I. **Introduction**

1. It is my honour and privilege to be invited by the Academy to deliver the Patron’s Address this year. Last year, we in Singapore were honoured to have Chief Justice Robert French deliver the Singapore Academy of Law’s 20th Annual Lecture titled “The Rule of Law as a Many Coloured Dream Coat”. The Singapore and the Australian Academies share the objective of promoting dialogue on issues about the law, the administration of justice and the legal profession, and I am delighted to have been invited to contribute to this continuing conversation.

2. Both our legal systems are descended from the English common law. Our shared legal heritage extends not only to the body of substantive legal principles that have been developed over the centuries, but also to the procedural rules and practices that have evolved to govern the litigation process. Although the procedures in our countries have diverged in some key respects – for example, jury trials have been abolished in Singapore but not in Australia – the fundamental features remain the same. In both jurisdictions,

* I am deeply grateful to my law clerk, Daniel Gaw, for the considerable assistance he gave me in the research and preparation of this paper.
litigation is an adversarial process in which opposing parties tender evidence and present competing versions of the truth to the court. Witness testimony, which might be oral or written, is checked against documentary evidence and tested under cross-examination. The judge typically plays the role of a passive umpire who decides the case based on the evidence and the arguments presented to him; at least as a general rule, he does not actively examine the witnesses or call for particular evidence to be produced.

3. These fundamental features of our systems of litigation have served us well for a long time and there might be wisdom in leaving well enough alone. But this evening, I propose to identify four respects in which the common law litigation process might invite reconsideration. First, can we reform the system to reduce the cost of litigation and improve access to justice? Second, do our fact-finding processes need to be reassessed in the light of scientific evidence that might cast some doubt on the hitherto presumed efficacy of our existing forensic methods? Third, what types of expert evidence should we admit, and how should we go about receiving and evaluating such evidence? Finally, is the common law litigation process appropriate for all types of disputes, or are there areas that might benefit from a different approach altogether?

II. Cost

4. I begin with the issue of cost. The common law litigation process has been plagued by the exorbitant expense that is often entailed. In Australia,
estimates from 2008 indicate that on average, it will cost an individual more than A$100,000 to pursue legal proceedings in the Federal Court.¹

5. The problem of high litigation costs is a Hydra that several jurisdictions have attempted to slay. In the UK, a high profile effort was made in the 1990s by a committee chaired by Lord Woolf. It undertook a root-and-branch review of the English civil justice system with the aim of improving access to justice by making legal proceedings cheaper, quicker, and easier to understand for litigants.² This review culminated in the Civil Procedure Rules 1998, a key feature of which was judicial case management, which sees the judge taking an active role in managing the progress of each case, encouraging an early settlement if possible, and, if not, ensuring that the case proceeds expeditiously to a final hearing which would in any case be of a strictly limited duration.³

6. The Woolf reforms marked a paradigm shift from party-controlled to court-managed litigation. Instead of allowing the parties and their lawyers to dictate the pace of litigation, the courts assumed the responsibility for driving cases through the system with due expedition. This shift has been mirrored by developments in common law jurisdictions around the world, including in Singapore and Australia.

¹ Australian Government Attorney-General’s Department, A Strategic Framework for Access to Justice in the Federal Civil Justice System (September 2009) at p 41.
7. In Singapore, the shift was prompted not so much by litigation costs as by delay. The 1970s and 1980s saw our courts groaning under a backlog of cases which resulted in many grievances being aired by litigants. It was evident that this state of affairs did not bode well for Singapore’s aspirations to become a regional financial hub. In 1991, Justice Yong Pung How, who had come to the Bench a year earlier after a highly successful career that began in the law but achieved real heights in banking and management, was appointed as the Chief Justice and he instituted a number of reforms to the litigation process.\(^4\) The pre-trial conference was a device introduced during this period to enable greater judicial control of the litigation process. During pre-trial conferences, the court would encourage parties to explore settlement or mediation. If this was not possible, the court would assist the parties to narrow the areas of dispute, settle any interlocutory matters and fix hearing dates for the trial.\(^5\) Trial dates that had been fixed would not be vacated unless there were “strong compelling grounds” for doing so.\(^6\)

8. In Australia, the Federal Court introduced the “Individual Docket System” in 1997, under which each case commenced in the Federal Court is allocated to a judge, who takes responsibility for managing the case to its final


\(^6\) Su Sh-Hsyu v Wee Yue Chew [2007] 3 SLR(R) 673 at [39].
The system seeks to achieve savings in time and cost by making judges personally responsible for the active management of cases in their docket while obviating the need for parties to explain a case afresh each time it comes before a judge.

9. There is evidence that these reforms have been effective in addressing the problem of delay in the litigation process. In the UK, for cases that went to trial, the average time between issue of proceedings and hearing fell from 639 days in September 1997 to 498 days in 2000/01. In Australia, since the introduction of the Individual Docket System, the proportion of cases completed within 18 months increased from 83% in 1995/96 to 91% in 1998/99. And in Singapore, the case backlog was completely eliminated by the end of 1993, and the waiting period for trials after setting down was reduced from five years in 1991 to three months in 1994. It is currently less than three weeks with about 90% of cases being completed within 18 months of filing.

9 Ibid at p 12.
10. But the reforms have not been as successful in reducing the costs of litigation. The Woolf reforms, for example, have been criticised for making litigation *more* expensive by front-loading the costs involved.\textsuperscript{13} In a survey conducted by the Law Society in February 2002, 81\% of respondents did not agree that the new procedures were cheaper for their clients.\textsuperscript{14}

11. Why is the issue of high costs so intractable? The problem cannot be properly appreciated without discussing the largest head of the Hydra – namely discovery, which often accounts for the bulk of litigation expenses. As the Australian Law Reform Commission observed in a 2000 report on the federal justice system, “In almost all studies of litigation, discovery is singled out as the procedure most open to abuse, the most costly and the most in need of court supervision and control.”\textsuperscript{15} Since then, the exorbitant cost of discovery has only been aggravated by the advent of electronic documents and email, which has caused an exponential growth in the volume of documents generated by businesses today. In Australia for example, the infamous C7 litigation\textsuperscript{16} saw the disclosure of 85,653 physical and electronic documents comprising 589,392 pages. In the process, the parties racked up an estimated $200 million on legal costs for a claim worth about the same

\textsuperscript{13} Lord Chancellor’s Department, *supra* note 10 at para 7.2.


\textsuperscript{15} Australian Law Reform Commission, *supra* note 11 at p 431.

\textsuperscript{16} *Seven Network Limited v News Limited* [2007] FCA 1062.
amount, an expense which the court described as “extraordinarily wasteful” and “border[ing] on the scandalous”.17

12. What can be done to control the costs of discovery? One option would be to impose cost sanctions where an over-inclusive approach to discovery is adopted.18 Another would be to require different levels of disclosure for different cases. In the UK, for instance, Lord Justice Jackson has proposed that for large commercial cases, the parties and the court should determine the most appropriate process for disclosure at the first case management conference, to be chosen from a menu of options, including: (a) an order dispensing with disclosure; (b) an order that a party discloses the documents on which it relies, and at the same time requests any specific disclosure it requires from any other party; (c) an order that directs on an issue by issue basis the disclosure to be given by a party; (d) an order that a party give standard disclosure; (e) an order for Peruvian Guano or “train of inquiry” disclosure;19 or (f) any other order that the court considers appropriate having regard to the overriding objective of dealing with cases justly and at proportionate cost.20

17 Ibid at para 17 (per Justice Sackville).
18 Supreme Court of Singapore, Review of Discovery in Civil Litigation, Consultation Paper (2011) at para 141.
19 Compagnie Financiere Et Commerciale Du Pacifique v Peruvian Guano (1882) 11 QBD 55. This refers to the disclosure of documents which would enable the party applying for disclosure to advance his own case, damage the case of the party giving disclosure, or lead to a “train of inquiry” which has either of those consequences.
13. Yet another option might be to appoint independent assessors or special masters to supervise the discovery process. This is already practised in the US, where judges increasingly appoint special masters to address discovery issues relating to electronically stored information.21 This has the advantage of allowing the court to adopt a more interventionist approach to discovery without compromising judicial objectivity and independence, while at the same time liberating judicial officers from the time-consuming burden of dealing with complex and protracted discovery processes.22 However, it has been criticised for potentially adding another layer of costs with unproven benefit and also on the basis that the judge’s job ought not to be subcontracted.23

14. Aside from procedural reforms, the way in which the courts apply legal doctrines can also have a bearing on discovery costs. Take the issue of contractual interpretation for example. The prevailing common law approach to contractual interpretation is the contextual approach, which seeks to ascertain the meaning which the document would convey to a reasonable person having all the background knowledge which would reasonably have been available to the parties at the time of the contract.24 But there is a divergence of views as to the scope of evidence that may be adduced to

22 Victoria Law Reform Commission, supra note Error! Bookmark not defined. at p 470.
23 Lord Justice Jackson, supra note 20 at p 369.
24 Investors Compensation Scheme Ltd v West Bromwich Building Society [1998] 1 WLR 896 at 912.
assist in this endeavour. In the UK, the House of Lords has held that the factual matrix to be considered when construing a contract would not include evidence as to previous negotiations and declarations of subjective intent.\textsuperscript{25} In New Zealand, however, the Supreme Court has adopted a more liberal approach under which evidence of both pre-contractual negotiations and subsequent conduct may be admissible.\textsuperscript{26} The latter bears a strong resemblance to the civil law approach which allows contracts to be proven by “any means”,\textsuperscript{27} including by examining pre-contractual negotiations and correspondence, business practices and customs, and subsequent conduct.\textsuperscript{28}

15. But, in the words of the former Chief Justice of the Supreme Court of New South Wales, the Honourable James Spigelman, this might be a case where “the perfect is the enemy of the good”.\textsuperscript{29} A liberal approach to the admissibility of extrinsic evidence for interpreting contracts might be sustainable in civil law jurisdictions, where general discovery is not available and a litigant is generally confined to his own documents.\textsuperscript{30} In common law jurisdictions, however, the adversarial process and the discovery mechanism could induce parties to seek to admit a tsunami of evidence, leaving it to the judge to sift through what might turn out to be relevant or irrelevant,

\textsuperscript{25}Ibid at 913.
\textsuperscript{26}Vector Gas Ltd v Bay of Plenty Energy Ltd [2010] 2 NZLR 444 at [31].
\textsuperscript{27}Art 1341 of the French Civil Code (consolidated version of 2 June 2012) read with Art 110-3 of the French Commercial Code (Rev Ed 2010).
\textsuperscript{28}Art 431 of the Russian Civil Code (enacted 18 December 2006).
\textsuperscript{29}James Jacob Spigelman, “Contractual Interpretation: A Comparative Perspective” (2011) 85 ALJ 412 at p 432.
\textsuperscript{30}Ibid at p 431.
admissible or inadmissible, useful or useless. Therefore, when the Singapore Court of Appeal considered this issue recently, we imposed some procedural requirements to restrict the scope of discovery on matters of contract interpretation. First, we required parties to plead with specificity the factual matrix that they wished to rely on in support of their asserted construction of the contract, as well as the factual circumstances in which those facts could be said to have been known to all the relevant parties. Second, parties were also required to specify in their pleadings the effect which those facts would have on their contended construction. The obligation of parties to disclose evidence would then be limited by the extent to which the evidence was relevant to the facts pleaded.

16. These are but modest steps to rein in costs and yet not everyone agrees with the direction taken by civil justice reforms over the past two decades. Some have criticised the reforms for facilitating “more access to less justice”, arguing that truncated court procedures and the inordinate focus on achieving settlements might impede the ability of the justice system to deliver just and accurate results. For example, Professor Dame Hazel Genn notes of civil justice reviews around the world that:

... there is little sense conveyed that any important social purpose is served by the civil justice system or of any public good to be protected

31 Sembcorp Marine Ltd v PPL Holdings Pte Ltd and another and another appeal [2013] 4 SLR 193 at [66].
32 Ibid at [73].
in civil justice. Certainly there is no suggestion that there are cases that should be facilitated into the courts, no sense that time and resources should be made available for particular types or classes of cases ... There are no principles other than efficiency ... The only cases that are anticipated to proceed to adjudication are those where the lawyers are too incompetent or greedy or the parties are too difficult or short-sighted to agree to a compromise.34

17. While I think these remarks might be somewhat harsh, they do serve a salutary purpose in reminding us of the importance of ensuring that as we rethink the common law litigation process, we must also reflect on what its purpose is. Is it to resolve disputes as cheaply as possible? Is there a larger social purpose in having at least some cases go to trial for an authoritative public adjudication? If so, how do we identify the cases we should spend more resources on, and the cases which should be diverted away from the courts if possible?

18. The answer might lie in rethinking the concept of fairness. An American federal judge, Jon Newman, has argued that many undesirable aspects of our litigation system stem from an overly narrow conception of fairness. This conception focuses only on the fairness of the system to individual litigants, but not its fairness as a whole to all those who wish to use it or who are affected by it. Consequently, we:

... assess procedural devices only for their tendency to affect the result, with little or no inquiry as to their incremental benefit. Even when we come to a considered assessment that a procedural device provides a significant benefit, we do not pursue the more

34 Hazel Genn, Judging Civil Justice (Cambridge University Press, 2010) at p 68.
searching inquiry into whether the benefit to be achieved in promoting fairness of result is worth the loss of system fairness, with its attendant social cost upon all who use or would like to use the litigation system.  

19. So we need to ensure that the cost of litigation is truly proportionate to the purposes we wish to achieve. Expending excessive resources on procedures which only produce a marginal improvement in forensic accuracy, or on claims involving no issue of public interest and with only a small sum at stake, is not merely inefficient but also unfair. In Singapore, therefore, we are reviewing our civil procedure in the State Courts to establish simplified processes for claims involving sums of S$60,000 and below. The proposed new rules, which may be introduced as early as November this year, include five key features:

(a) parties will be required to provide upfront discovery of all relevant documents together with their pleadings;

(b) case management conferences will be held earlier;

(c) the court will be empowered to direct parties to go for mediation;

(d) parties will not be allowed to take out certain interlocutory applications such as applications for summary judgment, discovery and inspection or interrogatories, save that the court can order the production of documents necessary for the fair disposal of the case or to save costs; and

(e) trial processes will be simplified and time limits will be imposed for oral evidence.

The aim is to reduce the cost of litigation, emphasise consensual outcomes, and adjudicate those cases that have to proceed for trial more expeditiously.\textsuperscript{36} This is an example of the sort of reform we might want to consider to ensure that the justice system remains accessible to all who might need its services.

III. \textbf{Forensic accuracy}

20. Let me turn to the next aspect of the common law litigation process, which is the reliability of our preferred fact-finding process. This is something most of us take for granted.

21. It might seem obvious nowadays that in order to resolve a dispute between parties, the court has to apply legal rules to established facts; but it was not always so. In the Middle Ages, contentious matters were not resolved in this way but rather through such methods as trial by battle or trial by ordeal.

22. Fortunately, we have moved on. Litigation today no longer depends on intervention by a divine power or one’s prowess in hand-to-hand combat. Instead, a distinctive feature of contemporary legal adjudication is its focus on fact-finding.\textsuperscript{37} Judges sift through the evidence, assess their reliability and weight, and decide which party’s version of events is best supported by the evidence through a reasoned process.


\textsuperscript{37} Ho Hock Lai, \textit{A Philosophy of Evidence Law: Justice in the Search for Truth} (Oxford University Press, 2008) at p 2.
23. But is there reason to think that our fact-finding methods are not as sound as we would like to believe? I focus on witness testimony, by which I include both oral testimony delivered in court and also written testimony made through affidavits or witness statements. A testimony given on oath by someone who has direct and personal knowledge of the events attested to has been the primary form of evidence adduced in litigation proceedings. It has traditionally been thought that witness testimony that survives the crucible of cross-examination constitutes a reliable form of evidence. This attitude was expressed by Lord Normand when he compared direct witness testimony with hearsay evidence in *Teper v Reg* in these terms.\(^\text{38}\)

> It is not the best evidence and it is not delivered on oath. The truthfulness and accuracy of the person whose words are spoken to by another witness cannot be tested by cross-examination, and the light which his demeanour would throw on his testimony is lost.

24. However, there are at least four possible problems with the common law's reliance on witness testimony. First, it is doubtful whether judges can accurately tell whether a witness is truthful based on his or her demeanour alone. Second, affidavits are often post-hoc reconstructions of the events by lawyers based on the documents. Third, even where a witness sincerely believes in his testimony, its reliability might nonetheless be tainted. Finally, the use of cross-examination does not necessarily solve all these problems and might even exacerbate them.

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\(^{38}\) [1952] AC 480 at 486.
A.  *Demeanour*

25. I begin with demeanour. The common law process assumes that the fact-finder must benefit from being able to assess the demeanour of a witness in court. This assumption underpins, among other things, the doctrine that appellate courts should be slow to overturn findings of fact made by a trial judge where such findings were based on the judge's assessment of the credibility and demeanour of witnesses.\(^{39}\) But there have always been doubts about the validity of this premise. Lord Justice Atkin once remarked that “an ounce of intrinsic merit or demerit in the evidence … is worth pounds of demeanour”,\(^{40}\) and in similar vein, Lord Justice MacKenna doubted his ability to discern whether a witness is telling the truth merely from his demeanour and tone of voice.\(^{41}\)

26. Scientific research indicates that these concerns are amply justified. Numerous studies have been conducted to test one’s ability to discern truth from lies based on the speaker’s facial, body or verbal cues. These show that people generally do not derive much assistance from non-verbal cues in detecting deception. For example, when subjects were asked to detect deception under four conditions: live, video, audio, and transcript, they were

\(^{39}\) *Seah Ting Soon (trading as Sing Meng Co Wooden Cases Factory) v Indonesian Tractors Co Pte Ltd* [2001] 1 SLR(R) 53 at [22]; *Abalos v Australian Postal Commission* [1990] HCA 47 at [31]; *Montgomerie & Co Ltd v Wallace-James* [1904] AC 73 at 75.

\(^{40}\) *Societe D'Avances Commerciales (Societe Anonyme Egyptienne) v Merchants' Marine Insurance Co (The “Palitana”)* (1924) 20 LI L Rep 140 at 152.

\(^{41}\) As quoted by Lord Devlin in *The Judge* (Oxford University Press, 1979) at p 63.
unable to do significantly better than chance in any condition,\(^4\) and tended to focus on the facial expressions of the speaker even though these were less reliable for the purposes of detecting deception.\(^3\) Studies have also shown that cues widely believed by the public to signify dishonesty generally do not,\(^4\) and people often mistake signs of nervousness – such as picking at one’s fingernails or scratching one’s face – as signs of deception.\(^5\) Recognising this,\(^6\) the courts have been placing less emphasis on witness demeanour and more emphasis on the internal and external consistency of the witness’s testimony.

B. Affidavits and witness statements

27. This leads me to my second point. In modern civil trials, the evidence-in-chief of witnesses is generally set out in affidavits or witness statements.\(^7\) But these are virtually never a faithful narration of the events in the witness’s own words. Instead, they are documents prepared by lawyers to fit the case and the evidence as far as possible. As Justice Callinan once noted: “It is … impossible to avoid the suspicion that [witness] statements on all sides are


\(^{46}\) See for instance, Fox v Percy [2003] HCA 22 at [31].

\(^{47}\) O 38 r 2(1) Rules of Court (Cap 322, R 5, 2014 Rev Ed) (Singapore).
frequently the product of much refinement and polishing in the offices and chambers of the lawyers representing the parties, rather than of the unassisted recollection and expression of them and their witnesses.\textsuperscript{48} A carefully drafted affidavit will therefore avoid setting out factual claims that are internally inconsistent or contradicted by the documentary evidence. There will of course be cases where one party’s version of events simply cannot be reconciled with the objective evidence, but those rarely go to trial. In the cases that do go for trial, judges do not often find the “smoking gun” which proves that a witness was lying in his affidavit.

C. Memory

28. But even if a witness believes he is being truthful, there is the issue of whether his memory can be relied upon. The term “memory” refers to the mental process beginning from the time an event is perceived by a witness’s senses to the time that perception is narrated by the witness.\textsuperscript{49} Memory is therefore susceptible to error at two stages. First, the original perception of the event might have been faulty. Second, even if the event was correctly perceived at first, the witness’s recollection of it might have been infected by error by the time he narrates it to the court, as it is well-established that the accuracy of one’s memory diminishes with the passage of time.\textsuperscript{50} As one

\textsuperscript{48} Concrete Pty Ltd v Parramatta Design & Developments Pty Ltd [2006] HCA 55 at [175].

\textsuperscript{49} Dillard S Gardner, “The Perception and Memory of Witnesses” (1933) 18 Cornell LQ 391 at 397.

\textsuperscript{50} KM Dallenbach, “The Relation of Memory Error to Time Interval” (1913) 20 Psychol Rev 323; Edward K Strong, “Effect of Time-Interval upon Recognition Memory” (1913) 20 Psychol Rev 339.
writer has noted, “The observation itself may be defective and illusory; wrong associations may make it imperfect; judgments may misinterpret the experience; and suggestive influences may falsify the data of the senses.”

29. Recent scientific research has also shown that aside from these familiar sources of error, human memory is also highly susceptible to suggestion and influence, and completely false memories can be woven out of whole cloth by individuals who are convinced of the truth of their recollections. In one real life example recounted using pseudonyms, a woman named Sally Blackwell and her teenage daughter were raped in their home by an intruder. The next day, after Blackwell told her boyfriend about the incident, he pressured her to come up with a name for the rapist. He kept saying, “It’s got to be somebody you know. You’ve seen him in the neighbourhood, you’ve seen him at the grocery store or at church ... You’ve seen him in a party somewhere”. According to Blackwell, as her boyfriend said the word “party”, the name of an acquaintance – Clarence Von Williams – flashed into her memory, and she connected it with the face of the man who had raped her. Thereafter, criminal charges were filed against Von Williams, and on the strength of Blackwell’s confident and convincing testimony, Von Williams was convicted and sentenced to 50 years’ in prison. But two months after his conviction, another man named Jon Simonis was picked up by the police and confessed to a number of crimes, including the rapes for which Von Williams

was convicted. When confronted with his confession, Blackwell’s reaction was that of stunned shock and disbelief – she simply could not accept that her memory had tricked her.\textsuperscript{52}

30. Experiments have shown that one’s memory can easily be warped and contaminated by external influences.\textsuperscript{53} In one experiment, simply making subtle changes to the wording of a question influenced people’s estimates of speed: subjects reported that cars were travelling at higher speeds when asked, “How fast were the cars going when they smashed into each other?” than when the word “smashed” was replaced with “hit”. And those questioned with the word “smashed” were more likely to claim that they had seen broken glass in the scene even though there was none.\textsuperscript{54}

31. Indeed, the power of suggestion is not only capable of altering details in existing memories; it can even cause people to “remember” events that had never occurred at all. In one study, experimenters recruited five individuals to convince a close relative that, as a five-year-old, they had been lost in a shopping mall and later found by an elderly man who reunited them with their mother. Checks had been conducted beforehand to ensure that the event had never happened to the subject. Initially, all five subjects denied knowledge of


\textsuperscript{53} A number of these experiments are summarised in Eryn J Newman and Maryanne Garry, “False Memory” in The SAGE Handbook of Applied Memory (SAGE Publications Ltd, 2013) (Timothy J Perfect and D Stephen Lindsay eds) at p 110 et seq.

the event, but within three weeks, after being asked to repeatedly think about and try to recall the fictitious event, four of the five subjects had managed to “recover” memories of being lost in a shopping mall, sometimes with a wealth of detail.\(^{55}\) These findings have worrying implications for the trial process, where a witness would usually have gone through the objective evidence and his testimony repeatedly with the lawyers before coming to court. By that point, his recollection of events will no longer be pristine but will have been shaped by external influences to a large extent.

\(D.\) \textit{Cross-examination}

32. It might be thought that all these pitfalls of witness testimony can be overcome through cross-examination, described by the American jurist John Henry Wigmore as “the greatest legal engine ever invented for the discovery of truth”.\(^{56}\) Wigmore’s paean to cross-examination might have been too effusive. In a 1982 research paper, the Australian Law Reform Commission concluded after a survey of the relevant literature that “so far as obtaining accurate testimony is concerned, [cross-examination] is arguably the poorest of the techniques employed at present in the common law courts”.\(^{57}\) I have already mentioned how a questioner might influence a witness’s recollection of events through clever phrasing and suggestion. Other criticisms of cross-


examination include the fact that it does not necessarily aim to elicit the truth, but to poke holes in a witness’s testimony, whether it is true or false;\textsuperscript{58} that aggressive questioning can confuse or frighten witnesses so that they agree with everything or become incoherent;\textsuperscript{59} that cross-examiners tend to engage in “word-games” and “trickery” to misrepresent what a witness says;\textsuperscript{60} and that lawyers often obstruct a witness’s testimony and prevent him or her from getting important evidence out.\textsuperscript{61} Whether a witness thrives or withers under cross-examination will often depend on factors unrelated to the truth or falsity of his testimony, such as his personality, intelligence, education, or even prior experience of being a witness.

33. I have already mentioned the enormous amount of time and money that people can spend on litigation; it would be a terrible waste if all these resources were dissipated in fact-finding procedures that do not assure an accurate outcome. It is therefore incumbent on us to rethink the process and consider whether improvements can be made. It is beyond the scope of this evening’s lecture to advance concrete proposals for reform. My purpose is a more modest one: merely to advance the thesis that the received wisdom that the common law adversarial litigation process holds the key to the truth may in some significant ways be suspect or at least open to question.

\textsuperscript{59} \textit{Ibid}.
\textsuperscript{60} Emily Henderson and Fred Seymour, “Expert Witnesses under Examination in the New Zealand Criminal and Family Courts” (New Zealand Law Foundation, March 2013) at p 132.
\textsuperscript{61} \textit{Ibid} at pp 72–73.
IV. Expert evidence

34. The third area that I wish to discuss is expert evidence. Under the law of evidence, the opinions, inferences and beliefs of individuals are generally inadmissible in proof of material facts.\(^{62}\) One important exception, however, is made for the opinions of experts. This exception was formulated by Lord Mansfield CJ in 1782 in *Folkes v Chadd* as follows:\(^{63}\)

> On certain matters, such as those of science or art, upon which the court itself cannot form an opinion, special study, skill or experience being required for the purpose, “expert” witnesses may give evidence of their opinion.

35. Since then, expert evidence has become an indispensable part of the common law litigation process. As the sum of human knowledge grows and cases become more complex, the courts’ need for experts to educate them on areas requiring special expertise can only increase. It is therefore important that we devote attention to the procedures governing the provision and assessment of this type of evidence.

36. There are two issues regarding expert evidence that merit further consideration. First, how do we decide what types of expert evidence to admit? Second, how should we evaluate the expert evidence that has been admitted?

\(^{62}\) *Phipson on Evidence* (Hodge M Malek gen ed) (Sweet & Maxwell, 18th Ed, 2013) at para 33-01.

\(^{63}\) *Folkes v Chadd* (1782) 3 Doug KB 157.
A. What types of expert evidence to admit?

37. Under the common law, expert evidence is only admissible to elucidate areas that require specialised knowledge and expertise. In the South Australian case of *R v Bonython*, King CJ expressed the rule in the form of two questions: “(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 first question is now known as the “common knowledge rule” while the second, the “area of expertise rule”.

38. Neither the common knowledge rule nor the area of expertise rule is free from controversy. I begin with the common knowledge rule. The rationale for the rule is that allowing experts to opine on areas of common knowledge might lengthen proceedings unnecessarily and exert a disproportionate influence on jurors who might be overawed by the expert’s credentials. The

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64 (1984) 38 SASR 45 at 46; cited with approval by the English Court of Appeal in *R v Luttrell and others* [2004] EWCA Crim 1344 at [32].

leading authority for the rule is *R v Turner*,⁶⁶ where the defendant, who had been charged with murdering his girlfriend, pleaded that he had been provoked by her statement that she had had affairs with other men and that he was not the father of her expected child. The defence sought to call a psychiatrist to give his opinion that the defendant’s personality was such that he could have been provoked in the circumstances and that he was likely to be telling the truth. The Court of Appeal excluded the evidence on the basis that expert evidence is only admissible on subject matters that are “likely to be outside the experience and knowledge of a judge or jury”, and that “[j]urors do not need psychiatrists to tell them how ordinary folk who are not suffering from any mental illness are likely to react to the stresses and strains of life”.⁶⁷

39. However, the strict rule laid down in *Turner* has been criticised on the basis that fact-finders might derive valuable assistance from experts even on subjects that fall within their common knowledge and experience. Take for example the issue of memory. I have referred to the scientific research which shows that our memories are less reliable than we believe. Would such research not be evidence that is relevant and useful in a particular case where there is reason to believe that a witness’s memory has been compromised? Yet the courts have held that such evidence is inadmissible because the way in which the human memory works is an everyday matter well within the field

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⁶⁷ *Ibid* at 841.
of knowledge of juries. The common knowledge rule thus has the potential to shut out potentially valuable evidence especially in areas where the “common knowledge” is erroneous, incomplete or outdated.

40. There is a trend in common law jurisdictions to move away from the rule. It has been statutorily abolished in New Zealand, Singapore and many Australian jurisdictions, and although it remains the law in England, there are signs that the courts are applying it less strictly.

41. Turning to the area of expertise rule, the controversy here is whether the courts should admit expert evidence in areas involving scientific techniques or theories that are novel or still developing. In the US, a highly influential test was formulated in Frye v US, which concerned the issue of whether the trial judge should have excluded expert evidence derived from a lie detector test. The Court of Appeals for the DC Circuit held that it had been correctly excluded, stating:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define.

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68 See eg R v Fong [1981] Qd R 90 at 95 (Queensland Court of Criminal Appeal); R v Bowman [2006] EWCA Crim 417 at [168].

69 Section 25(2)(b) of the Evidence Act 2006 provides: “An opinion by an expert is not inadmissible simply because it is about … a matter of common knowledge.”

70 Section 47(3) of the Evidence Act (Cap 97, 1997 Rev Ed) states: “The opinion of an expert shall not be irrelevant merely because the opinion or part thereof relates to a matter of common knowledge.”

71 Section 80(b) of the uniform Evidence Acts provides: “Evidence of an opinion is not inadmissible only because it is about … a matter of common knowledge.”

72 See eg R v Blackburn [2005] EWCA C r 1349 (allowing expert evidence on the phenomenon of false confessions extracted after prolonged questioning); R v Dudley [2004] EWCA Crim 3336 (allowing expert evidence on accident reconstruction).

73 Frye v United States 293 F 1013 (DC Cir, 1923).
Somewhere in this twilight zone the evidential force of the principle must be recognized, and while the courts will go a long way in admitting experimental testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.\textsuperscript{74} [emphasis added]

42. Despite coming under heavy criticism, the \textit{Frye} “general acceptance” test held sway in the US courts for 70 years. One major criticism was that it excluded the opinions of well-qualified experts simply because the methods they used had not received scientific consensus, effectively allowing the scientific majority to exercise a tyranny over those who had formulated a different approach.\textsuperscript{75} The problem was demonstrated in the 1993 case of \textit{Daubert v Merrell Dow Pharmaceuticals}.\textsuperscript{76} There, the lower courts applied the \textit{Frye} test to exclude expert evidence tendered by the plaintiffs to show that the drug Bendectin could cause human birth defects, on the basis that the evidence sought to be admitted was based on animal studies and chemical structure analyses research, which diverged from the prevailing method of basing studies on epidemiological data.\textsuperscript{77} The effect was to shut out relevant and critical evidence, provided by experts with impressive credentials, that could have shed light on the dangers of Bendectin.

\textsuperscript{74} \textit{Ibid} at 1014.
\textsuperscript{76} 509 US 579 (1993).
\textsuperscript{77} \textit{Ibid} at 583–584.
43. On appeal, the Supreme Court held that the *Frye* test had been superseded by Rule 702 of the Federal Rules of Evidence 1975, which provided that “[i]f 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”. The court reasoned that nowhere in Rule 702 was the requirement of “general acceptance” present.78

44. Following *Daubert*, the US courts have moved away from the rigid *Frye* test towards a broad-based inquiry focusing on the reliability of the scientific evidence sought to be adduced. These principles were codified by an amendment to the Federal Evidence Rules in 2000, which added the following conditions for the admission of expert evidence: (a) the testimony must be based on sufficient facts or data, (b) the testimony must be the product of reliable principles and methods, and (c) the expert must have applied the principles and methods reliably to the facts of the case.79

45. Courts in other common law jurisdictions have yet to pronounce definitively on the criteria for admitting or rejecting evidence of new scientific techniques or theories.80 In Australia, while some authorities appear to have

78 Ibid at 588.
80 Freckelton and Selby, supra note 75 at para 2.10.01.
endorsed the *Frye* test, 81 others have declined to adopt it. 82 The ALRC, in reviewing this area of law, rejected proposals to amend the uniform Evidence Acts to incorporate the *Frye* test or any other test, preferring instead to leave the courts free to decide on the mode of evaluation. 83 In the UK, on the other hand, the Law Commission has taken the view that the rules for admitting expert evidence in criminal proceedings are unsatisfactory and has recommended the statutory adoption of a multi-factorial reliability test. 84 However, the UK Government rejected this recommendation out of concerns that the application of the new test would involve more pre-trial hearings and inflate the costs of criminal litigation. 85 In Singapore, we amended our Evidence Act in 2012 to allow the admission of expert evidence whenever “the court is likely to derive assistance from an opinion upon a point of scientific, technical or other specialised knowledge”. 86 There is thus no strict rule that the expert evidence must be based on theories or methods that have gained general acceptance in the scientific community.

46. It is clear that the rules governing the admission of expert evidence are still developing and require further thought. We have to consider how to

82 See eg *HG v The Queen* (1999) 197 CLR 414.
86 Section 47(1) of the Evidence Act (Cap 97, 1997 Rev Ed).
balance two competing imperatives: on the one hand, the courts must have access to relevant and useful evidence, including those from emerging areas of science; on the other hand, parties cannot be given free rein to flood the courts with "expert" evidence of questionable quality, which would increase the length and cost of proceedings without improving forensic outcomes.

B. How best to evaluate expert evidence?

47. The second issue relating to expert evidence is that of assessment and evaluation. Under the adversarial approach, each party usually appoints its own expert witness to give evidence on contested issues. Experts are usually required to acknowledge that their overriding duty is to the court; yet they invariably give evidence in favour of the party who appointed them. This raises legitimate concerns that experts might not be as objective and independent as they should be. Indeed, in a 1997 survey of Australian judges, 68% responded that they "occasionally encountered" bias on the part of experts, while 27.6% reported that they encountered this phenomenon "often". Similarly, in a survey of US attorneys and judges between 1998 and 1999, adversarial bias was cited as the most frequent problem with expert evidence.

87 See eg O 40A r 3(2)(h) Rules of Court (Cap 322, R 5, 2014 Rev Ed) (Singapore).
48. Expert evidence is given because the subject matter requires special expertise that the court does not possess. So when there are conflicting views between experts, how is the court to decide who to believe? The common law's traditional answer to that has been cross-examination, on the assumption that the strengths and weaknesses of an expert's evidence would invariably be exposed by this. But aside from the possible inadequacies of cross-examination as an engine for eliciting the truth that I have already mentioned, it can be especially tedious and lengthy when expert evidence is involved. Each expert is laboriously taken through all of his or her contested assumptions and then asked to adopt his counterpart's assumptions for the sake of argument,\(^90\) and there is often a substantial time lapse between the examination of each expert,\(^91\) with the consequence that the evidence on each topic is elicited in an inefficient and disorganised fashion.

49. One possible solution might be the use of neutral experts. More than a century ago, Judge Learned Hand advocated the appointment by the court of neutral experts who would deliver to the jury “those general truths, applicable to the issue, which they may treat as final and decisive”.\(^92\) Since then, there have been various proposals on the same theme, including calls for court-appointed experts, government-appointed experts, neutrals in lieu of party-

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\(^91\) ibid at para 18.

\(^92\) Learned Hand, “Historical and Practical Considerations Regarding Expert Testimony” (1901) 15 Harvard L Rev 40 at p 55.
controlled experts, and even incentive schemes to encourage opposing
despite to agree on a neutral expert. While the appointment of neutral
experts would certainly solve the problem of partisan experts and reduce the
cost and length of proceedings, its utility is doubtful in cases where there is
genuine disagreement on how the evidence should be interpreted. As Justice
Garry Downes argued, “[t]he fallacy underlying the one-expert argument lies
in the unstated premis[e] that in fields of expert knowledge there is only one
answer”. Noting that the law is also a field of expert knowledge, he asked
rhetorically, “How often do the seven wise persons in Canberra arrive at the
same answer, and for the same reasons?” The point is well made, and it is
unlikely that the use of neutral experts will become the norm in our system.

50. A more promising solution is to have experts give their evidence
concurrently, a practice memorably known as “hot tubbing”, in reference to the
need for them to share close quarters while testifying concurrently at the
trial. The procedure was conceived here in the Australian courts and has
had a dramatic impact internationally. Under this procedure, the experts are
asked to prepare their own reports and then confer with each other to prepare

Brooklyn L Rev 1009 at p 1021.
94 Garry Downes, “Problems with Expert Evidence: Are Single or Court-Appointed Experts the
95 Ibid.
96 Erik Arnold and Errol Soriano, The Recent Evolution of Expert Evidence in Selected
Common Law Jurisdictions Around the World: A commissioned study for the Canadian
Institute of Chartered Business Valuators (23 January 2013) at p 13.
97 Megan A Yarnall, “Dueling Scientific Experts: Is Australia’s Hot Tub Method a Viable
a joint report on the matters on which they agree and on which they disagree. Before the trial, the parties produce an agreed agenda for taking concurrent evidence based on the experts' joint report. At trial, the experts are sworn in at the same time and are asked to explain their views to the court. They are then encouraged to comment on and question the other experts' views. Although the judge takes the leading role in directing the discussion, the lawyers are also given an opportunity to examine the experts.\textsuperscript{98}

51. The benefits of hot tubbing include these: (a) the evidence on a topic is all given at the same time, (b) the process refines the issues that are essential, (c) because experts are confronting one another, they are much less likely to act adversarially, (d) the areas of agreement and disagreement are narrowed and refined before cross-examination, and (e) cross-examination takes place in the presence of all the experts so that they can immediately be asked to comment on the answers of colleagues.\textsuperscript{99}

52. The feedback from experts who have experienced the procedure has been overwhelmingly positive.\textsuperscript{100} The main concern that has been voiced is that the format might favour experts who are more confident, assertive or persuasive in their testimony,\textsuperscript{101} though this alleged drawback seems to pale in comparison to its virtues. In a pilot study that is currently being conducted in

\textsuperscript{98} Freckelton and Selby, \textit{supra} note 75 at para 6.15.80.
\textsuperscript{101} Arnold and Soriano, \textit{supra} note 96 at p 15.
Manchester, UK, the results suggest that there are time and quality benefits to be gained from the use of hot tubbing, and no evidence of significant disadvantages from the point of view of the judiciary, counsel, or experts themselves.\textsuperscript{102} We too have adopted it in Singapore and judges using it have rated it very favourably. It is also becoming increasingly popular in international arbitration,\textsuperscript{103} where the rules for witness examination are more relaxed.

53. This is an example of the kind of fresh and innovative thinking that our litigation process requires.

V. \textbf{Horses for courses}

54. I turn to my final point, which I make briefly: it is that the adversarial system may not necessarily be the best way to resolve every type of dispute. I focus today on family disputes, where divorce proceedings generally mark the end of communication between the parties and the beginning of posturing and manoeuvrung by them to advance their interests in the litigation. The adversarial process encourages parties to dwell on each other’s shortcomings and past misdeeds at a time and in a context where establishing what happened before seems much less important than determining how best to move forward. Any child of the parties becomes collateral damage in this

\textsuperscript{102} Hazel Genn, \textit{Manchester Concurrent Evidence Pilot: Interim Report} (UCL Judicial Institute, January 2012) at para 34.

process: numerous studies show that parental conflict is a toxic experience for the children in a divorce.\textsuperscript{104}

55. Believing that the common law litigation process was unsuitable for family disputes, among the first reform initiatives I launched upon taking office two years ago was a study of how best we could reform the process to achieve a better outcome for all parties. A high level multi-agency committee was formed and after almost two years, we recently passed the Family Justice Act, which radically overhauls the way in which we will deal with such disputes. A key change is the shift away from the adversarial system towards a judge-led approach to adjudication. Under this approach, judges are empowered to identify the relevant issues and direct parties to address these issues; to determine the manner in which evidence is produced and admitted; to draw out only the relevant evidence from parties; to regulate the filing of court documents by the parties; to order parties to mediate their disputes or seek counselling; and to identify options moving ahead.\textsuperscript{105}

56. There have been movements in other jurisdictions towards a less adversarial approach to family disputes. In Australia, the Family Law Act 1975 was amended in 2006 to state that in child-related proceedings, the court is to “actively direct, control and manage the conduct of the proceedings”.\textsuperscript{106} Earlier


\textsuperscript{105} Singapore Ministry of Law, \textit{Public Consultation Paper of the Committee for Family Justice} (7 May 2014) at p 6.

\textsuperscript{106} Section 69ZN(4), Family Law Act 1975 (Australia).
this year, the Lord Chief Justice of England and Wales, Lord Thomas, called for the adoption of inquisitorial procedures for family disputes in the UK; his call was motivated by the increasing number of litigants-in-person that the family courts there had to deal with.\textsuperscript{107} It remains to be seen whether the British Government will take up his suggestion and institute reforms to the family justice system.

57. Leo Tolstoy famously wrote in \textit{Anna Karenina} that “All happy families are alike; each unhappy family is unhappy in its own way”.\textsuperscript{108} In a party-controlled system of family litigation, there will always be a temptation on the part of litigants to use the courts as a forum to ventilate all the ways in which their former partners made them unhappy. It is therefore important that we ensure our litigation processes do not generate another source of unhappiness for already unhappy families.

58. I believe the point might also have broader relevance in some other areas. One such might be in medical malpractice litigation where there is a public interest in learning exactly what happened so as to determine whether there is a need for corrective measures to be implemented. This coupled with the likelihood of extensive expert evidence, and the backdrop of a fractured doctor-patient relationship, might point towards a preference for a more inquisitorial process. But this is a topic for another lecture on another day.

\textsuperscript{107} Lord Thomas, “Reshaping Justice”, Address delivered to the organisation “Justice” (3 March 2014) at para 29.

\textsuperscript{108} Leo Tolstoy, \textit{Anna Karenina} (Richard Pevear and Larissa Volokhonsky trans) (Penguin Classics, 2004) at p 1.
VI. Conclusion

59. As I come to the end of my address, a few broad points stand out. First, at least in most types of private civil litigation, the process cannot be one that is uncircumscribed by considerations of reasonable efficiency. Of course, there is a balance to be struck but gone are the days when: (a) the parties were masters of the proceedings and judges were passive umpires making sure only that the rules were not broken; (b) judges were obliged to sit and hear a case for however long was needed by the parties; and (c) judicial resources were not regarded as a finite and severely limited resource.

60. The quest for efficiency in litigation proceedings is driven by at least one other consideration aside from the need to ration limited judicial time, and that is the need to ensure that exploding costs do not push the courts out of the reach of litigants. The best system in the world is useless if it cannot affordably be accessed by those who need it. To strike a balance between these competing needs, some changes will have to be made. The time allocated for cases can and will be limited; the pace will be driven by the court; and processes such as discovery will have to be modified.

61. Moreover, there is growing acceptance of the notion that access to justice can be had through mediation or other dispute resolution mechanisms. Justice can often be found outside the confines of a courtroom. Courts should actively encourage parties to consider this option.
62. I make these points to draw out the important observation that we have already moved quite some distance from the traditional common law paradigm.

63. Science also tells us that some of the assumptions upon which the traditional adversarial process rests may be flawed. Of course, we would be silly if we responded to these concerns by rushing to throw the baby out with the bath water. The adversarial process has lasted for centuries and it would not have enjoyed this longevity unless it has generally served us well. Surveys of people who are fooled by the way questions are framed do not tell us the extent to which judges are fooled by these errors.

64. Common law judges are usually drawn from the ranks of those who have had decades of experience as forensic lawyers trained to reconstruct events with the benefit of the relevant materials. One imagines that they do not lose all that once they cross from the bar to the bench. But, perhaps, there are benefits to be had if judges were educated and made more aware of these advances in scientific knowledge so that they can consciously check themselves against making the commonly encountered mistakes. Of course the problem may yet remain in those jurisdictions where all facts are found by jurors.

65. We would also benefit if judges were reminded to place constant and important emphasis on the significance of looking for internal consistency as well as consistency with known facts and documents before coming to a finding on the facts. A recent decision of the Singapore Court of Appeal,
made the following instructive observations in relation to cases where the material events took place a long time ago:

50 ... As a rule of the thumb, the longer the lapse of time between the happening of the event or matter being recollected and the witness’s appearance on the witness stand, the less the reliance that should be placed on pure oral evidence and the more searching the court ought to be in assessing and testing that evidence.

...  

54 Witnesses are also particularly vulnerable and susceptible to suggestion and misinformation where the passage of time has allowed the original memory to fade. ...

...  

56 ... ultimately, the trial judge has to consider the totality of the evidence in determining the veracity, reliability and credibility of a particular witness’s evidence. This includes contemporaneous objective documentary evidence.

[emphasis in original]

66. Moreover, I believe we would gain from greater knowledge and understanding of fact-finding techniques commonly used in the civil law inquisitorial process with a view to their selective and calibrated adoption into our own systems. We would similarly benefit from encouraging research and thought-leadership in innovative techniques such as hot-tubbing.

67. At a broader level, there seems to be growing recognition of the fact that there are some areas of the law where the traditional adversarial model may be quite unsuitable. Family justice is a case in point. When we launched the new Family Justice Courts in Singapore just three weeks ago, one observer said to me that it seemed so obvious that the idea of subjecting a fractured family to an adversarial process was a bad one; but then, he asked, why had it taken us so long to figure that out? Perhaps, the process of rethinking things we have long taken for granted might help us see past some of our blind spots.