

Concurrent Expert Evidence in U.S. Toxic Harms Cases and Civil Cases More Generally: Is There a
Proper Role For “Hot Tubbing”?

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Abstract

This Article analyses the concurrent expert evidence model (“hot tubbing”) which has been most strongly promoted in Australia and is increasingly becoming a normalised procedure in other international jurisdictions. The Article asks whether, and to what extent, the model has a useful role to play in toxic harms cases in the U.S. and in civil cases more generally? It answers this question by arguing that concurrent evidence certainly does have a useful role to play in the U.S., for all of the reasons that the model has become a preferred process in Australia. Principally, these reasons are that the model serves to enhance the efficiency and quality of the evidence taking process. The first Part of the Article traverses concurrent evidence’s jurisprudential backdrop in Australia, expanding on two useful cases in which the model’s benefits have been on display, one being a major toxics case (and Australia’s largest ever class action), and the other being a case from another area of complex litigation in which hot tubbing is now a standard process, native title. The second Part of the Article takes this preliminary analysis and concentrates on the U.S. legal context, using toxics as a focal point. The Article argues that hot tubbing would in many instances be a preferable process for adducing and testing expert evidence in U.S. civil cases compared to traditional adversarial methods, both during a pre-trial part of a proceeding, or during the trial itself. The Article also argues that use of hot tubbing in the U.S. is consistent with the letter and spirit of the federal rules of evidence and procedure, but it would be preferable to clarify the acceptability of the process through the adoption of suitable legislative amendments. In making relevant arguments, the Article draws on original views from interviews conducted of senior U.S. and Australian judges, in addition to the views of U.S. and Australian lawyers, experts and academics.

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INTRODUCTION

“Hot tubbing” is the colloquial name for a process of adducing and testing expert evidence, which is more formally known as concurrent expert evidence. The model has been championed in Australia¹ and is now used in other common law jurisdictions² and in international arbitrations.³ Its interest and controversy principally lies in the fact that it requires party-appointed experts to engage in cooperative and interactive pre-trial and/or trial endeavours, in order to enhance the efficiency, accuracy and ideally collegiality of the expert evidence process.

Australia’s version of concurrent evidence involves two interrelated processes. First, there is a pre-trial joint expert conferencing (or conclave) phase. During this part, the parties’ experts meet for the purpose of clarifying areas of agreement and/or disagreement between them, in order to produce a joint report on such matters. The conference may or may not be conducted with a moderator present, depending on context. The parties’ lawyers will normally not be present. The second part of the process, if any, is the giving of concurrent expert evidence at trial. During this phase, the experts will sit together at court in the “hot tub” (e.g. a witness box), and present evidence concurrently in an interactive process which is moderated by the judge. The experts still give their separate opinions and are still cross-examined by counsel as occurs in a traditional adversarial trial. However, in this instance the experts present their viewpoints concurrently instead of sequentially, and there is interaction among the experts should they see a need to “correct” or to “disagree” with each other’s views. The judge will also intervene as appropriate with questions in order to enhance the fact-finding process for him or herself. This is a form of “live” learning. The process is intended to be a discussion among professionals which enhances the search for the truth. It embraces a higher level of judicial management and so involves certain inquisitorial features, yet it also maintains fundamentally adversarial techniques albeit in a non-traditional setting.

This model has been designed to, and does, in general, help to narrow, clarify and resolve issues in dispute with greater efficiency and accuracy across a broad range of subject areas in Australia. According to Justice McClellan, one of concurrent evidence’s key proponents in Australia,

¹ Steven Rares, Using the “Hot Tub” – How Concurrent Expert Evidence Aids Understanding Issues, Paper Presented at New South Wales Bar Association Professional Development Seminar (2010); *see also* IAN FRECKELTON & HUGH SELBY, EXPERT EVIDENCE: LAW, PRACTICE, PROCEDURE AND ADVOCACY 391 (5th ed., 2013). Alternatively, Australia is credited as having the most experience with the process. John Temple-Cole & Samantha Farthing, *Some Like It Hot! Expert Views on Judicial Orders to Be Heard Concurrently*, KORDAMENTHA (Feb. 2013), <http://www.kordamentha.com/docs/for-publications/issue-13-01-some-like-it-hot>; Lisa C. Wood, *Experts in the Tub*, 21 ANTITRUST 3, 95 (Summer 2007).

² For example, it is used in the U.K., Canada, Singapore and New Zealand. Rachel Pepper, ‘Hot Tubbing’: The Use of Concurrent Expert Evidence in the Land and Environment Court of New South Wales and Beyond, Paper presented at the 2015 Annual Alaskan Bar Association Conference in Fairbanks, Alaska, United States of America (May 14, 2015), [http://www.lec.justice.nsw.gov.au/Documents/Speeches%20and%20Papers/PepperJ/PepperJ%20Alaska%20Bar%20Convention%20-%20Hot-tubbing%20or%20Concurrent%20Evidence%20paper\(Final\)%20140515.pdf](http://www.lec.justice.nsw.gov.au/Documents/Speeches%20and%20Papers/PepperJ/PepperJ%20Alaska%20Bar%20Convention%20-%20Hot-tubbing%20or%20Concurrent%20Evidence%20paper(Final)%20140515.pdf); *see also* Wood, *supra* note 1.

³ Doug Jones, *Chapter 11: Improving Arbitral Procedure: Perspectives from the Coalface*, in STORIES FROM THE HEARING ROOM: EXPERIENCE FROM ARBITRAL PRACTICE (ESSAYS IN HONOUR OF MICHAEL E. SCHNEIDER) 91 (Kluwer L. Int’l 2015) [hereinafter *Improving Arbitral Procedure*]; *see also* Doug Jones, *Party Appointed Expert Witnesses in International Arbitration: A Protocol at Last*, 24 ARB. INT’L 1, 146-48 (2008) [hereinafter *Party Appointed Expert Witnesses*].

the process is “one of the most important recent reforms in the civil trial process in Australia.”⁴ The importance of hot tubbing was on full display in Australia’s recent and largest ever class action, *Matthews v SPI Electricity Pty Ltd & Ors* (“Kilmore East Bushfires”). In that case, concurrent evidence helped to resolve the claims of some 10,500 group members who commenced proceedings in the wake of the 2009 Black Saturday bushfires in Victoria. While the case ultimately settled in December 2014, just before the judgment was handed down, by then all of the expert evidence had been heard, and the vast majority of the evidence had gone through a hot tubbing process.⁵

Beyond the toxics domain, hot tubbing also yields significant benefits across various other practice areas in Australia, including native title.⁶ One particular case, which is less known in academic circles, is the highly illustrative matter of *Graham on behalf of the Ngadju People v WA* (Ngadju).⁷ In order to highlight key benefits of the concurrent evidence process, I will assess the use of the model in both *Kilmore East Bushfires* and *Ngadju*.

After providing this introductory analysis, I will proceed to answer the question of whether, and to what extent, hot tubbing has a useful role to play in U.S. toxic harms cases specifically and in civil cases more generally? My answer is that hot tubbing certainly does have a useful role to play in such matters, at several potential stages of a case. These stages include joint expert conferences, depositions, *Daubert* hearings, summary judgment hearings, class certification hearings, injunction requests, judge-alone trials and potentially jury trials. Concurrent evidence can also help with settlement negotiations.

United States toxics cases raise similar problems to those which are experienced in Australian matters which ultimately led to the development of the use of concurrent evidence in the first place. Such problems include large litigation costs and inefficiencies, the need to comprehend complex expert evidence, evidentiary reliability concerns and expert bias/partisanship. The U.S. system can and should benefit from processes which have been specifically designed to alleviate such problems, in the same way that jurisdictions across the globe now benefit from such models. It seems somewhat anomalous that the process has taken longer to gain traction in the U.S., which one assumes is attributable to the continued use of civil juries - which have largely been removed in other common law jurisdictions - where the jury, and not the judge, is the fact-finder, in addition to there being some strong adversarial traditions.

My argument in support of the model traverses several issues which include the following matters. First, I argue that the use of concurrent evidence is consistent with the overarching goals and the general letter of the federal rules of evidence and procedure. That said, the application of

⁴ Peter McClellan, *New Methods with Experts – Concurrent Expert Evidence*, 3:1 J. COURT INNOVATION 259, 262–63 (2010).

⁵ Jack Forrest, *Expert Evidence: The Kilmore East-Kinglake Bushfire Trial*, MONASH UNIV. (Apr. 2015), http://www.monash.edu/__data/assets/pdf_file/0010/232579/justice-forrest-expert-evidence.pdf; Simon McKenzie, *Expert Conferences and Concurrent Evidence in the Kilmore East Bushfires Proceeding* (Oct. 2015) (on file with author).

⁶ *Banjima People v WA* (No. 2) [2013] FCA 868 (Austl.); *Clara George (Badimia) v WA* (WAD 6123 of 1998) (Austl.); *Wyman on behalf of the Bidjara People v Queensland* (No. 2) [2013] FCA 1229 (Austl.).

⁷ [2012] FCA 1455; see also *WA v Graham on behalf of the Ngadju People* [2013] FCAFC 143 (Austl.).

concurrent evidence in the U.S. would be enhanced if the rules were amended to reflect and promote the model. Secondly, various practices in the U.S. are emerging to overcome the problems which frequently attend toxics cases (complex evidence, expert partisanship, inefficiencies, etc.), underscoring the need for, and mapping a trajectory towards, the application of hot tubbing in the U.S. These practices include jury consultants, and judges, requiring experts to present evidence “back to back” instead of “sequentially” to improve one’s understanding of the evidence, judges holding “science days” in MDL litigation and appointing “expert panels” in pre-trial hearings, in order to similarly improve their comprehension of the evidence, and, perhaps most tellingly, judges now actually using hot tubbing in U.S. trials on occasion, whether of their own initiative or upon the request of the parties. In these instances where hot tubbing, or “hot tubbing like,” processes are being used, the feedback about the method is consistently that it was “extremely valuable and enlightening.”⁸ Thirdly, the type of case-management techniques which are used in concurrent evidence processes are very similar to the non-traditional case management methods which have been successfully employed to efficiently and justly resolve some major U.S. toxics cases. In notable cases such as the 9/11 litigation (involving Judge Hellerstein), or the Agent Orange litigation (involving Judge Weinstein), one observes judges applying such methods. Although the judges did not utilise hot tubbing there per se, the judges’ significant results further buttress a need to employ methods in some circumstances which depart from traditional adversarial practices in order to satisfy the goals of the civil system, namely, the just, efficient and inexpensive resolution of cases. All of this supports a proper role for hot tubbing in the U.S.

I note that in preparing this Article, I have had the privilege of interviewing some senior U.S. District Judges including Judge Jack Weinstein (Eastern District of New York), Judge Alvin Hellerstein (Southern District of New York), Judge Robert Jones (District of Oregon), Judge Jed Rakoff (Southern District of New York), Judge Douglas Woodlock (District of Massachusetts) and Judge Jack Zouhary (Northern District of Ohio). All six distinguished judges have expressed to me a keen desire to use or try concurrent evidence in their future cases, and some have used the approach on various occasions.⁹ In addition, I have received much enthusiasm for the adoption of the process among some leading U.S. academics and other practitioners, including expert economic witness, Professor Daniel Rubinfeld. I have also interviewed and consulted with a few pre-eminent Australian

⁸ In re Welding Fume Prods. Liab. Litig., No. 03-17000, (N.D. Ohio Aug. 8, 2005) (Dkt. No. 1353), per Judge Kathleen McDonald O’Malley, note 39, [97]. As I discuss *infra* note 269, cases which have used the model in the U.S. include: In re Welding Fume Prods., Meza v. Galvin 322 F.Supp.2d 52 (D. Mass. 2004), Black Political Task Force v. Galvin, No. 02-11190 (D. Mass.) (14 November 2003), Anchor v. United States, No. 95-39C (Ct. Claims), Genzyme Corp. v. Seikagaku Corp., No. 11-10636 (D. Mass.) (Dkt. entry dated Nov. 30, 2011); Rovakat, LLC v. Commissioner, TC Memo 255 TCM 29, XIV C (2011), Crimi v. Commissioner of Internal Revenue 51 T.C.M. (2013); United States v. Schwartz, No #3:05-cr-30079-DPW-ALL (D. Mass.), and In re Polyurethane Foam Antitrust Litigation, Case No. 10 MD 2196, United States District Court, (N.D. Ohio, 15 January 2015).

⁹ Judge Woodlock has had some documented usage of the method which I refer to *infra*, and he is considering using it in upcoming toxics matters in a *Daubert* setting. Judge Jones noted that he has previously used hot tubbing on certain occasions. Since I first interviewed Judge Weinstein in relation to this Article, he has started to use hot tubbing in his cases. In addition, Judge Zouhary has used concurrent evidence in a class action in Ohio, which is discussed *infra*.

judges, including Justice Peter McClellan (New South Wales Court of Appeal), Judge Peter Berman (NSW District Court), Justice Rachel Pepper (NSW Land and Environment Court) and Honourable Raymond Finkelstein QC (Federal Court of Australia/Australian Competition Tribunal) (Ret.). I also draw on interviews of Sydney barrister, Vance Hughston SC and expert anthropologist Dr. Kingsley Palmer (who both acted in *Ngadju*), and on original interviews of lawyers, experts and judges who worked on or commented on the *Kilmore East Bushfires* case, such interviews having been conducted by staff at the Supreme Court of Victoria.¹⁰ I am grateful for all of these contributions.

CONCURRENT EVIDENCE – AUSTRALIA’S MODEL (AND ELSEWHERE)

I. Introduction

Australia is said to be responsible for the advent of the use of concurrent expert evidence. Use of the method was first introduced in about the 1970’s¹¹ in the Australian Competition Tribunal by President Lockhart,¹² where it has commonly been used to receive expert economic evidence. An early example of hot tubbing was also seen in the insurance area and it was later developed in arbitration and court references.¹³ Subsequently, hot tubbing became strongly advocated in the Land and Environment Court of NSW by Justice McClellan when he was then Chief Judge of that Court. His Honour’s enthusiasm then spilled over into the Supreme Court of NSW when he became Chief Judge at Common Law.¹⁴ Today, numerous Australian courts and tribunals have incorporated concurrent evidence into their rules.¹⁵ In those jurisdictions hot tubbing is increasingly “the norm rather than the exception.”¹⁶ The process of concurrent expert evidence has been used in diverse areas including toxics, accounting, quantity surveying, pharmaceutical patents, metallurgy, naval

¹⁰ The judges who have been interviewed include the presiding judge, Justice Forrest, and his special master, Associate Justice Zammit, in addition to four justices commenting generally: Justices Almond, Beach, Hargrave and Croft.

¹¹ Erik Arnold & 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*, CAMPBELL VALUATION PARTNERS LTD. (Jan. 23, 2013), <https://cicbv.ca/wp-content/uploads/2010/10/2012-CICBV-Research-Paper-CVPL-FINAL.pdf>; Frances P. Kao et al., *Into the Hot Tub . . . A Practical Guide to Alternative Expert Witness Procedures in International Arbitration*, 44:3 INT’L LAWYER 1035 (Fall 2010); Ryan Thompson, *Concurrent Expert Evidence: Hot Tubbing in America? Experts Jump In*, NAT’L L. REV. (Aug. 31, 2016), <http://www.natlawreview.com/article/concurrent-expert-evidence-hot-tubbing-america-experts-jump>.

¹² DVD: Judicial Comm’n of NSW, *Concurrent Evidence* (2006); see also John Emmerig et al., *Room in American Courts for an Australian Hot Tub?*, JONES DAY (Apr. 2013), http://www.jonesday.com/room_in_american_courts/#_edn1.

¹³ *Spika Trading Pty Ltd v Royal Insurance Australia* (1985) 3 ANZ Insurance Cases 60-663 (Austl.); Laurence Street, *Expert Evidence in Arbitrations and References*, 66 A.L.J. 861 (1992); see also Steven Rares, *Using the “Hot Tub”: How Concurrent Expert Evidence Aids Understanding Issues*, FED. CT. AUSTL. (Oct. 12, 2013), <http://www.fedcourt.gov.au/digital-law-library/judges-speeches/justice-raises/raises-j-20131012>.

¹⁴ Other proponents include Justice Rares (Federal Court), Hon. Garry Downes (former President AAT and Federal Court judge), Hon. Peter Heerey (former Federal Court judge), Justice Garling (NSW Supreme Court), Hon. Kevin Lindgren (former Federal Court judge), Justice Preston (Chief Judge of NSW Land and Environment Court), Justice Pepper (NSW Land and Environment Court) and Justice Forrest (VIC Supreme Court).

¹⁵ Such courts and tribunals include the Federal Court of Australia, the Administrative Appeals Tribunal, the NSW Land and Environment Court, the Supreme Courts of NSW, VIC, QLD and ACT, the NSW District Court, the County Court of Victoria, the Australian Trade Practices / Australian Competition Tribunal and the Queensland Land and Resource Tribunal. See Rares, *supra* note 13; see also Gary Edmond, *Merton and the Hot Tub: Scientific Conventions and Expert Evidence in Australian Civil Procedure*, 72 L. & CONTEMPORARY PROBLEMS 159, 166 (Winter, 2009); McClellan, *supra* note 4, at 263.

¹⁶ Pepper, *supra* note 2; see also McClellan, *supra* note 4, at 263–64; Peter Garling, *Concurrent Expert Evidence: Reflections and Development*, Australian Insurance Law Association Twilight Seminar Series (Aug. 17, 2011), 1.2 re Common Law Division of the Supreme Court of NSW; Supreme Court of New South Wales, Practice Note SC CL 5, Dec. 5, 2006.

architecture, mechanical engineering, medical negligence and anthropology.¹⁷ The process is generally confined to civil proceedings, yet it has also been introduced, by the parties' consent, in criminal trials before a judge sitting alone, in *voir dire* examinations, and before magistrates in summary criminal proceedings.¹⁸ Despite the conventional wisdom that hot tubbing is only used in non-jury cases,¹⁹ as Justice Pepper notes, it "is now used in both judge-alone trials and jury trials, in both criminal and civil proceedings."²⁰ Concerns about extending hot tubbing to criminal proceedings have been voiced, however, regarding, *inter alia*, the presumption of innocence and the burden of proof.²¹

International interest in hot tubbing has extended to other parts of the common law world, on the basis of positive experiments in Australia. This includes Canada,²² the U.K.,²³ Singapore²⁴ and New Zealand.²⁵ As I outline below, hot tubbing has also had some minor use in the U.S. as well, despite this having gone relatively unnoticed by judges and academics.

In the international arbitration area, hot tubbing has become increasingly prevalent.²⁶ It is now provided for in various rules.²⁷ Further, a 2012 White & Case LLP survey found that 60% of respondents had used expert hot tubbing in international arbitrations in the last five years, with 62% saying that that should occur more often.²⁸ Doug Jones notes that hot tubbing has been particularly effective in technical arbitrations, with complex factual issues involving several experts.²⁹

II. Problems with Adversarial Process

Hot tubbing is a process which is intended to overcome various shortcomings of traditional adversarial methods for adducing and testing expert evidence. Criticisms of the adversarial model

¹⁷ Rares, *supra* note 13; Garry Downes, Concurrent Expert Evidence in the Administrative Appeals: The New South Wales Experience, Paper presented at the Australasian Conference of Planning and Environment Courts and Tribunals, Hobart (Feb. 27, 2004); John Mansfield, *Litigation under the Trade Practices Act 1974*, FED. CT. AUSTL. (May 22, 2008), <http://www.fedcourt.gov.au/digital-law-library/judges-speeches/speeches-former-judges/justice-mansfield/mansfield-j-20080522>; *Concurrent Evidence*, *supra* note 12; *see also* FRECKELTON & SELBY, *supra* note 1; Peter Heerey, Expert Evidence: the Australian Experience, Paper delivered to WIPO Asia-Pacific Colloquium, New Delhi (Feb. 6, 2002); Anne Sheehan, From Adversarial to Inquisitorial—the Changing Landscape for Expert Evidence Following the Civil Procedure Act 2010 (Nov. 21, 2014), http://www.gordonandjackson.com.au/uploads/documents/articles/From_Adversarial_to_Inquisitorial___the_changing_land_scape_for_expert_evidence_following_the_Civil_Procedure_Act_2010_-_A_Sheehan.pdf.

¹⁸ Rares, *supra* note 13; *see also* *R v Stanyard* [2012] NSWDC 78 (Austl.).

¹⁹ Emmerig et al., *supra* note 12.

²⁰ Pepper, *supra* note 2.

²¹ *See* Edmond, *supra* note 15, at 178.

²² Federal Court Rules, SOR/98-106, R. 52.6, 282.1, 282.2 (Can.); Schedule – Code of Conduct for Expert Witnesses, SOR/98-106, s. 5; Competition Tribunal Rules, SOR/2008-141, ss. 75–76; Ontario's Rules of Civil Procedure, R.R.O. 1990, Reg. 194, s. 50.07(1)(c).

²³ CPR Part 35, Experts and Assessors, 11.1–11.4.

²⁴ Supreme Court of Judicature Act of 2007, ch. 322, Order 40A, rule 6.

²⁵ Wood, *supra* note 1.

²⁶ Hot tubbing has become prevalent in areas including Austria, Korea, Japan and Hong Kong. *See* Arnold & Soriano, *supra* note 11, at 16; *see also* Jones, *Improving Arbitral Procedure*, *supra* note 3.

²⁷ *See, e.g.*, IBA Rules on the Taking of Evidence in International Arbitration, art. 8.3(f) (2010); Protocol for the Use of Party-Appointed Expert Witnesses in International Arbitration, Chartered Institute of Arbitrators, art. 7 (2007).

²⁸ Paul Friedland & Stavros Brekulakis, *2012 International Arbitration Survey: Current and Preferred Practices in the Arbitral Process*, WHITE & CASE (2012), 27–28, <http://events.whitecase.com/law/services/Queen-Mary-University-London-International-Arbitration-Survey-2012.pdf> [hereinafter White & Case LLP Study].

²⁹ Jones, *Improving Arbitral Procedure*, *supra* note 3, at 96.

regularly include that:³⁰ experts are biased;³¹ considerable court time is expended in taking experts individually through their assumptions and opinions, both in examination-in-chief and in cross-examination; the traditional model simply takes too long to get to the differences between the experts; expert evidence may be highly technical and remain unclear, even post cross-examination; experts often feel artificially constrained by having to answer counsel's questions that might misconceive or misunderstand their evidence; experts are often not focused on providing the court with assistance but focused on avoiding their views being twisted or discredited by counsel; experts may give evidence about matters extending beyond their professional expertise;³² and many experts see adversarial "game-playing" as disrespectful or a waste of their time.

III. Legislative Frameworks and benefits

Rules on concurrent evidence are now broadly provided for in Australian legislation.³³ Appendix 1 sets out a few examples of these for context. Although the rules of different jurisdictions have certain distinctions among them, the processes are substantially similar. The process is always intended to enable the "real issues in dispute between experts to be identified and narrowed from an early stage," for the purpose of achieving a just and efficient resolution of a proceeding. At its core essentials, hot tubbing aims to shorten trials (and reduce associated work), enhance fact-finding and judicial decision-making, and improve settlement prospects.³⁴

Under r 23.15 of the *Federal Rules*, for example, if two or more parties to a proceeding intend to call experts to give opinion evidence about a similar question, any party may apply to the Court for an order that the experts undertake a joint conference before or after they write their expert reports, or that the experts give concurrent evidence.³⁵ Moreover, the Court itself can order that expert

³⁰ See, e.g., Peter McClellan, Expert Evidence: Aces Up Your Sleeve?, Address at the Industrial Relations Commission of New South Wales Annual Conference (Oct. 20, 2006), <http://www.austlii.edu.au/au/journals/NSWJSchol/2006/15.pdf>; see also Vance Hughston SC & Tina Jowett, *In the Native Title 'Hot Tub': Expert Conferences and Concurrent Expert Evidence in Native Title*, 6(1) LAND, RIGHTS, LAWS: ISSUES OF NATIVE TITLE (Aug. 2014); Pepper, *supra* note 2; Rares, *supra* note 13; Street, *supra* note 12.

³¹ McClellan, *supra* note 4, at 261 (expert as "hired champion"); Peter McClellan, Expert Witnesses: The Experience of the Land & Environment Court of NSW, Paper presented at the XIX Biennial LAWASIA Conference of 2005 (Mar. 2005) (only the "most extraordinary" expert would under cross-examination "readily confess error, accept their view was wrong and that the client's money was wasted"); *Jango v NT* [2006] FCA 318, 315–38 (Austl.); *Wood v R* [2012] NSWCCA 21 [715] (Austl.) (expert as "part of 'the team'"); *Pace v. Swardlow*, 519 F.3d 1067, (10th Cir. 2008) ("hired gun"); Megan A. Yarnall, *Dueling Scientific Experts: Is Australia's Hot Tub Method a Viable Solution for the American Judiciary?*, 88 OR. L. REV. 311, 318 (2009) ("prostitute"); see also Emmerig et al., *supra* note 12.

³² See, e.g., *Harrington-Smith on behalf of the Wongatha People v Western Australia* (No. 7) (2003) 130 FCR 424, 441 (Austl.); *Harrington-Smith on behalf of the Wongatha People v Western Australia* (No. 9) (2007) 238 ALR 1, 459–68 (Austl.).

³³ See, e.g., *Federal Court Rules 2011* (Cth) rr 23.15, 5.04 (Austl.) [hereinafter *Federal Rules*]; Federal Expert Evidence Practice Note (GPN-EXPT) (Austl.); *Civil Procedure Act 2010* (VIC) pt 4.6 [hereinafter *VIC Act*]; *Supreme Court (General Civil Procedure) Rules 2015* (Vic) (*Supreme Court Rules* (VIC)), reg 44.06 (Austl.); *Uniform Civil Procedure Rules 2005* (NSW) pt 31, div 2 (Austl.) [hereinafter *NSW Rules*]; Practice Note SC Gen 11 (NSW) (Austl.); *Guideline - Use of Concurrent Evidence in the AAT* (Austl.) [hereinafter *ATT Guidelines*].

³⁴ E.g. *Civil Procedure Amendment Bill 2012* (Vic), 2d Reading Speech (Austl.); Practice Note SC Gen 11 (NSW) (Austl.); *Federal Court of Australia Act 1976* (Cth), ss 37M and 37N (Austl.); *Guideline - Use of Concurrent Evidence in the AAT*, provision 1.3 (Austl.).

³⁵ See also *Federal Rules*, r 5.04 item 18.

conferencing or concurrent evidence take place.³⁶ The Court’s power to make such an order in civil cases is a defining feature of the process,³⁷ although in Australian jurisdictions in which concurrent evidence is now well developed, the process is typically preferred by the parties.

The *AAT Guidelines* provide a set of standards concerning concurrent evidence which elaborate on the suitability factors which a court might consider in assessing whether or not to order that concurrent evidence take place in a given case. These factors include: the nature and complexity of the expert evidence in question; the comparable expertise of the experts; whether the expert evidence is central to the disputed issues; any impact on costs; and the parties’ views. Such factors are not necessarily set out in other major rules however,³⁸ and in some jurisdictions concurrent evidence is simply the “default” rule.³⁹ In the Federal Court, concurrent evidence is used as a case management technique “in appropriate circumstances,” and parties should expect the Court to “give careful consideration to whether concurrent evidence is appropriate.”⁴⁰

The concurrent evidence process will generally involve some/all of the following elements:⁴¹

- I. The issues upon which expert evidence is required will be identified.
- II. The expert’s individual reports will be prepared.
- III. Before the trial, a joint expert conference will take place, sometimes under the supervision of a court registrar/associate judge (depending on context), and typically without lawyers attending,⁴² in order for the experts to prepare a joint report setting out in bullet form the matters upon which there is agreement and disagreement, including, where possible, short reasons as to why the experts disagree.
- IV. The experts’ joint report will be prepared (again, without lawyers).⁴³ That report will then usually form the focus of concurrent oral evidence at the hearing, serving as the starting point for addressing outstanding issues.⁴⁴

³⁶ *NSW Rules*, regs 31.19, 31.24, 31.35; *VIC Act*, ss 65I, 65K, *Federal Rules*, reg 5.04; *AAT Guidelines*, provision 2.2.

³⁷ Pepper, *supra* note 2; *see also supra* notes 22, 23, 27 (U.K., Canadian and IBA provisions cited earlier); *cf. supra* note 24 (Singapore rules); *supra* note 36.

³⁸ *E.g. supra* note 33 (*NSW Rules* and *VIC Act*); *cf. Federal Court of Australia’s Expert Evidence Practice Note* (GPN-EXPT), Annexure B, Concurrent Expert Evidence Guidelines, 6 [hereinafter *Federal Court Guidelines*] (some brief factors set out).

³⁹ *See, for example, the NSW Land and Environment Court and the Common Law Division of Supreme Court of NSW. Supreme Court of New South Wales, Practice Note – SC CL 5, Dec. 5, 2006; McClellan, supra* note 4, at 263–64; Interview with Justice Pepper (Jan. 17, 2016); *see also* Hughston and Jowett, *supra* note 30 (native title matters); *infra* note 64.

⁴⁰ *See Federal Court Guidelines*, at paragraphs 2, 6.

⁴¹ *See generally supra* note 33; Forrest, *supra* note 5; McClellan, *supra* note 4; Pepper, *supra* note 2; Wood, *supra* note 1; Hughston & Jowett, *supra* note 30; Temple-Cole & Farthing, *supra* note 1; NEW SOUTH WALES LAW REFORM COMMISSION REPORT, REPORT 109 (2005) [hereinafter NSWLRC REPORT 109]; Transcript of Hearing at 16765–66, in *Kilmore East Bushfires* (Austl.) (Feb. 25, 2014); Transcript of Hearing, *Graham on behalf of the Ngadju People v WA*, [2012] FCA 1455 (Austl.) (May 17–18, 2012) (concurrent evidence). NB - the concurrent evidence process is often relatively fluid, and will not necessarily follow a rigid structure, being directed by the judge. Interview with Justice McClellan (Jan. 14, 2016).

⁴² Re lawyer attendance or non-attendance, *see NSW Rules*, reg 31.24(2), *VIC Act*, s 65I(2), and *Supreme Court Rules* (Vic) reg 44.06. The NSW Law Reform Commission notes that managing expert conferences depends on context and some cases could require lawyers present or an independent chair. NSWLRC REPORT 109, at 6.43, in McKenzie, *supra* note 5, at 4.

Further, lawyers are sometimes present at conferences but do not participate. *See* Hughston & Jowett, *supra* note 30, at 5–6.

⁴³ Practice Note SC Gen 11 (NSW), cl 28 (Austl.).

⁴⁴ If the experts agree on all points their role is likely to end and they may not be required to give evidence. McClellan, *supra* note 30, at 264; *see also* Hughston & Jowett, *supra* note 30, at 6.

- V. The experts will be called to give evidence together at the hearing at a convenient time in the proceeding, usually following the tendering of the lay evidence.⁴⁵
- VI. The experts will be sworn in together and the court will explain its intended procedure and identify, aided by counsel, the topics requiring discussion to resolve outstanding issues.
- VII. Each expert is then given an opportunity to explain the issues in dispute. Each expert may also comment on/question their colleague about their evidence or report.
- VIII. Counsel will conduct cross-examination. During the process, each party is permitted to rely on their own expert for clarification of an answer.⁴⁶ The parties usually prepare and hand up to the trial judge a list of cross-examination topics (written at a high level of generality) prior to commencing cross-examination.⁴⁷
- IX. At any stage the judge may and will intervene and ask questions of experts or chair the discussion, and might allow an expert a final opportunity to enlarge upon any answer given,⁴⁸ as occurred in *Kilmore East Bushfires*.

The benefits of this process will often include:

- *promoting settlement* by virtue of the progress made at the pre-trial conclave(s);
- enabling all involved at a trial to hear the experts discussing the *same issues, at the same time*, enhancing the comprehension and exploration of the evidence;⁴⁹
- promoting a *cooperative, collegiate environment*⁵⁰ in which the experts more readily act to *assist* the Court rather than to advocate a party's case;⁵¹
- *narrowing or resolving the issues* before the Court and *clarifying differences*;⁵²
- facilitating the *just resolution* of disputes as *quickly, inexpensively and efficiently* as possible;
- enabling a *judge to chair* a discussion;⁵³

⁴⁵ See *NSW Rules*, reg 31.35; *VIC Act*, s 65k; *Federal Rules*, reg 5.04; cf. *Federal Rules*, reg 23.15.

⁴⁶ Legal representatives are to have an adequate opportunity to ask all experts questions about each issue and to seek responses or contributions from one or more experts in response to evidence given by a different expert. See *Federal Court Guidelines*, 14(f)(iv).

⁴⁷ Usually only once a topic for questioning is exhausted is the next topic commenced. This is why a list of topics is handed up at the start, so that the court knows where the questioning is going. Email Interview with Justice Pepper (Feb. 9, 2016); see also *Federal Court Guidelines*, paras 14–18. In particular, the fact that there is a guiding list of issues which is intended to direct questions by the judge and counsel on an issue by issue basis, will not necessarily confine the scope of any cross-examination of any expert. The process of cross-examination remains subject to the overall control of the judge, who is to ensure the process is fair and effective, balanced and efficient.

⁴⁸ E.g. *VIC Act*, s 65K(3); *AAT Guidelines*, provision 4.6; see also ; Forrest, *supra* note 5; Temple-Cole & Farthing, *supra* note 1.

⁴⁹ Judge Berman has indicated that this was the principal benefit he enjoyed in applying hot tubbing in a criminal trial. Email Interview with Judge Berman (Jan. 10, 2016).

⁵⁰ Justice McClellan notes that the change in procedure has been met with overwhelming support from experts and their professional organisations. McClellan, *supra* note 31.

⁵¹ See, e.g., Andrew Cannon, *Courts Using Their Own Experts*, 13(3) J. JUD. ADMIN. 182, 185 (2004) (regarding benefits of making experts responsible directly to a court over a party); McClellan, *supra* note 31.

⁵² See Garry Downes, *Problems with Expert Evidence: Are Single or Court-Appointed Experts the Answer?*, 15 J. JUD. ADMIN. 185 (2006).

⁵³ See McClellan, *supra* note 30, at 264.

- having the experts appear together may compel greater *accuracy* (generally experts value their professional reputations and integrity);⁵⁴
- easing experts' tension regarding the process and encouraging *fuller responses*;⁵⁵
- *counsel may also be benefitted* when cross-examining because counsel can immediately invite a response from either expert regarding a matter in question.

Furthermore, as McClellan JA notes, the process employs, in a courtroom, the method by which decision-making is conventionally undertaken in professional circles. For instance, if doctors were required to treat someone in a medical emergency, a team would meet and then share, analyse and debate each other's opinions, with a senior person ultimately deciding the course forward. The same rationale underlies the concurrent evidence process. A prime example of the concurrent evidence method is in fact a tort case which McClellan JA presided over (*Halverson v Dobler* [2006] NSWSC 1307 (Austl.)), in which a man suffered catastrophic brain damage and sued his doctor. Five doctors gave concurrent evidence for a day and a half, which under conventional adversarial methods would likely have taken at least 6 days to hear. Importantly, the use of the method was welcomed by both the doctors and by the parties' advocates in the case.

On the other hand, several concerns have been raised with respect to concurrent evidence which have included the following issues: lawyers are often not present in joint expert conferences or are not allowed to ask questions or participate, creating uncertainty and anxiety due to a loss of control; the *Federal Rules* previously did not establish a detailed procedure,⁵⁶ creating uncertainty for all concerned (*cf.* new Federal Practice Note (GPN-EXPT) and more detail in VIC, NSW and AAT rules); a court may not be adequately equipped to accommodate all experts in a hot tub, which can distract the experts,⁵⁷ and/or the process may be unwieldy if too many witnesses are present in a conclave or concurrent evidence session;⁵⁸ experts may be turned into expert advocates and/or more persuasive experts may win a judge's mind by overshadowing others;⁵⁹ conducting cross-examination

⁵⁴ See Rares, *supra* note 13, and Garling, *supra* note 16, at 1.1, speaking of the Common Law Division of the NSW Supreme Court, at 2.4.

⁵⁵ As Hon. Raymond Finkelstein QC states: "The formalities of a courtroom can easily inhibit the giving of testimony by even experienced witnesses. Making the process appear more informal allows the witnesses to relax somewhat. Their testimony becomes more natural. When involved in a direct conversation with the Tribunal rather than the lawyers they are likely to be far less defensive. That is, they will more openly and readily deal with the issues at hand. This advantage cannot be underestimated." Interview with Hon. Raymond Finkelstein QC (Feb. 4, 2016).

⁵⁶ In *Ngadju*, the Federal Court actually distributed Justice Rares's 2010 paper to the expert anthropologists before their concurrent evidence session rather than having a formalised protocol as occurred in *Kilmore East Bushfires*.

⁵⁷ This was actually apparent in *Ngadju*'s concurrent evidence session. See Transcript of Hearing at 1795, *Graham on behalf of the Ngadju People v WA*, [2012] FCA 1455 (Austl.) (May 5, 2012).

⁵⁸ Forrest, *supra* note 5.

⁵⁹ Rachel Pepper, Expert Evidence in the Land and Environment Court, 20, Jan. 21, 2013 (citing Justice Davies); see also McClellan, *supra* note 31, at 19; Edmond, *supra* note 15, at 159–61, 164; Peter Heerey, *Recent Australian Developments*, 23 CIV. JUST. Q. 386, 391 (2004); Downes, *supra* note 56; *cf.* NSW Rules, 31.23, Schedule 7; Federal Practice Note (GPN-EXPT), Annexure A ("Harmonised Expert Witness Code of Conduct").

about an expert's credit during concurrent evidence can be more difficult;⁶⁰ time constraints may mean that discussions remain at a superficial level.⁶¹

Plainly, these concerns are outweighed by the process' benefits, when properly and responsibly executed. Alternatively, the concerns may be incorrect or misguided.⁶² For example, concerns about partisan experts appear to be exaggerated given that the process is intended to, and usually does, alleviate or reduce undesirable effects of expert partisanship. This conclusion is supported by my interviews of practitioners and experts, the results of cases, and the broader statistics which show that users generally prefer this model over other methods. Moreover, concerns in relation to the process can also be addressed through a proper suitability assessment of cases as to whether concurrent evidence is appropriate – i.e. courts have decided against using concurrent evidence on occasion⁶³ - and through astute judicial management of the process and lawyers choosing professional experts. Ultimately, where the process is employed, the weight of opinion supports its use and it has become the norm.⁶⁴

The benefits of the concurrent evidence process can be more particularly explored by considering the following two cases.

IV. Kilmore East Bushfires

The 2009 Black Saturday bushfires were a traumatic episode in Victoria's history. The bushfires were caused by a fire which was started by a powerline that spread to kill 173 people and destroyed over 2,000 homes and 125,000 ha of land across five municipalities. Some 119 people died in the Kilmore East area specifically. The plaintiffs sued the power distributor, the asset manager of the powerlines and the Victorian government for breach of common law and statutory duties. Their allegations included failure to replace or maintain the powerline, inadequate suppression devices and inadequate inspection regime. The case settled in December 2014 for AUD \$494 million, prior to the judgment being handed down, but by then the trial before Justice Forrest had concluded and all of the evidence had been heard. The trial went for 208 days and had 21,621 pages of transcript and 4,700 pages of submissions. There were twenty-six barristers acting and hundreds of solicitors involved.

⁶⁰ Temple-Cole & Farthing, *supra* note 1; cf. Edmond, *supra* note 15, at 164.

⁶¹ See Henry Ergas, *Reflections on Expert Evidence*, SUMMER BAR NEWS 39, 42–43 (2007).

⁶² See, e.g., McClellan, *supra* note 31. This conclusion is supported by my interview with U.S. expert witness, Professor Daniel Rubinfeld.

⁶³ See, e.g., *Boardman v South Eastern System Area Health Service* [2001] NSWSC 930 (Austl.) (finding no joint conference of four medical experts where clear and firm divergence of opinion on the central medical and factual issues); *Spasovic v Sydney Adventist Hospital* [2002] NSWSC 164 (Austl.) (finding no reasonable expectation expert conference would yield agreement on any issue).

⁶⁴ Garling, *supra* note 16, at 1.2 (speaking of the Common Law Division of the NSW Supreme Court); Pepper, *supra* note 2; Andrew Ross, *Murky Waters: An Expert's Perspective on the Effectiveness of Expert Conclaves and 'Hot Tubs'*, 119 PRECEDENT 1 (Nov./Dec. 2013); Kim Hargrave, *Expert Witnesses/Hot Tubbing*, Commercial Court Seminar, Melbourne, Australia (Oct. 27, 2010); Interview with Dr. Kingsley Palmer (Jun. 23, 2014). Use is described as "extensive" in jurisdictions including Australian Trade Practices Tribunal, Administrative Appeals Tribunal, Federal Court of Australia, and Queensland Land and Resource Tribunal. McClellan, *supra* note 4, at 263. Use is described as the "default" rule in NSW Land and Environment Court and Common Law Division of Supreme Court of NSW. McClellan, *supra* note 30, at 263–64; Interview with Justice Pepper (Jan. 17, 2016); Supreme Court of New South Wales, Practice Note – SC CL 5, Dec. 5, 2006.

There were forty expert witnesses, sixty lay witnesses, fourteen conclaves ordered, and six concurrent evidence sessions.⁶⁵

The pre-trial management of expert evidence required coordinating the expert conferences (or “conclaves”). This required identifying the relevant issues which would be addressed and using court officers (in the form of Associate Justice Zammit) as a moderator in the conferences. Eleven areas of expertise were identified on which experts gave evidence.⁶⁶ Importantly, the pre-trial conclave process (like the at-trial concurrent evidence sessions) involved a “quarantining” of lawyers and experts during the process.⁶⁷ This has now become a standard order, to prevent a “contamination” of the process.⁶⁸ The consequence of the conclaves was to produce joint reports identifying areas of agreement and disagreement. Before the trial, the joint reports were filed and questionnaires were also completed before the concurrent evidence sessions, to assist Justice Forrest to focus his mind on relevant issues.

At the trial there were six concurrent evidence sessions. The sessions involved the testing of between two to nine experts in a given session. Preliminary rulings had been given as to the experts’ expertise and the application of s 79 of the *Evidence Act 2008* (a similar provision to Rule 702 of the *Federal Rules of Evidence*).⁶⁹ Furthermore, the judge sat with expert assessors when hearing complicated expert evidence about fracture mechanics and vibration theory, which was central to the plaintiff case about causation.⁷⁰

The order of questioning at concurrent evidence sessions was determined by Justice Forrest and varied depending on the topic and the diversity of opinion. Experts could make an opening statement on a given topic. Usually a party calling a witness commenced by adducing any further explanatory evidence, and then opposing counsel undertook cross-examination. Leading questions were permitted of a witness, but leading might affect the weight to be given to any answer particularly where the evidence was led from an expert called by that party. At the conclusion of the evidence on any topic, the experts could question each other or enlarge upon answers previously given. Re-examination of witnesses was generally not permitted unless counsel’s questioning had attacked the witness’ expertise or their credibility.⁷¹ The process repeated itself for each topic. A description of

⁶⁵ Forrest, *supra* note 5.

⁶⁶ These eleven areas are: Electrical engineering, materials engineering, lightening, asset management principles, analysis of vibrations and dynamics, probabilistic risk analysis, prescribed burning, fire behaviour, budget process and resources allocation, fire fighters; and warnings.

⁶⁷ See *Matthews v SPI Electricity Pty Ltd & Ors*, [2013] VSC 630 (Austl.) (Nov. 18, 2013) paras 19–20 (conclave order). For an example of Justice Forrest advising experts during a hot tubbing session of the quarantining order, see Transcript of Proceedings at 16777 (Feb. 25, 2014) (day 166).

⁶⁸ Interview with Justice Hargrave, Supreme Court of Victoria, Melbourne, (Oct. 6, 2014) in Simon McKenzie, *Concurrent Evidence in the Kilmore East Bushfire Proceeding*, VICSCLRS 2, (2016), at 16.

⁶⁹ Section 79 is entitled *Exception – opinions based on specialised knowledge*. For a learned discussion of admissibility of expert evidence in the Victorian/Australian context, see Peter McClellan, *Admissibility of expert evidence under the Uniform Evidence Act*, Judicial College of Victoria, Emerging Issues in Expert Evidence Workshop, Melbourne (Oct. 2, 2009).

⁷⁰ See *Matthews v SPI Electricity Pty Ltd & Ors*, Ruling No 32 [2013] VSC 630 (Austl.).

⁷¹ Forrest, *supra* note 5.

Justice Forrest’s protocol for a concurrent evidence session involving three experts appears at Appendix 2.⁷²

i. Time-Saving

All participants interviewed in relation to this case, in addition to several observer judges, have indicated that there is “no question” that hot tubbing saved considerable time and enhanced the accuracy of fact-finding in the matter.⁷³ No participant would have preferred a traditional adversarial approach. In terms of efficiency, had the court heard all of the experts separately, and received only individual expert reports, it would have been much more onerous for the judge and the lawyers to synthesise the results of the complicated evidence. As Justice Beach observes, with eleven areas of expertise to analyse of complex scientific evidence, one could not imagine how the case:

might sensibly have been conducted if you had eight months of plaintiff’s experts, one after the other, on different topics, just getting one side, one side, one side, and then suddenly eight months’ later the plaintiff closes the case and the defendants start calling people who say the exact opposite. I can’t imagine how burdensome that might be to a trial judge. Clearly [concurrent evidence] worked very well.⁷⁴

The joint reports from the pre-trial conferences were a crucial part of the process. One solicitor explained that the second joint report from the largest conclave: “contained a succinct identification of . . . agreement and non-agreement between the experts, summarising 2000 pages of expert reports into 40 or 50 pages.”⁷⁵ This sort of efficiency is consistent with what McClellan JA has emphasised elsewhere, that hot tubbing enables evidence now to be taken in “half or as little as 20% of the time which would have been necessary.”⁷⁶ Others have suggested greater efficiencies.⁷⁷

ii. Benefits to All Litigation Participants

The benefits were linked not only to the joint reports, but to the concurrent evidence sessions at the trial as well. Both during and after the trial, the participants appreciated having a transcript

⁷² Transcript of Proceedings at 16765–66, 16775–79, *Matthews v SPI Electricity Pty Ltd & Ors*, [2013] VSC 630 (Austl.) (Feb. 25, 2014) (day 166), (Concurrent Evidence: Russell, Baitch and Blackburn).

⁷³ See, e.g., Interview with Justice Hargrave (6 October 2014, Supreme Court of Victoria, Melbourne), in McKenzie, *supra* note 5, at 22. Nb – all interviews of Victorian judges (except Finkelstein QC) and the participants in the case (solicitors, barristers, experts) referred to in this section were done by the Supreme Court of Victoria, not me.

⁷⁴ Interview with Justice Beach (2 September 2014, Supreme Court of Victoria, Melbourne), in McKenzie, *supra* note 5, at 40. The barristers interviewed described the process as a “huge time saver” and “hugely advantageous.” *Id.* at 15.

⁷⁵ *Id.* at 15.

⁷⁶ McClellan, *supra* note 31; see also Garling, *supra* note 16, and Rares, *supra* note 13 (regarding *Ironhill Pty Ltd v Transgrid* [2004] NSWLEC 700 (Austl.)). Similarly, in the AAT Tribunal, a case estimated by Hon. Downes to take six month’s hearing time was reduced to a five week hearing. Yarnall, *supra* note 31, at 329; see also *Halverson v Dobler* [2006] NSWSC 1307 (Austl.).

⁷⁷ See *Ironbridge Holdings Pty Ltd and WA Planning Comm’n*, DR 345 [44] (Admin. Trib. (WA), Nov 28, 2007) (Austl.) (evidence estimated at normally taking week or more taken in less than a day); *United Church Homes Inc. and City of Stirling*, RD 6 [31] (Admin. Trib. (WA), Aug 19, 2005) (Austl.) (final hearing might have taken up to 2 weeks, took 1 day), cited in Edmond *supra* note 15, at 179; see also *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 (30 June 2010) (Austl.) (expert witnesses dealt with in about a week or two instead of several months); Interview with Raymond Finkelstein QC (Jan. 31, 2016).

containing a neatly ordered topic-by-topic record of examination and cross examination, in addition to benefitting from the specific features of hot tubbing itself. In particular:

- A. *Lawyers*: The lawyers' role was enhanced in preparing the case generally and in leading and cross-examining experts. The barristers benefitted when cross-examining, because their experts sometimes picked up on weak/imperfect answers given by an opponent's witness, which the barristers may have missed. Hot tubbing was thus a "good insurance policy for counsel," and it also "disciplined" the experts.⁷⁸ One barrister noted that Forrest J's interventions could allow lawyers "to find out exactly what the judge was thinking just by the questions and the body language," which was "extremely useful."⁷⁹
- B. *Experts*: The experts uniformly reported that their joint reports accurately reflected their views. The process allowed them to better understand the data and/or reasoning of the other experts through robust and technical discussions, improving the quality of the evidence overall. The process encouraged consensus, allowing the experts to "work as a team to extract the good bits of all [their] work."⁸⁰ Views were certainly modified as a result of exchanges,⁸¹ and hot tubbing helped to dismiss "really bad science."⁸² According to one expert, if they had a couple more days to consolidate their views in a conclave, they could have avoided "roughly a week of cross-examination."⁸³ The process was not totally devoid of partisanship, however (see point V. below).
- C. *Judge*: The judge is a major beneficiary. While there may be, and was for Justice Forrest here, given the complex nature of this case, an increased burden pre-trial in managing the joint report process and in formulating the report questions, that will not always be required. What will be required is considerable preparation before the trial to enable a judge to understand the material for the purpose of controlling a concurrent evidence session. Yet as Finkelstein QC states: "I am convinced that this process, which necessarily assumes a great deal of pre-reading by the Tribunal, better informs the Tribunal of the complexities of the expert testimony."⁸⁴ In addition, Justice Hargrave notes that "once the trial is over, the issues are simplified and the relevant evidence is easy to find. The joint report and the self-contained transcript for each issue make the judgment writing process much easier and assist in decision-making."⁸⁵ Justice Hargrave's comment did not apply here though, as the case settled, but the concurrent evidence process enhances settlements.

⁷⁸ Interview with barrister involved in proceeding, Melbourne, Australia (Feb. 24, 2015, afternoon) in McKenzie, *supra* note 68, at 11. Similar benefits are noted by Garling, *supra* note 16, at 2.3 (cross-examination).

⁷⁹ Interview with barrister involved in proceeding, Melbourne, Australia (Feb. 24, 2015, afternoon) in McKenzie *supra* note 68, at 14.

⁸⁰ Interview with Expert (24 March 2015, by email) in Simon McKenzie, *Expert Conferences in the Kilmore East Bushfire Proceeding*, VICSCLRS 3 (2016), at 17.

⁸¹ Email Interview with Expert (Feb. 23, 2015) in McKenzie, *supra* note 80, at 17.

⁸² Email Interview with Expert (Mar. 24, 2015) in McKenzie, *supra* note 80, at 18.

⁸³ *Id.*

⁸⁴ Interview with Hon. Raymond Finkelstein QC (Jan. 31, 2016).

⁸⁵ Hargrave, *supra* note 64. Justice Almond made similar remarks.

D. *Parties*: The parties also benefit from concurrent evidence. Major savings include time and cost. Parties who think that they are strong on science may look forward to their expert being persuasive to the judge and/or to the other experts. Conversely, those who are weak on science may think, ‘better to know now than later,’ as it will all be revealed in the end. Ultimately, the ‘truth’ is understood more clearly and earlier. In that respect, note that hot tubbing is unlikely to assist parties seeking to effectuate delay and obscure the evidence as their trial strategy, or to avoid any agreement at all.⁸⁶

iii. Accuracy

Kilmore East Bushfires was an exemplary illustration of the quality of the fact-finding product which hot tubbing can deliver. Before the trial commenced, a Bushfires Royal Commission determined that the fires’ cause was a jammed end connection on the relevant powerline. But this determination was later proved to be wrong by the conclusions reached by the expert witnesses involved in the concurrent evidence process. The expert witnesses concluded that the fires’ real cause was in fact an earlier lightning strike before Black Saturday.⁸⁷ In light of such findings, the Commission’s expert had to revise his opinion, highlighting the quality of the evidentiary process.

iv. Strategic Considerations

Justice Forrest had to make numerous strategic decisions in managing the concurrent evidence process. In 2011, he had to decide whether or not to use expert conclaves at all, when use of the conclaves was challenged by the defendants. Moreover, if conclaves were to be held, his Honour had to decide when they should be held. Justice Forrest ordered that holding the conclaves was preferable to the traditional process of simply exchanging expert reports. This is an uncontroversial issue in other Australian jurisdictions. He also ordered that the conclaves should be held before any mediation took place, because this would enhance settlement prospects.⁸⁸ On this point, his strategy was sound, consistent with prevailing views that hot tubbing enhances settlements. The view is endorsed too by U.S. expert economic witness Professor Rubinfeld, based on his experiences with conclaves.⁸⁹ In the end, the case did settle, albeit that that occurred after all the evidence was heard.

In 2012, Justice Forrest had to decide how to structure the conclaves in terms of number of issues to be determined and which experts would attend which conference.⁹⁰ The plaintiffs wanted 6

⁸⁶ Justice Pepper told me that she has never had a case where the experts did not agree on something, irrespective of initial claims.

⁸⁷ See Melissa Fyfe, *New Evidence Challenges Cause of Kilmore Firestorm*, AGE (Mar. 4, 2013), <http://www.theage.com.au/victoria/new-evidence-challenges-cause-of-kilmore-firestorm-20130303-2fetu.html>.

⁸⁸ See [2011] VSC 613 (15 December 2011), at [15]–[21].

⁸⁹ In our interview Professor Rubinfeld noted that he was a “huge fan” of hot tubbing. On April 18, 2017, he advised me that he had a recent Canadian case in which he encouraged hot-tubbing, which he believed would increase the prospects for settlement and the case did settle.

⁹⁰ See *Matthews v SPI Electricity and SPI Electricity Pty Ltd v Utility Services Corporation Ltd*. Ruling No 10, [2012] VSC 379 (Sept. 4, 2012) (Austl.).

general topics to be addressed in the conclaves,⁹¹ whereas the First Defendant sought 14 conclaves to address narrower issues. Justice Forrest chose to adopt the Defendant’s approach, because: (1) having narrower issues would ensure that the authors of each joint report were in fact “experts;” (2) having smaller conclaves would prevent disproportionate “teams” forming; and (3) dealing with discrete issues would help to clarify the matters actually in dispute. This approach received both positive and negative comments from the case’s participants. Some lawyers and experts praised the idea of maximum specificity of issues in the conclaves, emphasising that smaller conferences are preferable because smaller groups tend to work more effectively.⁹² Other participants criticised the arguably “artificial” separations of experts on some scientific issues. The consequence, they said, was that occasionally the best experts were not in the room for a topic, which slowed the conclave down and increased costs when further testing was deemed to be necessary by the court.⁹³ These competing perspectives show that a judge must reconcile competing factors of accuracy, efficiency, cost and fairness.

Experiments with different sized concurrent evidence sessions at the trial proved to be informative. Justice Forrest said that controlling 8 or 9 experts ended up being “very difficult” for him. Even if he was on top of the material (which everyone agreed that he was), he preferred to manage sessions “of three or four people rather than double that.”⁹⁴ Smaller sessions were preferred too by the experts, as some sessions went for several days which was a taxing experience, particularly when the assessors posed questions which required “homework” for the next day’s session.⁹⁵

The participants considered that Zammit AJ’s presence as a moderator for the conclaves, particularly the larger ones, was “essential.”⁹⁶ Justice Forrest recommends having a moderator if resources permit it in any case.⁹⁷ Justice Croft notes that a case’s size, the number of experts in a conclave, the experts’ personalities and their experience with conclaves may affect the choice of whether to appoint a moderator.⁹⁸ Zammit AJ’s contributions to the conferences were as follows:

- helping to resolve uncertainties which the experts had about their role;
- helping them to produce reports which would benefit the Court;

⁹¹ The topics were: Fire ignition, conductor break, asset management, prescribed burning, fire suppression and warning.

⁹² Letter interview with solicitor involved in proceeding (June 9, 2015) in McKenzie, *supra* note 80, at 27.

⁹³ Interview with barrister involved in proceeding, Melbourne, Australia (Feb. 24, 2015, morning) in McKenzie, *supra* note 80, at 16–17.

⁹⁴ Interview with Justice J. Forrest Supreme Court of Victoria, Melbourne, Australia (Aug. 8, 2014,) in McKenzie, *supra* note 68, at 12. Nb - it is not uncommon to have larger numbers of experts in a hot tub. *E.g. Ironhill Pty Ltd v. Transgrid* [2004] NSWLEC 700 (Austl.) (8 witnesses); *Attorney-General (NSW) v. Winters* [2007] NSWSC 1071 (Austl.) (8 witnesses). Another case has had 12 but the matter settled. McClellan, *supra* note 4, at 267.

⁹⁵ Email Interview with Expert (Feb. 23, 2015) in McKenzie, *supra* note 68, at 13.

⁹⁶ For instance, when there are more than 3 or 4 experts in a conclave.

⁹⁷ Interview with Justice J. Forrest, Supreme Court of Victoria, Melbourne, Australia (Aug. 8, 2014) in McKenzie, *supra* note 80, at 19. In contrast, McClellan JA says that in his experience moderators are not usually used, in big or small cases. But he said, one should consider how competent and experienced with the process the experts are. Interview with Justice McClellan (Jan. 14, 2016). The question depends on jurisdiction too. For example, court registrars usually moderate native title conferences. Hughston & Jowett, *supra* note 30.

⁹⁸ Interview with Justice Croft, Supreme Court of Victoria, Melbourne, Australia (Oct. 14, 2014) in McKenzie, *supra* note 80, at 42.

- often reassuring the experts that they would not be criticised for producing a joint report, thus managing the tension between their role to the Court and their appointing party; and
- having a disciplining effect on the experts,⁹⁹ because when her Honour left the room often power considerations surfaced and productivity suffered.

The quarantining of lawyers from engaging with the experts during the conclaves and the hot tubbing sessions was praised by all concerned. It encouraged greater honesty and focus, and less posturing. As Justice Forrest noted, experts were “delighted to be precluded from seeing the lawyers.” His protocol also allowed the lawyers to speak to experts about what had happened during the conclaves, which the barristers deemed to be sufficient to satisfy their interests.¹⁰⁰

v. Suitable Experts and Partisanship

Justices Beach and Almond emphasise that if experts are not truly engaged in the conclaves and are too positional, it will undermine the process.¹⁰¹ Professor Rubinfeld has made similar remarks to me. A major concern is that the experts’ personalities might impact how accurately the joint report reflects the experts’ actual views. Zammit AJ’s experience in the larger conclaves suggests that this concern has some substance. In addition to individual partisanship, and “teams” forming along “party lines,” there are also differences in seniority and influence among experts and relative powers of persuasion.¹⁰² Yet, the process also has certain in-built mechanisms to counter these issues. Zammit AJ carefully ensured that all views were fairly expressed and recorded in the conclaves. The process, she observed, moved the experts from adversarialism to a more scientific, problem-solving approach. As noted above, the experts agreed that their reports accurately reflected their views.

In relation to the trial phase, Justice Forrest said that there certainly were “robust differences of opinion” among the experts, but that that is “what one might hope for.” His Honour rejected the idea that one expert could dominate a session, because he intervened to prevent that happening and his protocol ensured that each expert at least made opening and closing statements and had the opportunity to question the other experts. Thus, passive personalities were not lost in the mix.¹⁰³ All other judges interviewed were confident that judges can manage issues of partisanship. But Justice Almond was minded to stress that there can still be a base level of irritation/personality at which point

⁹⁹ *Id.* at 19–24.

¹⁰⁰ Interview with barrister involved in proceeding, Melbourne, Australia (Feb. 24, 2015, morning) in McKenzie, *supra* note 80, at 36.

¹⁰¹ Interview with Justice Almond, Supreme Court of Victoria, Melbourne, Australia (Oct. 13, 2014) in McKenzie, *supra* note 80, at 41.

¹⁰² Interview with Associate Justice Zammit, Supreme Court of Victoria, Melbourne, Australia (Aug. 13, 2014); Email Interview with Expert (Mar. 24, 2015).

¹⁰³ Interview with Justice J. Forrest, Supreme Court of Victoria, Melbourne, Australia (Aug. 8, 2014) in McKenzie, *supra* note 68, at 14.

the process will be compromised.¹⁰⁴ The same concern has been expressed by Judge Woodlock (U.S. District Court of Massachusetts), who is a rare U.S. judge with some experience using a form of hot tubbing in U.S. trials.¹⁰⁵

vi. Conclusion

Hot tubbing was of great assistance to Justice Forrest and Zammit AJ in this case, particularly in reducing the issues in dispute. The quality of fact-finding also supports the proposition advocated by Justice Pepper, that it is now “indisputable” that the quality of expert evidence has significantly improved through the use of hot tubbing.¹⁰⁶

The next case I consider is a smaller-scale example of the process, involving just two experts whose concurrent evidence was completed in less than two trial days. Nevertheless, the results were profound for the claimants in the matter and provide an excellent illustration of hot tubbing’s benefits.

V. Ngadju

Ngadju concerned a separate question in a native title claim which was made on behalf of the Ngadju people in respect of a part of south-east Western Australia which includes the areas around Norseman and Balladonia (Trial Area). The critical expert evidence put before the Federal Court (Justice Marshall) came via the claimants’ anthropologist, Dr. Kingsley Palmer, and the State’s anthropologist, Professor Basil Sansom. The case is important for two main reasons: (1) the expert anthropological evidence was crucial to determining the question of native title in the Trial Area; (2) the use of hot tubbing significantly increased the efficiency and quality of the presentation of that evidence.¹⁰⁷ It is because of cases like *Ngadju* that barristers Hughston SC and Jowett have stated that “most, if not all, native title proceedings heard over the last two years have incorporated expert conferences and concurrent evidence.”¹⁰⁸

At issue in *Ngadju* was whether native title exists in the Trial Area. The central question to be determined in such cases is:

whether the persons said to be native title holders are members of a society or community which has existed from sovereignty to the present time as a group, united by its acknowledgement of the laws and customs under which the native title rights and interests claimed are said to be possessed.¹⁰⁹

¹⁰⁴ Interview with Justice Almond, Supreme Court of Victoria, Melbourne, Australia (Oct. 13, 2014) in McKenzie, *supra* note 5, at 23.

¹⁰⁵ See, e.g., Wood, *supra* note 1, at 97.

¹⁰⁶ Pepper, *supra* note 2, at 37.

¹⁰⁷ The case was appealed and the Federal Court of Appeal upheld Justice Marshall’s findings that the evidence presented by the claimants was sufficient to make out the Ngadju’s connection with the whole Trial Area. Accordingly I focus on Justice Marshall’s decision and the role of hot tubbing in helping the judge to reach that decision.

¹⁰⁸ Hughston & Jowett, *supra* note 30, at 2.

¹⁰⁹ *Northern Territory of Australia v Alyawarr, Kaytetye, Warumungu, Wakaya Native Title Claim Group* (2005) 145 FCR 442, 78 (Austl.); see also Native Title Act 1993 (Cth) ss 225 and 223 [hereinafter NTA].

The question gives rise to two inquiries: (1) whether such a society has existed since sovereignty; (2) whether such a society exists today.¹¹⁰

In order to address these issues, native title applicants rely on expert evidence - which in practice is most frequently anthropologists' evidence¹¹¹ - to establish the link between pre-sovereignty laws and customs and a contemporary society's laws and customs.¹¹² *Ngadju* was no exception. As the claimants' expert Dr. Palmer said to me: "in native title cases your expert is critical. You can't win without one. An enormous amount of time and energy is invested in, and by, the expert."¹¹³

At the trial, according to Justice Marshall, there was no real dispute over the existence of the Ngadju people's native title rights in the Trial Area as at sovereignty, save for the area which was alleged to belong to the now extinct Kalarku people.¹¹⁴ The "Kalarku issue" was raised by the State's anthropologist, Professor Sansom, who questioned whether part of the Trial Area which once belonged to the Kalarku group "was always part of an expanded Ngadju country or whether it was a country of a separate group and then the Ngadju, in subsequent moments, succeeded to that land."¹¹⁵ If the Kalarku were a separate group to the Ngadju, the latter's native title claims would fail over the Kalarku area. In contrast, Dr. Palmer gave evidence that the Kalarku were a sub-group of the Ngadju people,¹¹⁶ such that the Kalarku country was always Ngadju country.

In his judgment, Justice Marshall referred to extracts of the anthropologists' concurrent evidence session at the hearing. After considering that evidence his Honour was persuaded that the evidence supported a finding that at sovereignty both the Ngadju and Kalarku groups were part of a single society,¹¹⁷ such that the Kalarku were in fact a Ngadju sub-group. His Honour's reasoning was that both groups shared mutually comprehensible language dialects, had the same laws and customs, and had considerable interaction with each other including sharing hunting ranges.¹¹⁸

Justice Marshall then had to assess whether there had been continuity of acknowledgment and observance by the Ngadju of a body of traditional laws and customs in and by which the applicant group is united. After considering the anthropologists' concurrent evidence, Justice Marshall concluded that the normative system under which the Ngadju people's rights and interests are possessed has continued since sovereignty albeit that there have been developments over time.¹¹⁹

An important issue to be decided was how persons acquired rights and interests in the Trial Area. Two contrasting arguments were made based on the expert evidence. It was Dr. Palmer's

¹¹⁰ *Ngadju*, [8].

¹¹¹ Other forms of expert evidence relied on are: linguists, historians, archaeologists and ethno-botanists.

¹¹² *Alyawarr, Kaytetye, Warumungui, Wakay Native Title Claim Group v Northern Territory* [2004] FCA 472 at [89]; see also Hughston & Jowett, *supra* note 30, at 1–2.

¹¹³ Interview with Dr. Kingsley Palmer (June 23, 2014).

¹¹⁴ *Ngadju*, [10], [20].

¹¹⁵ *Ngadju*, [18]; see also Transcript of Hearing Before Justice Marshall at 1740, *Ngadju* (May 17, 2012).

¹¹⁶ *Ngadju*, [19].

¹¹⁷ *Ngadju*, [23]; see Transcript of Hearing Before Justice Marshall, particularly at 1744–47, *Ngadju* (May 17, 2012).

¹¹⁸ *Ngadju*, [23]–[27], [31], [32], [33].

¹¹⁹ *Ngadju*, [53]; see also *Members of the Yorta Yorta Aboriginal Community v Victoria* [2002] HCA 58 [hereinafter *Yorta Yorta*], [83] (Gleeson CJ, Gummow and Hayne JJ).

position that rights to country are gained by *cognatic descent*, and lines of descent are traced through one's mother or father.¹²⁰ Professor Sansom's evidence was that the way that the Ngadju people would acquire rights and interests *today*, differs to how those rights in fact operated at *sovereignty*, because *totemic estates* were in existence in the Trial Area from 1912-1936,¹²¹ meaning that the defining criterion to show attachment to country was primarily *place of birth*.¹²² Professor Sansom's evidence was that the Ngadju's loss of birth totems over time equated to a loss of continuity of customary belief and practice.¹²³ Conversely, Dr. Palmer stated that totemic affiliations have continued to operate in the Trial Area, to a lessened extent, as confirmed by the evidence of various elders. Ultimately, Justice Marshall preferred Dr. Palmer's evidence and found that any lessened influence over time of totems being associated with certain areas did not mean that the pre-sovereignty land owning system had altered to any significant extent since sovereignty.¹²⁴

Having dealt with this key issue Justice Marshall addressed the remaining rights and interests claimed to be possessed by the Ngadju people under traditional laws and customs. In many instances, Dr. Palmer's evidence (written and oral) was crucial to the claimants' success.¹²⁵

On appeal, the State challenged, *inter alia*, Justice Marshall's finding of native title rights in the Trial Area's "south-west sector."¹²⁶ The State's challenge was unsuccessful. The Court held that although the connection evidence was "slight" in the south-west sector, it was adequate to make out the connection with the whole Trial Area.¹²⁷ It was significant that both experts during the hot tubbing sessions had assumed the possession of rights and interests under traditional law and custom in the *whole* of the Area, implicitly accepting the maintenance of connection with the whole area by law and custom. The anthropologists were never required to, nor did they ever, distinguish between the "south-west sector" and the rest of the Trial Area.¹²⁸

The evidentiary aspects of this case are discussed by reference to the following key benefits.

i. Narrowing and Resolving Issues

All Australian States require an anthropologist to write a "connection report" to support a native title claim. If the State accepts the anthropologist's report, it will negotiate a "consent

¹²⁰ 2009 Report [326], cited at [57] *Ngadju*.

¹²¹ Totemic estates were explained by Professor Sansom as "[t]he tie to the place of one's birth-totem is a tie or connection to a site in country that is a tie or connection not based on descent." Professor Sansom's 2004 Report, at [54], cited in Dr. Palmer's Responsive Report, March 2012 at [47].

¹²² Professor Sansom's Responsive Report, April 2012, at [12].

¹²³ Dr. Palmer's Responsive Report, March 2012, at [48]–[49].

¹²⁴ *Ngadju*, [67].

¹²⁵ *Id.* at [68]–[69] (kinship); *id.* at [92], [93], [101], [102] (fundamental belief in the spirituality of the land through the Dreaming and other spiritual presences); *id.* at [106] (dreaming); *id.* at [102], [119] (the totemic reservation issue); *id.* [123]–[127] (law); *id.* at [134]–[135] ("mythic beings" and telling of narratives that relate to them); *id.* at [136] (duty to protect places associated with travels); *id.* at [137] (knowledge of the association of particular natural species with particular areas and groups of Ngadju people); *id.* at [141] (defining association with and sense of belonging to Ngadju country by reference to a family and descent from common ancestors).

¹²⁶ This was the area relating to the "Kalarku issue."

¹²⁷ *Ngadju Appeal Decision*, at [46], [70]–[72], [78].

¹²⁸ *Id.* at [77]–[80].

determination.” If it does not, it will go to trial.¹²⁹ In *Ngadju*, Dr. Palmer had compiled a connection report which was peer-reviewed by Professor Sansom, who considered the report to be insufficient to establish native title, largely because of the Kalarku and birth-totem/descent issues.

Hot tubbing was critical to resolving this dispute. *Ngadju* was first heard in 2003 (first tranche of Aboriginal evidence). The remaining evidence was presented by 2012, some 9-10 years later. The State never made any admissions at all in the pleadings.¹³⁰ But at the joint expert conference on 7 March 2012, the two anthropologists discussed 23 *propositions* covering broad issues including succession and single society. They reached agreement on 21 *propositions*, substantially “narrowing the gap” at the hearing.¹³¹

On the morning of the first concurrent evidence session before Justice Marshall in May 2012, the judge detected an opportunity for further closure on the remaining key issues and called an early lunch to enable the anthropologists to confer in the courtroom, alone, for a forty minute break, prior to reconvening the hearing.¹³² Dr. Palmer thought at the time that the suggestion was an appropriate one and his instinct was proven correct.¹³³ During that conference the anthropologists reached agreement on an additional proposition, which turned out to be crucial to the connection/continuity issue:

The Ngadju people possess the rights and interests listed in the [points of claim] under present-day laws and customs that differ from, but may be inferred to have developed from laws and customs that existed at the time of sovereignty.¹³⁴

This concession by Professor Sansom was noted in Justice Marshall’s judgment at [52]-[53].

ii. Time Saving

Hot tubbing resulted in significant time savings. At the joint expert conference, Professor Sansom conceded that *today*, there is a *Ngadju society* which observes laws and customs. This one concession saved considerable time for the applicants to prove their case (the remaining core issues were whether the laws were traditional according to the prevailing legal standard¹³⁵ and determining the Kalarku issue).¹³⁶ In addition, the joint conference created the structure for the concurrent

¹²⁹ Interview with Vance Hughston SC (May 30, 2014).

¹³⁰ *Id.*

¹³¹ Draft Report of Conference of Experts (Mar. 8, 2012); Interview with Dr. Kingsley Palmer (June 23, 2014).

¹³² The experts actually ate lunch in the courtroom and were instructed to remain in there. Interview with Dr. Kingsley Palmer (June 23, 2014).

¹³³ Interview with Dr. Kingsley Palmer (June 23, 2014).

¹³⁴ Transcript of Hearing at 1769–70, 1774 (May 17, 2012). Interview with Vance Hughston SC (May 30, 2014).

¹³⁵ In *Yorta Yorta*, Australia’s High Court said that a custom was “traditional” if it had been passed on from generation to generation, usually by word of mouth and common practice. Further, the origins of its content are required to be evident in the normative rules of the indigenous peoples that existed before sovereignty so that it is a part of the normative system (a body of law and custom) that has had a continuous existence and vitality since sovereignty. *Yorta Yorta*, [46]–[50], [86]–[87]; see also Kingsley Palmer, *Anthropologist as Expert in Native Title Cases in Australia*, NATIVE TITLE RES. UNIT RESOURCE (2011), at 2–3.

¹³⁶ Interview with Vance Hughston SC (May 30, 2014).

evidence session at the hearing, and it also created the framework utilised by Justice Marshall in writing his judgment.¹³⁷

The hot tubbing session at the trial was completed in *less than 2 out of 15 hearing days*. This time-frame mirrors that of several recent native title cases,¹³⁸ in which concurrent anthropological evidence has been given in under two days. Hughston SC highlighted the significance of this efficiency to me in our interview,¹³⁹ by comparing how long it took to prove native title in earlier cases – witness:

- *Yorta Yorta*,¹⁴⁰ (114 hearing days);
- *Risk*¹⁴¹ (63 hearing days);¹⁴² or
- *Wongatha*,¹⁴³ in which the case’s evidence (generally) was recorded in about 17,000 pages of transcript,¹⁴⁴ over 100 hearing days with many extended hours during those days.¹⁴⁵

Considering that most current native title claims were filed in the late 1990s and have been afoot for over 15 years, any reduction in the time taken to conclude proceedings is beneficial for claimants and the justice system in Australia.

In our interview Hughston SC also noted that a tradition in native title cases has become to wait to seek an order for a joint expert conference until after the Aboriginal claimants have given evidence. However, he said, this is unnecessary under the *Federal Rules* and going forward he was inclined to seek orders earlier given the clear benefits for claimants. By contrast, in *Gumana*, in which he appeared as a respondent counsel, he bitterly opposed the bringing together of the experts because he knew, strategically, that the experts were likely to reach substantial agreement.¹⁴⁶ The process has similarly been opposed by respondents/defendants in an earlier commercial context.¹⁴⁷ This all highlights the forensic consequences of hot tubbing and its significance for arriving at the “truth,” reducing the ability for lawyers to control a matter’s process and outcome. In so far as judges opt to

¹³⁷ *Id.*

¹³⁸ See the *Banjima*, *Badimia* and *Bidjara* native title cases.

¹³⁹ Dr. Palmer also noted in our interview that previously he used to being cross-examined for up to 5 days alone. Interview with Dr. Kingsley Palmer (June 23, 2014).

¹⁴⁰ *Members of the Yorta Yorta Aboriginal Community v Victoria & Ors* [1998] FCA 1606 (Austl.).

¹⁴¹ *Risk v Northern Territory* [2006] FCA 404 (Austl.).

¹⁴² Interview with Vance Hughston SC (May 30, 2014).

¹⁴³ *Harrington-Smith on behalf of the Wongatha People v State of Western Australia (No 9)* [2007] FCA 31 (Austl.).

¹⁴⁴ The case record included 34 volumes of experts’ reports comprising 2,817 pages, and 97 volumes of submissions comprising 8,087 pages (including appendices and annexures). See *Harrington-Smith on behalf of the Wongatha People v State of Western Australia (No 9)* [2007] FCA 31 (Austl.).

¹⁴⁵ Similarly, McClellan JA has written about the efficiency of concurrent evidence in the Land and Environment Court context. McClellan, *supra* note 31, at 19; see also *Re Queensland Independent Wholesalers Ltd.* (1995) 132 ALR 225, 232 (Lockhart J); cf. *Perpetual Trust Victoria Ltd v Ford*, [2008] NSWSC 29, 43 (Austl.); *Jetset Properties v Eurobodalla Shire Council*, [2007] NSWLEC 198, 42.

¹⁴⁶ Interview with Vance Hughston SC (May 30, 2014).

¹⁴⁷ *Seven Network Limited v News Limits & Ors*, [2007] FCA 1062 (Austl.); Lisa C. Wood, *Experts Only: Out of the Hot Tub and into the Joint Conference*, 21 ANTITRUST 89, 92 (Fall 2007). In *Seven Network Limited*, Justice Sackville was faced with a situation where a hot tub during the proceeding was strenuously objected to by defence barristers, and his Honour opted not to implement it. This was a rare occasion where that occurred, and one I am advised the judge regretted in hindsight. Interview with McClellan JA (Jan. 14, 2016).

reject a party's opposition to the process (if any), the judge would be setting in place parameters that are more likely to lead to a process which is truth-focused.¹⁴⁸

iii. Cooperation/Collegiality

The concurrent sessions were clearly cooperative and focused on fact-finding. In terms of collegiality, it was apparent that the experts complimented each other on occasion. For instance Professor Sansom referred to Dr. Palmer's "excellent report."¹⁴⁹ When the anthropologists disagreed, they did so respectfully. For example, Dr. Palmer stated that his "colleague, with all respect, has come to [a] conclusion erroneously."¹⁵⁰ When the experts agreed with each other, they did so publicly.¹⁵¹

iv. Interaction

The experts interacted with each other in various ways during concurrent evidence sessions including through questioning each other, commenting on each other's views,¹⁵² and clarifying disagreements.¹⁵³ The barristers also invited comments from both experts at various times, reinforcing the truth-seeking nature of the exercise.¹⁵⁴

The concurrent evidence session proceeded in a relaxed fashion, being chaired by Justice Marshall. The truth-seeking emphasis was always apparent, including for instance where Justice Marshall was confused about the experts' opinions concerning how the Ngadju acquired rights and interests in the Trial Area at sovereignty. Hughston SC was invited to explain the experts' contrasting accounts in detail - explanations the experts interactively accepted and/or clarified - which was a process his Honour found "very helpful."¹⁵⁵

v. Testing the Evidence

Hughston SC considers that hot tubbing is a fairer, more efficient way to deal with expert evidence. Equally, he says, hot tubbing "takes a forensic advantage away" from lawyers because a good cross examiner can "make a witness say anything. The witness is alone. They don't know what's

¹⁴⁸ Justice Pepper noted the following to me of her experiences with concurrent evidence: "The judges who are familiar with [concurrent evidence], love it and employ it regularly. Those who aren't don't. Change is, of course, always resisted at first, particularly by the profession, but it should be universally embraced. I have never yet come across a case where the experts have not been able to agree on something, irrespective of what they might initially claim. In my view, judges should be provided training on its use and it should become the rule rather than, in some jurisdictions, the exception." Interview with Justice Pepper (Jan. 17, 2016).

¹⁴⁹ Transcript of Hearing Before Justice Marshall at 1777, *Ngadju* (May 17, 2012).

¹⁵⁰ *Id.* at 1817.

¹⁵¹ *Id.* at 1768.

¹⁵² *Id.* at 1740.

¹⁵³ *Id.* at 1743.

¹⁵⁴ For example, the experts agreed that the Kalarku and Ngadju peoples shared laws and customs. Transcript of Hearing Before Justice Marshall at 1748, *Ngadju* (May 17, 2012).

¹⁵⁵ *Id.* at 1826.

happening. This is a significant advantage. When you put two experts together you're cross-examining with one hand tied behind your back."¹⁵⁶

Notwithstanding these remarks, his cross-examination during concurrent evidence yielded significant concessions from Professor Sansom, in particular that:

- the Kalarku language was a dialect of Ngadju language;¹⁵⁷
- the Kalarku and Ngadju were a single cultural entity that acknowledged and observed the same laws and customs;¹⁵⁸
- that there would have been considerable interaction between the two groups;¹⁵⁹
- various parts of Kalarku country would have been 'within the range' of Ngadju estate members with those members having lawful rights to hunt, gather and camp on Kalarku country;¹⁶⁰
- the writing of Daisy Bates (the ethnographer Prof Sansom relied on for the birth-totem issue) could be 'reasonably interpreted' to support a core system of descent (not birth-totemism) in relation to acquiring rights and interests in the Trial Area;¹⁶¹ and
- that Daisy Bates was a "perjurer and a liar."¹⁶²

vi. Partisanship

Anthropologists' expert views are based on their field data gained usually (but not always) over a period of fieldwork with native title applicants.¹⁶³ This involves, and did involve here, having discussions, conducting interviews, taking field trips and camping, etc.¹⁶⁴ As Dr. Palmer states, anthropologists develop close working relationships with those they study. The long relationships formed with claimants may incline anthropologists to adopt (even unwittingly) an advocacy role.¹⁶⁵

The dangers of expert partiality were noted in *Neowarra*,¹⁶⁶ yet Justice Sundberg there accepted that the anthropologist's opinions were still professional. Dr. Palmer says that his "currency as an anthropologist is linked to [his] credibility," thus he acts impartially. Equally, he says that hot tubbing does not exacerbate partisanship, certainty not any more than normal adversarial methods, but it does enhance collegiality.¹⁶⁷ United States expert economic witness Professor Daniel Rubinfeld has echoed similar comments.

¹⁵⁶ Interview with Vance Hughston SC (May 30, 2014); Emmerig et al., *supra* note 12. Note that cross-examination may be reduced in hot tubbing, but it is always permitted.

¹⁵⁷ Transcript of Hearing Before Justice Marshall at 1746, *Ngadju* (May 17, 2012).

¹⁵⁸ *Id.* at 1747.

¹⁵⁹ *Id.* at 1748.

¹⁶⁰ *Id.* at 1749.

¹⁶¹ Transcript of Hearing Before Justice Marshall at 1845, *Ngadju* (May 18, 2012).

¹⁶² *Id.* at 1840.

¹⁶³ Palmer, *supra* note 135, at 1.

¹⁶⁴ Interview with Dr. Kingsley Palmer (June 23, 2014).

¹⁶⁵ See examples in *De Rose v South Australia* [2002] FCA 1342, [352] (Austl.), and *Daniel v WA* [2003] FCA 666 [233] (Austl.).

¹⁶⁶ *Neowarra v State of WA* [2003] FCA 1402, [71], [112]–[119].

¹⁶⁷ Interview with Dr. Kingsley Palmer (June 23, 2014).

HOW HOT TUBBING SITS IN THE AMERICAN CONTEXT

When Justice McClellan introduced concurrent evidence into the NSW Land and Environment Court, he was challenging the assumption that the adversarial system in its traditional form is the most appropriate structure to elicit the truth regarding expert evidence.¹⁶⁸ Now, in various Australian jurisdictions, concurrent evidence is a normalised or default procedure for matters requiring evidence from more than one expert in the same field.¹⁶⁹ The cases above highlight that whether it is in enhancing settlement, or in improving trials, the process of dealing with expert evidence has generally become more truth-focused, efficient, effective and collegial.¹⁷⁰ I now turn to consider this model in the U.S. context.

I. Areas of Resistance in the U.S.

Whereas other major common law jurisdictions are increasingly joining up to the concurrent evidence model, save for some isolated uses of concurrent evidence in the U.S. which I will refer to below, the process has otherwise made little progress here. Several factors may explain this reluctance.

One major explanation for the status quo - which is similar to early reactions in Australia before the benefits started to normalise - is the resistance of lawyers and conservative judges. This is to be expected because concurrent evidence entails a loss of control for lawyers, and it runs contrary to our traditional adversarial programming. Changes must therefore come from above, i.e. legislators and judges, because lawyers are unlikely to react willingly to the adoption of a procedural model which takes power away from them.¹⁷¹ Justice Beach of the Federal Court of Australia illustrates the old sentiment: “as counsel, the idea of giving up control of any part of the forensic process to the judge was an anathema to me. I didn’t like concurrent evidence sessions at all. . . as a judge, I’ve changed my mind.”¹⁷²

One difference between the U.S. and Australian traditions towards experts which hot tubbing may challenge, is the U.S. system’s comparative tolerance, “if not encouragement,” of “the adversarial use of experts whose allegiance is to the party that retains them.”¹⁷³ In Australia (and notwithstanding its own expert partisanship issues),¹⁷⁴ experts are subjected to codes of conduct which

¹⁶⁸ McClellan, *supra* note 31, at 9.

¹⁶⁹ See *supra* note 64.

¹⁷⁰ As Professor Jennifer Mnookin suggests, on the question of expert evidence, “the future may belong to Australia.” Adam Liptak, *In U.S., Expert Witnesses Are Partisan*, N.Y. TIMES (Aug. 11, 2008), <http://www.nytimes.com/2008/08/12/us/12experts.html>.

¹⁷¹ See Arthur R. Miller, *Are the Federal Courthouse Doors Closing? What’s Happened to the Federal Rules of Civil Procedure?*, Huffman Distinguished Lecture Series, 43 TEX. TECH. 587, 589 (2011) (speaking of the practice of law as “territorial”); see also Edmond, *supra* note 15 (showing evidence of resistance in the Australian context); DAN FAGIN, TOMS RIVER: A STORY OF SCIENCE AND SALVATION 351 (2013) (discussing Schlichtmann’s reflections after Woburn).

¹⁷² DVD: Conference Session 5: Class actions – The Way of the Future?, LIV (Apr. 22, 2015).

¹⁷³ Emmerig et al., *supra* note 12.

¹⁷⁴ See *supra* note 31.

emphasise that their duty is to the *court*, not to any lawyer or client.¹⁷⁵ Examples of expert codes of conduct from New South Wales and the Federal Court of Australia are set out in Appendix 3. Hot tubbing is intended to foster adherence to the expert's written pledge to the court that he/she will not act as an advocate. Australian legislation and practice notes help to shape participant expectations and conduct, to attempt to reduce experts becoming an “*advocate or hired gun*.”¹⁷⁶ On this point Justice Pepper emphasised the following remarks:

One of the rules in the Code is to act impartially at all times. The Code attempts to reduce bias etc. . . without the Code concurrent evidence would not work as well as it does. The Code, in theory and in large part in practice, ensures that . . . the experts do try to agree on that which can be agreed and must explain that which they don't agree to. The Code helps to refine those issues.¹⁷⁷

By contrast, in the U.S. the expert is not made a functionary of the court. According to lawyers from the firm Jones Day: “Were that the case, there might well be a history in the United States of some species of Australia's hot-tubbing.”¹⁷⁸

In the U.S. there is much pride in the tradition of the adversarial system. As Justice Jackson stated in *Hickman v. Taylor*, “a common law trial is and always should be an adversary proceeding.”¹⁷⁹ Similarly, Professor Miller speaks of the U.S. trial as a “gold resolution standard.”¹⁸⁰ Inherent in these statements is a belief that the adversarial process is the optimal one to elicit the “truth.” The “hallmark of the American trial is the pursuit of truth,”¹⁸¹ for it leads to “justice.”¹⁸² And “the accuracy of the truth-determining process”¹⁸³ is “an essential and fundamental requirement for the kind of fair trial which is this country's constitutional goal.”¹⁸⁴

Notwithstanding this traditional framework, in recent times, the U.S. system, like in Australia, has progressively reduced its adversarial features in favour of increased judicial management of cases,

¹⁷⁵ See, e.g., *Uniform Civil Procedure Rules 2005*, Schedule 7 (NSW) (Austl.); Federal Expert Evidence Practice Note GPN-EXPT; Annexure A, Harmonised Expert Witness Code of Conduct, appx. 3; see also *NSW Rules*, r 31.23; *Federal Rules*, r 23.13; Federal Expert Evidence Practice Note GPN-EXPT, para 4.4–4.5; Elizabeth Reifert, *Getting into the Hot Tub: How the United States Could Benefit from Australia's Concept of 'Hot Tubbing' Expert Witnesses*, 89 U. DET. MERCY L. REV. 103, 111–12 (2011).

¹⁷⁶ See, e.g., Federal Expert Evidence Practice Note GPN-EXPT, para 3.1; Annexure A, Harmonised Expert Witness Code of Conduct, para 2.

¹⁷⁷ Email Interview with Justice Pepper (Feb. 9 2016).

¹⁷⁸ Emmerig et al., *supra* note 12.

¹⁷⁹ 329 U.S. 495 (1947); see also DAVID A. SKLANSKY, EVIDENCE: CASES, COMMENTARY, AND PROBLEMS 521 (2012)

(“American judges do not want to become European-style inquisitors. That is not the legal culture in which they have been raised, and it is not what they are used to.”).

¹⁸⁰ Miller, *supra* note 171, at 588.

¹⁸¹ *State v. Fisher*, 789 N.E.2d 222 (Ohio 2003). Similarly McCormick on Evidence emphasises that the rules of evidence overwhelmingly have as their justification some tendency to promote the “truth, whole truth, and nothing but the truth.”

SKLANSKY, *supra* note 179, at 626.

¹⁸² *Id.*

¹⁸³ *Dutton v. Evcans*, 400 U.S. 74, 89 (1970); *Bruton v. United States*, 391 U.S. 123, 135–37 (1968).

¹⁸⁴ *Pointer v. Texas*, 380 U.S. 400, 405 (1965); *Chambers v. Mississippi*, 410 U.S. 284 (1973). The rationale for the adversarial process is twofold: (1) it is considered that the truth in a trial will be maximised if the development and presentation of the facts is put in the hands of those persons who have the greatest self-interest in the case's outcome (i.e. the parties); (2) such an allocation of responsibility is considered “fair,” because those most immediately affected by judicial decisions should be given every reasonable chance to participate in the process' resolution. SKLANSKY, *supra* note 179, at 362–63 (citing John W. Strong, *Consensual Modifications of the Rules of Evidence: The Limits of Party Autonomy in an Adversary System*, 80 NEB. L. REV. 159 (2001)).

predicated on an increased prioritisation of “interest-based” (cf “rights-based”) dispute resolution,¹⁸⁵ and the notion that leaving parties to their own devices is often not the optimal structure to maximise the system’s goals - i.e. a “just, speedy, and inexpensive determination” of cases (*FRCP*, 1).¹⁸⁶ The system thus increasingly recognises that not all cases belong in a court (hence ADR’s growth), and even if cases do go to court - which happens more rarely now than ever¹⁸⁷ - the process can benefit from judicial management.¹⁸⁸ Hot tubbing helps with both of these aspects. It may also help in another respect. Professor Miller cogently argues that the civil system has moved beyond a mere increased “settlement culture,” to the point where summary judgment motions are replacing trials in addition to potentially dispositive pleading motions. In short, he states, “case disposition is moving back in time and is based on *less and less information*,”¹⁸⁹ such that one of the three fundamental aims of *FRCP* 1 is often not being met - the “*just*” determination of proceedings¹⁹⁰ (emphasis added). From my perspective, the “information-enhancing” nature of concurrent evidence should help to address this concern of Professor Miller, because hot tubbing “will bring benefits both in relation to the efficiency of the court process and the integrity of its decision-making.”¹⁹¹ It should also be noted that hot tubbing does not “replace” the adversarial method; rather, it updates it. Concurrent evidence is a more effective way of resolving disputes between experts. The process retains important adversarial features including that parties choose their own witnesses and what evidence they want to lead from those witnesses, in addition to their lawyers conducting cross-examination. That effective cross-examination can occur within a concurrent evidence framework was demonstrated in *Ngadju*.

A significant area of concern in the U.S. is the acceptability of using concurrent evidence in jury trials. Unlike most of the common law world (except in defamation matters), the U.S. still uses civil juries. For some, such as Judge Jones, hot tubbing should be avoided in jury trials, finding it inappropriate for judges to inquire into or comment on expert evidence in front of the jury.¹⁹² For others, such as Judges Hellerstein, Weinstein, Woodlock¹⁹³ and Zouhary, the jury presents less of a

¹⁸⁵ See generally SAMUEL ISSACHAROFF, *CIVIL PROCEDURE* (4th ed., 2012). For a discussion on ADR in particular, see WILLIAM URY ET AL., *GETTING DISPUTES RESOLVED: DESIGNING SYSTEMS TO CUT THE COSTS OF CONFLICT* (1988), BRUCE PATTON, *NEGOTIATION*, in MICHAEL MOFFITT & ROBERT BORDONE, (EDS), *THE HANDBOOK OF DISPUTE RESOLUTION* (2005), and ROGER FISHER, WILLIAM URY AND BRUCE PATTON, *GETTING TO YES: NEGOTIATING AGREEMENT WITHOUT GIVING IN* (2011).

¹⁸⁶ See, e.g., *Société Nationale Industrielle Aérospatiale v. U.S. Dist. Court for the S. Dist. of Iowa*, 482 U.S. 522 (1987) (Blackmun, J. criticising *FRCP* in the discovery context, noting that the *FRCP* is “not known for placing a high premium on either speed or cost-effectiveness”), at 2565. See also ISSACHAROFF, *supra* note 185, at 44, for a similar sentiment.

¹⁸⁷ ISSACHAROFF, *supra* note 185, at 62–64; Miller, *supra* note 171.

¹⁸⁸ In a class action context, the court even acts as a “fiduciary” to guard absent class members’ rights, with special rigor in relation to settlements. See *In re National Football League Players’ Concussion Injury Litigation*, 307 F.R.D. 351 (E.D. Pa. 2015). There is clearly a tension between the need to manage cases and common-law traditions. JACK B. WEINSTEIN, WEINSTEIN’S FEDERAL EVIDENCE: COMMENTARY ON RULES OF EVIDENCE FOR THE UNITED STATES COURTS AND MAGISTRATES, § 706.02 (1997), notes that the Supreme Court has not encouraged the appointment for example of special masters.

¹⁸⁹ Miller, *supra* note 171, at 596.

¹⁹⁰ *Id.* at 599. The other two aims of Fed. R. Civ. Proc. 1 are that proceedings be resolved “speedily” and “inexpensively.”

¹⁹¹ McClellan, *supra* note 31, at 20; McClellan, *supra* note 4, at 262.

¹⁹² His Honour had no concern with the process in judge alone trials or earlier stages of a proceeding. See also Wood, *supra* note 1, at 96; Yarnall *supra* note 31, at 335–37. Cautious approaches have also been put forward by Scott Welch, *From Witness Box to the Hot Tub: How the “Hot Tub” Approach to Expert Witnesses Might Relax an American Finder of Fact*, 5 J. OF INT’L COMM. LAW & TECH. 154, 162 (2010), and Emmerig et al., *supra* note 12.

¹⁹³ See also Wood, *supra* note 1, at 97. Further support can be found with Reifert, *supra* note 175, at 114.

conceptual impediment. But there are certain qualifications. Judge Woodlock states that he would not foreclose using hot tubbing in front of a jury, but would need to be very comfortable with who the experts were.¹⁹⁴ His experience with the method so far has been limited to non-jury cases. Judge Weinstein clarified that while concurrent evidence could in his view be used before a jury¹⁹⁵ - and he has now used concurrent evidence in one jury trial in a birthing case¹⁹⁶ - he would and does intervene to a lesser extent in that setting than in a judge-alone trial.¹⁹⁷ His reasons for that include that intervention may be demeaning to attorneys, the jury may give greater reliance to questions/positions put forward by the judge, and the concurrent presentation of evidence (*cf.* sequential presentation) may create complications in relation to burdens of proof and allowing attorneys to present their case. Judge Zouhary has similar views. He considers that the use of hot tubbing in a jury trial would be desirable for the principal benefit of aiding with comprehension of complex evidence,¹⁹⁸ yet such use would not be appropriate in every case, particularly simple, straightforward matters. In a jury scenario, Judge Zouhary would be more reluctant to personally ask questions of experts for fear of his influence, and would seek lawyer approval to use the method.¹⁹⁹ Judge Rakoff considers that hot tubbing would probably be acceptable under the present rules, but opined that a bifurcation of a trial proceeding into separate lay and expert evidence phases would be a major departure from the traditional U.S. practice of plaintiffs completing their case, and only then do defendants have to do anything. His Honour supports the idea of there being rule changes to aid the implementation of the model.

I have discussed the issues raised by the U.S. judges concerning due process and defendants' rights with some Australian judges both in relation to criminal and civil matters. NSW District Court Judge, Peter Berman, stated the following to me speaking of the criminal area:

I can't see too many problems regarding defendants' rights being infringed. The use of concurrent evidence will require the accused to disclose the nature of his or her defence while the prosecution case is still running, but there are very few trials where that does not happen

¹⁹⁴ Interview with Judge Woodlock (Mar. 3, 2016).

¹⁹⁵ Judge Weinstein emphasised, *inter alia*, that ideologically there is no problem with hot tubbing before a jury since "the purpose of trial is to educate a jury on facts." Interview with Judge Weinstein (Nov. 2, 2015).

¹⁹⁶ Judge Weinstein's use of hot tubbing before a jury was in a case which has not been published. There the question was the placement of the mother and pressures while she was delivering. After both experts testified and were questioned together by Judge Weinstein before the jury, it became apparent that the expert for the plaintiff was describing an older method of birthing, while the doctor at delivery was describing a more current method. The jury found the defendant doctor not liable for malpractice in a stillbirth. Interview with Judge Weinstein (Apr. 10, 2017).

¹⁹⁷ Similar points have been made by Judge Woodlock, Wood, *supra* note 1, at 97, and *Ruiz v. Estelle*, 679 F.2d 1115, 1130 (5th Cir. 1982), noting that the judge has "greater latitude in conducting a bench trial, for then it is his duty to determine the facts, and his conduct cannot influence jurors." Re judge asking questions before a jury "sending messages" *United States v. Krapp*, 815 F.2d 1183 (8th Cir. 1987) ("did you know" impeachment questions).

¹⁹⁸ Judge Zouhary also sees other benefits in the method, such as reducing costs and delays and improving access to courts. Interview with Judge Zouhary (Apr. 18, 2017). The literature also refers to his support of hot tubbing in jury and judge alone trials, stating that he does not see perceived dangers of hot tubbing "to be so threatening to the American way of justice. He is eagerly looking for the right case to bring hot-tubbing in front of the jury, particularly if the case involves complicated technical information... (as he believes that hot tubbing leads to) a better chance of reaching a correct conclusion." Thompson, *supra* note 11; see also Jack Zouhary, *Splash! Hot Tubbing in a Federal Courtroom*, OHIO LAWYER (Mar./Apr. 2015).

¹⁹⁹ Interview with Judge Zouhary (Apr. 18, 2017).

now anyway. And in any case if we give defendants the power to veto the use of concurrent evidence those concerns evaporate.²⁰⁰

Berman DCJ's comments were directed to criminal trials, however the last sentence concerning veto rights does not apply in the same way in the civil area. The development of Australia's concurrent evidence model was heavily pursued in New South Wales and federal jurisdictions.²⁰¹ The sorts of issues raised by the learned U.S. judges were precisely the issues that had to be considered in effecting legislative amendments to facilitate concurrent evidence's growth. McClellan JA in our interview indicated that the legislative amendments to NSW's rules which were implemented a decade ago to facilitate concurrent evidence were especially intended to empower judges to require defendants to call their witnesses if and when the judge directs.²⁰² He and then Chief Justice, James Spigelman, and the NSW Supreme Court generally, took the view that "a trial should be a search for the truth, not just a contest for winners and losers."²⁰³ The rules would not allow a defendant to negate the judge's intentions in conducting the hearing. In any event, save for some initial resistance, the issue rarely arises now because in McClellan JA's view, "everyone accepts it is a better way to find out the truth."²⁰⁴ Proof of this is particularly manifest in a jurisdiction like the NSW Land and Environment Court, a court of superior record with the same status and largely the same rules as the Supreme Court, where hot tubbing is, like in the Supreme Court of NSW Common Law Division, a "default" process. As Justice Pepper has advised: "In my Court, the default rule in civil trials is that expert evidence is heard concurrently unless the judge rules otherwise upon application by a party. No one has yet made such an application before me."²⁰⁵

In my view, there appears to be no good reason why concurrent evidence should not as a general principle be acceptable in a civil jury trial, particularly if the parties consent to it, or even irrespectively, so long as the judge controls the process with due caution. This argument is especially strong in the toxics area where evidence is often complicated and U.S. judges are given more leeway in relation to asking questions in such circumstances.²⁰⁶ In any event, any concerns about the process should be clarified by suitable legislative amendment. Endorsing the general principle of being able to

²⁰⁰ Judge Berman has used concurrent evidence in a criminal trial where the parties elected for a trial without a jury. He said concurrent evidence was "of great assistance." Email Interview with Judge Berman (Jan. 10, 2016). Justice Pepper said the following of criminal cases: "[T]here is no reason why, assuming consent (otherwise the defendant's right to silence would be infringed), the procedure cannot be used in a criminal trial concerning liability, including with a jury." Email Interview with Justice Pepper (Jan. 17, 2016).

²⁰¹ For example: Australian Trade Practices Tribunal (now Competition Tribunal), Administrative Appeals Tribunal, NSW Land and Environment Court, NSW Supreme Court, Federal Court of Australia and also Queensland Land and Resource Tribunal. See McClellan, *supra* note 30, at 263. The use of the model has spread and is normalising across Australia including Victoria (where *Kilmore East Bushfires* was held), Queensland and elsewhere.

²⁰² See *Uniform Civil Procedure Rules 2005* (NSW), pt 31, div 2, pt 2 (Austl.); see also *Civil Procedure Act 2005* (NSW) (Austl.).

²⁰³ Interview with Justice McClellan (Jan. 14, 2016). A similar statement is in fact made in the U.S. context. See *United States v. Wilensky*, 757 F.2d 594, 597–99 (3d Cir. 1985).

²⁰⁴ It should be noted that not all Australian judges have accepted hot tubbing, possibly out of fear of something new or ultra-conservatism, and some barristers would remove it if they had the power to do so. However as outlined above the predominant position in Australia is to support the process and it has increasingly become the norm.

²⁰⁵ Email Interview with Justice Pepper (Jan. 17, 2016).

²⁰⁶ See WEINSTEIN, *supra* note 188, § 614.04; see also note 30 and accompanying text. In addition, we are also considering a stage of the proceeding which is post any *Daubert* hearing, at which point major evidentiary concerns have been adjudicated.

use concurrent evidence in jury trials, Judge Weinstein emphasised that “the purpose of the trial is to educate the jury on the facts.”²⁰⁷ This is a purpose well served by concurrent evidence. It is relevant too to observe that, in addition to the support received from certain judges and academics, *Wigmore on Evidence* also suggests permitting experts to testify concurrently in an interactive fashion in U.S. trials.²⁰⁸

Significantly, apart from some issues raised in relation to the use of concurrent evidence before a jury, no academic or judge whose view I have considered in preparing this Article has rejected the use of hot tubbing for any “non-jury” context.²⁰⁹ To the contrary, they have endorsed it. This suggests that the application of concurrent evidence in a variety of phases of a U.S. civil proceeding - including depositions, *Daubert* hearings, summary judgment hearings, injunction requests, judge-alone trials or pre-trial expert conferences - is actually ripe for broader implementation. The appropriateness of this implementation in the toxics domain is particularly apposite.

II. Hot Tubbing Under U.S. Federal Legislation

Hot tubbing is consistent with the purposes and general letter of the federal rules on evidence and procedure. All of the U.S. judges agreed with this general proposition, save for some concerns over jury trials which I have noted. As a general statement, for all potential applications of concurrent evidence in the U.S., legislative amendment along the lines of international standards would be a logical step. For now it is useful to analyse the status quo in the U.S.

a. *FRE*

Concurrent evidence clearly furthers r 102’s overarching purpose to effectuate just and efficient truth-seeking. It is also consistent with several extant judicial powers.

Pursuant to r 611, judges are already empowered to control the order of proof at trials. The purpose of such control is set out in r 611(a), which clarifies that the rule, like r 102, is geared towards efficient and just fact-finding. In discussing this rule, *Cranberg*,²¹⁰ citing *Ruiz*,²¹¹ emphasises that U.S. judges need not be “passive spectator[s]” at their trials, but instead, U.S. judges may “question witnesses, elicit facts, clarify evidence and pace the trial.”

Under r 614, judges can already call and examine witnesses. United States courts have held that there is no abuse of discretion for trial judges “to question witnesses in order to clarify questions and develop facts, so long as questions are non-prejudicial in form and tone, and the court does not

²⁰⁷ Interview with Judge Weinstein (Nov. 2, 2015); Interview with Judge Weinstein (Apr. 11, 2017).

²⁰⁸ THE NEW WIGMORE: A TREATISE ON EVIDENCE: EXPERT EVIDENCE, § 11.5.

²⁰⁹ See, e.g., Emmerig et al., *supra* note 12; Pepper, *supra* note 2; Reifert, *supra* note 175; Welch, *supra* note 192; Yarnall *supra* note 31. This is in addition to the judicial views of Judges Weinstein, Hellerstein, Rakoff and Jones conveyed in interviews.

²¹⁰ *Cranberg v. Consumers Union of U.S., Inc.*, 756 F.2d 382, 391–92 (5th Cir. 1985).

²¹¹ *Ruiz v. Estelle*, 679 F.2d 1115 (5th Cir. 1982).

become personally overinvolved.”²¹² *Tilghman*²¹³ further clarifies the boundary-line between what is permissible and impermissible regarding judicial questioning. In *Tilghman*, Judge Tatel indicated that r 614(b) permits judges to question witnesses “repeatedly and aggressively to clear up confusion and manage trials,”²¹⁴ however judges may not “signal their belief or disbelief of witnesses,” particularly where credibility is a central issue.²¹⁵ Judges in fact have a duty to assist in eliciting the truth. However they may not become an advocate,²¹⁶ or stray from “neutrality,”²¹⁷ and must allow jurors to reach their own conclusions.²¹⁸ While judges should generally be mindful to apply certain restraint at trials,²¹⁹ in complicated cases they may be more active in order to clarify evidence for a jury. All of this is consistent with the use of hot tubbing in a jury trial, if a judge exercises due caution, consistent with comments made by Judge Weinstein, and the general appraisal of the issue by Judges Hellerstein and Zouhary.

In relation to expert evidence specifically, r 702 has essentially codified the *Daubert* standard which stresses that the courts have a role as a gatekeeper of expert evidence. The court’s function is to ensure the logical relevance, reliability and scientific integrity of expert opinion heard by juries and admitted into evidence.²²⁰ Concurrent evidence plainly can enhance this function, for all of the reasons given in this Article’s first Part. *Daubert* hearings are also not subjected to evidence rules, making them well-suited to concurrent evidence. The learning function which attends *Daubert* hearings is also well served by concurrent evidence.

Judges can already appoint independent experts under r 706, so there is no cogent reason why concurrent evidence given by *party*-appointed experts should be forbidden. The Advisory Committee Notes’ discussion of r 706 indicates that the rule’s purpose is similar to the aims of concurrent evidence. For instance, r 706 aims to minimise partisan experts (“venality”), and it seeks to redress the fact that many qualified experts choose not to give evidence at all. In truth, the option of a court-appointed expert will be inferior to a hot tubbing option in many cases, especially larger, complex cases such as toxics cases. Unsurprisingly, the sub-optimality of a court-appointed expert option has meant that in practice U.S. judges rarely use their 706 power.²²¹ The deficiencies with the option include inadequacy of testimony (since the expert is not subjected to any adversarial testing), the risk

²¹² *United States v. Haro-Espinosa*, 619 F.2d 789, 795 (9th Cir. 1979) (citing *United States v. Landof*, 591 F.2d 36, 39 (9th Cir. 1978); *cf.* *United States v. Tilghman*, 134 F.3d 414 (D.C. Cir. 1998).

²¹³ *Tilghman*, 134 F.3d 414.

²¹⁴ That a judge’s trial participation is substantial or “extreme” does *not ipso facto* deprive the defendant of a fair trial. *United States v. Parker*, 241 F.3d 1114, 1119 (9th Cir. 2001).

²¹⁵ *Tilghman*, 134 F.3d at 416-21.

²¹⁶ *Id.* at 416. The same point is made and elaborated on in the Advisory Committee Notes to rule 614. *See also* WEINSTEIN, *supra* note 188, § 614.04; note 8 and accompanying text.

²¹⁷ *See* WEINSTEIN, *supra* note 188, § 614.04; note 6 and accompanying text.

²¹⁸ WEINSTEIN, *supra* note 188, §§ 614.04, 614.04(b).

²¹⁹ Consistent with what Judge Weinstein said in person and in WEINSTEIN, *supra* note 188, §§ 614.04, 614.04(c).

²²⁰ Pepper, *supra* note 2, at 29 (citing *Daubert v. Merrell Dow Pharms*, 509 U.S. 579 (1993) at II.B.1, II.B.3, IV and footnote 7).

²²¹ John Shepherd Wiley, Jr., *Taming Patent: Six Steps for Surviving Scary Patent Cases*, 50 U.C.L.A. L. REV. 1413, 1427 (2003).

that the court's decision is delegated to the expert, and neutrality and transparency concerns.²²² It seems to be poor policy to have a rule for court-appointed experts but not for concurrent evidence too.

b. *FRCP*

Concurrent evidence is also consistent with the *FRCP*, including, as a basic matter, *FRCP* 1.

Beyond this provision, concurrent evidence is consistent with the sorts of managerial powers referred to in s10.1, *Manual for Complex Litigation, Fourth*. Similarly, under *FRCP* 16, judges may order that pre-trial conferences take place in order to promote the efficiency and settlement of matters. Pursuant to 16(c)(2), at such pre-trial conferences, a judge may take appropriate action on a range of matters which mirror the types of powers which are part of concurrent evidence. Consider: (A) “formulating and simplifying the issues, and eliminating frivolous claims or defences,” (H) “referring matters to a magistrate judge or a master,” (L) “adopting special procedures for managing potentially difficult or protracted actions that may involve complex issues,” (N) “ordering the presentation of evidence early in the trial on a manageable issue,” (O) “establishing a reasonable limit on the time allowed to present evidence,” and (P) “facilitating . . . the just, speedy, and inexpensive disposition of the action.”²²³

There are other rule-making powers under the *FRCP* which reinforce the power for judges to implement hot tubbing in the U.S. Under r 83, district courts may adopt and amend rules governing their practice so long as the rules do not remove rights from parties to litigation.²²⁴

To be effective, concurrent evidence requires the willing participation of judges and certain cooperation of the experts and the parties. The practical necessity of cooperation in litigation is a feature of many modern processes. Rule 26(f) discovery conferences require discovery plans to be arrived at in “good faith,” and in general discovery necessitates good faith to function properly. In addition, as Professor Issacharoff notes, at the pleading stage, “the parties must be honest.”²²⁵ Concurrent evidence is simply another aspect of modern procedure's adaptation of adversarial features in favour of good faith practices.

USE OF HOT TUBBING AND SIMILAR CONDUCT IN U.S. TOXICS AND CIVIL CASES

United States toxics cases share similar features to Australian toxics matters, and would likewise benefit from the adoption of hot tubbing processes. This section shows how U.S. judges have

²²² DVD: Conference Session 5: Class actions – The Way of the Future?, LIV (Apr. 22, 2015) (Beach J); Wiley, *supra* note 221, at 1428, 1437; Yarnall, *supra* note 31, at 322–23; Melissa Lipman, *Judge Illston's Tips For Economic Experts In Antitrust Cases*, LAW360 (Apr. 16, 2015, 8:13 PM), <https://www.law360.com/articles/644194/judge-illston-s-tips-for-economic-experts-in-antitrust-cases>.

²²³ The sort of judicial interventions that are involved in hot tubbing are consistent with other judicial powers to intervene in a given civil proceedings. Consider: ordering a new trial after a jury verdict is returned (including using a remittitur); or directing a judgment as a matter of law; or in managing class actions, gatekeeping settlements or attorney's fees. *See, e.g.*, LINDA J. SILBERMAN ET AL., *CIVIL PROCEDURE: THEORY AND PRACTICE* 1054, 1088 (4th ed., 2013).

²²⁴ *See also* Welch, *supra* note 192, at 163; Pepper, *supra* note 2.

²²⁵ ISSACHAROFF, *supra* note 185, at 42; *see also* Zielinski v. Philadelphia Piers, Inc., 139 F. Supp. 408 (E.D. Pa. 1956).

dealt with problems of complicated evidence and expert bias in toxics cases to date, without a formalised hot tubbing model. As you will see, the judges are increasingly implementing “hot tubbing like” processes in these cases as learning tools, and beyond the toxics area, U.S. civil judges are starting to use hot tubbing itself in trials, whether of their own initiative or upon the request of the parties.

I. The Toxics Harms Space and Judicial Responses

Tort law is not the only way to regulate toxic harms cases and the tort process has its critics. A large focus of discussion concerns institutional competence – should tort questions be decided by professional assessors (regulators) or by lay juries? For Huber, the answer would be: take more decisions away from the courts and put them in the hands of regulatory agencies.²²⁶ Problems with Huber’s analysis, however, include that he assumes that regulatory agencies operate optimally, and he says little about how to improve court processes or party conduct. The experiment with concurrent evidence in *Kilmore East Bushfires* on the other hand, shows that the information-deducing process of concurrent evidence can be superior to a Royal Commission inquiry into causation. This is a telling example. In addition, other academics have also analysed problems in toxics litigation and explored whether alternatives to court such as no-fault schemes might yield superior benefits to litigation.²²⁷ We have seen some successful applications of these alternatives in the September 11 Victim Compensation funds administered by Feinberg and Birnbaum. Yet even in those contexts, the resolution of 9/11 claims necessitated the involvement of the tort system. Over 10,000 victims of 9/11 related events ended up in court before Judge Hellerstein, benefitting from his Honour’s timely resolution of their claims. Ultimately, this Article is not concerned with whether or when a toxics case should be litigated, but proceeds from the starting point of when a tort claim has been commenced in court, how can the expert evidence process be handled to better uphold the fundamental goals of the rules of evidence and procedure, i.e. justice, speed, and inexpensiveness. That is the issue in this Article.

My argument is that both the “information product” of concurrent evidence, and the process to arrive at that product, will usually be superior when using concurrent evidence instead of traditional adversarial methods. This argument holds true whether we are talking about a pre-trial phase of a U.S. toxics case or the trial itself, including a jury trial. A jury demandable trial would benefit at every stage that concurrent evidence is used at both a pre-trial phase (e.g. depositions, *Daubert* hearing etc) or the trial phase (if there was one). The jury’s comprehension of expert evidence would be likely to be enhanced in a similar fashion to the way that any other trial participant’s comprehension is

²²⁶ Peter Huber, *Safety and the Second Best: The Hazards of Public Risk Management in the Courts*, 85 COLUM. L. REV. 277, 333–36 (1985).

²²⁷ See generally Robert L. Rabin, *Some Thoughts on the Efficacy of a Mass Toxics Administrative Compensation Scheme*, 52 MD. L. REV. 951 (1993).

enhanced when they observe experts presenting evidence “simultaneously” instead of sequentially, in an interactive, truth-focused discussion between the experts, judge(s) and lawyers.

The suitability of hot tubbing in toxics cases is especially appropriate for a number of reasons. First, experts testify most frequently in tort cases, so hot tubbing belongs in a toxic tort context.²²⁸ Secondly, and relatedly, the issues in toxics cases are usually complicated, which is a clear suitability factor for hot tubbing. Thirdly, the volume of expert (scientific) testimony is growing over time.²²⁹ Fourthly, attorneys are challenging the admissibility of evidence more frequently after *Daubert*, and these challenges are particularly felt in toxics cases.²³⁰ Fifthly, two of the most common problems cited by judges about expert testimony in federal trials are lack of objectivity and excessive expense,²³¹ precisely the problems that hot tubbing targets. Sixthly, strong arguments have been made that juries in toxics cases, such as the Bendectin cases, reach decisions that do not comport with scientific and judicial opinion.²³²

Various practices have now emerged in the U.S., independently of Australia or otherwise, which in my submission reflects both a need for, and maps a trajectory towards, the formalised incorporation of concurrent evidence in U.S. toxics cases. One manifestation of this is the practice that jury consultants in toxics and other cases use when assessing witnesses, whereby they have the experts give evidence “back to back” instead of the traditional adversarial sequencing. Not only do jury consultants use this practice, but now civil judges do too. Judge Susan Illston of the U.S. District Court for the Northern District of California sometimes has the plaintiffs’ and defendants’ experts testify “back to back” on difficult issues in antitrust litigation in her courts, because although it “makes the case come in out of order. . . . [T]hat’s a way a jury could possibly retain a better understanding of [the evidence].”²³³ Even more telling is the frequent use of “science days” by U.S. judges in MDL litigation. The purpose of such days is to educate a judge on the science which is in dispute in the matter. An illuminating example of this occurred recently in Xarelto pharmaceutical litigation.²³⁴ On May 20, 2015, Judge Eldon Fallon made a pre-trial order for a science day to occur to educate the Court on the science associated with Xarelto medicine (See Appendix 4). The session’s

²²⁸ MOLLY TREADWAY JOHNSON, CAROL KRAFKA & JOE S. CECIL, EXPERT TESTIMONY IN FEDERAL CIVIL TRIALS: A PRELIMINARY ANALYSIS (2000); Joseph Sanders, *From Science to Evidence: The Testimony on Causation in the Bendectin Cases*, 46 STAN L. REV. 1, 31–32 (1993).

²²⁹ E.g. Joseph Sanders, Shari S. Diamond & Neil Vidmar, *Legal Perceptions of Science and Expert Knowledge*, 8 PSYCHOL. PUB. POL. L. 139 (2002); Sanders, *supra* note 228, at 31–32; Yarnall, *supra* note 31, at 313 (citing *Joiner*).

²³⁰ JOHNSON, KRAFKA & CECIL, *supra* note 228; Lipman, *supra* note 222 (citing Judge Illston). Joseph Sanders notes that “[i]n no area has the Daubert revolution had a greater effect than in toxic torts. The number of cases in which expert causation testimony has been excluded must by now run into the thousands.” Joseph Sanders, *Applying Daubert Inconsistently? Proof of Individual Causation in Toxic Tort and Forensic Cases*, 75 BROOK. L. REV. 1367, 1374 (2010).

²³¹ JOHNSON, KRAFKA & CECIL, *supra* note 228.

²³² Sanders, *supra* note 228; cf. Lisa Heinzerling, *Doubting Daubert*, 14 J.L. & POL’Y 65 (2006).

²³³ Lipman, *supra* note 222. Similarly, Judge Hellerstein advises that in oral arguments of motions before him, he typically proceeds issue by issue, allowing attorneys to engage each other on a precise issue. He says that “the same utility can exist with experts, but with care that the careful development of an issue is not short-circuited.” Interview with Judge Hellerstein (Apr. 9, 2017).

²³⁴ See Austin Kirk, *Xarelto Science Day “Ground Rules” Established in MDL*, ABOUTLAWSUITS.COM (June 3, 2015), <http://www.aboutlawsuits.com/xarelto-science-day-rules-82500>; see also LAURAL L. HOOPER, JOE S. CECIL & THOMAS E. WILLGING 7 (2001) (regarding Judge Jones’ use of a science day in *Hall v. Baxter Healthcare Corp.*, 947 F. Supp 1387 (D. Or. 1996)).

ground rules indicated that lecture style presentations by the physicians and scientists were to be conducted “in an objective format without advocacy,” and “in a non-adversarial manner.”²³⁵ The presentations were to be “off the record” and “not [to] be used or admissible in the litigation other than for the Court’s [educational] benefit.”²³⁶ Judge Fallon could question the presenters, but he forbade questioning by opposing lawyers or by the presenters among themselves. This “science day” clearly resembles hot tubbing, but in my view it seems less effective from a truth-seeking perspective, because there is reduced interaction between litigation participants. I also do not see the value in all of this being “off the record.” To the contrary, it is precisely this sort of information which should be “on the record.”

In *Science on Trial* (1996), Marcia Angell was critical of the tort system in relation to breast implant litigation, being particularly critical of the jury’s role and partisan experts. Angell noted that jurors are frequently confused over causation issues and scientific evidence. Her criticism was scathing too towards what she described as “second-rate,” “professional witnesses,” “whose major talent is convincing juries, not evaluating evidence.”²³⁷ These sorts of criticisms are played out in relation to numerous other toxics areas including birth defects litigation,²³⁸ and asbestos,²³⁹ and point to the logical need for concurrent evidence to be introduced to help make complicated scientific issues easier for juries to understand, and to shift the “battle of the experts”²⁴⁰ away, to whatever extent, from “salesmanship,” “credentials” and “staging,”²⁴¹ to a greater focus on the quality of opinions which must stand up to scrutiny among expert peers.²⁴² As Professor Issacharoff pithily states, if the premise of modern U.S. procedure were expressed in one sentence, it would be that: “Cases should be resolved on their merits.”²⁴³ In toxics cases, failures in the litigation process have meant that cases are often *not* decided on their merits. Writing of certain asbestos litigation, Carrington notes that because of uncertainties and complexities regarding the factual and legal issues at stake, parties “were especially eager to avoid trials on the merits. But even in cases settled without trial, legal costs were very high because of the lawyers’ need for access to scientific evidence as a basis for negotiated settlements.”²⁴⁴ All of this highlights that “the information” gathering part of the process Carrington

²³⁵ Pretrial Order No. 18, Science Day, *In Re: Xarelto (Rivaroxaban) Products Liability Litigation*, MDL No 2592, Section L (May 20, 2015).

²³⁶ *Id.*

²³⁷ Robert L. Rabin, *Reassessing Regulatory Compliance*, 88 GEO. L. REV. 2049, 2062 (2000).

²³⁸ See, e.g., JOSEPH SANDERS, *BENEDICTIN ON TRIAL: A STUDY OF MASS TORT LITIGATION* (1998) (highlighting similar concerns to Angell); see also Sanders, *supra* note 228, at 31–41.

²³⁹ See Paul D. Carrington, *Asbestos Lessons: The Unattended Consequences of Asbestos Litigation*, Duke L. Sch. Legal Studs., Paper No. 184, 2008), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1089152.

²⁴⁰ Sanders, *supra* note 228, at 32. The term is frequently used in *In re National Football League Players’ Concussion Injury Litigation*, 307 F.R.D. 351 (E.D. Pa. 2015). It is regularly used elsewhere. E.g. PETER H. SCHUCK, *AGENT ORANGE ON TRIAL: MASS TOXIC DISASTERS IN THE COURTS* 228 (1987).

²⁴¹ See Rabin, *supra* note 237, at 2063.

²⁴² One of the fundamentally appealing features of hot tubbing for a U.S. Judge (Douglas Woodlock) who has taken on the model in U.S. cases is that it allows the experts to “get out of the dance of the advocate.” Wood, *supra* note 1, at 97.

²⁴³ ISSACHAROFF, *supra* note 185, at 41.

²⁴⁴ Carrington, *supra* note 239, at 592. That courts struggle to deal with causation (particularly specific causation) and so promote “settlement” to avoid the costs and burdens associated with the complex evidentiary process (by not based on

described, was too costly to ensure that either a trial or settlement was truly based on “the merits.” Or where there were settlements (on the merits or otherwise), the process was still too costly.

Concerns about expert partisanship have led some U.S. judges to take innovative actions in toxics cases which evince the need to introduce concurrent evidence. In *Hall v. Baxter Healthcare Corp.*,²⁴⁵ Judge Jones presided over breast implant litigation which attended the complicated question of causation in relation to connective tissue disorder. Judge Jones adopted an innovative pre-trial procedure in U.S. circles, under authority of *FRE* 104 and the court’s inherent authority, in order to satisfy the dictates of *Daubert*.²⁴⁶ He implemented this procedure because he did not expect the matter would go to trial,²⁴⁷ and plainly “he did not trust the experts,” viewing them as “hired guns.”²⁴⁸ His Honour arranged for the creation of a panel of academic experts who were not connected to the litigation, having the Chair of the University of Oregon’s biochemistry department help him to select experts in rheumatology, toxicology, chemistry, epidemiology and immunology. At the pre-trial hearing, the parties’ experts made presentations on specialised issue areas and were then questioned by Judge Jones and his advisors. The process helped to neutralise the adversarial bias of the experts’ evidence. The parties went on to make their summations (which were videotaped) and Judge Jones and the parties subsequently sought the advisors’ opinions as to whether the science at issue was reliable and relevant. Ultimately, Judge Jones excluded the plaintiffs’ experts from testifying.²⁴⁹ The very fact of this process is what is of prime importance, and in many respects it mirrored Justice Forrest’s conduct of concurrent evidence during the *Kilmore East Bushfires* trial, where during the largest and most complex concurrent session,²⁵⁰ Justice Forrest sat with the assistance of two assessors for about a month who, like Judge Jones’ panel members, were empowered to ask questions of the experts or counsel.²⁵¹ Endorsement of expert panels as an alternative to traditional adversarial methods has been supported by others in the literature,²⁵² and by judges including Judge Weinstein.²⁵³

‘merits’) is inherent in the NFL Concussion case. *In re National Football League Players’ Concussion Injury Litigation*, 307 F.R.D. at B(i), B(iv).

²⁴⁵ 947 F. Supp. 1387 (D. Or. 1996).

²⁴⁶ See generally HOOPER, CECIL & WILLGING, *supra* note 234; Interview with Judge Jones (Oct. 20, 2015). The article by Hooper et al. contrasts the use of Judge Jones’ expert panel in *Hall v. Baxter* with Judge Pointer’s appointment of experts under authority of *FRE* 706 in *In re Silicone Breast Implants Products Liability Litigation*.

²⁴⁷ Cf. *In re Silicone Gel Breast Implant Prods. Liab. Litig.*, 793 F. Supp. 1098 (J.P.M.L. 1992); see also Rabin *supra* note 237, at 2065–66.

²⁴⁸ Interview with Judge Jones (Oct. 20, 2015). All of the judges I interviewed expressed a concern about expert bias.

²⁴⁹ *Baxter*, 947 F. Supp. at 1414.

²⁵⁰ See *Kilmore East Bushfires*, *Ruling No 32* [2013] VSC 630 (Austl.) (assessors); see also Forrest, *supra* note 5. The assessors were available to Justice Forrest when writing the judgment but the case settled. On the power to appoint assessors in Victoria. *Civil Procedure Act* 2010, s65M (Austl.).

²⁵¹ One area of difference however would be that unlike Australian concurrent evidence, Judge Jones’ process did not entail the experts being cross-examined by the advocates.

²⁵² See, e.g., Sanders, *supra* note 228, at 69–70 (discussing Bendectin litigation). Sanders also notes a preference for expert panels over a court-appointed expert. *Id.* Likewise, Ross Todd notes the difficulty that U.S. federal judges have to try to get up to speed on complex technologies in IP disputes and suggests the answer to this lies in “hot tubbing,” writing that “Judge James Donato of the Northern District of California has begun asking for inventors or technologists to make presentations at technology tutorials rather than lawyers, a move aimed at getting unvarnished answers rather than advocacy as he gets up to speed on a given subject.” Ross Todd, *In Complex Cases, Some Judges Geek Out*, RECORDER (Apr. 7, 2017), <http://www.therecorder.com/id=1202783283687/In-Complex-Cases-Some-Judges-Geek-Out?mcode=1202615718827>. Todd

Discussing *Hall v. Baxter* in a 2000 article, Professor Rabin considered the broader application of Judge Jones' model and stated that there may be wider practical implementation problems for the process, because there is no standing panel of experts available to inform judicial expertise on the vast array of technical questions which come before federal courts and state courts.²⁵⁴ Similar implementation concerns have been raised by Hooper, Cecil and Willging.²⁵⁵ To my mind, it seems that concurrent evidence may be able to obviate these resource concerns, presenting a genuine solution to alleviate a problem which calls for an answer in the U.S. context.

In U.S. toxics cases which are of a scale to be fairly described as “mega” cases, the presiding judges have out of necessity had to use creative managerial techniques in order to effectuate timely resolution of claims. As far as I am aware hot tubbing itself has never been used in such cases, but what is important is to consider how the use of case management was integral in such matters to extract relevant “information” which enabled the efficient resolution of claims which was more “merit-based” than it would have been without such techniques. In essence the techniques require similar managerial skills to those which are mandated by concurrent evidence procedures. I am referring to cases like Judge Hellerstein's *9/11 Litigation*, or Judge Weinstein's *Agent Orange*.²⁵⁶ When one considers these cases closely, it is apparent that they share similarities to *Kilmore East Bushfires* – i.e. similar number of claimants (*Agent Orange* even more); activist judges; diverse claims; worthy victims; problematic causation issues; presiding judge pushing for efficient resolution; use of masters/associate judge; departure from traditional adversarial methods needed to resolve the case.

I will consider one case, namely the *9/11 Litigation*, described as “the most complex case in the history of American mass tort litigation.”²⁵⁷ The claims arose out of events related to the 9/11 attacks on New York's World Trade Center. Beyond the thousands of victims who tragically died within hours of the twin attacks, some sixty thousand post-collapse responders engaged in rescue and recovery efforts. Of those people, over 10,000 claimed to suffer injury of over 300 different diseases due to their onsite exposures to dust-borne toxins. In 2003, the plaintiffs sued the City of New York and the private contractors who supervised the relevant work (plus other defendants). The matters eventually made their way to federal court and came before Judge Hellerstein. In late 2010, over 10,000 claims were settled for between \$625-712.5 million.²⁵⁸ The majority of the claimants were persons who did not meet the eligibility criteria for the no-fault Victim Compensation Fund managed

also provides evidence that more judges are employing advisers to provide guidance on technical issues, and that technology tutorials are employing hot tubbing. *Id.*

²⁵³ In addition to his involvement in breast implant litigation, Judge Weinstein has had other relevant involvement. His Honour directed a special master to assemble a panel of experts in *In re DES Cases* No. CV 91-3784, 1991 WL 270477, at *2 (E.D.N.Y. Dec. 6, 1991). Sanders *supra* note 228, at 71.

²⁵⁴ Rabin, *supra* note 237, at 2067.

²⁵⁵ HOOPER, CECIL & WILLGING, *supra* note 234, at 5–6.

²⁵⁶ See generally SCHUCK, *supra* note 240; Alvin K. Hellerstein et al., *Managerial Judging: The 9/11 Responders' Tort Litigation*, 98 CORNELL L. REV. 127 (2012).

²⁵⁷ Hellerstein et al, *supra* note 256, at 131.

²⁵⁸ *Id.* at 128–29, 131.

by Ken Feinberg. As a preliminary remark, one observes that the successful resolution of so many claims in federal court shows the fundamental importance of the tort system, even in circumstances where an alternative resolution mechanism was established.

Judge Hellerstein and his two special masters in the case, Henderson and Twerski, have written a reflective article which notes that no other tort litigation has ever presented so many different injuries caused by such varying degrees of exposure to indeterminate toxins.²⁵⁹ The crucial factor to resolving the claims in their view was using two special masters to help organise the case, so that Judge Hellerstein could control the vaguely expressed complaints which had left uncertain both the number of claims and the number of serious injuries. The reason this information was important was that without it, there was no reasonable foundation for settlement. Through the active use of discovery, Judge Hellerstein came to establish the severity of injuries and created a searchable electronic database to obtain the information which he rightly deemed essential to facilitate settlement.²⁶⁰ Judge Hellerstein's position was that unless he aggressively managed the case this way, simply leaving matters to the parties' own devices would have resulted in the matter being dragged out endlessly. This would be disastrous for the parties and the courts. In contrast, a wholesale settlement of the claims could be achieved by enabling the parties to assign values across various categories of claimed injuries.²⁶¹ The judge's approach was proven correct, when the information was finally gathered and revealed that most of the plaintiffs did not suffer serious injuries. Once this was established, various other factors combined to make settlement an appealing option for all concerned.²⁶² Significantly, it was the *departure from traditional judicial processes* through case management, which was crucial to an efficient resolution. In our interview, Judge Hellerstein conveyed that despite effectuating a settlement in this case through the discovery database, he "would have enjoyed a hot tub in the case" and thinks it would have helped. He stated that certain claims still remain to be resolved in this matter,²⁶³ and in respect of those claims, "the use of hot tubbing would be a good idea... it may still have a role in the case."²⁶⁴ For Judge Hellerstein, the essential appeal of hot tubbing is simple, he "want[s] to know what the experts true beliefs are," and he strongly endorses the process' "interactive"²⁶⁵ nature to that end. These are precisely the benefits that Australian judges enjoy about concurrent evidence.²⁶⁶

²⁵⁹ *Id.* at 132 n.27.

²⁶⁰ *Id.* at 141–44, 156–57. Given the number of the plaintiffs and the nature of the claims, only a small number of claims were thought to be able to be brought. Even with bellwether claims, absent a comprehensive database that allowed for categorisation of claims based on the answers to a host of questions reflecting many factors, the trial of such claims would at most have settled individual or small clusters of claims. *Id.* at 161–62.

²⁶¹ *Id.* at 146.

²⁶² *Id.* at 156–57.

²⁶³ *See also id.* at 178.

²⁶⁴ Interview with Judge Hellerstein (Oct. 29, 2015).

²⁶⁵ Similarly, Judge Robert Jones advised me that in his use of hot-tubbing like procedures it is principally the function of the experts debating among themselves which he finds helpful. Interview with Judge Jones (Oct. 20, 2015).

²⁶⁶ Email Interview with Judge Peter Berman (Jan. 10, 2016).

Judge Hellerstein has written that in managing the earlier 9/11 claims, he sought guidance from *FRCP* (r16(c)(2)(L)) and s10.1, *Manual for Complex Litigation*. While he considers that he acted within the confines of the federal rules,²⁶⁷ he concedes that the litigants believed that he overstepped the boundaries. Relevantly, Judge Hellerstein has called on relevant judicial centres to work to ensure that the matters which he faced in the *9/11 Litigation* are clarified in the rules by suitable amendment, so that future judges faced with similar challenges would have clearer rules to delineate what is, and what is not, acceptable.²⁶⁸ Like Judge Hellerstein, I would justify concurrent evidence processes by reference to the same federal rules (and more rules). Like Judge Hellerstein, I would also suggest that the rules need to be amended to clarify matters in respect of concurrent evidence. The task of amendment on the topic of concurrent evidence should not be overly complicated, because there are numerous jurisdictions across the globe which can provide tried and tested legislative frameworks that are directly on point.

II. Uses of Hot Tubbing in U.S. Courts

There is a small but growing list of U.S. cases which have applied hot tubbing processes.²⁶⁹ They have done so because of the model's inherent advantages over traditional methods, notwithstanding that the rules do not explicitly provide for the model. The principal motivation for the use of hot tubbing by U.S. judges appears to usually be as a "learning tool," rather than for other prime goals which are pursued in Australia such as broader efficiency. Several of the known uses of hot tubbing at the trial phase have been carried out by Judge Woodlock, who learned of the hot tubbing method from Australia's Justice Peter Heerey.²⁷⁰ When I raised the existence of these U.S. examples with Judge Rakoff, his Honour confirmed how "rare" they really are in the U.S.²⁷¹ Nevertheless, it is important to understand where things are at, in order to be able to effectuate change. It is also important to note that no reported U.S. decision appears to have examined the computability of concurrent evidence with the rules of procedure or evidence as yet.²⁷²

In this sub-section, I will discuss existing evidence of the uses of hot tubbing in the U.S. in two respects: (a) pre-trial uses; and (b) trial uses.

²⁶⁷ Hellerstein et al, *supra* note 256, at 172.

²⁶⁸ *Id.* at 177–79.

²⁶⁹ Cases which have used the model in various respects (and referred to here), include: *Black Political Task Force v. Galvin*, No. 02-11190 (D. Mass.) (14 November 2003); *Meza v. Galvin*, 322 F.Supp.2d 52 (D. Mass. 2004); *Anchor Sav. Bank v. United States*, No. 95-39C (Ct. Claims); *In re Welding Fume Prods. Liab. Litig.*, No. 03-17000, (N.D. Ohio Aug. 8, 2005) (Dkt. No. 1353); *Genzyme Corp. v. Seikagaku Corp.*, No. 11-10636 (D. Mass.) (Dkt. entry dated Nov. 30, 2011); *Rovakat, LLC v. Commissioner*, TC Memo 255 TCM 29, XIV C (2011); *Crimi v. C.I.R.*, 105 T.C.M. (CCH) 1330 (T.C. 2013); *United States v. Schwartz*, No #3:05-cr-30079-DPW-ALL (D. Mass.); *In re Polyurethane Foam Antitrust Litigation*, 152 F.Supp.3d 968 (N.D. Ohio 2015); *see also* Wood, *supra* note 1, at 103 n.28 (noting general use by Senior Judge Lawrence Karlton of the U.S. District Court for the Eastern District of California); Zouhary, *supra* note 198, at n.4 (referring to his use and to the use of the method by some of his colleagues in other cases).

²⁷⁰ Wood, *supra* note 1, at 97.

²⁷¹ Interview with Judge Rakoff (Dec. 22, 2015).

²⁷² Emmerig et al., *supra* note 12.

a. Pre-trial Uses

Hot tubbing has now been used in *Daubert* hearings. In *In Re Welding Fume*, a products liability case in federal court in Ohio,²⁷³ the defendants brought a *Daubert* challenge arguing that the evidence of general causation between manganese exposure and Parkinson's Disease was insufficient to allow expert testimony which opines that such a general link exists. At the *Daubert* hearing, the evidence submitted on the issue was described by the court as "overwhelming."²⁷⁴ The Court initially heard separately from the parties' experts, but after the experts had given very different views on causation, the Court decided to hold an additional hearing day to apply the "hot tub" format, requiring the experts to appear "simultaneously to answer questions from the Court and to respond directly to each other's opinions." Commenting on this novel process, Judge Kathleen McDonald O'Malley noted that "the parties and the Court found this 'hot tub' approach extremely valuable and enlightening."²⁷⁵

Hot tubbing has also been used in a claims construction hearing ("Markman hearing") in a patent infringement case pending in the District of Massachusetts before Judge Woodlock.²⁷⁶ Judge Woodlock has used concurrent expert evidence in several non-jury cases over the years, including in patent and business cases.²⁷⁷ In my interview in New York with Judge Rakoff, he agreed that hot tubbing would be entirely suitable for Markman hearings. Furthermore, reflecting on his own toxics cases, Judge Rakoff suggested that hot tubbing would have been especially helpful on certain past occasions. One example is *In re Ephedra Products Liability Litigation*,²⁷⁸ a case which involved hundreds of claims for personal injury or wrongful death caused by dietary supplements containing ephedra. In that case, Judge Rakoff had to decide on motions to exclude the testimony of generic experts designated by the parties. He held an extensive two-week *Daubert* hearing (his longest ever), which had twelve experts involved, and hundreds of exhibit documents involving many articles from medical journals and textbooks. Hot tubbing would clearly have aided this process.

Similarly, Judge Woodlock has indicated that he is considering raising with counsel the use of hot tubbing in a large collection of products liability matters pending before him, *In re Fresenius Granuflo/Naturalyte Dialysate*.²⁷⁹ In those cases, which deal with allegations of deceptive trade practices involving the concealment of the risks associated with dialysis products, there is much overlap in terms of the experts whom the parties are using. During earlier phases of the proceedings, Judge Woodlock observed the experts giving evidence in a traditional manner. With this prior knowledge of the experts' views, his Honour sees potential benefit to using concurrent evidence

²⁷³ *In re Welding Fume Prods. Liab. Litig.*, No. 03-17000, (N.D. Ohio Aug. 8, 2005) (Dkt. No. 1353).

²⁷⁴ *Id.* at para 96.

²⁷⁵ Note 39, [97].

²⁷⁶ *Genzyme Corp. v. Seikagaku Corp.*, No. 11-10636 (D. Mass.) (Dkt. entry dated Nov. 30, 2011).

²⁷⁷ Interview with Judge Woodlock (Mar. 3, 2016); *see also* Wood, *supra* note 1.

²⁷⁸ 393 F.Supp.2d 181 (2005).

²⁷⁹ *See, e.g.*, *In re Fresenius Granuflo/Naturalyte Dialysate Products Liability Litigation*, 76 F. Supp.3d 268 (D. Mass. 2015); Interview with Judge Woodlock (Apr. 7, 2017).

during any future *Daubert* hearings in order to enhance his understanding, and enable a better synthesis, of any challenges to the expert evidence.

United States judges regularly engage in the type of activity which occurs at pre-trial conclaves in Australia, but with some key differences. For example, for a long time Judge Weinstein has held pre-trial conferences together with experts and lawyers in attendance, for the purpose of moderating experts' views and excluding extraneous matters. Yet Judge Weinstein emphasised to me (as did Judges Hellerstein and Rakoff), that unlike Australia's joint conferencing process, which generally excludes lawyers from attending such pre-trial conferences, he opposes any conferencing occurring *without the lawyers attending*, and he, like at least Judge Hellerstein, did not favour delegating any "moderator" role to another court representative (as occurs in Australia). Two issues arise out of this. First, there is the issue of the lawyers' non-involvement in conclaves. McClellan JA stresses that lawyers are excluded from the conclaves because the conclaves' purpose is to have the experts discuss their "genuine views" and "not be prompted by lawyers."²⁸⁰ This practice is now uncontroversial in Australia.²⁸¹ The interviews conducted in relation to *Kilmore East Bushfires* highlight that there is broad support for 'quarantining' lawyers from the conclaves.²⁸² As Zammit AJ emphasised, it helped to move the experts away from an adversarial approach to a more 'problem-solving' approach. Professor Rubinfeld adds further that the conclaves will work well when the relationship among the experts is one of respect. It seems that although the method of ex parte conferencing will initially be foreign to lawyers trained in the adversarial system, once they become accustomed to the process, comfort levels generally increase. This is buttressed by the evidence presented above about the growth of hot tubbing in Australia and other international jurisdictions.²⁸³

The second issue is the judges' resistance to the use of moderators who are not the presiding judges themselves. As noted earlier, not all expert conclaves in Australia involve the use of a moderator, and various factors noted by Justice Croft above may be relevant to the issue.²⁸⁴ The starting point for McClellan JA is that a moderator is not essential in expert conferences, however he will consider, *inter alia*, who the experts are. He notes that the conclave's purpose is for the experts to "freely exchange" ideas, in order to identify the issues which they agree on and those which they disagree on.²⁸⁵ Once that point is reached, the matter is ripe for judicial involvement. However the

²⁸⁰ Interview with Justice McClellan (Jan. 14, 2016).

²⁸¹ See, e.g., Federal Expert Evidence Practice Note (GPN-EXPT), 7.6.

²⁸² See *supra* notes 67, 68, 100 and accompanying text.

²⁸³ See *supra* sections on 'CONCURRENT EVIDENCE – AUSTRALIA'S MODEL AND ELSEWHERE', and 'Introduction.' See also comment at text accompanying note 205, in relation to Justice Pepper's experiences with the model. I also have relevant personal experience on point. In 2012, I acted on an Aboriginal land claim in the NSWLEC, representing the claimant. After we had obtained a judgment to have certain land transferred to our client (*Deerubbin LALC v Minister Administering the Crown Lands Act* [2012] NSWLEC 68 (Austl.)), there continued to be a dispute requiring the use of expert land surveyors. Our opponents approached us to have the experts meet and confer which we agreed to. The conference was duly held. No lawyers attended it and there was no moderator. The experts efficiently produced a joint report which became the relevant report on point. Neither our opponents, nor my team members, considered handling the matter differently. The conclave was business as usual.

²⁸⁴ See *supra* text accompanying note 98 (discussing *Kilmore East Bushfires*).

²⁸⁵ Interview with Justice McClellan (Jan. 14, 2016).

experiences in *Kilmore East Bushfires* suggest that for larger conclaves, where power dynamics are at play, and where experts are unfamiliar with the process, a moderator may serve an important function. In that case, the use of an associate justice was seen as a value-adding move, particularly for the larger conferences. For smaller cases, with competent and experienced experts, moderators are often unnecessary and would be inefficient. It seems that the resistance to this issue in the U.S. is linked to the influence of strong adversarial traditions.²⁸⁶ Likewise, despite U.S. judges now starting to practise various aspects of the concurrent evidence process, independently or otherwise, there does not appear to have been much or any use of joint expert reports. Potential benefits of such reports were discussed above in the first Part of this Article.²⁸⁷

Additionally, hot tubbing has been used by Judge Zouhary in the context of motions for class certification in an antitrust multidistrict class action, *In re Polyurethane Foam*.²⁸⁸ In that case, he had received hundreds of pages of affidavit and deposition evidence and felt the desire to question 4 economic experts directly, in preference to having a full blown hearing as had been sought by the lawyers. Significantly, Judge Zouhary had at the time considered that his use of the method was a novel one, only to later find out that he had applied an approach which is commonly used in Australia. Commenting to me on his technique, Judge Zouhary said that it was “much more effective to hear the experts at the same time... hearing them, seeing them, viewing their credibility, allowing each to agree or to disagree with the other. It was very helpful to make decisions.”²⁸⁹ Furthermore, he has written extra-judicially that “the ‘point/counterpoint’ dialogue - as opposed to the traditional appellate-type monologue - is a better way of evaluating the accuracy of an expert’s opinion. There is no hiding.”²⁹⁰ In Judge Zouhary’s view, hot tubbing not only aids comprehension, but can reduce costs and delay and improve access to U.S. courts.

b. *Trial Uses*

United States judges have now applied hot tubbing in civil trials concerning tax, voting rights and breach of contract matters. Where the judges have used concurrent evidence, they have generally done so relatively spontaneously, principally as a learning tool. As noted above, Judge Woodlock has used the technique on a number of occasions.²⁹¹ One case was *Black Political Task Force v. Galvin*

²⁸⁶ In our interview, Judge Woodlock observed that in Australia there is greater comfort with judges having both a more inquisitorial role in cases on the one hand and allowing ex parte processes to occur on the other, whereas U.S. judges tend to be more concerned with adversarial traditions. He suggested that this tension has been played out and continues to be played out in relation to the developments and debates associated with *Daubert* changes. Interview with Judge Woodlock (Mar. 3, 2016). Similarly, Judge Zouhary suggested that slower developments in the U.S. compared to Australia could be explained by a more adversarial culture in the U.S. Interview with Judge Zouhary (Apr. 18, 2017).

²⁸⁷ See discussion in relation to *Kilmore East Bushfires* and *Ngadju*. See also Expert Evidence Practice Note GPN-EXPT, 7.10-7.111; Annexure B (Concurrent Expert Evidence Guidelines), 10–11.

²⁸⁸ 152 F.Supp.3d 968 (N.D. Ohio 2015).

²⁸⁹ Interview with Judge Zouhary (Apr. 18, 2017). Very similar remarks have been made by another U.S. judge in Judge Block, in *Anchor v. United States*, No. 95-39C (Ct. Claims). See Wood, *supra* note 1, at 100.

²⁹⁰ Zouhary, *supra* note 198, at 11.

²⁹¹ In addition to the cases I discuss, note his criminal application, *United States v. Schwartz*, No #3:05-cr-30079-DPW-ALL (D. Mass), and anecdotally, other earlier uses. See Wood, *supra* note 1, at 103 n.28.

(Voting Rights case).²⁹² There, Judges Woodlock, Selya and Ponsor used hot tubbing to examine two political scientists in a case that challenged the Massachusetts Legislature's redistricting plan based on statistical evidence of discrimination. At the end of the process Judge Selya stated that the judges found hot tubbing “very helpful . . . it helps to illuminate for us the matters we have to decide.”²⁹³

It is apposite to consider some of the features of Judge Woodlock's approach when he applies the hot tubbing method. Judge Woodlock does not use a particular order for the process, being quite flexible with his approach. That is actually not unlike how some Australian judges have used the method. Whereas Justice Forrest used a more formalised protocol in *Kilmore East Bushfires*, in *Ngadju*, Justice Marshall's process was less formal. To familiarise the experts with concurrent evidence Justice Marshall simply had them read an article by Justice Rares in advance of their session.²⁹⁴ Yet what is quite different about Judge Woodlock's approach are the following three factors. First, he uses the hot tub after the experts have been fully examined by counsel, and any further examination thereafter by counsel is limited to the scope of testimony given in the hot tub after the process was completed. This is quite different to the Australian method which uses concurrent evidence instead of, not in addition to, traditional methods. In larger cases, adding examination of witnesses after a traditional examination would not enhance efficiencies. Secondly, Judge Woodlock does not allow the active involvement of counsel during the hot tub process itself. Although the lawyers are allowed to be present for his sessions, which are held in open court, he treats their position akin to participants in a court-directed *voir dire*. Counsel might suggest questions to be put by the court and might raise some objections, but they do not actively question the witnesses at the hot tub stage. That is also different from Australia's process. Counsel may lead and cross-examine witnesses as can be seen in Justice Forrest's protocol in Appendix 2, and in the effective cross-examination conducted in *Ngadju*. Thirdly, the spontaneity of the process can be different. The purpose for sometimes choosing to give experts relatively short notice in Judge Woodlock's (and some other U.S. judges')²⁹⁵ practice appears to be to minimise the potential for “over-rehearsed” responses. Australia's concurrent evidence model on the other hand is generally part of a broader method (with pre-trial and trial phases) which is designed to enhance the fact-finding process.²⁹⁶

²⁹² Black Political Task Force v. Galvin, No. 02-11190 (D. Mass.) (14 November 2003). For more on this case, see Wood, *supra* note 1, at 97–100, and Emmerig et al., *supra* note 12.

²⁹³ Transcript of Trial, Black Political Task Force v. Galvin, 300 F. Supp.2d 291 (D. Mass. 2003). A second related voting case was decided in which the expert testimony was used: *Meza v. Galvin*, 322 F.Supp.2d 52 (D. Mass. 2004). See Pepper, *supra* note 2; Wood, *supra* note 1, 9–100.

²⁹⁴ Transcript of Hearing Before Justice Marshall at 1724, *Ngadju* (May 17, 2012); see also Rares, *supra* note 1. Today, an Australian federal proceeding like *Ngadju* would likely be more formalised given recent legislative updates which require that the experts be provided in advance of a hearing (earliest opportunity after being retained) with the federal practice note containing the Code of Conduct and Concurrent Expert Evidence Guidelines.

²⁹⁵ Little advance notice was given in the *Voting Rights Case* (Woodlock, Selya and Ponsor), and in *Anchor v. United States*, No. 95-39C (Ct. Claims) (Block), discussed below.

²⁹⁶ Yet, while generally concurrent evidence in Australia follows a conclave, it need not do so (and conclaves can take place when concurrent evidence is not employed): FRECKELTON & SELBY, *supra* note 1, at 6.15.01. Likewise, Federal Court Guidelines note that the lack of concurrent evidence orders does not mean the Court will not consider using concurrent evidence without prior notice to the parties, if appropriate. GPN-EXPT, Annexure B, para 9. Alternatively if an order is

In *Anchor Savings Bank v. United States*,²⁹⁷ concurrent evidence was used by Judge Block in a case in the U.S. Court of Federal Claims involving breach of contract. The court evaluated the testimony of two damages experts and used the opportunity to pose several fundamental economics questions as well as clarify questions about demonstrative evidence used earlier in the trial. Again, like in the *Voting Rights Case* above, the use of hot tubbing was: (1) done after the parties had already given evidence; (2) used spontaneously, giving counsel and the experts little advanced notice; and (3) done without allowing counsel to participate in questioning. In addition, the judge here did not permit cross-examination after the hot tubbing was completed.²⁹⁸

In contrast to *Anchor* and the *Voting Rights Case*, when Judge Zouhary used concurrent evidence in *In re Polyurethane Foam*, he structured and moderated the concurrent evidence session around questions given to the parties a week in advance, and allowed counsel to become involved during the hot tubbing session in order to join in the legal aspects of what the experts were discussing. The lawyers were also allowed to make “opening statements” in each session.²⁹⁹ There was, however, no cross-examination (which was deemed adequately done through pre-hearing depositions) as occurs in Australia.

United States tax judges have, with the parties’ consent, received concurrent evidence from expert witnesses. In *Rovakat v. Commissioner*,³⁰⁰ the expert evidence concerned the question of whether there was economic substance to international securities transactions which the IRS alleged was motivated primarily by tax-avoidance, rather than any business or regulatory reality. Concurrent evidence was used to overcome the sheer volume of the evidence, which included trial testimony of seven law and three expert witnesses and over 600 exhibits. According to Judge Laro, the concurrent expert evidence process produced a discussion that was “highly focused, highly structured and directed by the court.”

made for concurrent evidence to be given at a hearing, experts should be provided with relevant Guidelines well in advance. GPN-EXPT, para 8.3.

²⁹⁷ 81 Fed.Cl. 1 (2007).

²⁹⁸ Wood, *supra* note 1, at 100.

²⁹⁹ Judge Zouhary’s protocol was in the following terms: “At the beginning of each session, all experts for that session will be sworn. This Court, the experts, and counsel for each side will then engage in a discussion, structured around this Court’s questions. That conversation may include back-and-forth directly between the experts, in a point/counterpoint fashion, with this Court moderating. For instance, this Court may ask Dr. Leitzinger to comment on Dr. Ordovery’s critiques with respect to an aspect of his impact model, then ask Dr. Ordovery to respond, and so on. This Court may invite counsel to join in the legal aspects of that discussion, or comment on the legal consequences of the expert back-and-forth (e.g., what would follow, as a legal matter, from accepting or rejecting a particular expert’s criticisms). Counsel in each session may also make ‘opening statements’ (not to exceed 10 minutes each, delivered before discussion with the experts) that show why Plaintiffs have or have not met Rule 23’s requirements.” During the hearing itself Judge Zouhary further clarified his protocol: “The questions were designed to focus our discussion today. . . . Some of the questions I want to hear from the experts, some from the lawyers, and some are mixed. Some will allow for some input from the experts and the lawyers.” *See In re Polyurethane Foam Antitrust Litigation*, 152 F.Supp.3d 968 (N.D. Ohio 2015); Questions for the Hearing on Class Certification, 1; Transcript of Hearing on Motion for Class Certification, 3.

³⁰⁰ *Rovakat, LLC v. Commissioner*, TC Memo 255 TCM 29, XIV C (2011). Judge Laro explained hot tubbing as follows: “[T]o implement the concurrent testimony, the Court sat at a large table in the middle of the courtroom, with all three experts, each of whom was under oath. The Court then engaged the experts in a three-way conversation about the ultimate issues of fact. Counsel could, but did not, object to any of the expert’s testimony.” Pepper, *supra* note 2, at 32–33.

The *Rovakat* process was applied in *Crimi v Commissioner of Internal Revenue*,³⁰¹ where, at the request of the parties, expert witnesses were directed to testify concurrently. *Crimi* concerned a part-gift, part-sale transaction of a parcel of land where the petitioners claimed the difference between the property's value and the sale price, as a charitable deduction. The IRS challenged the property's valuation, deeming it to be excessive on grounds which included its development potential, the need for remediation, and the potential presence of an endangered species, amongst other factors, to establish the properties' market value at highest and best use. The use of concurrent evidence allowed the differences in the expert valuations to become immediately apparent. As the judge noted, "the importance of concurrent testimony in these cases cannot be overstated; the experts' dialogue straightaway focused on the core issues in dispute." Having isolated the issues in dispute, the judge rejected some of the expert valuations due to their flawed assumptions, as identified by other experts during the course of the concurrent evidence.

CONCLUSION

This Article set out to answer whether, and to what extent, concurrent evidence has a useful role to play in U.S. toxic harms cases specifically and in civil cases more generally. It has indicated that the answer is yes, concurrent evidence does have a useful role to play in such cases, for all of the reasons that the model is a preferred method to adduce and test expert evidence in Australia and elsewhere. Concurrent evidence enhances the efficiency and integrity of the expert evidence process. It upholds the overriding purposes of the U.S. federal rules of procedure and evidence.

I have referred to the potential application of the model in litigation phases including joint expert conferences, pre-trial depositions, *Daubert* hearings, class certification hearings, judge alone trials and jury trials. In truth, the implementation of concurrent evidence at pre-trial junctures, and in judge alone trials, is really not a matter of controversy. The theory and practice is consistent with U.S. rules and emerging practices and there is no cogent reason why it would not be utilised in such instances as a starting point. There is also no shortage of international authority on point, as this Article highlights. It seems that the concerns which are present for some in relation to jury trials are also not insurmountable. There is already support for the use of the model in jury contexts, among both judges and authors. If the parties consented to the model's use, major concerns would fall away. Further it appears that legislative amendment, responsible selection of cases and sound judicial management, may help to address the issues.

The use of hot tubbing should be especially welcomed in toxics cases, which typically involve the problems that concurrent evidence is designed to redress, namely, problems of complex evidence, evidentiary reliability concerns, expert bias and related inefficiencies. Because of the impact of these problems, U.S. judges have already started to implement hot tubbing in spite of the lack of express

³⁰¹ Pepper, *supra* note 2 (citing *Crimi v. C.I.R.*, 105 T.C.M. (CCH) 1330 (T.C. 2013)).

provision for the process in the rules, or found closely related methods in order to achieve similar results.

There is no doubt that the use of concurrent evidence will continue to grow in U.S. proceedings, because this is often what judges and participants want. I look forward to witnessing the inevitable expansion of this process in the U.S.

APPENDIX 1 – AUSTRALIAN LEGISLATION EXAMPLES (3 PROVIDED)

UNIFORM CIVIL PROCEDURE RULES 2005 (NSW)

Court may give directions regarding expert witnesses

31.20 Court may give directions regarding expert witnesses

(1) Without limiting its other powers to give directions, the court may at any time give such directions as it considers appropriate in relation to the use of expert evidence in proceedings.

(2) Directions under this rule may include any of the following:

- (a) a direction as to the time for service of experts' reports,
- (b) a direction that expert evidence may not be adduced on a specified issue,
- (c) a direction that expert evidence may not be adduced on a specified issue except by leave of the court,
- (d) a direction that expert evidence may be adduced on specified issues only,
- (e) a direction limiting the number of expert witnesses who may be called to give evidence on a specified issue,
- (f) a direction providing for the engagement and instruction of a parties' single expert in relation to a specified issue,
- (g) a direction providing for the appointment and instruction of a court-appointed expert in relation to a specified issue,
- (h) a direction requiring experts in relation to the same issue to confer, either before or after preparing experts' reports in relation to a specified issue,
- (i) any other direction that may assist an expert in the exercise of the expert's functions,
- (j) a direction that an expert who has prepared more than one expert's report in relation to any proceedings is to prepare a single report that reflects his or her evidence in chief.

...

Conference between expert witnesses

31.24 Conference between expert witnesses

(cf. SCR Part 36, rule 13CA; DCR Part 28, rule 9D; LCR Part 23, rule 1E)

(1) The court may direct expert witnesses:

- (a) to confer, either generally or in relation to specified matters, and
- (b) to endeavour to reach agreement on any matters in issue, and
- (c) to prepare a joint report, specifying matters agreed and matters not agreed and reasons for any disagreement, and

(d) to base any joint report on specified facts or assumptions of fact,
and may do so at any time, whether before or after the expert witnesses have furnished their experts' reports.

(2) The court may direct that a conference be held:

- (a) with or without the attendance of the parties affected or their legal representatives, or
- (b) with or without the attendance of the parties affected or their legal representatives, at the option of the parties, or
- (c) with or without the attendance of a facilitator (that is, a person who is independent of the parties and who may or may not be an expert in relation to the matters in issue).

(3) An expert witness so directed may apply to the court for further directions to assist the expert witness in the performance of his or her functions in any respect.

(4) Any such application must be made by sending a written request for directions to the court, specifying the matter in relation to which directions are sought.

(5) An expert witness who makes such an application must send a copy of the request to the other expert witnesses and to the parties affected.

(6) Unless the parties affected agree, the content of the conference between the expert witnesses must not be referred to at any hearing.

Instructions to expert witnesses where conference ordered before report furnished

31.25 Instructions to expert witnesses where conference ordered before report furnished

If a direction to confer is given under rule 31.24 (1) (a) before the expert witnesses have furnished their reports, the court may give directions as to:

- (a) the issues to be dealt with in a joint report by the expert witnesses, and
- (b) the facts, and assumptions of fact, on which the report is to be based,

including a direction that the parties affected must endeavour to agree on the instructions to be provided to the expert witnesses.

Joint report arising from conference between expert witnesses

31.26 Joint report arising from conference between expert witnesses

(*cf.* SCR Part 36, rule 13CA; DCR Part 28, rule 9D; LCR Part 23, rule 1E)

- (1) This rule applies if expert witnesses prepare a joint report as referred to in rule 31.24 (1) (c).
- (2) The joint report must specify matters agreed and matters not agreed and the reasons for any disagreement.
- (3) The joint report may be tendered at the trial as evidence of any matters agreed.

(4) In relation to any matters not agreed, the joint report may be used or tendered at the trial only in accordance with the rules of evidence and the practices of the court.

(5) Except by leave of the court, a party affected may not adduce evidence from any other expert witness on the issues dealt with in the joint report.

...

Opinion evidence by expert witnesses

31.35 Opinion evidence by expert witnesses

(*cf.* Federal Court Rules , Order 34A, rule 3)

In any proceedings in which two or more parties call expert witnesses to give opinion evidence about the same issue or similar issues, or indicate to the court an intention to call expert witnesses for that purpose, the court may give any one or more of the following directions:

(a) a direction that, at trial:

(i) the expert witnesses give evidence after all factual evidence relevant to the issue or issues concerned, or such evidence as may be specified by the court, has been adduced, or

(ii) the expert witnesses give evidence at any stage of the trial, whether before or after the plaintiff has closed his or her case, or

(iii) each party intending to call one or more expert witnesses close that party's case in relation to the issue or issues concerned, subject only to adducing evidence of the expert witnesses later in the trial,

(b) a direction that, after all factual evidence relevant to the issue, or such evidence as may be specified by the court, has been adduced, each expert witness file an affidavit or statement indicating:

(i) whether the expert witness adheres to any opinion earlier given, or

(ii) whether, in the light of any such evidence, the expert witness wishes to modify any opinion earlier given,

(c) a direction that the expert witnesses:

(i) be sworn one immediately after another (so as to be capable of making statements, and being examined and cross-examined, in accordance with paragraphs (d), (e), (f), (g) and (h)), and

(ii) when giving evidence, occupy a position in the courtroom (not necessarily the witness box) that is appropriate to the giving of evidence,

(d) a direction that each expert witness give an oral exposition of his or her opinion, or opinions, on the issue or issues concerned,

(e) a direction that each expert witness give his or her opinion about the opinion or opinions given by another expert witness,

(f) a direction that each expert witness be cross-examined in a particular manner or sequence,

(g) a direction that cross-examination or re-examination of the expert witnesses giving evidence in the circumstances referred to in paragraph (c) be conducted:

(i) by completing the cross-examination or re-examination of one expert witness before starting the cross-examination or re-examination of another, or

(ii) by putting to each expert witness, in turn, each issue relevant to one matter or issue at a time, until the cross-examination or re-examination of all of the expert witnesses is complete,

(h) a direction that any expert witness giving evidence in the circumstances referred to in paragraph (c) be permitted to ask questions of any other expert witness together with whom he or she is giving evidence as so referred to,

(i) such other directions as to the giving of evidence in the circumstances referred to in paragraph (c) as the court thinks fit.

CIVIL PROCEDURE ACT 2010 (VIC)

SECT 65I

Court may give directions to expert witnesses—conferences and joint experts reports

- (1) A court may direct expert witnesses in a proceeding—
 - (a) to hold a conference of experts; or
 - (b) to prepare a joint experts report; or
 - (c) to hold a conference and prepare a joint experts report.
- (2) The court may direct that a conference of experts be held with or without the attendance of all or any of the following—
 - (a) the parties to the proceeding; or
 - (b) the legal practitioners of the parties; or
 - (c) an independent facilitator.
- (3) A direction to prepare a joint experts report may include but is not limited to the following—
 - (a) that the joint experts report specifies—
 - (i) the matters agreed and not agreed by the experts; and
 - (ii) the reasons for any agreement or disagreement;
 - (b) the issues to be dealt with in the joint experts report by the expert witnesses;
 - (c) the facts, and assumptions of fact, on which the joint experts report is to be based.
- (4) A direction may be—
 - (a) general or in relation to specified issues;
 - (b) given at any time in a proceeding, including before or after the expert witnesses have prepared or given reports.

SECT 65J

Use of conference of experts and joint experts reports in proceeding

- (1) Unless the parties to the proceeding agree, or the court otherwise orders, the content of a conference of experts, except as referred to in a joint experts report, must not be referred to at any hearing of the proceeding to which it relates.
- (2) A joint experts report may be tendered at the trial as evidence of any matters agreed.
- (3) In relation to any matters not agreed, a joint experts report may be used or tendered at the trial only in accordance with—

(a) the rules of evidence; and

(b) the rules of court and practices of the court in which the trial is heard.

(4) Except by leave of the court, a party affected may not adduce evidence from any other expert witness on the issues dealt with in the joint experts report.

SECT 65K

Court may give direction about giving of evidence, including concurrent evidence, by expert witnesses

(1) A court may give any direction it considers appropriate in relation to the giving of evidence by any expert witness at trial.

(2) Without limiting subsection (1), the court may direct that any expert witness—

(a) give evidence at any stage of the trial, including after all factual evidence has been adduced on behalf of all parties;

(b) give evidence concurrently with one or more expert witnesses;

(c) give an oral exposition of his or her opinion on any issue;

(d) give his or her opinion of any opinion given by other expert witnesses;

(e) be examined, cross-examined or re-examined in a particular manner or sequence, including by putting to each expert witness, in turn, each issue relevant to one matter or issue at a time;

(f) be permitted to ask questions of any other expert witness who is concurrently giving evidence.

(3) A court may question any expert witness to identify the real issues in dispute between 2 or more expert witnesses, including questioning more than one expert witness at the same time.

FEDERAL COURT RULES 2011 - REG 23.15

Evidence of experts

If 2 or more parties to a proceeding intend to call experts to give opinion evidence about a similar question, any of those parties may apply to the Court for one or more of the following orders:

- (a) that the experts confer, either before or after writing their expert reports;
- (b) that the experts produce to the Court a document identifying where the expert opinions agree or differ;
- (c) that the expert's evidence in chief be limited to the contents of the expert's expert report;
- (d) that all factual evidence relevant to any expert's opinions be adduced before the expert is called to give evidence;
- (e) that on the completion of the factual evidence mentioned in paragraph (d), each expert swear an affidavit stating:
 - (i) whether the expert adheres to the previously expressed opinion; or
 - (ii) if the expert holds a different opinion;
 - (A) the opinion; and
 - (B) the factual evidence on which the opinion is based.
- (f) that the experts give evidence one after another;
- (g) that each expert be sworn at the same time and that the cross-examination and re-examination be conducted by putting to each expert in turn each question relevant to one subject or issue at a time, until the cross-examination or re-examination is completed;
- (h) that each expert gives an opinion about the other expert's opinion;
- (i) that the experts be cross-examined and re-examined in any particular manner or sequence.

Note 1: For the directions a Court may make before trial about expert reports and expert evidence, see rule 5.04 (items 14 to 19).

Note 2: The Court may dispense with compliance with the Rules and may make orders inconsistent with the Rules--see rules 1.34 and 1.35.

FEDERAL COURT RULES 2011 - REG 5.04

Making directions

(1) At any hearing, the Court may make directions for the management, conduct and hearing of a proceeding.

Note: *Direction* is defined in the Dictionary.

(2) A party, or the party's [lawyer](#), must attend any hearing for the proceeding.

(3) Without limiting subrule (1), the Court may make a direction mentioned in the following table.

Item	A direction in relation to ...
1	The defining of the issues by pleadings or otherwise
2	The proceeding continuing or becoming an expedited proceeding
3	The standing of affidavits as pleadings
4	The proceeding to continue on affidavits even though the originating application is supported by a statement of claim
5	The filing of affidavits
6	Amendments to an originating application and pleadings
7	The mode and sufficiency of service
8	The joinder of parties
9	The giving of particulars
10	Discovery and inspection of documents
11	Interrogatories
12	Admissions of fact or of documents
13	Inspection of real or personal property
14	The appointment of a court expert
15	The disclosure and exchange of reports of experts
16	The number of expert witnesses to be called
17	The parties jointly instructing an expert to provide a report of the expert's opinion in relation to a particular issue in the proceeding
18	Requiring experts who are to give or have given reports to meet for the purpose of identifying and addressing the issues in dispute between the experts
19	An expert's opinion to be received by way of submission, and the manner and form of that submission, whether or not the opinion would be admissible as evidence
20	The giving of evidence at the hearing, including whether the evidence in chief of witnesses is to be given orally or by affidavit or both
21	The filing and exchange of signed statements of evidence and outlines of evidence of intended witnesses and their use in evidence at the hearing
22	The number of witnesses to be called
23	The evidence of a particular fact or facts being given at the hearing:
	(a) by statement on oath on information and belief; or
	(b) by production of documents or entries in books; or
	(c) by copies of documents or entries; or
	(d) otherwise

Item	A direction in relation to ...
24	The manner in which documentary evidence is to be presented at the hearing
25	The number of documents to be tendered
26	The providing and limiting of written submissions
27	The taking of evidence and receipt of submissions by video link, audio link, electronic communication or other means that the Court considers appropriate
28	The proportion in which the parties are to bear the costs (if any) of taking evidence or making submissions in accordance with a direction mentioned in item 27
29	The attendance by parties before a Registrar for a conference: <p>(a) to satisfy the Registrar that all reasonable steps for achieving a negotiated outcome of the proceeding have been taken; or</p> <p>(b) to clarify the real issues in dispute so that appropriate directions may be made:</p> <p>(i) for the disposition of the matter; or</p> <p>(ii) to shorten the time taken in preparation for, and at, the trial</p>
30	The use of mediation, arbitration or an ADR process to assist in the conduct and resolution of all or part of the proceeding
31	Referring the proceeding, or a matter arising out of the proceeding, to an arbitrator, a mediator or a suitable person for resolution by an ADR process
32	The attendance by parties at a case management conference with a Judge or Registrar to consider the most economic and efficient means of bringing the proceeding to trial and of conducting the trial
33	The place, time and mode of hearing
34	The transfer of the proceeding to another place at which there is a Registry
35	Costs

Note 1: If a proceeding is transferred under a direction mentioned in item 34 of the table, the Registrar at the place from which the proceeding is transferred will send all documents in the Registrar's custody relating to the proceeding to the Registrar at the place to which the proceeding is transferred.

Note 2: A Registrar may exercise the power in this rule--see rule 3.01 and Schedule 2.

Note 3: A party may seek directions as to the conduct of a hearing or trial--see rule 30.23.

APPENDIX 2

Kilmore East Bushfires - Transcript of Proceedings Before Forrest J, 25 February 2014 (day 166),
16765-16766; 16775-16779 (Concurrent Evidence: Russell, Baitch and Blackburn)

HIS HONOUR:

Mr Keogh and Mr Beach, I thought it best to have a chat about the process for the expert concurrent evidence session.

In general terms, I propose to follow the course that was undertaken with the conclave 3 et al expert evidence session. So in other words, I would have the witnesses sworn in, have each of them led through their expertise and their reports be tendered and then ask each of them to make an opening statement on the particular topic, then any questioning from counsel adducing the evidence from the witness, then cross-examination. Does that accord with the way in which you two understood we would conduct this?

MR KEOGH: Yes, your Honour.

HIS HONOUR: Mr Beach?

MR BEACH: Yes.

MR KEOGH: And then at the end, some opportunity for some question or closing statement by the witnesses.

HIS HONOUR: Yes. They can question each other. We can go through the same process we went through last time. They can ask questions of each other if they wish and each will have an opportunity on the topic and I mean the general topic. They have given their answers to the individual subset of questions. I am not going to ask them to go through each subset question, I am going to ask them to tell me about their response to each general question.

MR KEOGH: So it's questions 1-7?

HIS HONOUR: Exactly. I have got their answers to that. You can develop it, if you wish, in evidence-in-chief or lead them through bits of the evidence if you wish or cross-examination, but I know what they say.

MR KEOGH: Yes, your Honour.

HIS HONOUR: Do either of you have a problem with that protocol?

MR KEOGH: No, your Honour. Would there be tendered, in addition to their individual reports - obviously the joint reports would go in, your Honour.

HIS HONOUR: Yes.

...

<BILLY DON RUSSELL JR, sworn and examined:

<ALEXANDER BAITCH, sworn and examined:

<TREVOR ROBERT BLACKBURN, affirmed and examined:

HIS HONOUR: Gentleman, thank you very much for meeting yesterday and agreeing to participate today. Two of you I know from my own experience, Professor Blackburn and Professor Baitch have participated in this type of exercise before. Professor Russell, I am not sure whether you have.

PROFESSOR RUSSELL: I have not.

HIS HONOUR: I hope it will be at least an interesting experience for you. I am going to set out now some of the aspects of how we deal with the concurrent evidence session because it's considerably different to the standard way or the way in which expert evidence has been taken in the past.

Both Professor Baitch and Professor Blackburn have a familiarity with it but I think it's helpful for all of you if I just go through those points and also just points of practice and procedure to help you out, in terms of what will happen over the next three or four days.

In terms of housekeeping, we will start at 10.15 each day. We will go through until 1 o'clock and we will take a break during the course of the morning at a convenient time. We will then resume at 2.15 and go through to 4.30. If I apprehend that we are getting behind and we won't conclude by Friday, we may sit a bit later. I am relatively confident that we will finish by Friday but Professor Baitch will have heard that before, in terms of my expressing confidence about finishing dates. I have discussed this with counsel. We are hopeful that we will finish by Friday afternoon. It may be earlier.

You know that you have access to the facilities upstairs. There's a conference room and a coffee room. Mr Nguyen, who is not in court at the moment but is outside, will be available to assist you with any requirements you need from the court.

Materials in court. I note that each of you have brought some materials with you. That's to be encouraged. You will be able to refer to, in the course of giving evidence, materials that have been produced to the court by way of photographs, by way of your own expert reports, and I have been told that Professor Russell wants to use a video that's referred to in his reports. That, of course, will be permitted. Similarly, as Professor Blackburn and Professor Baitch know, they will be able to refer to materials in their reports. The only exclusion, the only rider on that is I won't permit reference to materials that aren't referred to in your reports, save for this exception: there is a model here in court which you may or may not want to use as an aid for my assistance. It is simply an aid to enable me to understand your evidence better as to what happened at pole 38. There may be photographs that have been already tendered in evidence you want to take the court to. That, of course, will be encouraged or at the very least, permitted.

From now onwards, you will be quarantined from the lawyers. The idea behind that, I suspect you know, is that I want your evidence on it, not affected by the lawyers. I am not suggesting any impropriety on the part of the lawyers but it would give you the opportunity to reflect on the evidence overnight by yourself and that's the idea over the next three days.

The way in which we will cover the evidence, and I address this particularly to Professor Russell, is as follows. Once you have been taken through your CVs and your experience by the counsel who is leading your evidence, we will go through each topic by witness. So in other words,

we will deal with the evidence on a topic by topic basis, as indicated in the questionnaire. So we will deal with each primary topic that's raised in the questionnaire that you have answered and you can give any further explanation you wish to and, of course, answer questions posed by the barristers. So we will deal with the issues topic by topic. That assists me in having all the evidence in one place and it also assists me in knowing where the areas of agreement or disagreement are on that topic.

The process, in general terms, will be as follows. You will have the opportunity to make an opening statement on the topic, then counsel calling you will have the opportunity to ask you any questions. That will not take a long time but to elucidate any points that counsel feel should be addressed, or highlighted. Then you will be cross-examined by counsel for the opposing party. There will only be one cross-examiner. Then at the conclusion of the exercise, when each of the three of you have given evidence, you will have the opportunity to question each other and then make a closing statement on that topic.

I don't propose to get you to go into the subtopics. You will recall that under each of the questions there are a number of subquestions. You have answered those; they can be covered in general when we deal with the issues. The closing statements are very helpful to me. I learned from the last exercise that the opening and closing statements are of real benefit to me in giving me an overview as to where each of you stand, as, of course, are all of your evidence but particularly the opening and closing statements. Are there any questions that any of you have in regards to the process we are going to adopt. Professor back burn?

PROFESSOR BLACKBURN: No.

HIS HONOUR: You have participated in it before. So has Professor Baitch. Any questions, Professor Baitch?

PROFESSOR BAITCH: No.

HIS HONOUR: Professor Russell, do you have any questions?

PROFESSOR RUSSELL: Not at this time. I think I understand. If I don't, it will be obvious in a minute.

HIS HONOUR: Please let me know, any of you, if you have any problems in terms of understanding the process; or alternatively, if at any time you want a break other than the usual break, please let me know. My associates are your contact point during the time you are giving evidence, and Mr Nguyen, who you will see each morning. I think given that there are no questions, we will get on with taking your evidence now. The first part of it will be to have each of you give evidence as to expertise. I have read each of your CVs. To give evidence of your expertise in the area we are going to cover and to

tender the reports that each of you have produced. Mr Keogh, will we start with Professor Blackburn or Professor Baitch?

MR KEOGH: I will start with Professor Blackburn, your Honour, if that's convenient. Just before we start, I think there had been some indication given that at least Professor Blackburn might be assisted by having a whiteboard available at some stage.

HIS HONOUR: We will wait and see. There is a whiteboard available but we will wait and see. If Professor Blackburn does need it, I will think about it, but there is one in the wings.

MR KEOGH: Thank you, your Honour.

APPENDIX 3 – EXPERT WITNESS CODES OF CONDUCT (NOW HARMONISED)

UNIFORM CIVIL PROCEDURE RULES 2005 (NSW) - REG 31.23

Code of conduct

31.23 Code of conduct

(cf. SCR Part 39, rule 2; DCR Part 28A, rule 2; LCR Part 38B, rule 2)

(1) An expert witness must comply with the code of conduct set out in Schedule 7.

(2) As soon as practicable after an expert witness is engaged or appointed:

(a) in the case of an expert witness engaged by one or more parties, the engaging parties, or one of them as they may agree, or

(b) in the case of an expert witness appointed by the court, such of the affected parties as the court may direct,

must provide the expert witness with a copy of the code of conduct.

(3) Unless the court otherwise orders, an expert's report may not be admitted in evidence unless the report contains an acknowledgment by the expert witness by whom it was prepared that he or she has read the code of conduct and agrees to be bound by it.

(4) Unless the court otherwise orders, oral evidence may not be received from an expert witness unless the court is satisfied that the expert witness has acknowledged, whether in an expert's report prepared in relation to the proceedings or otherwise in relation to the proceedings, that he or she has read the code of conduct and agrees to be bound by it.

...

UNIFORM CIVIL PROCEDURE RULES 2005 (NSW) - SCHEDULE 7

SCHEDULE 7 – Expert witness code of conduct

(Rule 31.23)

1 Application of code

This code of conduct applies to any expert witness engaged or appointed:

(a) to provide an expert's report for use as evidence in proceedings or proposed proceedings,
or

(b) to give opinion evidence in proceedings or proposed proceedings.

2 General duties to the Court

An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the party to the proceedings or other person retaining the expert witness, to assist the court impartially on matters relevant to the area of expertise of the witness.

3 Content of report

Every report prepared by an expert witness for use in court must clearly state the opinion or opinions of the expert and must state, specify or provide:

- (a) the name and address of the expert, and
- (b) an acknowledgement that the expert has read this code and agrees to be bound by it, and
- (c) the qualifications of the expert to prepare the report, and
- (d) the assumptions and material facts on which each opinion expressed in the report is based (a letter of instructions may be annexed), and
- (e) the reasons for and any literature or other materials utilised in support of each such opinion, and
- (f) (if applicable) that a particular question, issue or matter falls outside the expert's field of expertise, and
- (g) any examinations, tests or other investigations on which the expert has relied, identifying the person who carried them out and that person's qualifications, and
- (h) the extent to which any opinion which the expert has expressed involves the acceptance of another person's opinion, the identification of that other person and the opinion expressed by that other person, and
- (i) a declaration that the expert has made all the inquiries which the expert believes are desirable and appropriate (save for any matters identified explicitly in the report), and that no matters of significance which the expert regards as relevant have, to the knowledge of the expert, been withheld from the court, and
- (j) any qualification of an opinion expressed in the report without which the report is or may be incomplete or inaccurate, and
- (k) whether any opinion expressed in the report is not a concluded opinion because of insufficient research or insufficient data or for any other reason, and
- (l) where the report is lengthy or complex, a brief summary of the report at the beginning of the report.

4 Supplementary report following change of opinion

(1) Where an expert witness has provided to a party (or that party's legal representative) a report for use in court, and the expert thereafter changes his or her opinion on a material matter, the expert must forthwith provide to the party (or that party's legal representative) a supplementary report which must state, specify or provide the information referred to in clause 3 (a), (d), (e), (g), (h), (i), (j), (k) and (l), and if applicable, clause 3 (f).

(2) In any subsequent report (whether prepared in accordance with subclause (1) or not), the expert may refer to material contained in the earlier report without repeating it.

5 Duty to comply with the court's directions

If directed to do so by the court, an expert witness must:

- (a) confer with any other expert witness, and
- (b) provide the court with a joint report specifying (as the case requires) matters agreed and matters not agreed and the reasons for the experts not agreeing, and
- (c) abide in a timely way by any direction of the court.

6 Conferences of experts

Each expert witness must:

- (a) exercise his or her independent judgment in relation to every conference in which the expert participates pursuant to a direction of the court and in relation to each report thereafter provided, and must not act on any instruction or request to withhold or avoid agreement, and
- (b) endeavour to reach agreement with the other expert witness (or witnesses) on any issue in dispute between them, or failing agreement, endeavour to identify and clarify the basis of disagreement on the issues which are in dispute.

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23.12 Provision of guidelines to an expert

If a party intends to retain an expert to give an expert report or to give expert evidence, the party must first give the expert any practice note dealing with guidelines for expert witnesses in proceedings in the Court (the Practice Note).

Note: A copy of any practice notes may be obtained from the District Registry or downloaded from the Court's website at <http://www.fedcourt.gov.au>.

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EXPERT EVIDENCE PRACTICE NOTE (GPN-EXPT)

General Practice Note

1. INTRODUCTION

1.1 This practice note, including the Harmonised Expert Witness Code of Conduct ("Code") (see Annexure A) and the Concurrent Expert Evidence Guidelines ("Concurrent Evidence Guidelines") (see Annexure B), applies to any proceeding involving the use of expert evidence...

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Annexure A

HARMONISED EXPERT WITNESS CODE OF CONDUCT

APPLICATION OF CODE

1. This Code of Conduct applies to any expert witness engaged or appointed:
 - (a) to provide an expert's report for use as evidence in proceedings or proposed proceedings;
or
 - (b) to give opinion evidence in proceedings or proposed proceedings.

GENERAL DUTIES TO THE COURT

2. An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the party to the proceedings or other person retaining the expert witness, to assist the Court impartially on matters relevant to the area of expertise of the witness.

CONTENT OF REPORT

3. Every report prepared by an expert witness for use in Court shall clearly state the opinion or opinions of the expert and shall state, specify or provide:
 - (a) the name and address of the expert;
 - (b) an acknowledgment that the expert has read this code and agrees to be bound by it;

- (c) the qualifications of the expert to prepare the report;
- (d) the assumptions and material facts on which each opinion expressed in the report is based [a letter of instructions may be annexed];
- (e) the reasons for and any literature or other materials utilised in support of such opinion;
- (f) (if applicable) that a particular question, issue or matter falls outside the expert's field of expertise;
- (g) any examinations, tests or other investigations on which the expert has relied, identifying the person who carried them out and that person's qualifications;
- (h) the extent to which any opinion which the expert has expressed involves the acceptance of another person's opinion, the identification of that other person and the opinion expressed by that other person;
- (i) a declaration that the expert has made all the inquiries which the expert believes are desirable and appropriate (save for any matters identified explicitly in the report), and that no matters of significance which the expert regards as relevant have, to the knowledge of the expert, been withheld from the Court;
- (j) any qualifications on an opinion expressed in the report without which the report is or may be incomplete or inaccurate;
- (k) whether any opinion expressed in the report is not a concluded opinion because of insufficient research or insufficient data or for any other reason; and
- (l) where the report is lengthy or complex, a brief summary of the report at the beginning of the report.

SUPPLEMENTARY REPORT FOLLOWING CHANGE OF OPINION

4. Where an expert witness has provided to a party (or that party's legal representative) a report for use in Court, and the expert thereafter changes his or her opinion on a material matter, the expert shall forthwith provide to the party (or that party's legal representative) a supplementary report which shall state, specify or provide the information referred to in paragraphs (a), (d), (e), (g), (h), (i), (j), (k) and (l) of clause 3 of this code and, if applicable, paragraph (f) of that clause.

5. In any subsequent report (whether prepared in accordance with clause 4 or not) the expert may refer to material contained in the earlier report without repeating it.

DUTY TO COMPLY WITH THE COURT'S DIRECTIONS

6. If directed to do so by the Court, an expert witness shall:

- (a) confer with any other expert witness;
- (b) provide the Court with a joint-report specifying (as the case requires) matters agreed and matters not agreed and the reasons for the experts not agreeing; and
- (c) abide in a timely way by any direction of the Court.

CONFERENCE OF EXPERTS

7. Each expert witness shall:

- (a) exercise his or her independent judgment in relation to every conference in which the expert participates pursuant to a direction of the Court and in relation to each report thereafter provided, and shall not act on any instruction or request to withhold or avoid agreement; and
- (b) endeavour to reach agreement with the other expert witness (or witnesses) on any issue in dispute between them, or failing agreement, endeavour to identify and clarify the basis of disagreement on the issues which are in dispute.

APPENDIX 4

Please See Attachment