⁶² It has also been suggested in England and Wales that concurrent evidence may be appropriate in judicial review.¹⁶³ Concurrent evidence was used in a competition case for the first time in *Streetmap EU Ltd v Google Inc & Ors*¹⁶⁴ for economic experts. Roth J was of the opinion that this led to a constructive exchange and considerably shortened the time taken to deal with the expert evidence at trial.¹⁶⁵ He did acknowledge that the procedure involves considerable preparation by the trial judge and effectively requires a transcript since the judge is unable to keep a proper note while leading the questioning.¹⁶⁶ Additionally, in this case at least, the concurrent evidence procedure did not encourage the experts to narrow the areas of disagreement between them, as Roth J noted a “sharp clash” between the experts, with each one adamant that the other’s approach was incorrect.¹⁶⁷ While not expressly stated in the judgment, there may be the danger of “showboating” on the part of experts.

In *Re N*,¹⁶⁸ Hayden J felt that the concurrent evidence was helpful, time-saving, and he was also satisfied that it helped foster true and objective consensus and discouraged posturing. However, as mentioned above, Hayden J

¹⁵⁷ Civil Justice Council, *op. cit.*, at 20.

¹⁵⁸ *PB v RB* [2016] EWCOP 12; *Re N* [2015] EWCOP 76

¹⁵⁹ *Patel v Vigh* [2013] EWHC 3403

¹⁶⁰ *Armstrong v Richardson* [2014] EWHC 3306

¹⁶¹ *Stratton v Patel* [2014] EWHC 2677 (TCC); *Hunt v Optima (Cambridge)* [2013] EWHC 681 (TCC)

¹⁶² Civil Justice Council, *op. cit.*, at 11.

¹⁶³ *R (Secretary Of State For Health) v British American Tobacco (UK) Ltd & Ors* [2016] EWHC 1169 at [644].

¹⁶⁴ [2016] EWHC 253.

¹⁶⁵ *ibid.*, at [47]

¹⁶⁶ *ibid. c.f. Re N* [2015] EWCOP 76

¹⁶⁷ *ibid.*, at [132] – [133].

¹⁶⁸ [2015] EWCOP 76

facilitated a hybrid concurrent process whereby, whilst an expert medical witness was in the witness box being questioned, those experts who were not in the witness box were permitted to articulate their disagreement to anything said by the other expert, from where they were sitting in the well of the court.

In England and Wales, a Civil Justice Council working group¹⁶⁹ was set up to examine the procedure relating to concurrent evidence. The group issued a survey to judges, experts and legal representatives aimed at eliciting experience and views of the technique. However, given the small range of responses received,¹⁷⁰ one should be cautious about relying to a great extent on the outcome of the survey. The survey also did not ask judges and legal representatives whether they felt that concurrent evidence resulted in experts being less biased, although it did ask experts whether they gave their evidence in a more neutral manner compared to other forms of adducing expert evidence. In most of the cases surveyed, concurrent evidence had been directed by agreement.

Out of the judges¹⁷¹ surveyed, and in comparison to other forms of adducing expert evidence, all of them were in agreement that hearing time had been saved and that concurrent evidence assisted the court. Most felt it increased the quality of the expert evidence. However, half of the judges surveyed felt that concurrent evidence did not result in a cost saving. Out of the legal representatives¹⁷² surveyed, most were in agreement that concurrent evidence assisted the court and improved the quality of the expert evidence in comparison to other methods. However, just over half felt that it saved hearing time and, like judges, half felt that it did not result in a cost saving.

In relation to the experts¹⁷³ surveyed, they were divided almost equally as to whether experts give their evidence in a more neutral manner during concurrent evidence. Only just over half felt that their evidence was more

¹⁶⁹ Civil Justice Council, “Concurrent Expert Evidence and ‘Hot-Tubbing’ in English Litigation since the ‘Jackson Reforms’: A Legal and Empirical Study”, 25 July 2016. Available at <https://www.judiciary.gov.uk/wp-content/uploads/2011/03/cjc-civil-litigation-review-hot-tubbing-report-20160801.pdf> (Accessed on 30 September 2016).

¹⁷⁰ The surveys received 14 responses from the judiciary; 33 responses from legal practitioners; and 51 responses from expert witnesses. Civil Justice Council, *op. cit.*, at 5.

¹⁷¹ See Civil Justice Council, *op. cit.*, Appendix D, at 81-84.

¹⁷² Civil Justice Council, *op. cit.*, Appendix D, at 85 – 93.

¹⁷³ Civil Justice Council, *op. cit.*, Appendix D, at 94 – 102.

intelligible, and better expressed. In addition, nearly three quarters were agreed that it saved hearing time and assisted the court. However, less than half agreed that it saved costs and just over half agreed that it improved the quality of the evidence.

Given its relative stage of infancy, it is perhaps premature to predict whether or not concurrent evidence has been a success in England and Wales. Lord Neuberger remarked extra-judicially that the procedure tends not to be used,¹⁷⁴ due to a fear on the part of lawyers of losing control and on the part of judges that it would involve greater preparation and an earlier understanding of the issues involved in the case. The empirical evidence of the experiences in England and Wales is also limited. However, the general consensus appears to be that it has resulted in greater comprehension of expert evidence in that jurisdiction. The merits of the procedure will be referred to, by reference to the analogous English and Australian experiences later in this chapter.

(iii) Ireland

As outlined in the previous chapter, judicial discontent with the cost and expense of expert evidence in civil litigation has been brewing for a number of years. In 2004, O'Sullivan J,¹⁷⁵ while lamenting the difficult task he had adjudicating expert evidence in a complex medical negligence matter, suggested extra-judicially that concurrent evidence should be introduced through a change in the civil procedure rules. He took inspiration from Australia and Heery J.¹⁷⁶ He was of the opinion that Irish law was already heading in the direction of concurrent evidence as a result of the rules providing for disclosure of expert reports, discussed in the last chapter, and the anti-ambush philosophy underlying them.¹⁷⁷

¹⁷⁴ Lord Neuberger, "Science and Law: Contrasts and Cooperation" Speech to the Royal Society, London, 24 November 2015. Available at: <https://www.supremecourt.uk/docs/speech-151124.pdf> (Accessed on 30 September 2016).

¹⁷⁵ O'Sullivan, "A Hot Tub for Expert Witnesses" (2004) 4(1) JSIJ 1

¹⁷⁶ *ibid.*, at 3-4, citing Heery, "Expert Evidence: The Australian Experience" (2002) 7(3) BR 166.

¹⁷⁷ He also suggested that this philosophy underlined the decision in *McGrory v ESB* [2003] 3 IR 407 and discussed in Chapter 3.

More recently, in *Weaving Macro Fixed Income Fund Ltd (in liquidation) v PNC Global Investment Servicing (Europe) Ltd*,¹⁷⁸ Charleton J expressed his support for the Australian system in an interlocutory application where it was anticipated that considerable expert evidence was to be called at the main trial of the action. He stated that there was “no reason” why the Irish High Court should not adopt concurrent evidence. He went on to describe the procedure as follows:

“[W]hereby after meeting and agreeing what is possible and setting that out in a written memorandum, each opposing expert may be sworn at the same time and debate the issues under the control of the trial judge, with counsel retaining an entitlement to examine thereafter on whatever issues remain in dispute. At trial, under this convenient procedure, if the interests of justice require its adoption, each of the two contradicting experts should be sworn in order to testify at the same time. When this is done, each expert, in such order as the trial judge shall determine, without being examined by counsel, should give an outline of the evidence that is agreed between them. The experts will then, in such order as the trial judge shall determine, present the evidence on which they are not in accord the one with the other. After that presentation, the experts, subject to the control of the trial judge, may be required to debate each of the points of dispute among them. When that procedure is complete, examination in chief, cross examination and re examination may follow on such matters as the trial judge directs.”¹⁷⁹

While Charleton J acknowledged that the procedure would only be invoked in rare cases, he envisaged obvious advantages in terms of court time and the fair disposal of complex cases.

For the first time in Irish law, the New Rules provide for expert evidence to be given concurrently in certain types of cases in the superior courts. Rather than adopt the phrase “concurrent evidence” (or worse still, “hot-tubbing”), the New Rules entitle the procedure the “debate among experts”. It is provided that, in situations where the evidence given by the

¹⁷⁸ [2012] IEHC 25

¹⁷⁹ *ibid.*

experts contradicts each other, the court can, on the application of any party or of its motion, implement the procedure in Order 36, rule 61 of the RSC, where the judge considers it necessary “in the interests of justice”. This procedure requires that the experts “shall” be required to meet privately, without the presence of any party or their legal representative, to discuss amongst themselves their proposed evidence. Following that meeting, they shall be required to draw up a “joint report” identifying the evidence which is agreed and that which is not agreed.¹⁸⁰ This report is to be furnished to the court and to the parties. It is important to note that concurrent evidence only applies in certain types of cases.

It is provided that, upon consideration of the joint report the court can either require the experts to be cross-examined, one after the other, or apply what is called the “debate among experts” procedure:

“Where the “debate among experts” procedure is applied, each of two or more contradicting experts shall be sworn in order to testify at the same time. When sworn, each expert, in such order as the trial Judge shall determine, and without being examined by, or by counsel for, any party, shall give an outline of the evidence that is agreed between or among them. The experts shall then, in such order as the trial Judge shall determine, present the evidence on which they are not agreed the one with the other or others. Following such presentation, the experts may, subject to the directions of the trial Judge in that regard, be required to debate the points which are not agreed between or among them, the one with the other or others.”¹⁸¹

When this “debate among experts” is complete, “examination in chief by counsel, if deemed necessary by the trial Judge, and cross examination by counsel on such matters as the Judge directs, or if the Judge so directs, general cross examination shall be allowed, as may re-examination”.¹⁸²

It appears from the New Rules that the “debate among experts” option can only be directed in situations where the experts’ evidence contradicts each

¹⁸⁰ Order 36, rule 61(2) of the RSC.

¹⁸¹ Order 36, rule 61(4) of the RSC.

¹⁸² Order 36, rule 61(5) of the RSC.

other, and after they have met and composed a joint report. This reflects the practice in England and Wales. A number of points are apparent from the Irish rule.

First, the rule clearly makes provision for more than two experts to participate in the debate among experts at the same time. This is common elsewhere,¹⁸³ where as many as six experts have given evidence at the same time. However, what is not clear is whether experts in different fields of expertise can be involved in the same debate among experts. Provision is made for the debate when the expert's reports contradict each other. Take a building dispute, for example. It is at least conceivable that an engineer's expert report procured by one party may "contradict" an architect's expert report. Are the architects and engineers all to meet privately and then take part in the debate among experts together? This would be confusing for the trial judge, and arguably it comes close to the experts testifying outside the bounds of their expertise which, as was discussed in Chapter 2, is prohibited. It is preferable that there are separate meetings and separate debates for different fields of expertise.

Second, counsel are not permitted to examine or cross-examine the experts prior to the debate. In England and Wales, this has sometimes been the case.¹⁸⁴

Third, counsel are not automatically permitted to examine or cross-examine experts after the debate. If they are permitted to cross-examine, it appears that this can be restricted by the trial judge. There is no guidance for Irish judges as to the circumstances in which examination and cross-examination is to be permitted. Also, given that the debate among experts is an alternative to traditional examination, there also needs to be guidelines as to the circumstances in which it may be preferable.

There is also no guidance on the demarcation of the judge's role during the debate among experts. Depending on the personality, knowledge and preparation of the judge, there is likely to be a divergence in the level of judicial participation in concurrent evidence sessions. In all cases, it is vital that the judge appear balanced. Edmond queries whether a judge can intervene when an affluent party calls several experts against a single expert engaged by

¹⁸³ Garling, *op. cit.*, at [85]

¹⁸⁴ Civil Justice Council, *op. cit.*, at 20.

a more impecunious litigant.¹⁸⁵ A sitting Irish Supreme Court judge has stated extra judicially that “[i]t is clearly wrong that an impecunious plaintiff can hire only one expert witness while a large corporate defendant can pay for several”.¹⁸⁶ While this was said in the context of party experts, there may still be a concern as to at what point it becomes unfair for one party to have more experts representing it in the debate than the other party.

There is some consensus between both the proponents and opponents of concurrent evidence that it renders trials shorter and less expensive.¹⁸⁷ This is attractive from an Irish perspective, given the concerns outlined in the previous chapter. One would hope that a reduction in time would lead to a consequent reduction in cost. However, on the basis of the admittedly limited empirical evidence available to date in Australia and England and Wales, this appears not to have been consistently the case. In reality, the expert still has to be paid for his or her services, and may well be entitled to charge a higher fee if he or she is going to be pitted against a peer in open court. It also may transpire that that the debate among experts in certain complex cases may last a significant period of time, depending on how interventionist the particular trial judge is.

It is understandable that Irish lawyers, and perhaps some judges, may be hostile to the debate among experts. It has been remarked elsewhere that majority of the people who are hostile to concurrent evidence are judges and practitioners who have never used it.¹⁸⁸ Regarding judges, it is widely agreed that the judge-led concurrent evidence procedure will simply not work unless judges have prepared adequately before trial.¹⁸⁹ This involves pre-trial engagement with the expert evidence and the issues. Genn remarked after the Manchester pilot referred to above:

¹⁸⁵ Edmond, *op. cit.*, at 72-73.

¹⁸⁶ Charleton & Molloy, “Case Management: Fairness for the Litigants, Justice for the Parties” (2015) Bar Review 20(3) 59, at 63.

¹⁸⁷ Jackson, “Concurrent Expert Evidence—A Gift from Australia”, Lecture by Jackson LJ at the London Conference of the Commercial Bar Association of Victoria, 29 June 2016. Available at: <https://www.judiciary.gov.uk/wp-content/uploads/2016/06/lj-jackson-concurrent-expert-evidence.pdf> at 6 (Accessed on 30 September 2016).

¹⁸⁸ *ibid.*

¹⁸⁹ See Waksman, Appendix to Jackson, *op. cit.*, at [8].

“What is absolutely clear is that a considerable additional burden is placed on the judge if the procedure is to be effective. Hot tubbing requires judges to do more pre-reading and their role in the trial necessitates a substantial shift from the passive judge who sits waiting for the case to unfold before her, to an active inquisitor who has the responsibility for ensuring that the discussion agenda is comprehensive and that the evidence is properly heard and tested. This requires the involvement of judges who are enthusiastic about the procedure, who are conscientious about their role and diligent in undertaking the additional work. It is asking a lot of judges who are already under time pressure. If the concurrent evidence procedure is to be used more widely, the judiciary will not only require personal motivation, but also support for necessary preparation time, and appropriate training for the shift of emphasis in their role.”¹⁹⁰

It is clear from the foregoing comments that much will depend on the personality of the particular judge. As against this, it could be said that an understanding of the issues and comprehension of the expert opinions is required in any event to decide the outcome of the case. The debate among experts may just mean that a judge has to engage with the expert evidence slightly earlier.¹⁹¹ It is acknowledged that this carries less weight in a jurisdiction with an already under-resourced judiciary like Ireland.¹⁹² However, it is imperative that judges receive hands-on training in the area of concurrent evidence,¹⁹³ preferably through a form of role-play or re-enactment.¹⁹⁴

¹⁹⁰ Genn, “Getting to the truth: experts and judges in the “hot-tub”” (2013) 32 CJQ 275, at 297.

¹⁹¹ Garling, *op. cit.*, at [82].

¹⁹² The current Chief Justice has remarked on many occasions that the Irish judicial system is under developed, stating that Ireland “has the lowest number of judges per head of population among the 47 Council of Europe member states”. See Carolan, “New Court of Appeal ‘most important development’ in history of justice system” *The Irish Times*, 6 October 2014.

¹⁹³ According to Waksman J, English judges are due to attend a session on hot-tubbing as part of their training on 6 December 2016. See appendix to Jackson, *op. cit.*, at [9] and Civil Justice Council, *op. cit.*, at [64].

¹⁹⁴ The Judicial Commission of New South Wales and the Australian Institute of Judicial Administration jointly produced a DVD entitled “*Concurrent Evidence – New Methods with*

Lawyers are said to fear concurrent evidence because it reduces their control. In the traditional adversarial process, lawyers are better able to control and influence the expert evidence. Therefore, lawyers cede a substantial degree of control *via* the concurrent evidence process. They will not be present where the joint report is being prepared, and there is always the risk that an expert may unwittingly concede a point which is detrimental to the case of the party who has retained them, and which makes it into the joint report. How will the joint report be challenged? It will be difficult for lawyers to revoke the concessions at trial. While the joint report may promote settlement, there are serious risks if the case makes it to trial.

During cross-examination, a lawyer usually formulates a specific question to be put to an expert witness with a specific answer in mind. Also, a lawyer can choose to stop asking questions once a favourable answer has been elicited.¹⁹⁵ Therefore, predictions about the outcome of a case become more uncertain as a result of concurrent evidence, as the lawyer may not be able to predict how his expert will perform. This initial unpredictability will make it difficult for lawyers to prepare for cases. It may lead to lawyers selecting experts who are more likely to agree with opposing experts. Over time, it may be that experienced lawyers will be able to predict the evidence to be given by their expert.

Much also depends on the personality and character of the expert. If the expert is submissive, it may be preferable from the point of view of the instructing party that the expert is led through his or her evidence in examination in chief and then subjected to cross-examination. There may be a danger that a particular expert will overshadow the opposing expert through their dynamic, and even oppressive, personality. Davies remarked:

“One of two possible consequences is much more likely at the end of that process. The first is that the judge will be left with two opposed but apparently convincing opinions by equally well-qualified experts, neither of them has been shaken in the process. The second and, unfortunately more likely, consequence is that the judge will be unwittingly convinced

Experts". It is the largest selling publication of the Judicial Commission. It was referred to by Rares, *op. cit.*, at [37].

¹⁹⁵ Garling *op. cit.*, at [76].

by the more articulate and apparently authoritative personality. The likelihood of this latter consequence increases as the complexity of the question in issue increases.”¹⁹⁶

Whether the aforementioned concerns actually materialise in practice remain to be seen and will depend on how lawyers, the judiciary and experts themselves embrace the debate among experts. However, there remain serious evidential concerns that concurrent evidence has the tendency to distort the burden of proof. The legal principles applicable to the burden of proof in civil proceedings were outlined in the previous chapter. It has also been stated at numerous points in this thesis that evidence in adversarial proceedings is party led. It was also acknowledged in the last chapter that a party is entitled not to call an expert, or any other witness, for tactical reasons. This is a perfectly legitimate tactic in adversarial proceedings.¹⁹⁷

Delany has pointed out that concurrent evidence has the immediate consequence that the option to cross-examine the opposing expert without calling the client’s own expert is lost. He proceeded to state:

“The focus in the traditional trial upon the plaintiff making out its case on all issues, including those to be established via expert evidence, shifts to an objective inquiry as to the correct answer to the questions posed in which all experts participate under the direction of the trial Judge. The balance in the “hot tub” inexorably shifts from an adversarial to an inquisitorial process.”¹⁹⁸

It is unclear what effect this will have on the defendant’s entitlement to make an application at the conclusion of the evidence of the plaintiff to the effect that the plaintiff has not made out a *prima facie* case. Delany advocates for sequential expert evidence which, he claims, does not distort the burden of proof.¹⁹⁹ This means that, after the plaintiff’s evidence of fact, the plaintiff

¹⁹⁶ Davies, “Recent Australian Developments: A Response to Peter Heerey” (2004) 23 CJLQ 388, at 398 – 399.

¹⁹⁷ *Fyffes plc v DCC plc* [2009] 2 IR 417, *per* Laffoy J at [200].

¹⁹⁸ *ibid.* at [15].

¹⁹⁹ *ibid.* at [16].

would call their expert. The defendant could choose to call or not call their expert, and the burden of proof would remain intact.

IV. Conclusion

This chapter has considered two methods of incorporating expert evidence in civil proceedings in response to the cost and delay concerns in civil proceedings outlined in the previous chapter. Of course, it is acknowledged that, irrespective of the method of incorporation, the expert evidence will always be constrained by the ability of lawyers to present the evidence and judges to decide the case.

It is likely that the recent amendments to the RSC providing for single joint experts and the debate among experts in civil proceedings in the Superior Courts have been introduced to address such concerns. Both amendments represent a significant departure from the adversarial process. It should be remembered that the trial judge retains significant discretion in deciding whether to utilise the new provisions. The trial judge will be required to take a more active role if he or she decides to implement these new procedures.

Regarding the single joint expert, there are now, technically, two options available to a judge in a personal injuries case: (a) appoint an expert under section 20 of the 2004 Act; or (b) direct that evidence be given by way of single joint expert. Given that section 20 has had no impact in practice, the judge may be more inclined direct that expert evidence is given by a single joint expert. However, the single joint expert is only appropriate where the field of expertise contains little or no substantial disagreement. In line with the practice in England and Wales, the single joint expert is only appropriate where opinion is needed on *quantum*. Where there is substantial disagreement within the field of expertise, it is preferable that the parties retain their own experts. These principles are applicable in other types of cases to which the rules apply. The enhanced rules relating to assessors in the New Rules are welcome. However, given the availability of the single joint expert, the appointment of assessors may be confined to those cases in which they were traditionally employed, such as admiralty. This has been the experience in England and Wales.

Concurrent evidence represents a very real option to be considered where a single joint expert is not ordered.²⁰⁰ If the debate among experts is to be employed, it should be used when there is a genuine area of disagreement. It is clear that, if the procedure is going to reduce cost and delay in civil proceedings, then it needs to be very carefully managed by the judge, and this will require significant preparation. In addition, imbalance between experts, whether in terms of number or expertise, is likely to be a significant concern and will have to be managed. There is also no guidance on at what stage in civil proceedings the debate among experts will take place. Logic would dictate that it should take place after the all the evidence of fact has been heard, otherwise the experts may be testifying in terms of hypotheses. However, the judge appears to have significant discretion. There are real concerns relating to the effect which the debate among experts will have on the burden of proof and the defendant's entitlement to make an application that the plaintiff has not made out a *prima facie* case. It has to be acknowledged that expert evidence case management techniques which the trial judge may wish to select to aid in efficient judicial decision making and reduce cost and delay will not necessarily be in the best interests of the client.

One High Court judge predicts that the application of the new rules may be incremental and highlights the need for additional resources.²⁰¹ This is definitely true if the judge is going to hear expert evidence via the debate among experts. It is clear that the Irish judiciary will require both guidelines and training regarding the appropriate circumstances in which to employ each new method. Given that both methods have been provided for in other jurisdictions, principles such as the ones outlined above have been developed and should be drawn on. Guidelines could easily be provided in a practice direction. If a judge has clear guidelines in place then this will obviate the need for counsel to argue at length against each other regarding the merits and demerits of each procedure, which is, of itself, contrary to the perceived aims of the amendments.

²⁰⁰ Waksman, Appendix to Jackson, *op. cit.*, at [10].

²⁰¹ Mara, "Let the Games Begin!" (2016) LSG 26, at 29, quoting McGovern J.

CHAPTER 8: CONCLUSION

This thesis considered certain aspects relating to incorporation of expert evidence in Ireland in both criminal and civil proceedings. It proposed to approach expert evidence by reference to the differing process considerations underpinning criminal and civil trials. Prior to embarking on this discussion, the law as it stands relating to expert evidence was required to be understood.

Chapter 2 introduced the general principles of the law relating to expert evidence. It focused on both civil and criminal proceedings as the rules relating to expert evidence are common to both. It was observed that expert evidence developed as an exception to the traditional rule of evidence that witnesses are not permitted to give evidence of their opinion. Expert witnesses are permitted to give their opinion because they possess specialised knowledge, which is outside the competence of the finder of fact. However, certain limits are placed on expert evidence and experts are subject to a number of duties, the most important one being to the court. While not set in statute, it is probably fair to say that the general evidential principles are well established and relatively uncontroversial. However, the issue of expert evidence has long been fraught with a number of difficulties also raised in Chapter 2, not least the dilemma posed by the question of the independence of experts and the debate surrounding the test for the admissibility of expert evidence.

Within the expert evidence exception itself, the law developed its own test for admissibility for expert evidence in that it must be relevant and that the expert must be sufficiently qualified in his or her field of expertise. Most of the academic commentary and discussions based around reform in this jurisdiction on the issue to date focus, in particular, on whether Ireland should adopt a reliability-based standard for the admissibility of expert evidence. This was examined in Chapter 4, in the context of the discussion relating to expert scientific evidence. Expert evidence has also been regarded as an anomaly within the adversarial trial process, in that it is doubted whether the traditional methods of calling evidence in rebuttal and cross-examination are effective to test it. As expert evidence developed as an exception to a traditional evidential rule, it was recognised that it must be policed strictly.

The thesis then diverged to consider, firstly, incorporation in criminal trials, by reference to rights-based considerations. Specifically, the thesis

examined whether there exists a basis in Irish law for a right of an accused to an expert. The prosecution in a criminal trial will always have access to expert evidence. While the burden of proof in a criminal trial remains on the prosecution, it has been acknowledged that an accused may require expert evidence for the conduct of his or her defence. If he or she is inhibited, by either limits on the introduction of such evidence, or through his or her lack of means, then his or her right to a fair trial is jeopardised. This thesis is the first occasion that expert evidence in a criminal trial was approached from the point of view of the Irish Constitution and within the scheme of Irish constitutional rights. Chapter 3 explored whether there was a basis for such a right in Irish law. Two aspects of the right were identified: the negative right to present expert evidence and the positive right to an expert witness at the State's expense.

The negative right presupposes that an accused person should not be limited in his or her presentation of expert evidence. It was concluded that there is a sound constitutional basis for the recognition of such a right through the equality of arms principle which permeates Irish law. While this principle is also an important one underpinning the ECHR, it is not one that exists in Ireland solely as a result of its incorporation. This is clear from the decisions in *JF*, *Carmody* and *Markey*. However, it was submitted that the ECHR jurisprudence on Article 6 is useful in defining the parameters of the right. The right is only engaged when relevant admissible expert evidence is sought to be adduced by an accused in response to expert evidence adduced by the prosecution. The court would then employ a proportionality test in assessing any interference with the right, such as legislative limitations.

In relation to the positive right, South Africa and the United States were examined as jurisdictions where a basis for such a right has been recognised. *S v Huma* is helpful, as subsequent commentary seeks to explain it on the basis of equality of arms, which is also recognised as a principle underpinning Irish constitutional law. However, the South African position is of limited assistance especially when one considers the more expansive approach taken there to socio-economic rights, both in its Constitution and jurisprudence. There has been a marked reluctance on the part of the Irish judiciary in cases such as *Sinnott* and *TD* to recognise new unenumerated rights of a socio-economic nature. The US decision in *Ake v Oklahoma* is helpful at first glance, but when

one considers the limited effect of the decision in the United States, it offers limited assistance. However, as the right recognised in *Ake* emerged organically from the right to counsel, it does provide some support for the recognition of the right sought through an extension of the right to criminal legal aid.

When the right is viewed in this context, the socio-economic concerns are diluted. The traditional objections relating to the recognition of socio-economic rights are noticeably absent from the decision establishing the right to criminal legal aid (*State (Healy) v Donoghue*), and more recent decisions which broaden the interpretation of that right (*Carmody* and *Joyce*). There is no doubt that criminal legal aid constitutes a significant source of expenditure for the State. The current system of criminal legal aid allows for the retention of an expert but there are no real guidelines in place. It is submitted that the right should be assessed by reference to the means of the accused together with:- (1) the seriousness of the offence; and (2) the complexity of the case.

Continuing with criminal trials, Chapters 4 and 5 of this thesis examined the difficulties relating to the incorporation of expert scientific evidence in criminal trials. Chapter 4 explored the nature of scientific expert evidence. It was acknowledged that such evidence is situated at the intersection of the competing disciplines of law and science. Those disciplines do not sit easily with each other as they adopt different approaches to fact-finding. The incorporation of expert scientific evidence in criminal trials has resulted in a number of high profile miscarriages of justice in the relatively recent past, and this brought the topic firmly within the public domain. Scientific knowledge does not remain stagnant, and is ever-evolving. This discussion on scientific evidence begged the question of whether a reliability standard should be introduced as a threshold for the admissibility of scientific evidence in Ireland. This was recommended by the LRC and inspired by developments in the US. English jurisprudence and criminal procedural developments were also examined.

It was concluded that the introduction of such a standard would necessitate training for the Irish judiciary in order to engage in such a scientific inquiry. In addition, if such a requirement were to be introduced in the manner recommended by the LRC, via a practice direction, then there will be no incentive on the part of the judiciary to engage in such an inquiry. England and

Wales have introduced a reliability standard in such a permissive form in recent years. While the impact of its introduction is yet to be seen, it is predicted to have limited effect. The Irish judiciary has shown itself to be astute in excluding unreliable evidence in the past, and are open to excluding such evidence where its probative value outweighs its prejudicial effect.

Facial mapping was examined as a novel area of expert scientific evidence, which has been admitted as a form of expert scientific evidence in criminal trials. It is a species of identification evidence, which already carries its own concerns relating to reliability. While undoubtedly relevant, there exist serious concerns regarding the reliability of facial mapping as a form of expert scientific evidence. There is no agreed technique for facial mapping, and each of the techniques utilised suffer from some form of defect. In addition, there is a lack of a statistical base that should inform the expert's opinion. The culmination of the comparative common law jurisprudence examined allows facial mapping "experts" to express their opinion on similarities and dissimilarities between two images. They are permitted to do this by reference to a verbal scale, as long as it is not numerical. Faith is placed in the adversarial process and judicial warnings to expose any potential unreliability. The Irish courts are open to varying the traditional warning applied to identification evidence. However, it is submitted that such a judicial warning would have to be especially stern and detailed in nature to counteract the unreliability of such evidence.

As there is currently no formal reliability standard in Ireland, it was submitted that the method of incorporation of the expert scientific evidence at trial, through its presentation, becomes important to guard against unreliability. This necessitated an examination of the competency of the jury to assess such evidence and a discussion regarding methods of presentation of expert scientific evidence.

Chapter 5 firstly examined the competency of the jury to assess expert evidence. As jury deliberations are secret, there is little to guide such an inquiry. It was established that juries assess evidence by inserting it into a narrative, or a "story". Therefore, a jury's comprehension of evidence is at its highest when such evidence is capable of being constructed into that narrative. Psychological studies demonstrate that where a jury is presented with complex evidence, there is a danger that they will focus less on the content of the

evidence and will be influenced by peripheral factors. As much expert evidence is complex in nature, this is concerning. This is supported to some extent by empirical evidence in Australia, although it was acknowledged that self-reporting by jurors carries with it a health warning. However, it was noted that while juries are confident generally that they are capable of understanding expert evidence, they have conceded that they find DNA evidence difficult to comprehend. As difficulties in comprehension were found to have favoured the prosecution, it is important that expert scientific evidence is presented in a manner which provides for maximum jury comprehension and guards against unreliability.

With advances in technology and scientific knowledge in recent years, the presentation of expert evidence has become increasingly more complicated and difficult for juries to understand. This is further complicated by the distinct lack of empirical evidence on juries in this jurisdiction. It is clear that the way in which expert evidence is presented to a jury and ultimately incorporated into a criminal trial undoubtedly impacts on an accused's constitutional rights. Juries are frequently asked in criminal trials to assess the probability of evidence being linked to the accused, and forensic science evidence plays a major role in criminal investigation. It will be difficult for jurors to assess such evidence in terms of a narrative. Therefore, a danger arises that they will rely on the peripheral cues mentioned, which tend to favour the prosecution. The approaches to legal and mathematical proof were outlined, and it was acknowledged that uncertainty must be acknowledged when assessing both legal and scientific proof. A method of mathematical proof known as Bayes' Theorem was examined, which assesses expert scientific evidence in terms of probabilities. It has as its main focus the likelihood ratio, which measures the probative force of a piece of evidence by reference to two hypotheses. It was seen that method has been pioneered by many members of the forensic science community as an appropriate method of measuring uncertainty and presenting probabilities in court.

However, it was demonstrated that proponents of the method suffered a major setback in the form of the decision of the English Court of Appeal in *R v T*. It was decided that an expert is confined to utilising the likelihood ratio to come to their conclusion, as long as they confine their expression in terms of an evaluative opinion. The aspects of the judgment were dissected in detail by

reference to the intense academic debate that followed. It was concluded that the ratio of *R v T* is unclear, and that it is at odds with other decisions of the English Court of Appeal that take a more relaxed approach to the admissibility of expert scientific evidence. The aftermath of the decision did expose some disagreement amongst the members of the forensic science community regarding the suitability of Bayes' Theorem, which would have to be resolved prior to its acceptance as a valid method for the presentation of expert scientific evidence. It is clear that many are still advocates of the method, and therefore it may come before the Irish and English courts in the not too distant future. In the meantime, it is required that judges are instructed on basic mathematical proof in order to make an informed decision regarding optimum methods of presentation in an appropriate case.

The focus of the thesis then shifted to process-based concerns regarding the incorporation of expert evidence in civil trials. Expert evidence is a rapidly evolving area of civil procedure, as courts grapple with new ideas in an attempt to cope with expert evidence as cost effectively and time efficiently as possible. There has been an increase in the treatment of expert evidence by Irish judges in recent years, particularly in the context of complex commercial litigation. Chapters 6 and 7 examined how expert evidence is incorporated into civil proceedings and the concerns arising therefrom.

Chapter 6 outlined the nature of civil trials. It was explained that civil court proceedings are not just another form of dispute resolution; they also have a public dimension. While the underlying concern of the discussion relating to criminal proceedings in Chapter 3 was rights-based, it would be completely incorrect to assert that constitutional rights do not play any role in any discussion of expert evidence in civil proceedings. The reader was reminded that, under Article 40.3.1 of the Irish Constitution, each individual has the right of effective access to the courts, which is also protected by the ECHR. It was outlined that this right may be at risk if civil litigation is unduly delayed or becomes prohibitively expensive. Keeping the costs of civil litigation down has been, and remains, a goal for litigants, judges and lawmakers alike in this jurisdiction. However, there has been an increasing awareness on the part of the Irish courts, and elsewhere,¹ that expert evidence

¹ Lord Jackson, *Review of Civil Litigation Costs: Final Report*, December 2009 and Lord Jackson, *Review of Civil Litigation Costs: Preliminary Report*, May 2009.

contributes in a significant way to cost and delay. It was outlined that attempts have been made in Ireland, mostly through the rules on civil procedure, to decrease cost and delay in civil proceedings as they relate to expert evidence. This occurred against the backdrop of extensive attempts at reform in England and Wales.

Case management has played a major role in the pre-trial regulation of expert evidence. Indeed, it was recognised that expert evidence is required to be addressed prior to the institution of proceedings in professional negligence cases. It was argued that pre-trial measures concerning expert evidence are highly relevant to the question of incorporation as they govern in a significant way how the expert evidence will be dealt with at trial. The practice areas of personal and injuries and commercial disputes were the first to provide for pre-trial exchange of expert reports, and prevent the danger of expert ambush. It was explained that recent amendments to the RSC codify the expert's duty to the court and provide that a court can restrict expert evidence to one expert per field of expertise. It was argued that these provisions add nothing new to the law, as the latter and most definitely the former were already recognised by the common law. However, the position in England and Wales was instructive, as the express provisions may create a greater awareness on the part of experts, lawyers and litigants to tread carefully regarding expert evidence and confine it to what is necessary for the resolution of disputes. Regarding the expert's duty, it is important to note that the English Supreme Court in *Jones v Kaney*² has recently held that there is no continuing justification for immunity on the part of expert witnesses. While expert witness immunity has been upheld by the

² (2011) UK SC 13. Kaney, a psychologist was instructed as an expert witness in a personal injury claim, and was said to have negligently signed a statement of matters agreed with the expert instructed by the opposing side, in which she made a number of concessions that weakened the claim considerably. As a result Jones, the claimant, alleged that he had to settle the claim for much less than he would have obtained had Kaney not been careless. See Pattenden at (2011) 15 E & P 258. The UK Supreme Court held that a retained ("friendly") expert witness can be sued for negligence by his client for negligent misstatements during litigation. This decision does not alter the absolute immunity enjoyed by the expert witness against being sued for defamation. It also leaves unaffected the position of an unfriendly expert witness (*i.e.* one paid by an opponent), an unpaid expert witness and a witness of fact.

Irish High Court relatively recently in this jurisdiction,³ the English position is likely to provide a convincing precedent for any superior court dealing with the issue into the future in this jurisdiction.⁴

However, the current system is unsatisfactory in that there is no uniform framework for case management of expert evidence in all forms of civil proceedings. It is even more unsatisfactory when one considers that case management only applies to the superior courts. There is a need for a common framework for the case management of expert evidence in order to respect the right of effective access to the courts for all litigants, regardless of the type of case and irrespective of what court proceedings are instituted in. However, it will be acknowledged that Circuit Court judges are no less under resourced than their colleagues in the superior courts and significant resources would have to be employed to implement this.

Two methods of incorporating of expert evidence designed to curb the cost and excess delay associated with expert evidence, and also to aid in comprehension, have recently been provided for in Ireland in superior court proceedings, the single joint expert and concurrent evidence. These were examined in detail in Chapter 7. Both represent a significant departure from the adversarial trial process and their origins, parameters and likely practical effect were examined by reference to developments in other jurisdictions. It was outlined that the single joint expert is a form of court appointed expert, but an emphasis is placed on securing agreement between the parties. The court appointed expert is not an alien concept in Irish law, having been provided for in personal injuries cases since 2004. However, it was demonstrated that this provision was rarely used in practice, possibly due to concerns regarding its scope and application. Guidance on the appropriateness of single joint experts was gleaned from England and Wales. It was established that single joint experts are most appropriate where expert evidence is required in an area

³ *WJ Prendergast and Others v Redver Skelton* (2007) IEHC 192

⁴ Pattenden, *op cit*, notes that the Irish Law Reform Commission came to the same conclusion was the two dissenting judges in *Jones* (Lord Hope and Lady Hale who did not think that abolition of immunity was appropriate for all types of claims). A factor which influenced the LRC was the small pool of expert witnesses in Ireland. *C.f. D'Orta Ekenaike v Victoria Legal Aid* (2005) 223 CLR 1.

where there is substantial agreement, such as issues of quantum. They are not appropriate where there are competing viewpoints.

Like England and Wales, it was argued that Irish judges require guidance regarding the circumstances in which it is appropriate to appoint a single joint expert. It is recommended such guidance be contained in a practice direction. However, given that parties are still permitted to retain their own experts it was argued that it is unlikely that the single joint expert will reduce costs. Experience in England and Wales suggests that single joint experts are the norm in lower value cases. However, the single joint expert has only been provided for in the superior courts in Ireland. One could therefore question their utility in higher value cases in the Irish superior courts, where issues are likely to be fiercely contested. The recent amendments relating to assessors bring some clarity to the law, but their role still remains undefined. It was argued that the new provision is unlikely to broaden the categories of cases in which assessors were traditionally employed, especially given the availability of the single joint expert.

Concurrent evidence represents a preferable option where the single joint expert is not appropriate, *i.e.* where there is likely to be a genuine area of disagreement between the parties. A “debate among experts” has been provided for in Ireland. Despite its long history in Australia, there is still some uncertainty about how the procedure works in practice, and significant divergence in opinion regarding its merits. It was demonstrated that it unclear from the point of view of an Irish judge when exactly the debate is to take place, how many experts are permitted to take part in the debate, and whether experts from different fields can participate in the debate.

The limited empirical evidence available from Australia and England and Wales suggests that, while it aids in the comprehension of expert evidence, there is no overwhelming evidence that concurrent evidence actually reduces the cost and length of trials. In addition, there is consensus that significant preparation is required on the part of the trial judge prior to the procedure taking place. Judges may therefore be unwilling to facilitate the procedure, and they retain a significant discretion whether or not to implement it. In addition, the procedure raises important questions regarding the civil burden of proof which will be required to be resolved by the courts in the future.

One positive aspect of the recent amendments is that the quality of expert evidence is likely to be improved. It is likely that “pseudo-experts,” *i.e.* a person who is formally qualified under the current admissibility test to express an opinion on matters relevant to the case, but who has no real expertise, or who holds extreme opinions, is both unlikely to be appointed as a single joint expert, and also likely to be discredited at an early stage by an opposing expert during a debate among experts.

A theme, which struck the author during this thesis, was the pressing need in this jurisdiction to devote more resources to the Irish judiciary in order to equip them to deal with expert evidence. This was especially clear, in the criminal context, from the discussion regarding whether there should be a reliability threshold in any assessment of admissibility of expert evidence. On the civil side, novel procedures borrowed from abroad, for example the debate among experts, will not serve any useful purpose in eliminating cost and delay if the judiciary, lacking in training, choose not to utilise them.

It is clear that constitutional rights are engaged in both criminal and civil proceedings where expert evidence is a feature. Of course, it is acknowledged that there is an element of circularity in arguing that judges need to be educated regarding evidence, the function of which is to educate the finder of fact. With advances in knowledge showing no sign of abatement anytime soon, this challenge will only be drawn into sharper focus in the years ahead.

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