INTRODUCTION

Judicial decision-making and ‘outside’ extra-legal knowledge: breaking down silos

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Introduction

Judges apply law to facts. While this ‘umpire’ description of judicial decision-making is rhetorically (and often politically and publicly) attractive, it is of course a very incomplete account of judicial decision-making.¹ Judges frequently experience factual ‘gaps’ they need to fill in order to reach a decision. Judge Richard Posner has recently suggested this is a very significant problem facing judges in the twenty-first century as the technological complexity of cases before courts exponentially increases.² The judiciary, the legal profession, and the academy have failed to respond to the challenges of filling ‘gaps’ in the factual record, through the use of extra-legal knowledge from disciplines outside the law.³ Adjudicative facts,⁴ presented by the parties and admitted in accordance with the rules of evidence, are sometimes (and perhaps often) simply not enough to enable a judge to reach a decision. Legal standards, for example, the ‘reasonable person’ or the ‘best interests of the child’, may incorporate broad judicial discretion which requires judges to apply wider understandings of the nature of the world and society and how human beings behave. Adjudicative fact evidence may not have meaning without the application of a ‘lens’ or framework of broader knowledge (through expert evidence or knowledge of other disciplines).⁵ Judges may be unable to evaluate the veracity of forensic expert evidence⁶ without an understanding of whether there is actually a scientific basis for the relevant forensic claims; what processes must be followed to ensure the reliability of forensic testing; and what cognitive impact the particular ways of presenting forensic evidence to judges and juries may have on ultimate decision-making.⁷ The advent of the internet and social media means knowledge can be rapidly and extensively disseminated and accessed across the world. Yet, paradoxically, despite this the relationship between the law and knowledge from other disciplines, including science and social science, is at best uneasy and at worst counter-productive to just outcomes. We argue that the silos around law and other academic disciplines need to be broken down.⁸

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¹Lord Neuberger (2015a).

²Posner (2013, 2016).

³Posner (2013, 2016).

⁴Adjudicative facts are those which directly concern the parties to a matter and the facts in issue. See Davis (1942, 1955, 1986).

⁵This can be referred to as ‘social framework’. See Walker and Monahan (1987).

⁶For example, DNA testing, fingerprinting, image matching, voice analysis, and fire patterns.

⁷See Edmond (2015a, 2015b).

⁸Lord Neuberger (2015b), p 1.

Extra-legal (or exogenous⁹) knowledge from other disciplines comes into the law in a wide array of ways: through expert evidence, through judicial ‘common-sense’ assumptions, as a matter of judicial notice, through parties’ submissions, through the media, through interveners and *amicus curiae*, and through self-selection by judges themselves. In the age of Google and Wikipedia, it has never been easier for judges to self-source this information. But scholars have both welcomed and been cautious about how law and social science and law and science intersect since long before the internet. The possible need for an expert in the sciences is recorded as early as 1554 when Saunders J stated that:

If matters arise in our law which concern other sciences or faculties we commonly apply for the aid of that science or faculty which it concerns. This is a commendable thing in our law. For thereby it appears that we do not dismiss all other sciences, but our own, but we approve of them and encourage them as things worthy of commendation.¹⁰

Despite the length of the relationship between these disciplines, it is not always a comfortable one, and the respective roles may not always be well understood. Gunter Teubner argues that law is an ‘autopoietic social system’ made up ‘neither of rules nor of legal decision-makers’ but of ‘legal communications’. The self-reproductive nature of this network of communications means that the law cannot reach out into the real outside world but can only communicate about it:

Any metaphor about [legal communications’] access to the real world is misplaced. They do not receive information from the outside world which they would filter and convert according to the needs of the legal process. There is no instruction of the law by the outside world; these is only construction of the outside world by the law.¹¹

Michael King and Christine Piper, writing about how the law thinks about children in 1990, engaged with these ideas. They interpreted Teubner’s position to mean that the nature of ‘legal discourse is such that attempts to merge it with other social discourses can result only in “interference” and what emerges ‘are simultaneous communications about the child and its problems, which, like parallel lines, never meet but continue along their own path.’¹² In Australia, John Dewar considered autopoiesis and family law when examining the 1995 reforms to the *Family Law Act 1975* (Cth) discussed by Rathus in her article in this special edition.¹³ He posits that this theory ‘emphasises the system-like nature of law: and as a system, law encodes or interprets its environment in its own terms’. The consequence of this is that the law ‘distorts the messages, or inputs, from other disciplines’ creating oversimplified ideas about complex and value-laden issues such as the best interests of the child in custody cases.¹⁴

So the legal system is faced with a conundrum. The law may need to employ outside knowledge to ensure good decision-making but its self-referential nature may mean that it (consciously or unconsciously) resists engagement with other disciplines. One concern about that approach is that decision-making may rely, at times, on personal judicial common sense. Revealing the problems with judicial common sense has been a key plank

⁹Hamer and Edmond (2016); Edmond, Hamer and Cunliffe (2016).

¹⁰*Buckley v Rice-Thomas* (1554) 1 Plowd 118 at 124 cited in Banks (1999).

¹¹Teubner (1989), p 740.

¹²King and Piper (1990), p 19. See also King (1993); Dewar (1998).

¹³Rathus (2016).

¹⁴Dewar (1998), p 479 in Parkinson and Behrens (2004).

in feminist legal scholarship which has highlighted judicial assumptions about women that perpetuated inappropriate gender stereotypes or did not incorporate women's lived experiences.¹⁵ However, the problems with judicial use of 'outside knowledge' are not limited to judges' deployment of their own common sense. In jurisdictions across the world, in a wide array of legal contexts, debate rages about the place of all kinds of 'outside' (extra-legal) knowledge in law. There are significant procedural and substantive difficulties, in relation to how judges engage with 'outside' exogenous knowledge in their reasoning and in the judicial process. These include unclear or inadequate legal frameworks in relation to the reception and evaluation of outside knowledge; the failure of the adversarial system to engage with, adduce and evaluate science and social science; use of unreliable, outdated, or controversial social science or science; demonstrated judicial lack of understanding of science and social science; judicial over-reliance on expert claims of dubious forensic expertise; judicial selectivity or passivity; possible judicial error; effects of unconscious judicial cognitive bias; and lack of procedural fairness and natural justice. There are also broader systemic issues that may arise from the use (misuse and non-use) of outside extra-legal knowledge such as insufficient focus on empirical research in legal education; the lack of or inadequate judicial training and education; inadequate institutional support; lack of judicial diversity; and wrongful conviction.

Perspectives on judges and outside knowledge

This special issue of the *Griffith Law Review*, 'Judicial Decision-Making and 'Outside' Extra-Legal Knowledge: Breaking Down Silos', interrogates the role of knowledge from 'outside' or exogenous to the law in judicial decision-making. It brings together contributions which traverse diverse areas of law including criminal law, private law, discrimination law, and family law. It considers the interaction between law, judicial decision-making, and a range of different discipline knowledges including science, social science, and philosophy. Contributions demonstrate the issues that arise not just in Australia, but also in Canada, the United Kingdom, and in the United States. Common themes across contributions include the inadequate (and often unclear) legal frameworks which govern the admission and evaluation of outside knowledge; the inadequacies of the adversarial system focused on individualised case determination in providing reliable outside knowledge to courts; the insufficiency of the current approach of adducing outside knowledge via expert witnesses; the haphazard and often disparate treatment by courts of empirical material; the failure of the current system to extrapolate the lessons learnt from outside knowledge introduced in individual cases to the broader implications for all cases of that kind; judicial reliance on common sense assumptions about outside knowledge rather than empirical material; the lack of acknowledgement of the important role knowledge from the outside the law may play in evidence-based judicial decision-making; and the inability of lawyers and judges to understand the methods and reasoning of science and social science.

In their article, 'Judicial Notice: Beyond Adversarialism and into the Exogenous Zone', David Hamer and Gary Edmond discuss the restrictive approach taken by recent Australian decisions regarding courts' access to exogenous (non-legal) knowledge. In particular they focus on the narrow approach taken by Australian Courts, based on a commitment to

¹⁵Boyle (1985), Mahoney (2015).

adversarialism, to the application of the doctrine of judicial notice (and its statutory version s 144 Evidence Act¹⁶). They note the potential importance of legislative fact material particularly in criminal cases including in *MA v The Queen*¹⁷ (psychiatric evidence on the behaviour of child sexual assault victims), *Dupas v The Queen*¹⁸ (psychological evidence on delayed eye witness testimony), and *Aytugrul v The Queen*¹⁹ (psychological evidence on jury interpretation of different expressions of DNA evidence). Hamer and Edmond review the existing mechanisms whereby exogenous knowledge may enter Australian courts including via expert evidence, judicial notice and judicial generalisations, and background knowledge. They discuss the different approaches taken in Australian courts to adjudicative facts and legislative facts. They conclude that while underlying goals of factual accuracy, efficient dispute resolution, fairness, and institutional integrity may be justified in relation to adjudicative fact finding, these same goals do not support the strict approach taken in Australian courts in relation to judicial use of extra-legal legislative fact material. Judges should be able to access and draw upon a wider range of materials particularly where there is an imbalance between parties.

By way of contrast, Kylie Burns in her article ‘Judges, Common Sense and Judicial Cognition’ discusses the widespread use of ‘common sense’ and ‘common understandings’ about the world and human behaviour in Australian judicial decision-making. This article draws upon Burns’ previous work on judicial use of ‘social facts’²⁰ which demonstrated widespread judicial use of assumptions about knowledge, rather than actual empirical evidence drawn from other disciplines. This article discusses how judges use ‘common sense’ assumptions across a broad array of different kinds of cases including negligence, family law, human rights cases, constitutional cases, and in the development of the common law. Burns identifies how despite (or perhaps as a result of) the restrictive approach discussed by Hamer and Edmond²¹ taken by Australian courts in cases such as *Aytugrul v R*²² to legislative fact material, Australian judges seem inclined to rely on common sense assumptions which may be much less accurate and reliable than empirical evidence. The article suggests that while judicial common sense assumptions about the world and human behaviour may be accurate, common sense assumptions may also be wrong, inconsistent with empirical evidence, the vehicle for stereotyping and bias, and the cause of injustice and judicial error. The article considers how judicial common sense might be conceived of as an unconscious cognitive process, which may result in systemic errors and discusses emerging research in judicial cognition including the impact on judges of bounded rationality; heuristics and biases; group identity; emotion and cultural cognition. It concludes with a discussion of evidence-based judging and how the problems of anecdotal common sense might be addressed through a range of legal, institutional, and other reforms related to cognitive and cultural factors.

Zoe Rathus’ article, ‘Mapping the Use of Social Science in Australian Courts: The Example of Family Law Children’s Cases’, plots a partial history of the use of social science

¹⁶Evidence Act 1995 (CTH); Evidence Act 1995 (NSW); Evidence Act 2001 (TAS); Evidence Act 2008 (VIC); Evidence Act 2011 (ACT); Evidence Act (National Uniform Legislation) 2011 (NT).

¹⁷(2013) 226 A Crim R 575.

¹⁸(2012) 40 VR 182.

¹⁹(2010) 20 A Crim R 157 (NSWCCA); (2012) 247 CLR 170 (HCA).

²⁰Burns (2004, 2012, 2013).

²¹Hamer and Edmond (2016).

²²(2010) 20 A Crim R 157 (NSWCCA); (2012) 247 CLR 170 (HCA).

research literature in children's cases in Australia's family courts.²³ Despite the generally conservative attitude shown towards the admission of extraneous materials in our courts, as described by Hamer and Edmond,²⁴ Rathus demonstrates that Family Court judges have been drawing from the social sciences since the first year of operation of the Family Court of Australia in 1976. Occasional use in the early years was often that of appellate courts endeavouring to interpret and understand the new law – a manifestation of legislative fact. But over time, as Rathus traces, the nature of the use changes such that much of the social science literature in published cases occurs in trial courts, particularly to address issues pertaining to the relevant legislation in parenting provisions.²⁵ In most cases, no apparent legal process or procedure for the introduction of the materials has been followed. This raises concerns about natural justice and the absence of clear avenues for testing the validity, quality, or possible controversial nature of the research. In fact, the literature referenced by judicial officers (and other actors considered in the article) often reflected the research being discussed in the wider family law community. Rathus concludes that family law judges often turn to the social sciences when they need to fill gaps in law, whether it is concerning novel situations (in the 1970s and 1980s) or common situations in separating families that were not adequately covered by the new law.

The beginnings of a solution to the lack of a legal framework for the use of extra-legal knowledge are proposed in the article by Edmond, Hamer, and Cunliffe, 'A Little Ignorance Is a Dangerous Thing: Engaging with Exogenous Knowledge Not Adduced by the Parties', which analyses a Canadian break and enter case.²⁶ The crucial evidence which convicted the accused was 'a single latent fingerprint found on plastic wrapping' within the premises. After the evidence had been finalised but while the decision was reserved²⁷ Funk J, the trial judge, became aware of research and reports which were critical of some aspects of the methodology employed by the expert witness who had given the fingerprint testimony. The judge provided copies of the material to the prosecution and defence and reconvened the court so that submissions could be made²⁸ and ultimately acquitted the accused. As permitted in Canada, the prosecution appealed and the Court of Appeal strongly disapproved Funk J's approach, opining that 'the judge stepped beyond his proper neutral role and into the fray'.²⁹ The authors posit that this case epitomises the problem that 'legal engagement with scientific research and knowledge tends to be limited and frequently superficial'.³⁰ Consistent with other articles in this special edition, they note that Australia has 'not developed mechanisms for acquiring authoritative independent advice on issues'.³¹ The article suggests a number of approaches which courts could take to facilitate appropriate use of quality research including: courts of appeal receiving evidence where guidelines may be required, senior judges convening 'multi-disciplinary

²³Most of the cases Rathus considers are now called 'parenting' cases – disputes between the parents of a child. Some, however, deal with issues of jurisdiction in early children's cases and other ancillary matters directly relating to children. Child protection cases are not considered as these are not dealt with by the Australian Family Court.

²⁴Hamer and Edmond (2016).

²⁵*Family Law Act 1975* (Cth). As the article shows, this practice abated significantly after the Full Court decision in *McGregor v McGregor* (2012) FLC 93-507.

²⁶*R v Bornyk* 2013 BCSC 1927.

²⁷This was a judge only trial – no jury.

²⁸Benjamin J took similar action in the family law case of *Maluka v Maluka* (2011) FLC 93-464.

²⁹Edmond, Hamer and Cunliffe (2016), pp. 383–413.

³⁰Edmond, Hamer and Cunliffe (2016), pp. 383–413.

³¹Edmond, Hamer and Cunliffe (2016), pp. 383–413.

committees' which could provide guideline reports, and trial judges enabled to draw parties' attention to important research relevant to matters before the court, without being concerned about appellate admonition.

In her article, 'Legitimacy and Empirical Evidence in the UK Courts', Alysia Blackham examines the approach taken by Courts in the United Kingdom to the use of empirical evidence through the lens of the principle of legitimacy. Similarities can be seen between the issues relevant in the Australian context, and those in the United Kingdom. Like the arguments made in the articles in this issue by Hamer and Edmond; Burns; Rathus; and Edmond, Hamer, and Cunliffe, in the Australian and Canadian contexts, Blackham argues that the approach taken by the courts in the United Kingdom is 'ad-hoc, unprincipled and unpredictable'. This undermines courts' institutional legitimacy. Blackham argues that the legitimacy of courts in the UK could be enhanced by informed and critical use of empirical material which could increase the connection between courts and society. Blackham draws on the previous work carried out by Burns³² on judicial use of social facts, to examine how judges (in negligence and discrimination cases) in the United Kingdom use empirical evidence and common sense assumptions. Similar to the Burns' studies, Blackham argues there is widespread and enduring judicial use in the United Kingdom of 'common sense' social facts and common sense reasoning rather than empirical evidence in cases. Courts are inconsistent in their approach to the use of empirical evidence and it is unclear when empirical evidence may be regarded as appropriate and sufficient for judicial fact-finding. Blackham refers to a number of cases, for example, *MacCulloch v Imperial Chemical Industries plc*,³³ where courts rejected empirical evidence in favour of their own assumptions drawn from 'experience'. The article explores negligence and discrimination cases where UK courts have referred to empirical material in their reasoning, but notes these cases reveal features such as deep distrust and/or misunderstanding of scientific evidence, and judicial difficulty in scrutinising and determining the validity of such evidence. Finally, Blackham suggests a range of strategies for improving courts' use of empirical evidence and consequently institutional legitimacy. These strategies include judicial and legal education, reform of rules of evidence and procedure, and development of a more effective rationale and guidance for judicial use of social facts in the United Kingdom.

The final article in the special edition by Karen Schultz, 'Backdoor Use of Philosophers in Judicial Decision-Making? Antipodean Reflections', provides an interesting contrast to the other articles in the special issue. While they consider extra-legal knowledge drawn from science, social science, and common sense, Schultz considers the citation of philosophers. Schultz locates her consideration of this issue in the Australian context through a discussion of citation analysis method. She analyses and critiques existing citation analysis studies by Rao³⁴ and Brooks³⁵ of the citation of select philosophers in cases in the United States. Rao's thesis placed judicial citation of philosophers in the context of a 'backdoor method for judicial policy making' while Brooks argued citation of philosophers was 'not incommensurable with adjudication' and was potentially 'an ally in the pursuit of sensible legal reasoning'.³⁶ Schultz's citation study considers all available High Court judgements

³²Burns (2004, 2012, 2013).

³³*MacCulloch v Imperial Chemical Industries plc* (UKET, 22 November 2007).

³⁴Rao (1998)

³⁵Brooks (2003).

³⁶Brooks (2003), p. 2.

up to 2016, which were searched for citation of a list of named philosophers aggregated from the Rao and Brooks studies. The findings show a relatively modest citation by the Australian High Court of philosophers, mostly in ‘non-philosophical’ ways (for example, in support of political, economic, or legal statements). Only three citations were identified that appeared to develop philosophical points. As Schultz notes, ‘the High Court’s citation of philosophers is marked by appropriate institutional deference – judges frequently discount the citation of philosophers and philosophy, and caution against the curial incorporation of exogenous sources or extra-legal authority.’

Conclusion

We suggest that the law and our legal system have been influenced by an outdated conception of judicial decision-making which does not appropriately recognise the role that extra-legal ‘outside knowledge’ plays in judicial reasoning. This has resulted in unclear and inadequate legal frameworks for the admission, reception, and interpretation of outside knowledge, and insufficient attention to issues which arise from judicial use of ‘outside knowledge’ such as the need for judicial education and legal education in relation to interpretation of science and social science. This threatens the accuracy and legitimacy of judicial reasoning and the delivery of justice to litigants. It is time for the law, lawyers and judges, to embrace the value of knowledge drawn from disciplines other than law. However, at the same time much more thought must be given to the ramifications of introducing greater use of outside knowledge in judicial decision-making.

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