THE SIGNIFICANT PROBATIVE VALUE OF TENDENCY EVIDENCE

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Evidence of a defendant's other misconduct, adduced as tendency evidence, can be crucial to a successful criminal prosecution, particularly in child sex offence cases where the prosecution may have little evidence beyond the complainant's allegations. However, reflecting the traditional concern that juries give it too much weight, tendency evidence is subject to exclusion in the Uniform Evidence Law *('*UEL*'). It must possess significant probative value that substantially outweighs prejudicial risk to gain admission.The probative capacity of tendency evidence is a key issue in criminal justice that was considered both by the High Court in* Hughes v The Queen *in 2017 ('*Hughes*'), and the Royal Commission into Institutional Responses to Child Sexual Abuse ('Royal Commission'). The majority in* Hughes *took a fairly broad approach to admissibility, whereas Nettle J, dissenting, favoured more stringent exclusion. The Royal Commission supported the majority but argued that admissibility should be broadened further. As Gageler J recognised in* Hughes*, probative value assessments are probability assessments that should be grounded in relevant social science data. However, the High Court was given little assistance in these areas. This article assesses the competing arguments in the High Court by reference to probability theory and empirical data, including the evidence gathered by the Royal Commission. It supports the position of the majority in* Hughes *and the Royal Commission that tendency evidence has considerable probative capacity. The more stringent traditional approach, supported by Nettle J, is illogical and empirically unsustainable. As well as suggesting that tendency evidence should readily gain admission under the* UEL*, this article supports the Royal Commission's call for a reassessment of the exclusionary rule. Given its significant probative value, concerns about tendency evidence being overvalued appear exaggerated. At the same time,*

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excluding this probative evidence may lead to failed prosecutions and mistaken acquittals. The elevated probative value requirements for tendency evidence should be reconsidered.

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I Introduction

Tendency evidence in criminal cases typically consists of evidence of a defendant's other misconduct, adduced to support an inference that the defendant has a tendency towards such misconduct, and so is more likely to have committed the charged offence. It is excluded by the tendency rule in s 97 of the *Uniform Evidence Law* ('*UEL*')[1] and must possess 'significant probative value' to gain admission. Further, under s 101(2), the probative

[1] *Evidence Act 1995* (Cth); *Evidence Act 2011* (ACT); *Evidence Act 1995* (NSW); *Evidence (National Uniform Legislation) Act 2011* (NT); *Evidence Act 2001* (Tas); *Evidence Act 2008* (Vic) — collectively the *Uniform Evidence Law* ('*UEL*').

value of prosecution tendency evidence must substantially outweigh the risk of prejudice.[2]

The admissibility of tendency evidence is hotly contested in child sex offence cases in particular. The offences are generally committed in secret, and victims often delay before reporting the abuse, resulting in a loss of evidence.[3] The prosecution may be left with little evidence other than the complainant's allegations. Tendency evidence of other alleged victims can be crucial in the prosecution proving its case beyond reasonable doubt. The stringency of the exclusion rule in child sex offence cases came under close scrutiny in two key forums in 2017: the Royal Commission into Institutional Responses to Child Sexual Abuse ('Royal Commission') in its Criminal Justice report identified the exclusion of other allegations as 'one of the most significant issues',[4] and the High Court in *Hughes v The Queen* ('*Hughes*') conducted a detailed examination of the probative value of other allegation evidence on child sex offences charges.[5] Both discussions reveal the pressures for opening up admissibility of tendency evidence.

This article examines the probative value of tendency evidence from the perspectives of probability theory and behavioural science. It pays close attention to the arguments of the Royal Commission and the High Court in *Hughes*. However, the implications extend beyond child sex offence cases to criminal cases more broadly.[6] It argues that tendency evidence has greater probative value than has traditionally been appreciated. This has two

[2] The article focuses on s 97 rather than s 101, and does not examine the closely related coincidence exclusionary rule in *UEL* (n 1) s 98. Coincidence and tendency evidence operate very similarly, and the admissibility requirements in *UEL* (n 1) ss 97, 98, 101 are expressed in identical language. Despite this, the courts are increasingly placing weight upon the distinction, adding unnecessary complexity to the law: David Hamer, '"Tendency Evidence" and "Coincidence Evidence" in the Criminal Trial: What's the Difference?' in Andrew Roberts and Jeremy Gans (eds), *Critical Perspectives on the Uniform Evidence Law* (Federation Press, 2017) 158 ('Tendency Evidence and Coincidence Evidence in the Criminal Trial'). Cf James Metzger, 'Review Essay: Critical Perspectives on the Uniform Evidence Law' (2018) 40(1) *Sydney Law Review* 147, 153–7.

[3] See, eg, Kamala London et al, 'Review of the Contemporary Literature on How Children Report Sexual Abuse to Others: Findings, Methodological Issues, and Implications for Forensic Interviewers' (2008) 16(1) *Memory* 29, 29, 30, 31–5; Judy Cashmore et al, *Report for the Royal Commission into Institutional Responses to Child Sexual Abuse: The Impact of Delayed Reporting on the Prosecution and Outcomes of Child Sexual Abuse Cases* (Research Report, August 2016) 32.

[4] *Royal Commission into Institutional Responses to Child Sexual Abuse* (Criminal Justice Report, 2017) pts iii–vi, 411 ('*Royal Commission Criminal Justice Report*').

[5] (2017) 344 ALR 187 ('*Hughes*').

[6] See Mike Redmayne, *Character in the Criminal Trial* (Oxford University Press, 2015) 21–3.

important implications. Most immediately, tendency evidence, properly assessed, will often have a good chance of satisfying the probative value admissibility requirements in s 97 and s 101. More fundamentally, the significant probative capacity of tendency evidence undermines the policy basis for exclusion. The traditional concern about juries overvaluing the evidence appears exaggerated, and exclusion will carry an elevated risk of mistaken acquittal. The elevated probative value requirements for tendency evidence should be reconsidered.

Competing views about the probative value of tendency evidence were expressed in *Hughes*. Robert Hughes, the 1980s *Hey Dad..!* TV star, was convicted for a series of child sex offences against five complainants. The prosecution had relied heavily on tendency evidence. It argued that the complainants' allegations were cross-admissible — that each charge derived support from evidence of similar misconduct provided by the other four complainants. Further tendency evidence of uncharged misconduct from six other witnesses was also admitted.[7] The defendant appealed unsuccessfully to the New South Wales Court of Criminal Appeal ('NSWCCA')[8] and then to the High Court of Australia, arguing that the evidence of other alleged victims and complainants did not possess the 'significant probative value' required by s 97(1)(b).

Much of the High Court's discussion focused on the extent to which the misconduct alleged in the challenged tendency evidence — in order to acquire significant probative value on a particular count — would need to closely resemble the misconduct charged in that count. On one view, the High Court was required to make a choice between the stringent Victorian approach and the more open New South Wales ('NSW') approach.[9] In *Velkoski v The Queen* ('*Velkoski*'),[10] the Victorian Court of Appeal ('VSCA') suggested that 'sufficient similarity or distinctiveness in the features of the proposed tendency evidence' may require something '"remarkable", "unusual", "improbable" [or] "peculiar"'.[11] The Victorian court criticised statements of

[7] Some of this evidence was only held admissible in respect of some counts: *Hughes v The Queen* (2015) 93 NSWLR 474, 508 [140] ('*Hughes (Appeal)*').

[8] Ibid 550 [391].

[9] See Annie Cossins, 'The Future of Joint Trials of Sex Offences after *Hughes*: Resolving Judicial Fears and Jurisdictional Tensions with Evidence-Based Decision-Making' (2018) 41(3) *Melbourne University Law Review* 1121, 1132–40 ('The Future of Joint Trials').

[10] (2014) 45 VR 680, 704 [102] (Redlich, Weinberg and Coghlan JJA) ('*Velkoski*').

[11] Ibid 711 [133], citing *Reeves v The Queen* (2013) 41 VR 275, 289 [53] (Maxwell ACJ).

the NSWCCA that the other misconduct need not be 'closely similar'[12] with the charged offence for lowering the admissibility threshold 'too far'.[13]

Shortly after *Velkoski*, the NSWCCA in *Hughes* indicated it did 'not accept that the language used by the Victorian Court of Appeal represents the law in New South Wales.'[14] The NSWCCA upheld the admissibility and cross-admissibility of the allegations of complainants and other tendency witnesses, notwithstanding that: the complainants' ages ranged from 6 to 15 with another alleged victim in her early twenties; that they were in a variety of social and professional relationships with the defendant; and that they gave evidence of various sexual touching and exposure behaviours, in various contexts. The defendant appealed to the High Court, arguing that the Court should adopt the Victorian demand for specificity in *Velkoski*; recognise that the alleged behaviours were too 'dissimilar';[15] and recognise that the alleged tendency was at too high a level of 'generality'[16] for the evidence to acquire significant probative value and gain admissibility.[17] For example, the defendant argued that

> there was a 'world of difference' between the evidence concerning EE (count 10), who was 15 years old and whom the appellant encouraged to commit indecent acts in a park and in a driveway, and the evidence concerning SH (counts 3 to 6), which involved intrusive acts 'in a darkened bedroom, in her bed, when she was only six, seven or eight'.[18]

The Victorian Director of Public Prosecutions intervened in the High Court appeal to support the more open NSW approach.[19]

[12] *Velkoski* (n 10) 708 [120], 716 [155] (Redlich, Weinberg and Coghlan JJA), citing *R v Ford* (2009) 273 ALR 286, 298 [41] (Campbell JA) ('*Ford*') and *R v PWD* (2010) 205 A Crim R 75, 91 [79] (Beazley JA) ('*PWD*').

[13] *Velkoski* (n 10) 717 [164] (Redlich, Weinberg and Coghlan JJA).

[14] This is a little ambiguous. It could mean that the NSWCCA considers that the VSCA has misrepresented the NSWCCA's approach. But in context, it appears to mean that the NSWCCA does not accept the VSCA's approach: *Hughes (Appeal)* (n 7) 517 [188] (Beazley P, Schmidt and Button JJ).

[15] Hughes, 'Appellant's Submissions', Submission in *Hughes v The Queen*, Case No S226/2016, 7 October 2016, 5 [20]–[21].

[16] Ibid 19 [77].

[17] Ibid 5 [21].

[18] *Hughes* (n 5) 204 [62] (Gageler J).

[19] Attorney-General (Vic), 'Amended Intervener's Submissions', Submission in *Hughes v The Queen*, Case No S226/2016, January 2017, 13 [5.49].

The High Court dismissed Hughes' appeal by a narrow 4:3 margin. The majority judgment of Kiefel CJ, Bell, Keane and Edelman JJ upheld the admissibility determinations of the trial judge and the NSWCCA, expressly disapproving *Velkoski* as 'unduly restrictive'[20] and inconsistent with the legislative scheme.[21] There were three dissenting judgments. Nettle J, in the longest judgment, defended the VSCA's approach as orthodox,[22] and criticised the NSWCCA for '[going] so far in lowering the bar' without 'justification in principle or as a matter of statutory interpretation'.[23] His Honour would have rejected the admissibility of much of the tendency evidence as too dissimilar and overturned all the convictions.[24]

Gageler J indicated that 'to consider how the tendency rule is best to be applied',[25] the Court should be 'informed by social science data'.[26] Unfortunately, '[n]o party or intervener in the present appeal sought to direct attention to data or scholarly work bearing on actual probabilities'.[27] In the

[20] *Hughes* (n 5) 192 [12].

[21] Ibid 197 [32].

[22] Ibid 234–5 [173].

[23] Ibid 244 [194].

[24] Ibid 231–3 [165]–[167], 248 [209]. Some reliance was placed on s 101 as well as s 97 of the *UEL*, notwithstanding that s 101 was not the subject of appeal: see generally *Hughes* (n 5).

[25] Ibid 213 [102].

[26] Ibid 215 [110].

[27] Ibid. There may be difficulties getting this crucial material before the court. The High Court views itself as a strict appellate court and does not allow any new or fresh evidence to be adduced: see, eg, *Van Beelen v The Queen* (2017) 349 ALR 578, 596 [77] (Bell, Gageler, Keane, Nettle and Edelman JJ); Bibi Sangha and Robert Moles, 'Post-Appeal Review Rights: Australia, Britain and Canada' (2012) 36(5) *Criminal Law Journal* 300, 308.

Evidence of probability theory and criminal behaviours could come in at trial or at intermediate appeal. Australian courts have generally been very liberal in admitting prosecution expert evidence: Gary Edmond, 'The Admissibility of Forensic Science and Medicine Evidence under the Uniform Evidence Law' (2014) 38 *Criminal Law Journal* 136. However, probability theory and social science data may be viewed as too general in nature, lacking relevance: see generally Kristy A Martire and Gary Edmond, 'Rethinking Expert Opinion Evidence' (2017) 40(3) *Melbourne University Law Review* 967, 987–8. Cf *UEL* (n 1) ss 79(2), 108C.

Alternatively, there is potential for courts to take judicial notice of this material: at s 144. Judicial notice may be taken more liberally if the material is viewed as going to legislative facts rather than adjudicative facts, however, the law is unsettled and arguably operates too restrictively: see *Aytugrul v The Queen* (2012) 247 CLR 170. See also Gary Edmond, David Hamer and Emma Cunliffe, 'A Little Ignorance is a Dangerous Thing: Engaging with Exogenous Knowledge Not Adduced by the Parties' (2016) 25(3) *Griffith Law Review* 383; David Hamer and Gary Edmond, 'Judicial Notice: Beyond Adversarialism and into the Exogenous Zone' (2016) 25(3) *Griffith Law Review* 291.

absence of that guidance, Gageler J adopted a 'conservative approach'.[28] However, Gageler J only viewed the evidence relating to complainant EE (the tenth count against the appellant, mentioned above), as being too dissimilar from the others to sustain cross-admissibility (although this was sufficient to require all convictions to be quashed).[29] Gordon J, in a short judgment, agreed with the reasoning of Nettle J and the orders proposed by Gageler J and Nettle J.[30]

Following *Hughes*, the Royal Commission noted, with approval, that the decision 'is likely to lead to the greater admissibility of tendency evidence and to more joint trials where tendency evidence is cross-admissible, particularly in Victoria'.[31] However, the Royal Commission doubted whether the decision 'provides sufficient guidance' to courts,[32] indicating that the decision was not as broad as '[the Royal Commission considered] necessary'[33] and recommending that admissibility be opened up further.[34] The examination of the probative value of tendency evidence in this article supports the Royal Commission's position. Tendency evidence is more probative than traditionally appreciated by the courts, calling into question the exclusionary rule as it currently operates. While the High Court decision in *Hughes* is a step in the right direction, the law requires more fundamental reform.

A *Overview*

This article provides a close examination of the issue at the heart of the *Hughes* appeal and the Royal Commission's recommendations: the probative value of tendency evidence. The analysis aims to remedy the gap identified by Gageler J and draws upon the probabilistic logic of probative value and an empirical understanding of criminal behaviour. Part II begins by examining

[28] *Hughes* (n 5) 215 [111].

[29] Ibid 216 [114]–[116].

[30] Ibid 249–50 [216], 252 [226].

[31] *Royal Commission Criminal Justice Report* (n 4) 665.

[32] Ibid 635.

[33] Ibid.

[34] Ibid 649–52 Recommendation 50. The draft legislation advanced by the Royal Commission in Appendix N of the *Royal Commission Criminal Justice Report* (n 4) has been broadly recognised as problematic; however, it has prompted other law reform activities. A working party of the Council of Attorneys-General is currently considering alternative models for broadening admissibility: Council of Attorneys-General, *Communique* (1 December 2017) 3. See David Hamer, 'Propensity Evidence Reform after the Royal Commission into Child Sexual Abuse' (2018) 42(4) *Criminal Law Journal* 234.

the s 97 probative value requirement. Interpretations of the test advanced in *Hughes* are considered in Section A. While the level of the threshold is a legal question, Section B argues that whether or not evidence meets the threshold is a factual question, determined by the logical analysis of appropriate empirical data.

Part III commences the analysis by distinguishing probative value from the related concept of proof. The two concepts are regularly conflated by opponents of admissibility. This can lead to excessive probative value demands and hinder understanding of the probative contribution tendency evidence can make. While evidential context must be taken into account in order to identify the fact in issue, the probative value assessment should focus on the contribution of the tendency evidence alone.

Part IV then moves on to consider the logical structure of the probative value assessment. Section A argues that the probative value of evidence depends upon the relative value of two elements, the consistency of the evidence with guilt, and its consistency with innocence. Both relative consistency elements are implicated in the requirement that the other alleged misconduct share similar features with the charged offence. First, the consistency of the defendant's other misconduct with the defendant's guilt of the charged offence depends to some degree on the other misconduct's similarity with the charged offence. Second, the more unusual and distinctive the shared features, the more inconsistent the other misconduct is with the defendant's innocence.

Similarity clearly must be considered in assessing probative value; however, Part V, drawing on empirical data, shows that tendency evidence can achieve strong probative value without strong similarity. Prosecution tendency evidence is often highly probative because it is far more consistent with guilt than with innocence. It may be far from certain that a person, having committed one criminal offence, will commit another similar offence. But someone with such a history is far more likely to commit that kind of offence than someone without that history.[35] This lends support for the majority approach in *Hughes* and also for the Royal Commission's recommendation that admissibility should be broadened further.

[35] See below nn 202–7 and accompanying text.

II Legal and Factual Sides of the Probative Value Threshold

A *The Basis and Level of the 'Significant Probative Value' Threshold*

Section 97(1)(b) of the *UEL* requires that for tendency evidence to be admitted, it must have 'significant probative value'. The *UEL* defines probative value as 'the extent to which the evidence could rationally affect … the probability of … a fact in issue'.[36] The issue the High Court faced in *Hughes* was whether evidence of the defendant's alleged sexual misconduct against other girls was admissible on the fact in issue in each count — the defendant's commission of the charged conduct. This raises the preliminary legal question of the level of the 'significant probative value' threshold.

The *Hughes* Court adopted a traditional approach to interpreting 'significant' — drawing on synonyms and comparators. Gageler J observed that 'significant probative value … is lower than … "substantial" probative value; but, to meet the threshold of significant probative value, evidence must still be "important" or "of consequence" to the assessment of the probability of the existence of a fact in issue'.[37] Gordon J introduced a further synonym, also mentioned by the majority: '[T]he evidence must be influential in the context of fact-finding.'[38]

The majority also suggested that 'significance' depends upon the nature of the proceedings and, implicitly, the identity of the party: 'The capacity of tendency evidence to be influential to proof of an issue on the balance of probability in civil proceedings may differ from the capacity of the same evidence to prove an issue beyond reasonable doubt in criminal proceedings'.[39] To be influential, prosecution evidence[40] in a criminal case would have to bring a greater increase in the probability than plaintiff evidence in a civil case. By the same reasoning, the criminal defendant's evidence may be considered influential more readily than that of a civil defendant, since the criminal defendant has to do less to resist the prosecution

[36] *UEL* (n 1) Dictionary (definition of 'probative value').

[37] *Hughes* (n 5) 208–9 [81], citing *R v Lockyer* (1996) 89 A Crim R 457, 459 (Hunt CJ at CL).

[38] *Hughes* (n 5) 249 [215] (Gordon J), quoting *IMM v The Queen* (2016) 257 CLR 300, 314 [46] (French CJ, Kiefel, Bell and Keane JJ). See also *Hughes* (n 5) 193 [16], 199 [40] (Kiefel CJ, Bell, Keane and Edelman JJ).

[39] *Hughes* (n 5) 193 [16] (Kiefel CJ, Bell, Keane and Edelman JJ).

[40] Here, I refer to prosecution evidence adduced to prove guilt. I put to one side the complication of the prosecution's ethical obligation to call all material witnesses, including those that favour the defence: see, eg, *Gilham v The Queen* [2012] NSWCCA 131, [383]–[412] (McClellan CJ at CL, Fullerton and Garling JJ).

case than a civil defendant to resist the plaintiff's case. On this view, the required probability shift depends upon the tendering party as well as the nature of proceedings; in ascending order: criminal defendant, civil defendant, plaintiff and prosecution. This hierarchy of thresholds appears theoretically defensible but it is rather elaborate and may be difficult to apply in practice.

Gageler J, with some support from Nettle J,[41] sought to expand the discussion beyond semantics to the policy concerns underlying s 97. Gageler J suggested that to determine 'how high the bar of "significance" should be set', it must be asked: 'Why does the tendency rule exist?'[42] Gageler J's answer is that it addresses the risk of 'cognitive bias, amounting to an inclination observable [in] most persons to overvalue dispositional or personality-based explanations for another person's conduct and to undervalue situational explanations for that conduct'.[43] According to Gageler J, '[t]he tendency rule [requires probative value] significant enough to justify the risk of cognitive error which tendency reasoning entails'.[44] Gageler J argued that this interpretation of the tendency rule 'is consistent with its legislative history',[45] referring to the research of the Australian Law Reform Commission ('ALRC') preceding the original *UEL*, and the further joint review by the ALRC, New South Wales Law Reform Commission and Victorian Law Reform Commission in 2005.[46]

The majority considered that since s 97 departed markedly from the ALRC's draft provision, 'the ALRC's reports [are] less useful on this subject than on other subjects'.[47] The majority also questioned whether 'the object of

[41] Nettle J suggested that '[t]he orthodox approach to the application of s 97 is grounded in recognition of the dangers that attend the receipt of tendency evidence': *Hughes* (n 5) 235 [174]. Nettle J later referred to 'the common law's concern with the potential for jurors to overestimate the value of and to be improperly influenced by tendency evidence': at 239–40 [184]; see also at 250 [217] (Gordon J).

[42] Ibid 205 [68].

[43] Ibid 206 [72].

[44] Ibid 210 [86].

[45] Ibid 207 [74].

[46] Ibid 207–10 [75]–[84], discussing Law Reform Commission, *Evidence* (Report No 26, 1985) vol 1 and Australian Law Reform Commission, NSW Law Reform Commission and Victorian Law Reform Commission, *Uniform Evidence Law* (ALRC Report No 102, December 2005) ('*Joint Report*').

[47] *Hughes* (n 5) 195 [23] (Kiefel CJ, Bell, Keane and Edelman JJ), citing *R v Ellis* (2003) 58 NSWLR 700, 714–15 [65] (Spigelman CJ). See also *Jacara Pty Ltd v Perpetual Trustees WA Ltd* (2000) 106 FCR 51, 63–4 [51] (Sackville J). Gageler J acknowledged this but maintained that the legislation was drafted '[a]gainst the background of the Commission's careful

s 97(1)(b) is to protect against the risk of an unfair trial',[48] suggesting that this is inconsistent 'with the scheme of pt 3.6 … In criminal proceedings, the risk that the admission of tendency evidence may work unfairness to the accused is addressed by s 101(2)'.[49] Recall that *UEL* s 101(2) introduces a further admissibility requirement for prosecution tendency evidence about a defendant: its probative value must 'substantially [outweigh] any prejudicial effect'. In response, Gageler J argued that each section addresses a different kind of prejudice. Section 97(1)(b) is concerned with the 'problem of cognitive bias', while s 101(2) addresses 'the potential for a tribunal of fact to make improper use of tendency evidence'.[50] Gageler J's distinction may be difficult to discern in practice. Both types of prejudice have the effect that the jury gives tendency evidence greater force than it rationally deserves.

This article focuses on the probative value of tendency evidence rather than its potential prejudicial effect. However, I agree with Gageler J that the prejudice issue cannot be avoided altogether. To merely seek to locate 'significant probative value' on a scale or in a hierarchy seems to beg the underlying question: why have an elevated threshold in the first place? The main answer appears to be overvaluation prejudice of one kind or another, notwithstanding the majority's point regarding the relationship between s 97(1)(b) and s 101(2).[51]

Without entering discussion of the difficult conceptual and empirical issues presented by prejudice,[52] it is worth noting that the risk of

identification of the underlying problem with tendency evidence': *Hughes* (n 5) 208–9 [80]–[82].

48 *Hughes* (n 5) 197 [31] (Kiefel CJ, Bell, Keane and Edelman JJ).

49 Ibid 197 [32].

50 Ibid 206–7 [67]–[73]. This corresponds to some degree with Andrew Palmer's distinction between 'reasoning prejudice', or overvaluing evidence, and 'moral prejudice', the risk that evidence of the defendant's other misconduct 'may engender such "antipathy" towards the accused that the jury is unwilling to give them the benefit of any reasonable doubt': Andrew Palmer, 'The Scope of the Similar Fact Rule' (1994) 16(1) *Adelaide Law Review* 161, 169–71. See also Cossins, 'The Future of Joint Trials' (n 9) 9.

51 As well as overvaluation, the tendency evidence and its allegations of other misconduct may multiply the issues raising concerns over jury confusion and ballooning costs. The use of tendency evidence may also appear inconsistent with criminal justice's commitment to rehabilitation and human autonomy: see, eg, David Hamer, 'The Legal Structure of Propensity Evidence' (2016) 20(2) *International Journal of Evidence & Proof* 136, 137–41, 151–4, 156–8.

52 Notwithstanding Gageler J's views, the empirical evidence regarding the risk of overvaluation prejudice is mixed. The most recent reference cited by Gageler J is Michael J Saks and Barbara A Spellman, *The Psychological Foundations of Evidence Law* (New York University Press, 2016) 157–8: *Hughes* (n 5) 206 [72] n 72. Saks and Spellman suggest that '[t]his

overvaluation has a close relationship with actual probative value.[53] The overvaluation concern rests, to some degree, on an assumption that tendency evidence is weakly probative, thus leaving much space for overvaluation. On Gageler J's view, jurors may give the mere fact of a defendant's other misconduct too much weight, not appreciating that the other misconduct has little bearing upon their behaviour on the charged occasion unless the situations were closely similar.[54] The risk of overvaluation is reduced by requiring strong similarity, ensuring the evidence has significant probative value.[55]

This article considers the logical structure and empirical basis of probative value, including the person–situation debate, and argues that tendency evidence *generally* has greater probative value than traditionally recognised. While similarity between the other misconduct and the charged conduct is a

preference for dispositional attributions is so strong that it has been termed the *fundamental attribution error*': Saks and Spellman (n 52) 157–8 (emphasis in original). They go on to note that 'it turns out not to be fundamental' after all: at 305 n 37. It is specific to Western cultures and is not found in people 'raised in more collectivist cultures (typically in the Far East)': at 305 n 37. See also Incheol Choi, Richard E Nisbett and Ara Norenzayan, 'Causal Attribution across Cultures: Variation and Universality' (1999) 125(1) *Psychological Bulletin* 47. See generally John Sabini, Michael Siepmann and Julia Stein, 'The Really Fundamental Attribution Error in Social Psychological Research' (2001) 12(1) *Psychological Inquiry* 1.

Reference should also be made to the Royal Commission's doubts regarding the risk of prejudice from tendency evidence. A large empirical study conducted for the Commission concluded that 'fears or perceptions that tendency evidence … is unfairly prejudicial to the defendant are unfounded': Jane Goodman-Delahunty, Annie Cossins and Natalie Martschuk, *Royal Commission into Institutional Responses to Child Sexual Abuse: Jury Reasoning in Joint and Separate Trials of Institutional Child Sexual Abuse: An Empirical Study* (Report, May 2016) 271. See also Cossins, 'The Future of Joint Trials' (n 9) 1154–7. The Royal Commission, however, derived the 'strongest "reassurance" … from what real juries do in real trials': *Royal Commission Criminal Justice Report* (n 4) 618. 'If juries did not reason permissibly about allegations of child sexual abuse … a far higher conviction rate could be expected.' See also Cossins, 'The Future of Joint Trials' (n 9) 1131.

The prejudice issue is certainly not settled. The Goodman-Delahunty et al research has had a mixed reception: *Royal Commission Criminal Justice Report* (n 4) 467–86; Jill Hunter and Richard Kemp, 'Proposed Changes to the Tendency Rule: A Note of Caution' (2017) 41(5) *Criminal Law Journal* 253; Peter M Robinson, 'Joint Trials and Prejudice: A Review and Critique of the Report to the Royal Commission into Institutional Child Sex Abuse' (2017) 43(3) *Monash University Law Review* 723. Further, with regard to actual trial outcomes, even a high rate of child sex offence acquittals only rules out maximal unfair prejudice. It does not preclude the possibility that weak tendency evidence has been overvalued to some lesser extent, resulting in a mix of unjustified convictions and acquittals.

53 Hamer, 'The Legal Structure of Propensity Evidence' (n 51) 157.

54 *Hughes* (n 5) 207 [75]–[77], citing *Evidence* (n 46) 452 [797], 456 [800].

55 *Hughes* (n 5) 213 [102]–[103], citing *Velkoski* (n 10) 682 [3] (Redlich, Weinberg and Coghlan JJA).

factor in determining probative value, it is shown below in Part V that tendency evidence can acquire significant probative value without strong similarity. This has two implications. Most immediately, tendency evidence will meet the 'significant probative value' threshold in s 97 of the *UEL* more readily than traditionally appreciated. This lends support to the majority's more open approach to admissibility in *Hughes*, which de-emphasises the role of similarity, over Nettle J's more stringent demands for unity or commonality. More fundamentally, the probative capacity of tendency evidence calls into question the purpose of the exclusionary rule, confirming the Royal Commission's view that admissibility should be broadened further. The significant probative value of tendency evidence means that there is less room for, and therefore less danger of, prejudicial overvaluation. At the same time, it highlights the cost of exclusion: depriving the jury of valuable evidence, endangering a false acquittal. The elevated probative value requirements for tendency evidence should be reconsidered.

B *Probative Value Assessment is Factual, Logical and Empirical, Not Legal*

For admission under the *UEL*, tendency evidence must meet the threshold of significant probative value. As discussed in the previous Section, the level of the threshold — the meaning of the statutory expression 'significant probative value' — is primarily a legal question. However, the probative value of tendency evidence and whether it meets that threshold are matters of factual reasoning.

This distinction, between the legal meaning of the s 97 test and its factual application to the instant case, is tricky. Technically, as an admissibility issue, the application of s 97 is classified as a legal question for the trial judge (rather than a question of fact for the jury).[56] But this administrative classification should not disguise the true factual nature of the assessment.[57] The *UEL* defines probative value as 'the extent to which the evidence could rationally affect … the probability of … a fact in issue'.[58] This is not a legal question determined 'by reference to legal materials'.[59] It is a factual question requiring

[56] *UEL* (n 1) s 189.

[57] See Ronald J Allen and Michael S Pardo, 'The Myth of the Law–Fact Distinction' (2003) 97(4) *Northwestern University Law Review* 1769.

[58] *UEL* (n 1) Dictionary (definition of 'probative value').

[59] Justice HH Glass, 'The Insufficiency of Evidence to Raise a Case to Answer' (1981) 55(12) *Australian Law Journal* 842, 852.

the logical analysis of relevant empirical data relating to the events in question.[60]

The High Court judgments in *Hughes* all showed some appreciation of the non-legal nature of the probative value assessment. As noted above, Gageler J commented that the case called for 'social science data' and guidance on 'actual probabilities'.[61] The majority indicated that assessing probative value requires the application of principles of 'logic and human experience'.[62] Nettle J, with Gordon J agreeing, similarly characterised the probative value question as 'a matter of common sense and experience'[63] and 'logical probability reasoning'[64] involving the consideration of whether there was a 'logically significant connection'[65] between the other alleged misconduct and the charged offence.[66]

This surface agreement about the nature of the probative value enquiry was varnished by references to '*common* sense'[67] and '*well-known* principles of logic and human experience'.[68] But the apparent consensus is contradicted by trial and appeal courts' perennial difficulties with tendency evidence.[69] Divergent views between and within courts confirm Gageler J's observation

[60] While the probative value of tendency evidence is a factual question, this is not to suggest that the courts' approach to it will be purely based upon the evidence that is presented in each case, and entirely free of principle. Probabilistic and empirical considerations, along the lines of those advanced in this article, may bring about a general change in the approach taken by the courts: see, eg, *Hughes* (n 5) 244 [194] (Nettle J).

[61] Ibid 215 [110].

[62] Ibid 199 [40], 200 [42] (Kiefel CJ, Bell, Keane and Edelman JJ). See also at 203 [57], 203–4 [59]–[60].

[63] Ibid 227–8 [155].

[64] Ibid 235 [175] (Nettle J); see also at 248–9 [216]–[217] (Gordon J).

[65] Ibid 229 [158], 230 [159] (Nettle J); see also at 249 [216], 250 [217] (Gordon J).

[66] Nettle J further described tendency reasoning as 'a matter of syllogistic reasoning': ibid 230 [159], 247 [206]. This should be taken as a reference to the probabilistic, statistical or proportional syllogism: see generally James Franklin, 'The Objective Bayesian Conceptualisation of Proof and Reference Class Problems' (2011) 33(3) *Sydney Law Review* 545, 555; Carl G Hempel, *Aspects of Scientific Explanation: And Other Essays in the Philosophy of Science* (Free Press, 1965) ch 2. Nettle J would appreciate, like Gageler J, that it 'is not deductive logic. It is a form of inferential or inductive reasoning': *Hughes* (n 5) 206 [71] (Gageler J).

[67] *Hughes* (n 5) 227 [155] (Nettle J) (emphasis added).

[68] Ibid 200 [42] (Kiefel CJ, Bell, Keane and Edelman JJ) (emphasis added).

[69] Hamer, 'The Legal Structure of Propensity Evidence' (n 51) 139–40. Similar observations have been made regarding the use of 'common sense' in the fraught area of causation: see, eg, *Environment Agency v Empress Car Co (Abertillery) Ltd* [1999] 2 AC 22, 29 (Lord Hoffmann).

that, on this topic, 'common experience provides no sure guide'.[70] The Court's reasoning requires a more secure foundation. As explored further over the remaining parts of the article, the High Court would have benefited by considering exogenous knowledge in two areas in particular — the probabilistic structure of probative value and the behaviour of child sex offenders.

Nettle J, in particular, looked in the wrong place for guidance on the probative value assessment.[71] Nettle J did draw upon the ALRC's review of empirical work, as discussed below in Part III. However, his Honour's demanding 'orthodox approach'[72] was primarily derived from precedent.[73] And his Honour's approach is deeply orthodox. Nettle J 'adhered to'[74] the more stringent common law approach to probative value in preference to the more liberal approach of the NSWCCA under the *UEL*.

There is ambiguity as to whether Nettle J's orthodox approach is concerned with the *factual* task of assessing the probative value of specific tendency evidence, or whether it is directed to the prior *legal* question of the stringency of the legal admissibility threshold in s 97. It faces difficulties either way. Legally, it is clearly problematic to rely upon common law authorities to defend an interpretation of a statutory test that departs from the common law. As the majority observed: 'The intention of the *Evidence Act* [*UEL*] to make substantial changes to the common law rules is evident in the provision for the admission of tendency and coincidence evidence.'[75] Nettle J sought to sidestep this objection by suggesting that his Honour's approach lies on the factual side. His Honour's rationale for using the common law authorities is that, while the *UEL* changed the admissibility test, 'the process of reasoning … is, logically and necessarily, the same process of probability reasoning that was applied at common law'.[76] None of the various interpretations of the *UEL* in the ensuing case law 'altered the logic of the probability reasoning which is the

[70] *Hughes* (n 5) 215 [109].

[71] Ibid 229 [158].

[72] Ibid 234 [173].

[73] Ibid 235 [175], [180].

[74] Ibid 235 [173].

[75] Ibid 192 [13] (Kiefel CJ, Bell, Keane and Edelman JJ), citing *Papakosmas v The Queen* (1999) 196 CLR 297, 302 [10] (Gleeson CJ and Hayne J); *IMM v The Queen* (2016) 257 CLR 300, 311 [35] (French CJ, Kiefel, Bell and Keane JJ); *R v Ellis* (2003) 58 NSWLR 700, 716–17 [78] (Spigelman CJ).

[76] *Hughes* (n 5) 235 [174].

raison d'être of tendency evidence.'[77] But, again blurring the legal-factual distinction, Nettle J suggested that the demands of the orthodox approach would continue to apply unless and until 'Parliament … enact[s] legislation that treats disparate sexual offences committed in different circumstances at different times in different places against different children as significantly probative of the commission of each other'.[78]

In approaching probative value this way, Nettle J misses the fundamental point that probative value is a matter of fact, 'to be decided by natural reason [and not] by the artificial reason and judgment of law'.[79] Probative value is a matter of the logical use of empirical data. Probative value dictated by precedent or legislation would be a legal fiction, conducive to neither factual accuracy nor legal coherence.[80]

III Probative Value, Proof and Context

Part II identified the concern underlying s 97's elevated probative value threshold: that tendency evidence generally lacks probative value, creating the risk of overvaluation. Part II also made the point that probative value assessments are factual matters requiring the proper logical analysis of relevant empirical data. This Part begins the analysis by clarifying the concept of probative value. In particular, it explores the relationships between probative value, proof and evidential context. These relationships have, at times, been misunderstood by commentators and courts, including the High Court in *Hughes*. The following Part discloses the internal structure of probative value and addresses the empirical questions it presents.

A *Avoiding the Conflation of Probative Value and Proof*

It is apparent from the nature of the concepts and the language of the *UEL* that probative value is closely related to, but different from, proof. Proof measures the overall persuasiveness of a body of evidence, for example, whether 'the case of the prosecution … has been proved beyond reasonable

[77] Ibid 236 [175].

[78] Ibid 247 [203].

[79] *Prohibitions del Roy* (1607) 12 Co Rep 64; 77 ER 1342, 1343 (Sir Edward Coke CJ).

[80] Legal fictions have pragmatic value as a way of introducing flexibility into otherwise overly rigid legal principle, but obviously this is not an ideal approach to law reform: see Oliver R Mitchell, 'The Fictions of the Law: Have They Proved Useful or Detrimental to Its Growth?' (1893) 7(5) *Harvard Law Review* 249.

doubt'.[81] Probative value measures the contribution of a particular piece of evidence — 'the extent to which the evidence could rationally affect … the probability … of a fact in issue'.[82] Proof can be understood as the final probability of guilt based on all the evidence before the fact finder; probative value is the change in probability brought about by a particular piece of evidence.

Thus expressed, the distinction between probative value and proof appears fairly straightforward. However, discussions of tendency evidence frequently conflate the two concepts. For example, Gageler J in *Hughes*, with the majority using similar language, suggests 'tendency reasoning is no more sophisticated than: he did it before; he has a propensity to do this sort of thing; the *likelihood* is that he did it again on the occasion in issue'.[83] But the term 'likelihood' — defined in the *Macquarie Dictionary* as 'the state of being likely or probable'[84] — is a measure of proof, not probative value.[85] Tendency evidence may have significant probative value without establishing the defendant's guilt to any particular 'likelihood'. Like many other items of evidence — motive, means or opportunity — tendency evidence may fall far short by itself, but can still make a valuable contribution to proof overall. Proof is generally achieved through the accumulation of evidence.[86] Tendency evidence is a brick, not a wall.[87]

One instance of the conflation appears in the recent work of commentator Peter M Robinson.[88] Robinson purports to provide 'a broader scientific methodology to analyse the jury's task as a form of probabilistic decision-

[81] *UEL* (n 1) s 141(1).

[82] Ibid Dictionary (definition of 'probative value').

[83] *Hughes* (n 5) 206 [70] (Gageler J) (emphasis added); see also at 193 [16] (Kiefel CJ, Bell, Keane and Edelman JJ).

[84] *Macquarie Dictionary* (online at 31 August 2017) 'likelihood' (def 1).

[85] Elsewhere the judgments correctly refer to tendency evidence increasing the likelihood of the defendant's guilt: *Hughes* (n 5) 191–2 [10], 198 [35] (Kiefel CJ, Bell, Keane and Edelman JJ), 212 [96], 213 [103] (Gageler J). However, the conflation is present in other principles, such as requiring that the criminal standard of proof be applied to the sequential steps in the tendency inference: *HML v The Queen* (2008) 235 CLR 334, 416–17 [247] (Hayne J) ('*HML*'). See Hamer, 'Tendency Evidence and Coincidence Evidence in the Criminal Trial' (n 2) 164–6. It is also apparent in the common law admissibility test based on the criminal standard proof: see below n 110 and accompanying text.

[86] *Shepherd v The Queen* (1990) 170 CLR 573, 579 (Dawson J).

[87] The familiar image is attributed to Edward W Cleary (ed), *McCormick's Handbook of the Law of Evidence* (West Publishing Co, 2nd ed, 1972) 436.

[88] Peter M Robinson, 'Prior Convictions, Conduct and Disposition: A Scientific Perspective' (2016) 25(2) *Griffith Law Review* 197, 198.

making',[89] but his methodology lacks coherence. One of the problems with Robinson's analysis is that he explicitly equates probative value and proof assessments. Tendency evidence, he says, 'has at best only a weak probative value [because] the *logical conclusion* from [tendency evidence] would tend strongly towards a *conclusion* of innocence rather than guilt.'[90] But, as the NSWCCA indicated in *Hughes*, 'although [tendency] evidence … would not suffice to make out the charge … it increased the probability of the [charge] … and thus possessed significant probative value'.[91] The problem with conflating probative value and proof is that it holds tendency evidence up to an overly demanding standard and underestimates its potential contribution.

B *Evidential Context and the Fact in Issue*

The previous Section considered the relationship between proof (the overall strength of a body of evidence) and probative value (the contribution of particular evidence). A related conceptual issue is the extent to which the probative value of evidence should be assessed contextually as opposed to in isolation.[92] This issue is multi-dimensional and lacks a simple solution.

In one respect, evidential context is absolutely crucial to the assessment of probative value. Evidential context determines the fact in issue which, as the majority recognised in *Hughes*, is the 'starting point' in assessing probative value.[93] Probative value, like relevance, is relational. Both are concerned with the connection between evidence and the fact in issue. If the fact in issue changes, the connection may be weakened or broken. Suppose for example, in an adult sexual assault case, *identity* is in issue. The complainant testifies that the defendant displayed a peculiar predilection and the prosecution adduces evidence that the defendant, in previous consensual relationships, exhibited the same predilection. This evidence might be viewed as having significant

[89] Ibid.

[90] Ibid 216 (emphasis added); see also at 204.

[91] *Hughes (Appeal)* (n 7) 513–14 [172] (Beazley P, Schmidt and Button JJ). See also *Ford* (n 12) 298 [44] (Campbell JA). This point was not appreciated in *Hoch v The Queen* (1988) 165 CLR 292 ('*Hoch*'), where Mason CJ, Wilson and Gaudron JJ suggested 'the evidence, being circumstantial evidence, has probative value only if it bears no reasonable explanation other than the happening of the events in issue': at 296.

[92] This issue is not limited to tendency evidence: see *Aytugrul v The Queen* (2012) 247 CLR 170, 189–98 [40]–[65] (Heydon J).

[93] *Hughes* (n 5) 193 [16] (Kiefel CJ, Bell, Keane and Edelman JJ). See also *Smith v The Queen* (2001) 206 CLR 650, 654 [7] (Gleeson CJ, Gaudron, Gummow and Hayne JJ).

probative value; notwithstanding that the previous instances were consensual, it would be quite a coincidence for the complainant to report on the defendant's predilection if it were someone other than the defendant who committed the assault. However, if the defendant admitted the charged acts and put *consent* in issue, then evidence of the defendant's previous consensual activities may be viewed as irrelevant or even as favouring the defendant.[94] That the defendant displayed the same predilection in the previous instances and in the charged event would no longer be an incriminating coincidence, and the consensual nature of the previous instances may support the defendant's claim that there was consent on the charged occasion. The probative value of tendency evidence will 'vary depending upon the issue that it is adduced to prove'.[95]

The dependence of probative value on the fact in issue is inarguable. However, a particular example provided by the majority in *Hughes* is problematic. The majority suggested that more is required of tendency evidence 'to prove the *identity* of the offender for a known offence [than] where the fact in issue is the *occurrence* of the offence'.[96] In relation to identity, 'the probative value of tendency evidence will almost certainly depend upon close similarity between the conduct evidencing the tendency and the offence'.[97] But close similarity may not be required where the commission of the offence is in issue.[98] Similar suggestions can be found in Gageler J's judgment[99] and elsewhere,[100] including the Royal Commission's work.[101] But despite this widespread support, the distinction has not been properly substantiated. The better view is that 'there is no special rule for identification cases'.[102]

[94] *Harriman v The Queen* (1989) 167 CLR 590, 602 (Dawson J), discussing *R v Rodley* [1913] 3 KB 468, 474 (Lawrence, Bankes and Atkin JJ).

[95] *Hughes* (n 5) 199 [39] (Kiefel CJ, Bell, Keane and Edelman JJ).

[96] Ibid (Kiefel CJ, Bell, Keane and Edelman JJ) (emphasis added).

[97] Ibid.

[98] Ibid. See also *Ford* (n 12) 298 (Campbell JA); *PWD* (n 12) 91 [79] (Beazley JA).

[99] *Hughes* (n 5) 211 [95].

[100] See, eg, *DPP v P* [1991] 2 AC 447, 462 (Mackay LJ); Pearl Davidson, 'A Tendency to Convict: Section 97 Evidence Act in *Hughes v The Queen*' (2018) 22(2) *International Journal of Evidence and Proof* 144, 155; David Hamer, 'The Structure and Strength of the Propensity Inference: Singularity, Linkage and the Other Evidence' (2003) 29(1) *Monash University Law Review* 137, 183–4 ('Structure and Strength of the Propensity Inference').

[101] *Royal Commission Criminal Justice Report* (n 4) 594–5, 606.

[102] *R v John W* [1998] 2 Cr App R 289, 301 (Hooper LJ) ('*John W*'), quoted with approval in English Law Commission, *Evidence of Bad Character in Criminal Proceedings* (Law Com

Why would tendency evidence generate probative value more readily where commission is in issue rather than identity? The majority's explanation employs evidential context in a problematic manner. According to the majority, 'it is not necessary that the disputed evidence has [significant probative value] *by itself*. It is sufficient if the disputed evidence together with other evidence [has significant probative value]'.[103] In a sexual assault case with commission in issue, the complainant's direct evidence typically addresses all the elements of the offence. The role of tendency evidence is simply one of support — in *Hughes*, 'its force was that [the complainant's account] should not be rejected as unworthy of belief'.[104] The more credible the complainant's account, the greater the probative value of the tendency evidence 'together with' the complainant's evidence.

Suggestions that the demands on tendency evidence are greater in identity cases, for example 'stranger rape' cases, appear based on the implicit or express assumption that, in these cases, tendency evidence is 'the only evidence' on the issue.[105] But this will not always be the case. There may be other evidence on identity, such as evidence of opportunity or motive, an eyewitness or forensic identification evidence, an admission or consciousness of guilt evidence. This other evidence will lessen the demand on the tendency evidence to some degree. On this reasoning, the acquisition of probative value depends not on whether identity or commission is in issue, but on the degree of support provided by the evidential context.[106]

No 273, 2001) [2.23], [4.6]. See also *R v Bromley* [2018] SASCFC 41, [491] where the Court notes the suggestion in *Hughes* that more is expected in identification cases, and adds, 'Of course, the term "identification cases" may itself subsume cases of varying types such as to impact on the degree of similarity required': at [490]–[491] (Peek, Stanley and Nicholson JJ).

103 *Hughes* (n 5) 199 [40] (Kiefel CJ, Bell, Keane and Edelman JJ) (emphasis in original).

104 Ibid 204 [60].

105 *John W* (n 102) 300 (Hooper LJ). See also Hamer, 'Structure and Strength of the Propensity Inference' (n 100) 175, 184; *Evidence of Bad Character in Criminal Proceedings* (n 102) [2.23], [4.6]; Roderick Munday, 'Similar Fact Evidence: Identity Cases and Striking Similarity' (1999) 58(1) *Cambridge Law Journal* 45, 45–6.

106 See *O'Leary v The King* (1946) 73 CLR 566, 581–2 (Williams J); JD Heydon, *Cross on Evidence* (LexisNexis Butterworths, 10th ed, 2015) [21175] n 266; Colin Tapper, 'Similar Facts: Peculiarity and Credibility' (1975) 38(2) *Modern Law Review* 206, 208.

In *Hughes* (n 5), Gageler J provides another explanation for tendency evidence having greater force in a typical commission case. The evidence serves two functions, working 'not only by increasing the likelihood that the defendant acted in accordance with that tendency on the occasion to which the charge relates, but also by making more plausible the testimony of the complainant that the defendant did so act on that occasion and less plausible the testimony of the defendant that he did not': *Hughes* (n 5) 212 [96]. But to attribute greater

This strongly contextual view — that challenged evidence can derive probative support from the other evidence — provides another perspective on the probative-value/proof conflation discussed in the previous Section. Indeed, the contextual support notion may have evolved partly in response to the difficulties posed by the conflation. At common law, the High Court fashioned a *probative value* admissibility test out of the criminal standard of *proof*. In the *Pfennig v The Queen*[107] line of cases, it was held that for admission, similar fact evidence (a common law term for tendency evidence)[108] must be so probative that there is 'no reasonable view of the evidence consistent with the innocence of the accused'.[109] Courts and commentators expressed concern that this test is overly stringent and virtually impossible for propensity evidence to satisfy.[110] In *Phillips v The Queen*,[111] the High Court responded that 'due weight must be given to the necessity to view the similar fact evidence in the context of the prosecution case'.[112] *Hughes* can be viewed in this light. The context of the prosecution case — the complainant's direct evidence of the offence — alleviates the stringency of the admissibility test as it applies to the tendency evidence of the other witnesses.

However, the strongly contextual approach to probative value is not a solution. It just brings further difficulties. First, note that it is in tension with the role played by context in establishing the fact in issue.[113] If the other (non-tendency) evidence provides strong support, leaving little doubt, the

force to the evidence due to its dual use would involve double-counting. These are just two perspectives on the same inference. Tendency evidence lends support to the complainant's credibility by supporting an inference of commission.

107 (1995) 182 CLR 461.

108 See ibid 464–5 (Mason CJ, Deane and Dawson JJ).

109 Ibid 483–4 (Mason CJ, Deane and Dawson JJ). See also *Hoch* (n 91) 294–5; *Harriman* (n 94) 600. This test is based upon the criminal standard of proof as it applies in circumstantial cases: see, eg, *Sutton v The Queen* (1984) 152 CLR 528, 563–4 (Dawson J); *Hoch* (n 91) 296. See also David Hamer, 'Similar Fact Reasoning in *Phillips*: Artificial, Disjointed and Pernicious' (2007) 30(3) *University of New South Wales Law Journal* 609, 612–13 ('Similar Fact Reasoning').

110 See, eg, David Hamer, 'Proof of Serial Child Sexual Abuse: Case-Law Developments and Recidivism Data' in Thomas Crofts and Arlie Loughnan (eds), *Criminalisation and Criminal Responsibility in Australia* (Oxford University Press, 2015) 242, 246 ('Proof of Serial Child Sexual Abuse'); Hamer, 'Similar Fact Reasoning' (n 109) 613–14.

111 (2006) 225 CLR 303.

112 Ibid 323 [63] (Gleeson CJ, Gummow, Kirby, Hayne and Heydon JJ). See also *HML* (n 85) 430 [286] (Heydon J); *BBH v The Queen* (2012) 245 CLR 499, 547 [157] (Crennan and Kiefel JJ); Hamer, 'Similar Fact Reasoning' (n 109) 631–2.

113 See Donald Piragoff, *Similar Fact Evidence: Probative Value and Prejudice* (Carswell, 1981) 149.

capacity of the propensity evidence to remove the doubt will be greater; and on the strongly contextual approach, its probative value will also be viewed as greater. At the same time, however, the more work that is done by the other evidence, the less scope there is for tendency evidence to have 'influence', a synonym for 'significance' according to the majority in *Hughes*.[114] Logically, a point will be reached where the support provided by the other evidence is so great as to establish the fact in issue without the propensity evidence, and the propensity evidence will then lose its relevance. Just as the evidence is about to reach the probative value summit, it falls off a cliff.

The strongly contextual approach to proof is problematic in another respect. It appears inherently unanalytic in that it conflates the contributions of different items of evidence.[115] This problem is evident in Robinson's discussion. He suggests that 'in "whodunit?" cases, the probative value of prior convictions is inversely related to the size of the suspect pool'.[116] Clearly, whether there is a 'relatively closed set of potential suspects'[117] is relevant to the defendant's guilt. For example, the larger the number of people with opportunity, the more likely it is that someone other than the defendant committed the offence. But this has nothing to do with the probative value of tendency evidence (the defendant's prior convictions in Robinson's example). Opportunity and tendency are two entirely different types of evidence. It is unhelpful and erroneous to suggest that the tendency evidence would be more probative if the offence 'happened in a pub late at night' with few present,[118] rather than 'in a busy street of a populous city'.[119] The strongly contextual approach, in conflating the contribution of tendency evidence and other evidence, inhibits clear evidential analysis.

Finally, it should not be thought that the strongly contextual approach is required by the terms of the *UEL*: '"[P]robative value" of *evidence* means the extent to which *the evidence* could rationally affect the assessment of the probability of the existence of a fact in issue'.[120] Confusion arises because the s 97 test equivocates: it applies to '*the evidence* … either *by itself* or *having*

[114] *Hughes* (n 5) 193 [16] (Kiefel CJ, Bell, Keane and Edelman JJ).

[115] Hamer, 'Structure and Strength of the Propensity Inference' (n 100) 139–40; Hamer, 'Similar Fact Reasoning' (n 109) 629, discussing *R v O'Keefe* [2000] 1 Qd R 564.

[116] Robinson (n 88) 207.

[117] Ibid 219.

[118] Ibid 206.

[119] Ibid.

[120] *UEL* (n 1) Dictionary (definition of 'probative value') (emphasis added).

regard to other evidence'.[121] But appropriate regard may be had to other evidence without adopting the strongly contextual approach to probative value. The other evidence may be used to identify the fact in issue. For example, in an adult sexual assault case, the defence may admit intercourse, shifting the issue from identity to consent. Or the 'other evidence' may be further tendency evidence pointing to the same tendency; as discussed below, in relation to *Hughes*, the other allegations may be aggregated so as to demonstrate a stronger tendency.[122] In either case, while regard is had to other evidence, the focus on the probative contribution of the tendency evidence is not lost.

IV The Relative Consistency Structure of Probative Value

Part III explained the relationship of probative value with proof and evidential context. While the fact in issue is dependent upon evidential context, the probative value assessment should focus on the contribution of tendency evidence in itself, as distinct from the degree of proof overall. This Part focuses on probative value. It provides a close examination of the internal logical structure of probative value, drawing on Bayesian probability theory.[123]

The *UEL* defines probative value as 'the extent to which the evidence could *rationally affect … the probability* of … a fact in issue'.[124] Probability theory provides a useful perspective on how to approach probative value assessment. However, it should be used with caution. The mathematical rules of probability theory may generate answers that are necessarily true within that coherent, well-structured logical domain, but all sorts of issues arise in attempting to bridge the gap with the complex and messy real world.[125] Not

[121] Ibid s 97 (emphasis added).

[122] See below nn 177–80 and accompanying text.

[123] For introductory accounts of Bayesian theory, see Donald Gillies, *Philosophical Theories of Probability* (Routledge, 2000) ch 4; Ian Hacking, *An Introduction to Probability and Inductive Logic* (Cambridge University Press, 2001) chs 13–15.

[124] *UEL* (n 1) Dictionary (definition of 'probative value') (emphasis added).

[125] '[W]hen making decisions, people cannot possibly make all the computations that are required by full economic analyses': Robin M Hogarth, *Educating Intuition* (University of Chicago Press, 2010) 171. Hogarth cites Herbert A Simon's influential 'bounded rationality' model of human reasoning: 'A Behavioural Model of Rational Choice' (1955) 69(1) *Quarterly Journal of Economics* 99. See also Ronald J Allen, 'Complexity, the Generation of Legal Knowledge and the Future of Litigation' (2013) 60(6) *UCLA Law Review* 1384.

least, human fact finders may find probability theory counter-intuitive, and its imposition may be counterproductive.[126]

For these reasons, I am not advocating the introduction of the concepts and calculations of probability theory to actual trials. I use it to inform and improve the trial process at the system level.[127] Further, even as a source of policy recommendations, probability theory is not being used in a strongly prescriptive way. This is not 'Bayesian imperialism'.[128] The principles of probability theory should 'be treated as implements and ministers, not as monarchs'.[129] They are merely tools to guide human inference. Having said all that, the reasoning prescriptions of probability theory are persuasive. They offer genuine insights into the probative value of tendency evidence and resolve a number of controversies that have arisen in cases such as *Hughes*.

Part IV(A) outlines the relative consistency model of probative value.[130] Part IV(B) applies this model to the question, considered in the previous Part, of whether tendency evidence might acquire probative value more readily where commission is in issue rather than identity. Part V applies the model to other issues raised by *Hughes* and the Royal Commission, drawing on relevant empirical data.

[126] Mike Redmayne, 'Rationality, Naturalism and Evidence Law' [2003] (4) *Michigan State Law Review* 849, 867; Hogarth (n 125) 80.

[127] Laurence H Tribe, 'Trial by Mathematics: Precision and Ritual in the Legal Process' (1971) 84(6) *Harvard Law Review* 1329, 1393.

[128] See generally Ward Edwards, 'Influence Diagrams, Bayesian Imperialism, and the Collins Case: An Appeal to Reason' (1991) 13(3) *Cardozo Law Review* 1025. An example of Bayesian imperialism is a position statement of many leading, mainly European, forensic scientists claiming that, '[p]robability theory provides the only coherent logical foundation' for 'interpretation of scientific evidence' and 'reasoning in the face of uncertainty': Guest Editorial, 'Expressing Evaluative Opinions: A Position Statement' (2011) 51(1) *Science and Justice* 1, 1. See also Norman Fenton, Martin Neil and Daniel Berger, 'Bayes and the Law' (2016) 3 *Annual Review of Statistics and Its Applications* 51. Fenton, Neil and Berger suggest that Bayesian reasoning in most cases is too complex for the juridical fact finders, even with efforts at education. Instead, they advocate that the fact finder simply provide the prior probabilities and the connections, and then the work of inference is handed over to a Bayesian network. '[T]here should be no more need to explain the Bayesian calculations in a complex argument than there should be any need to explain the thousands of … calculations used by a regular calculator to compute a long division. … [I]t is simply wrong to assume that humans must … be responsible for understanding and calculating the revised probabilities': at 71. The authors disclose that Fenton and Neil are 'directors in a company … that specialises in Bayesian network tools': at 73.

[129] Edmond Cahn, 'Jerome Frank's Fact-Skepticism and Our Future' (1957) 66(6) *Yale Law Journal* 824, 827.

[130] This is a development of ideas presented by Hamer, 'Tendency Evidence and Coincidence Evidence in the Criminal Trial' (n 2) 168–70.

A *The Consistency and Inconsistency Elements*

Probative value measures the capacity of evidence to discriminate between competing hypotheses regarding the fact in issue — guilt or innocence; the sexual abuse did or did not occur; the defendant was or was not the perpetrator. This probative capacity depends upon the relative strength of the connections between the evidence and the two hypotheses — the extent to which the evidence is more consistent with one hypothesis than the other.[131]

Probability theory provides a precise statement of this relative structure.[132] According to Bayes' theorem in its odds-likelihood ratio form: the posterior odds of a hypothesis (having considered the evidence) is equal to the prior odds of the hypothesis multiplied by the likelihood ratio for the evidence. In mathematical notation:

$$O(G|E) = O(G) \times LR(E)$$

('|' is the symbol for 'given' or 'conditioned on')[133]

Where:

$O(G|E) = P(G|E) / P(\neg G|E)$

the posterior odds of hypothesis G, having considered evidence E (the odds of a hypothesis is the ratio between the probability of the hypothesis and its negation; '¬' is the 'not' or 'negation' symbol);

$O(G) = P(G) / P(\neg G)$

the prior odds for hypothesis G; and

$LR(E) = P(E|G)/P(E|\neg G)$

the likelihood ratio for evidence E.

[131] Ibid 168.

[132] Conditional probability is a more precise concept than consistency. A conditional probability statement has direction (the probability of A *given* B is different from the probability of B *given* A), whereas consistency is a simpler mutual relationship (the consistency of A and B implies the consistency of B and A). Talking in terms of consistency rather than probability reduces technicality and simplifies the exposition. However, it can create the risk of logical error and confusion: see below nn 150–1.

[133] Strictly speaking, all of the probabilities and odds in Bayes' theorem should be conditioned on background knowledge and other previously considered evidence, B. For example, the prior odds should properly be given as $O(G|B)$, not just $O(G)$. '[T]here is no such thing as an *unconditional* probability': IW Evett, 'Avoiding the Transposed Conditional' (1995) 35(2) *Science and Justice* 127, 128 (emphasis in original). Background knowledge plays an important role in the probative value assessment — it narrows the facts in issue amongst other things: see, eg, *Hughes* (n 5) 199 [38]–[40] (Kiefel CJ, Bell, Keane and Edelman JJ). However, for brevity and simplicity, this condition has been omitted from the equations.

The extent to which evidence causes the odds (and probability) of guilt ('*G*') to increase is determined by the likelihood ratio. This can be considered the Bayesian measure of probative value.[134] It depends upon the relative consistency of the evidence with the competing hypotheses.

> $P(E|G)$
> the probability of the evidence given guilt, or the extent to which the evidence is consistent with guilt; and
>
> $P(E|\neg G)$
> the probability of the evidence given the defendant is not guilty, or the extent to which the evidence is consistent with innocence.[135]

Evidence will be probative of guilt to the extent that it is consistent with guilt and inconsistent with innocence. Conversely, evidence will be probative of innocence to the extent it is inconsistent with guilt and consistent with innocence. Since this article is concerned with prosecution evidence, the two elements, for convenience, will be termed the 'consistency element' and the 'inconsistency element' respectively.[136]

For tendency evidence ('*T*'), the consistency and inconsistency probabilities take interesting forms.[137] The consistency probability ('$P(T|G)$') is the probability of finding evidence of the defendant's other misconduct, given the defendant's guilt. This probability is sometimes characterised as posing a predictive question[138] and is related to the likelihood of reoffending and measures of recidivism. The inconsistency probability ('$P(T|\neg G)$') is the

[134] Richard O Lempert, 'Modeling Relevance' (1977) 75(5–6) *Michigan Law Review* 1021, 1022–7; David A Schum, *The Evidential Foundations of Probabilistic Reasoning* (John Wiley & Sons, 1994) 218–22.

[135] The relative consistency probabilities, $P(E|G)$ and $P(E|\neg G)$, should not be confused with the proof probabilities $P(G|E)$ and $P(\neg G|E)$. The latter are complementary. The probability of an event and the probability of its negation sum to one — it is certain that the event did or did not happen; the defendant is either guilty or not guilty. This means that the two probabilities contain the same information; one can easily be calculated from the other. The relative consistency probabilities, transpositions of these proof probabilities, are not complementary; the two contain different information. Bayes' theorem governs the relationship between the relative consistency probabilities and the proof probabilities.

[136] However, while these terms are convenient, evidence can be probative of guilt without being particularly consistent with guilt. The greater the consistency, the greater the probative value. But the probative value of evidence is determined by the extent to which it is *more consistent* with guilt than innocence: see below nn 177, 200.

[137] See Redmayne (n 6) 21–3; Hamer, 'Tendency and Coincidence Evidence in the Criminal Trial' (n 2) 168–70.

[138] Perhaps slightly mischaracterised: see below nn 150–1.

probability that the defendant, if innocent of the charged offence, has committed the other misconduct. This probability is related to the incidence of that kind of offence and raises the question of its unusualness.

Both the consistency and inconsistency elements turn, to a degree, on the similarity between the charged offence and the other misconduct, an issue central to the High Court appeal in *Hughes*.[139] If the charged offence and the other misconduct are dissimilar or only weakly similar, this may weaken the consistency element. For example, if the defendant were guilty on the child sexual assault charges then it may be quite likely that he would have prior convictions for other child sexual assaults, but less likely that he would have adult sexual assault convictions, and far less likely that he would have theft convictions. Similarity may strengthen the consistency element.

Similarity also has an impact on the inconsistency element. Similarity between the charged offence and the other misconduct will be strong or striking if the two correspond in a distinctive and unusual respect.[140] And then, if the defendant were innocent of the charged offence, it would be improbable for the defendant, coincidentally, to have a prior conviction for an offence with the same unusual features. The more specific or particular the similarity, the greater the inconsistency between the defendant's other misconduct and his innocence of the charged offence. An increase in similarity may increase probative value through both the consistency and inconsistency elements.

The High Court in *Hughes* recognised the consistency and inconsistency elements to some degree. For example, the majority suggested that a juror, in assessing probative value, may consider two questions which correspond closely with these two elements. The juror may weigh up whether 'a person who has a tendency … to act in a particular way … may not have acted in that way, on the occasion in issue'.[141] This clearly goes to the consistency of the person's behaviour. Second, the juror may 'estimate the number of persons who share the tendency to … act in that way'.[142] The less common the behaviour, the more inconsistent it is for the defendant, if innocent of the charged offence, to have committed the other misconduct. Gageler J also recognised that probative value depends upon the relative value of the two elements. The tendency should be 'so abnormal as to allow it to be said that a

[139] *Hughes* (n 5) 194–5 [19]–[24] (Kiefel CJ, Bell, Keane and Edelman JJ).

[140] See, eg, ibid 197 [31] (Kiefel CJ, Bell, Keane and Edelman JJ), 208 [78] (Gageler J), citing *Evidence* (n 46) vol 2, 47.

[141] *Hughes* (n 5) 193 [17] (Kiefel CJ, Bell, Keane and Edelman JJ).

[142] Ibid.

man shown to have such a tendency is a man who is more likely than other men to have engaged in [the behaviour]'.[143] The degree of probative value depends upon 'how much more likely' this behaviour is likely to occur.[144] Nettle J, in assessing the probative value of the evidence, noted that sexual offending and whether sexual offending is 'unusual' is 'a sound basis for the prediction of further sexual offending'.[145]

The relative values of the consistency and inconsistency elements raise empirical questions regarding the consistency of human behaviour, recidivism and the incidence of crime, on which statistical and other data should be considered. The empirical perspective and its treatment by the High Court in *Hughes* and the Royal Commission are discussed in the next section.

B *Commission, Identity and Relative Consistency*

Before turning to the empirical aspect, the operation of the Bayesian relative consistency analysis will be illustrated by considering its application to an issue raised above, whether tendency evidence has greater probative capacity in relation to commission as compared with identity.

Suppose first that identity is in issue in a 'stranger rape' case. The complainant identifies the perpetrator, but he is a stranger, and the reliability of the identification is in issue. The complainant testifies that the perpetrator displayed an unusual predilection, and the prosecution adduces evidence that the defendant has prior convictions for sexual assault in which the defendant displayed the same predilection. The consistency probability would be at a moderate level in line with recidivism data.[146] If the defendant were guilty as charged, there would be a moderate probability that he committed the same kind of offence on other occasions. However, the inconsistency probability would be at a very low level. If the defendant had been mistakenly identified, it would be a remarkable coincidence to find that he had committed other offences displaying that unusual predilection (unless, perhaps, it was this predilection that made the defendant a suspect in the first place).[147] The

[143] Ibid 215 [109].

[144] Ibid.

[145] Ibid 246 [202].

[146] See below nn 202–8 and accompanying text.

[147] Gary Edmond made this interesting suggestion in a private communication. See also *Mahomed v The Queen* [2011] 3 NZLR 145, [88] (McGrath and Young JJ). There is not space to pursue it here, but note that different views have been expressed regarding the corresponding issue with DNA evidence — whether a DNA match between a defendant and

consistency probability would be far higher than the inconsistency probability, and the evidence would have substantial probative value.

Consider now the same charges and the same tendency evidence but with commission in issue. The complainant and defendant are acquaintances, but the defendant denies ever having had sexual contact with the complainant. As discussed in Part III, there is a widespread view that the evidence would have greater probative value in this case than in the identity case. But this appears unsubstantiated.[148] The consistency and inconsistency elements appear broadly similar to those in the identity case. The consistency probability would again be at a moderate level reflecting recidivism data. And the inconsistency probability would again be at a very low level; it would be a remarkable coincidence for the complainant to give evidence of the defendant's sexual predilection if the complainant were lying or mistaken and they had had no sexual contact.

If anything, the prior conviction evidence in the commission case may be more consistent with innocence and less probative than in the identity case. The fact that the complainant knows the defendant may raise issues about the complainant's credibility. For example, given their history, the complainant may know of the prior convictions, dislike the defendant, and be inclined to use them against him. On this view, the falsity of the allegation may increase the likelihood of finding similar prior convictions. In the identity case, the complainant's mistaken identification of a stranger does not raise this possibility. This analysis undermines claims by the High Court in *Hughes* and the Royal Commission that tendency evidence acquires probative value more readily in commission cases.

V Application of the Relative Consistency Model

According to the Bayesian model presented above, the logical structure of probative value is one of relative consistency. Tendency evidence is probative to the extent it is consistent with guilt and inconsistent with innocence. These two consistency assessments are an empirical matter and this Part considers the empirical perspective. Section A focuses on the treatment of the consistency element in *Hughes*, and the Court's reliance on ALRC research on personality. Section B considers other empirical perspectives on the

a crime scene loses its probative value if it was the DNA match that brought the defendant to the attention of police in the first place: see Redmayne (n 126) 880–1 nn 128–30.

148 Unless the problematic strongly contextual approach to probative value is taken: see above Part III(B).

behaviour of child sex offenders, including that provided by the Royal Commission. Section C provides an empirical examination of the relative values of the consistency and inconsistency elements.

A *Consistency, Predictability, Similarity and Frequency*

As previously mentioned, the consistency element is often characterised in terms of recidivism and the *predictability* of an offender reoffending.[149] (Actually, the temporal relation between the other misconduct and the charged offence in the consistency element is messy and variable.[150] But despite the complexities, the predictive characterisation broadly captures the strength of the consistency element.)[151] The consistency and predictability of

[149] See above n 138 and accompanying text.

[150] The trial is generally concerned with postdiction, resolving conflict over past events: *Hughes* (n 5) 206 [70] (Gageler J). However, the terms 'predictive' and 'postdictive' in application to the probative value of specific evidence more usefully describe the temporal direction of the inference from the facts narrated in the evidence to the fact in issue. So evidence of motive and prior convictions is predictive, while evidence of flight and confessions is postdictive. Wigmore used the terms prospectant and retrospectant: John Henry Wigmore, *The Science of Judicial Proof: As Given by Logic, Psychology and General Experience and Illustrated in Judicial Trials* (Little Brown, 3rd ed, 1937) 994–1003. The third category, concomitant evidence, in which the evidence narrates facts that coincide in time with the fact in issue, covers opportunity, alibi and direct eye-witness evidence: see Schum (n 134) 499.

Note that the temporal direction of conditioning in the consistency element is the reverse of that relating to proof. The proof question is: given evidence of the defendant's other misconduct, what is the probability that the defendant is guilty as charged? But the consistency element asks: given that the defendant is guilty as charged, what is the probability of finding evidence of other misconduct? If the other misconduct precedes the charged offence, then proof is predictive and the consistency element is postdictive, and vice versa if the other misconduct is subsequent to the charged offence. In *Hughes*, where cross-admissibility between counts is in issue, the consistency element will clearly raise a mix of predictive and postdictive questions.

It may be that human fact finders have a tendency to characterise the question of probative value predictively, whether this is correct or not, because it is more natural to reason in the direction of causality: see Joshua Klayman, 'On the How and Why (Not) of Learning from Outcomes' in Berndt Brehmer and CRB Joyce (eds), *Human Judgment: The SJT View* (Elsevier Science Publishers, 1988) 115, 144–8. A further factor is that it seems more natural to reason in the direction of proof — from evidence to fact in issue — rather than vice versa. These factors may induce the fact-finder to transpose the conditional. For reasons given in the next note, this will probably not be too misleading in the present context. In other situations, however, it can be: Evett (n 133); David Hamer, 'The *R v T* Controversy: Forensic Evidence, Law and Logic' (2012) 11(4) *Law, Probability and Risk* 331, 342–3.

[151] The mischaracterisation is less serious than it might be as the two events in question — guilt on the current charges, commission of the other misconduct — are quite similar. The

human behaviour is an empirical issue and, as Gageler J noted, is 'informed by social science data'.[152] While '[n]o party or intervener in the present appeal sought to direct attention to data or scholarly work',[153] all judgments referred to the ALRC's review of empirical research of 1985, prior to the original *UEL*, and its updated review in the *UEL* inquiry of 2005.

Nettle J relied most heavily on the ALRC's work, arguing that it supported a strong exclusionary rule. He suggested that the ALRC's work 'showed behaviour tends to be highly dependent on situational factors and not, as previously postulated, on personality traits, and that the ability to predict future behaviour from past behaviour, therefore, depends on the similarity of situations'.[154] Nettle J endorsed the ALRC's 1985 conclusion that there was a 'need to maintain strict controls' on the evidence, 'maximis[ing] the probative value of the evidence … by generally limiting it to evidence of conduct occurring in circumstances similar to those in question'.[155] He suggested that this conclusion was 'confirmed, and in some instances strengthened' by the ALRC's further work in 2005.[156]

The implication for child sexual assault cases, according to Nettle J, is that 'the fact that an accused is shown to have committed a sexual offence against a female child is not, without more, significantly probative of the accused having committed a sexual offence against another female child. … [S]omething more is required … some logically significant underlying unity or commonality'.[157] This 'logically significant connection'[158] may be found in

probability that the defendant has committed misconduct A, given that the defendant committed similar misconduct B, is likely to be very close to the probability that the defendant committed misconduct B, given that the defendant committed similar misconduct A. In particular cases, such as where there appears to be an escalating course of misconduct, temporal sequence may be important. But it appears immaterial for the purposes of this more general analysis: see Hamer, 'Structure and Strength of the Propensity Inference' (n 100) 153; Richard D Friedman, 'Assessing Evidence' (1996) 94(6) *Michigan Law Review* 1810, 1828; *Martin v Osborne* (1936) 55 CLR 367, 401 (Evatt J).

152 *Hughes* (n 5) 215 [110].

153 Ibid. Actually, the parties did make passing reference to the ALRC's work on character: The Queen, 'Respondent's Submissions', Submission in *Hughes v The Queen*, S226/2016, 28 October 2016, 10 [6.22]; Hughes, 'Appellant's Reply', Submission in *Hughes v The Queen*, S226/2016, 11 November 2016, 2 [3].

154 *Hughes* (n 5) 239 [184], citing *Evidence* (n 46) 451–2 [796]–[797].

155 Ibid 240 [184], quoting *Evidence* (n 46) 456 [800].

156 Ibid 243 [193], citing *Joint Report* (n 46) 83–5 [3.19]–[3.25]; *Evidence* (n 46) 456 [800].

157 *Hughes* (n 5) 229 [158].

'similarity in the relationship of the accused to each complainant; … between the details of each offence or the circumstances in which each offence was committed; [or in the] modus operandi or system of offending'.[159]

In applying these principles to the present case, Nettle J concluded that very little of the tendency evidence had sufficient connection with the charged offences to provide the probative value required for admissibility under s 97.[160] The ages of the alleged victims (from six to early twenties), their relationships with the defendant and the circumstances of the offences (work and social), and the alleged behaviours (exposure, various degrees and kinds of sexual touching) varied too widely.[161] Nettle J would have overturned all the convictions and ordered a new trial.[162]

The majority suggested the ALRC report was of limited use in understanding the requirements of s 97, since the version passed by Parliament bore little resemblance to the provisions drafted by the ALRC.[163] The majority rejected 'a restrictive approach'[164] and indicated significant probative value does not require 'operative features of similarity with the conduct in issue'.[165] Nevertheless, the majority, together with Gageler J,

[158] Ibid. Nettle J used the term 'logically significant connection' in a conclusory fashion without unpacking it. The concept may incorporate aspects of the inconsistency element: see below Part V(C).

[159] *Hughes* (n 5) 229 [158] (Nettle J).

[160] Ibid 233 [170].

[161] Nettle J divided the various counts into several different categories: (i) sexual touching offences committed on two girls who were staying over at the defendant's house (counts 1–6); (ii) sexual touching and exposure offences committed against a young girl in his custody on an outing to Manly Beach, and another sexual touching offence against the same girl while applying ear drops (counts 7–9); (iii) a sexual touching offence against an older girl characterised as occurring 'in the context of a reciprocated relationship' (count 10); and (iv) an exposure offence that occurred in his dressing room at the television studio 'outside a domestic setting' (count 11). Nettle J found sufficient connection for cross-admissibility between offences *within* category (i), and between offences *within* category (ii), but doubted whether there was sufficient connection for cross-admissibility *between* offences in the two different categories: ibid 231–2 [165]–[166]. However, if the trial judge's finding on this under s 97 could withstand challenge, he indicated the evidence would still lack sufficient probative value for cross-admissibility under s 101(2): at 232 [166]. The reliance on s 101(2) is odd given that the appeal was limited to s 97: Transcript of Proceedings, *Hughes v The Queen* [2016] HCATrans 201. He also limited the admissibility of the other tendency evidence based upon these categorisations: *Hughes* (n 5) 232–3 [167].

[162] Hughes (n 5) 248 [209].

[163] Ibid 195 [23] (Kiefel CJ, Bell, Keane and Edelman JJ).

[164] Ibid 200 [42] (Kiefel CJ, Bell, Keane and Edelman JJ).

[165] Ibid 199 [39] (Kiefel CJ, Bell, Keane and Edelman JJ).

adopted principles broadly similar to those of Nettle J. The predictive and probative value of a tendency is in proportion with the 'particularity'[166] or 'specificity'[167] with which it can be expressed. The majority doubted whether it would be sufficient if 'the evidence does no more than prove a disposition to commit crimes of the kind in question'.[168] Gageler J held that 'a tendency to be sexually interested in female children' would lack significant probative value.[169]

Despite the broad agreement with Nettle J regarding the role of specificity, in application to the present case, the majority and Gageler J were far readier to find sufficient specificity to satisfy the significant probative value threshold. The majority held that the evidence demonstrated the defendant's 'sexual interest in … underage girls … and a tendency to act on that interest by engaging in sexual activity with underage girls opportunistically, notwithstanding the risk of detection'.[170] Gageler J suggested that opportunism would not provide sufficient specificity by itself,[171] but, in similar terms to the majority, he detected an 'overall pattern of conduct … [by] the appellant to initiate fleeting physical sexual contact with young females in circumstances in which he was at risk of detection'.[172] As discussed below in Part V(C), Nettle J viewed opportunistic and risky child sex offending as too commonplace to establish the required logical connection.

The majority upheld the admissibility of all the tendency evidence on the basis that it all fitted the pattern of the defendant engaging in opportunistic and risky sexual contact with young females.[173] Gageler J took a different view of one of the counts from the majority, count 10, considering that it did not fit the pattern as it allegedly 'involved an element of planning'.[174] For Gageler J, the inadmissibility of the evidence relating to that count on the other counts, and vice versa, meant that all convictions had to be set aside.[175]

166 Ibid 204 [64] (Kiefel CJ, Bell, Keane and Edelman JJ).

167 Ibid 211 [93] (Gageler J).

168 Ibid 203 [57] (Kiefel CJ, Bell, Keane and Edelman JJ).

169 Ibid 215 [111].

170 Ibid 190 [2] (Kiefel CJ, Bell, Keane and Edelman JJ). The majority confined its comments to cases where commission is in issue, adverting to the supposed distinction with identity: see above nn 96–106, Part IV(B).

171 Ibid 215 [111].

172 Ibid 216 [112].

173 Ibid 203 [57]–[59] (Kiefel CJ, Bell, Keane and Edelman JJ).

174 Ibid 216 [113].

175 Ibid 216 [114]–[116].

The difference between the majority and Gageler J on count 10 partly reflected their different views of the facts.[176] However, the majority's treatment of count 10 draws out another important factor in assessing probative value: the frequency of other alleged misconduct. A higher frequency demonstrates a stronger tendency, raising the question whether this can compensate for lower specificity. The majority indicated that it could.[177] This was a factor in the majority rejecting the proposition that

> there was a 'world of difference' between the evidence concerning EE (count 10), who was 15 years old and whom the appellant encouraged to commit indecent acts in a park and in a driveway, and the evidence concerning SH (counts 3 to 6), which involved intrusive acts 'in a darkened bedroom, in her bed, when she was only six, seven or eight'.[178]

In assessing probative value, the items of tendency evidence should not be considered separately: '[E]vidence of a tendency might be weak by itself but its probative value can be assessed together with other evidence.'[179] One piece of tendency evidence may '[reinforce] the other tendency evidence' so that

[176] See also Cossins, 'The Future of Joint Trials' (n 9) 1150–1.

[177] On a technical note, the contribution of frequency of other misconduct cannot be accounted for solely by the consistency element, but also requires consideration of the inconsistency element. The consistency probability *decreases* as the number of other instances of misconduct increases:

$$P(T_1|G) > P(T_1 \,\&\, T_2|G) > \ldots > P(T_1 \,\&\, T_2 \,\&\, \ldots\, T_n|G)$$

By the product rule of probability, the probability of the conjunction of two events is less than or equal to the probability of either one by itself. For the same reason, the inconsistency probabilities also decrease as the number of other instances of misconduct increases:

$$P(T_1|\neg G) > P(T_1 \,\&\, T_2|\neg G) > \ldots > P(T_1 \,\&\, T_2 \,\&\, \ldots\, T_n|\neg G)$$

Crucially, however, the inconsistency probabilities can be expected to decrease at a greater rate than the corresponding consistency probabilities (because of the product rule and each factor of the inconsistency element being less than the corresponding factor of the consistency element). This means the likelihood ratio increases as the number of other instances of misconduct increases:

$$L(T_1) < L(T_1 \,\&\, T_2) < \ldots < L(T_1 \,\&\, T_2 \,\&\, \ldots\, T_n)$$

The probative value of tendency evidence increases with the frequency of other alleged misconduct.

[178] *Hughes* (n 5) 204 [62] (Kiefel CJ, Bell, Keane and Edelman JJ).

[179] Ibid 204 [61] (Kiefel CJ, Bell, Keane and Edelman JJ). Note that the 'other evidence' referred to here was other tendency evidence and not, for example, the complainant's direct evidence: see above Part III(B).

'[w]hen considered together, all the tendency evidence provide[s] strong support to show the appellant's tendency to engage [in the alleged conduct]'.[180]

Nettle J rejected this, adhering to his Honour's more stringent view regarding the specificity of connection:

> *Non constat* … that, in the absence of a pattern of behaviour, modus operandi or 'common threads', it is permissible to aggregate a succession of disparate sexual offences alleged to have been committed over a period of years in proof of some general tendency towards sexual misconduct.[181]

According to Nettle J, the higher frequency achieved by aggregation cannot compensate for generality of tendency.

B *The Royal Commission on Persons and Situations*

Nettle J's stringent specificity requirement is based upon a particular view of the behaviour of child sex offenders. This is an empirical question. Nettle J's restrictive approach is informed by the ALRC's finding that behaviour is 'highly dependent on situational factors and not … on personality traits'.[182] But this characterisation of the ALRC's finding is not entirely accurate. In the 2005 joint review undertaken with the NSWLRC and VLRC, the ALRC indicated that '[t]rait theory has not been wholly discredited. Personality psychologists argue that by aggregating behaviours across situations over time, one can discern consistent personality traits which may be used to predict an aggregate of future behaviour'.[183] However, the report did maintain that 'this research does not challenge the basic proposition that the behaviour of an individual on one occasion has a very low correlation to his or her behaviour on another occasion in a different situation'.[184]

The Royal Commission reviewed the 'person-situation debate', agreeing with Mike Redmayne's observation that 'the … debate is more or less over. The rather predictable consensus is that both persons and situations are

[180] *Hughes* (n 5) 204 [62] (Kiefel CJ, Bell, Keane and Edelman JJ). The High Court previously missed the importance of frequency in *Phillips v The Queen* (2006) 225 CLR 303: see Hamer, 'Similar Fact Reasoning' (n 109) 627.

[181] *Hughes* (n 5) 245 [197]; see also at 245–6 [199].

[182] Ibid 239 [184], citing *Evidence* (n 46) 451–2 [796]–[797]. See also *Hughes* (n 5) 195 [21] (Kiefel CJ, Bell, Keane and Edelman JJ), 207 [76] (Gageler J).

[183] *Joint Report* (n 46) 84 [3.20].

[184] Ibid.

important factors in explaining behaviour'.[185] The Royal Commission also affirmed Redmayne's view that the distinction between traits and situations can be artificial; the way that an individual perceives and shapes a situation is influenced by the individual's personality.[186]

For several related reasons, the Royal Commission concluded that psychological findings on the situation-specificity of behaviour does little to deprive tendency evidence of probative value in child sex offence cases. First, in these cases, 'tendency … evidence is not relied on to prove broad traits — it is always referring to specific situations': those of the charged offences and other alleged misconduct.[187] Second, the investigations of the Royal Commission revealed that 'perpetrators of child sexual abuse have sought out situations — and, indeed, have created or manipulated situations — to provide themselves with opportunities to sexually abuse children'.[188] Third, in these situations, '[t]he two most important similarities are already present — *sexual* offending against a *child*'.[189] And finally, the numerous cases examined by the Royal Commission,[190] and the research it commissioned, demonstrated that child sex offenders did not necessarily confine themselves to particular types and circumstances of offending.[191] Some offenders offended against 'both girls and boys and children of quite different ages … in a variety of ways [and] in different contexts — institutional, familial and others'.[192] The Royal Commission noted that its findings are consistent with other empirical work on the behaviour of child sex offenders.[193]

185 *Royal Commission Criminal Justice Report* (n 4) 605, quoting Redmayne (n 6) 12.

186 *Royal Commission Criminal Justice Report* (n 4) 605, citing Redmayne (n 6) 13.

187 *Royal Commission Criminal Justice Report* (n 4) 605.

188 Ibid.

189 Ibid 595 (emphasis in original).

190 '16,000 individuals contacted the Commission, it heard in private sessions more than 8,000 personal stories and received written accounts from over 1,000 survivors': Hunter and Kemp (n 52) 259.

191 *Royal Commission Criminal Justice Report* (n 4) 504, discussing Case Study 38 and Karen Gelb, *Royal Commission into Institutional Responses to Child Sexual Abuse: A Statistical Analysis of Sentencing for Child Sexual Abuse in an Institutional Context* (Report, March 2016).

192 *Royal Commission Criminal Justice Report* (n 4) 595.

193 Ibid 603, citing Annie Cossins, 'The Behaviour of Serial Child Sex Offenders: Implications for the Prosecution of Child Sex Offences in Joint Trials' (2011) 35(3) *Melbourne University Law Review* 821, 837, and Hamer, 'Proof of Serial Child Sex Abuse' (n 110) 255–6. See Cossins, 'The Future of Joint Trials' (n 9) 1148–9 .

The Royal Commission's recent and extensive empirical work undermines the proposition that, without high specificity, tendency evidence lacks predictive and probative value, in child sex offence cases in particular. In *Hughes*, the majority and Gageler J relied upon the opportunistic and risk-taking elements in establishing a connection between the charged offence and the other misconduct, while Nettle J held this was insufficient; stronger connections were required. The empirical evidence considered by the Royal Commission indicates that other child sex offending is consistent with guilt of the charged child sex offences without distinctive shared particulars. This evidence provides no support for Nettle J's view that a child sex offender who commits sexual touching offences against young female work associates would be unlikely to commit an exposure offence against them, and unlikely to commit a sexual touching offence against young females in a non-work, social context.[194] The Royal Commission's evidence also calls into question the suggestions of the majority and Gageler J that a child sex offender who commits opportunistic and risky abuse would be unlikely to commit a more cautious planned offence.[195]

The Royal Commission's work demonstrates that tendency evidence has greater probative capacity than traditionally recognised, and that the correction supported by the majority in *Hughes* is insufficient.[196] This suggests that tendency evidence will often readily satisfy the significant probative value test of s 97. At the same time, it calls into question the need for this elevated admissibility threshold. The significant probative capacity of tendency evidence undermines the traditional perception that the evidence carries an unacceptable risk of prejudicial overvaluation. On the contrary, there is a need for caution in excluding what may be extremely valuable evidence. The elevated probative value requirements for tendency evidence should be reconsidered. The argument for broader admissibility gains further support from analysis of the inconsistency element in the next section.

C *Inconsistency, Unusualness and Similarity*

The relative consistency analysis of probative value highlights the distinct contribution of two elements — the *consistency* of tendency evidence with guilt, and its *inconsistency* with innocence. The previous Section focused on

[194] See above nn 157–61 and accompanying text.

[195] See above nn 170–5 and accompanying text.

[196] Cf Hunter and Kemp (n 52) 260.

the consistency element of probative value which, for tendency evidence, corresponds with the predictability and consistency of human behaviour. But consistency with guilt is only half of the picture. Tendency evidence also derives probative value from its inconsistency with the defendant's innocence. Bringing the inconsistency element to account, with regard to both logic and empirical data, illuminates a number of issues in, and points of difference between, the *Hughes* judgments.

The distinction between the consistency and inconsistency elements is clear in the relative consistency framework, but it can be hard to discern in many discussions of probative value, including the judgments in *Hughes*. This is because such discussions focus on the specificity of tendency, a key factor in both the consistency and inconsistency elements, without making it clear which element is being addressed.[197] With regard to the *consistency* element, the specificity factor reflects the view that prior criminal conduct has predictive value regarding criminal conduct of that (more or less) specific variety. As discussed in the previous section, empirical work on the behaviour of child sex offenders does not support a strong specificity requirement for the purposes of prediction. Individual offenders vary their style of offending. The specificity consideration may have more work to do with regard to the *inconsistency* element. The more specific or unusual the features shared between the defendant's other offending and the charged offence, the more inconsistent the other offending will be with the defendant's innocence.

At a most general level, drawing attention to the inconsistency element emphasises that the probative value of tendency evidence is not all about the predictability of human behaviour. This provides an important correction. Arguments favouring a stringent exclusionary rule often rest on unbalanced analyses, relying on the supposed inconsistency and unpredictability of human behaviour without proper regard for the relative nature of the probative value assessment and the contribution of the inconsistency element.[198] Robinson, again, exemplifies the flawed reasoning. He claims that

[197] See Hamer, 'Tendency Evidence and Coincidence Evidence in the Criminal Trial' (n 2) 171. The High Court judgments did refer to the two different elements: see above nn 141–5. However, they did not clearly distinguish the two roles of the specificity factor.

[198] See, eg, *Evidence* (n 46) 452 [797], 453 [799]; *Joint Report* (n 46) 80–1 [3.9]–[3.11], 82 [3.14], 85 [3.25]; *Hughes* (n 5) 207 [75]–[76] (Gageler J), 239 [184], 246 [202] (Nettle J); David Hoitink and Anthony Hopkins, 'Divergent Approaches to the Admissibility of Tendency Evidence in New South Wales and Victoria: The Risk of Adopting a More Permissive Approach' (2015) 39(6) *Criminal Law Journal* 303, 323–5; Tamara Rice Lave and Aviva Orenstein, 'Empirical Fallacies of Evidence Law: A Critical Look at the Admission of Prior Sex Crimes' (2013) 81(3) *University of Cincinnati Law Review* 795, 816. Charles H Rose,

tendency evidence has limited probative value because the frequency of offending behaviour for most defendants with prior offences is less than the frequency of non-offending behaviour:

> The scientific approach treats the most frequent behaviour as the predictor of behaviour on an unknown occasion due to its statistical predominance … When propensity or tendency reasoning is deployed in legal cases, the approach is the exact opposite. The relatively rare occurrences of offending behaviour are treated as predictors and the non-offending behaviour is ignored.[199]

This fails to take into account the relative nature of the probative value assessment. Probative value does not depend solely upon the probability that the defendant, if guilty of the charged offence, also committed the other misconduct. Probative value is determined by the magnitude of this (consistency) probability relative to the (inconsistency) probability that the defendant, if innocent, committed the other misconduct. The consistency probability may be relatively low — lower than 50% in Robinson's example since non-offending is more frequent — but it is generally far higher than the inconsistency probability. It may not be probable that someone, having committed one offence, would commit another offence (the consistency element). But empirical data indicates it is far less probable that someone without that history of offending would commit such an offence (the inconsistency element). It is this 'comparative propensity' that is key to probative value.[200]

'Should the Tail Wag the Dog? The Potential Effect of Recidivism Data on Character Evidence Rules' (2006) 36(2) *New Mexico Law Review* 341.

The failure to consider the inconsistency element may have a connection with the probative value-proof conflation. Suppose, instead of the probative value probability, $P(E|G)$, reference is had to its transposition, the proof probability, $P(G|E)$. Then there is no point also considering $P(\neg G|E)$ because this is the complement of $P(G|E)$; they contain essentially the same information. However, the relative consistency probabilities $P(E|G)$ and $P(E|\neg G)$ are not complementary. They contain different information: see above n 135.

199 Robinson (n 88) 205.

200 Redmayne (n 6) 16–17; Hamer, 'Proof of Serial Child Sexual Abuse' (n 110) 253–5. Robinson presents a variation on his argument outlined above. He argues that tendency evidence, at best, may predict general behaviour. Its predictive power is far weaker with regard to specific acts. 'The recidivism studies [only provide] a prediction about whether a person is likely to commit another offence at some time in his life. Such studies tell little about what the defendant did (or was likely to do) on a particular day, at a particular place, at a particular time': Robinson (n 88) 217 (emphasis omitted). This variation can also be resolved by the relative consistency analysis. A specific allegation will be inherently less probable than a general allegation, but this is true for both the consistency and inconsistency probabilities —

Methodological issues arise in estimating both the consistency and inconsistency probabilities, and also in trying to put them on the same scale to calculate a relative value.[201] However, these difficulties should not obscure the fact that the former figure is significantly greater than the latter. This is shown by research into child sex offenders in the criminal justice system. Jessie Holmes reports that over the two-year period 2009–10, 495 adult child sex offenders were convicted in NSW,[202] which is less than one hundredth of 1% of the adult population.[203] Among the general population, it is extremely unusual to have a recent conviction for child sex offences (the inconsistency element). However, 8.3% of the 495 with a recent conviction had a prior conviction for adult or child sexual assault.[204] (Another 27.9% had prior convictions but not for sexual assault, supporting the argument in the previous Section that it is consistent for offenders to engage in a range of offending behaviour.) Among those with a recent conviction for a child sex offence it is not very uncommon to find prior convictions for sex offences (or other offences) (the consistency element).

Smallbone and Wortley made a similar finding for Queensland in June 2000. The researchers obtained detailed information regarding the histories of 323 child sex offenders who were in custody or serving community corrections orders,[205] which is between one and two hundredths of 1% of the population.[206] They found that 21.3% had prior convictions for sex offences, and 61.6% had prior convictions of some kind, again illustrating generalised patterns of offending.[207] The figures for Queensland, like those for NSW,

the same factor (for example 1/365 if talking about a particular day instead of a particular year) appearing in the numerator and the denominator of the likelihood ratio — cancelling each other out, so that the probative value will be relatively steady regardless of the specificity of description.

201 See, eg, Redmayne (n 6) 17–24; Hamer, 'Proof of Serial Child Sexual Abuse' (n 110) 251–5; Cossins, 'Behaviour of Serial Child Sex Offenders' (n 193) 825–8. See also Ben Mathews et al, *Royal Commission into Institutional Responses to Child Sexual Abuse: Scoping Study for Research into the Prevalence of Child Abuse in Australia* (Report, September 2016) 10, 15–16.

202 Jessie Holmes, 'Sentencing Snapshot: Child Sexual Assault, 2009–2010' (Issue Paper No 68, New South Wales Bureau of Criminal Statistics and Research, May 2013) 2.

203 See Australian Bureau of Statistics, *Population by Age and Sex, Regions of Australia*, *2010* (Catalogue No 3235.0, 4 August 2011).

204 Holmes (n 202) 3 fig 1.

205 Stephen W Smallbone and Richard K Wortley, *Child Sexual Abuse in Queensland: Offender Characteristics and Modus Operandi* (Report, Criminology Research Council, 2001) 13.

206 Australian Bureau of Statistics, *Population by Age and Sex, Queensland, 2000* (Catalogue No 3235.3, 28 June 2001).

207 Smallbone and Wortley (n 205) 48.

indicate that it is unusual to get convicted for child sex offences, but a relatively high percentage of those convicted for child sex offences have (more or less similar) prior convictions.

Of course, convictions data provides only a weak picture of actual rates and patterns of offending. This is particularly the case with child sexual assault which has very low rates of reporting, prosecution and conviction.[208] Nevertheless, this data strongly suggests that recidivism rates are far higher than incidence rates. Evidence of other child sex offences is far more consistent with the defendant's guilt on the current charges than with the defendant's innocence. Evidence of other (more or less similar) offending is highly probative.

In *Hughes*, the Court was provided with no data on the frequency of offending behaviour.[209] In the absence of data, the court speculated. With reference to the inconsistency element, the majority opined that '[a]n inclination on the part of a mature adult to engage in sexual conduct with underage girls and a willingness to act upon that inclination are unusual as a matter of ordinary human experience'.[210] Nettle J disagreed, suggesting that '[t]he commission of sexual offences by adults against children of either sex is depraved and deplorable, but, regrettably, it is anything but unusual'.[211] However, Nettle J appears to be using an inapt conception of 'unusualness'.

At one point, Nettle J conceded that child sex offending 'is unusual by the standards of ordinary decent people', but then indicated 'it is not unusual in comparison to other crimes';[212] 'the bulk of the work of criminal courts in this country is devoted to dealing with sexual offences and the bulk of those offences are sexual offences against children'.[213] Nettle J's empirical claims are not accurate. Although sex offences are one of the more common types of offence in the higher courts, they make up only a little over one fifth of the total.[214] Across *all courts*, sex offences are one of the least common types of

[208] See, eg, Kamala London et al, 'Disclosure of Child Sexual Abuse: What Does the Research Tell Us About the Ways that Children Tell?' (2005) 11(1) *Psychology, Public Policy, and Law* 194.

[209] *Hughes* (n 5) 215 [110] (Gageler J).

[210] Ibid 203 [57] (Kiefel CJ, Bell, Keane and Edelman JJ).

[211] Ibid 228 [157].

[212] Ibid 246 [202].

[213] Ibid. Other courts have also made dubious claims about child sexual assault not being unusual: see Hamer, 'Proof of Serial Child Sexual Abuse' (n 110) 249–50.

[214] Australian Bureau of Statistics, *Criminal Courts, Australia, 2016–17* (Catalogue No 4513.0, 28 February 2018).

offence.[215] More problematically, Nettle J's statistical enquiry is misdirected. The probative value of the defendant's commission of other child sex offences depends upon it being inconsistent with the defendant's *innocence*. In determining whether this is the case, it is useful knowing how uncommon child sex offenders are among the *general population*, most of whom, by and large, are law-abiding. It is not surprising that the criminal courts will encounter many child sex offenders. But the frequency of child sex offenders among the *criminal defendant population* is not the question.[216]

Nettle J also differed from the majority with regard to more specific claims regarding unusualness. As discussed in Part V(A), the majority attached significance to the opportunism and risk-taking that characterised much of the defendant's alleged misconduct, as did Gageler J. However, Nettle J denied that these features make the conduct distinctive: 'In the scheme of things, sexual offences against children are most commonly committed opportunistically against children in an offender's company.'[217] 'Axiomatically, all criminal behaviour involves risk-taking and sexual offending in particular involves a very great degree of risk-taking.'[218] Here, again, Nettle J asks the wrong statistical question. We are interested in the consistency of misconduct evidence with innocence, which is related to the frequency of the offending behaviour among the generally law-abiding population, not among criminals or child sex offenders. Child sex offending per se is unusual. Child sex offending of a particular type will necessarily be still more unusual.

Further, as well as asking the wrong question, Nettle J again arrives at the wrong answer. Nettle J provides no empirical support for the claim that child sex offenders are generally risk-taking opportunists; in fact, empirical data suggests the contrary. The Royal Commission points out that child sex offenders generally operate strategically and manipulatively, not opportunistically.[219] They groom their victims over time in order to minimise the risk that the child will resist or report the conduct.[220] Among child sex

[215] Ibid.

[216] Cossins, 'The Future of Joint Trials' (n 9) 1145.

[217] *Hughes* (n 5) 229 [159].

[218] Ibid 233 [169].

[219] *Royal Commission Criminal Justice Report* (n 4) 661.

[220] Patrick O'Leary, Emma Koh and Andrew Dare, *Royal Commission into Institutional Responses to Child Sexual Abuse: Grooming and Child Sexual Abuse in Institutional Contexts* (Research Paper, February 2017); Joe Sullivan and Ethel Quayle, 'Manipulation Styles of Abusers who Work with Children' in Marcus Erooga (ed), *Creating Safer Organisations: Practical Steps to Prevent the Abuse of Children by Those Working with Them* (Wiley-Blackwell, 2012) 85, 89–95; Benoit Leclerc and Pierre Tremblay, 'Strategic Behaviour in Adolescent Sexual

offenders, opportunistic and risky offending is unusual, increasing further the probative value of the tendency evidence in *Hughes*. Evidence of other child sex offending has strong probative capacity without these distinctive similarities with the charged offence. However, the presence of such features gives the evidence even greater probative capacity.

VI Conclusion

The Royal Commission identified the exclusion of tendency evidence as one of the most important criminal justice issues it addressed. Prosecuting child sexual abuse is inherently difficult because the offence is committed in secret, and victims often delay reporting, further reducing the available evidence. Tendency evidence of other alleged victims can be crucial. Its exclusion can give child sex offenders impunity. And yet, tendency evidence is traditionally subject to an exclusionary rule. Under the *UEL*, to gain admission, tendency evidence requires significant probative value which substantially outweighs prejudicial risk. The exclusionary rule with its elevated admissibility threshold reflects the law's concern that juries attribute too much weight to tendency evidence. This article shows, on the contrary, that the law has traditionally undervalued tendency evidence.

One common flaw in gauging the probative value of tendency evidence is the conflation of probative value and proof, resulting in unrealistically stringent demands. As explained in Part III, proof measures the overall cumulative strength of a body of evidence, whereas probative value measures the contribution of particular evidence. Like most other kinds of evidence — motive, opportunity, post-offence conduct — tendency evidence may be

Offences against Children: Linking Modus Operandi to Sexual Behaviours' (2007) 19(1) *Sexual Abuse* 23. See also *Hughes* (n 5) 203 [57] (Kiefel CJ, Bell, Keane and Edelman JJ). To address this problem, all Australian jurisdictions have made grooming an offence independently of the actual child sexual abuse: ibid 76–7.

Nettle J also suggested: 'To allege a tendency to select victims of some vulnerability is not significantly probative of such an offence because, in one respect or another, all children are vulnerable to sexual exploitation and all sexual offences against children involve taking advantage of that vulnerability': *Hughes* (n 5) 231 [163]. This is also questionable. All children may be vulnerable to a degree, but some are far more vulnerable than others — depending on matters such as age, intelligence, physical capacity and strength of social network: see Kimberly A Tyler and Ana Mari Cauce, 'Perpetrators of Early Physical and Sexual Abuse Among Homeless and Runaway Adolescents' (2002) 26(12) *Child Abuse & Neglect* 1261; Gwynnyth Llewellyn, Sarah Wayland and Gabrielle Hindmarsh, *Royal Commission into Institutional Responses to Child Sexual Abuse: Disability and Child Sexual Abuse in Institutional Contexts* (Report, November 2016).

insufficient to establish guilt by itself. But it can still make a valuable contribution.

The probative value of evidence is defined in the *UEL* as its capacity to rationally increase the probability of guilt. To properly measure probative value requires, first, an understanding of its logical structure, and then, the appropriate use of relevant empirical data. Part IV presents the relative consistency model of probative value as a useful way of approaching this task. The capacity of tendency evidence to discriminate between guilt and innocence depends upon its consistency with guilt relative to its consistency with innocence. This model, drawing upon Bayesian probability theory, sheds light on a number of issues arising in the tendency evidence jurisprudence.

The bipartite structure of relative consistency clarifies the dual role of similarity requirements. First, consistency between the defendant's other misconduct and the charged offence, to a degree, depends upon their similarity. Prior sex offence convictions say more about the defendant's guilt of the charged sex offence than prior robbery or fraud convictions. Second, the more particular or distinctive that similarity, the more inconsistent the other misconduct will be with the defendant's innocence. A highly unusual feature, while consistent with guilt, will be inconsistent with innocence, due to its infrequency among the generally law-abiding community.

The relative consistency structure reveals a flaw in arguments for stringent exclusion. They often invoke the difficulty of predicting criminal behaviour on the basis of past offences, relying on research that the criminal behaviour is only likely to be repeated if the person is put in precisely the same situation. It purportedly follows that evidence of other criminal conduct is only probative if the charged offence resembles the defendant's other misconduct with a high level of specificity. The empirical and logical analysis in Part V reveals two flaws with this argument. First, it overstates the specificity of offending patterns. Empirical evidence indicates that child sex offenders are not specialists, but commit a variety of offences against victims of different ages and genders in a variety of circumstances. Indeed, they often have prior convictions for non-sex offences. Second, probative value does not depend solely upon predictability of reoffending. Predictability is a guide to the consistency of the evidence with guilt, but probative value also depends upon the inconsistency of the evidence with innocence. And the empirical evidence comparing recidivism with incidence indicates that a guilty defendant is far more likely to have a history of offending than an innocent defendant.

This article establishes that tendency evidence has stronger probative capacity than traditionally appreciated. Tendency evidence will generally not struggle to achieve the s 97 threshold. At the same time, the significant

probative value of tendency evidence calls into question the wisdom of the exclusionary rule. The need to safeguard against the risk of juries overvaluing tendency evidence appears exaggerated. And exclusion can carry a high cost for criminal justice: the unjustified failure of criminal prosecutions. The elevated probative value requirements for tendency evidence should be reconsidered.