

INTERDISCIPLINARITY IN JUDICIAL DECISION-MAKING: EXPLORING THE ROLE OF SOCIAL SCIENCE IN AUSTRALIAN LABOUR LAW CASES

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In Australia, the use of social science information in judicial reasoning is under-explored, especially in labour law. Yet historical, economic and other information from the social sciences will frequently be relevant to labour law disputes. This article analyses selected court decisions where reliance on judicial intuition has resulted in controversial outcomes, and rare cases in which social science studies informed judicial reasoning. The article does not advocate a rapid escalation in the use of social science evidence, but suggests two preliminary steps that should precede any proposal to reform litigation practices. First, an expansion in the scope of legal education is necessary to ensure law students, advocates and judges are equipped to evaluate social science research methods and perspectives. Second, the article calls on labour law scholars to increase their engagement with social science information to demonstrate its relevance to contentious issues that arise in this field.

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I INTRODUCTION

This article explores how Australian courts make use of social science information in labour law cases. When making decisions involving labour law, judges are often called upon to make assumptions about ‘the way the world works’.¹ But very little is known about how judges access information to test these assumptions, nor about how judges evaluate this information. If courts fail to deal properly with the historical, economic, social, and other contexts relevant to their decision-making, mistakes may be made in determining legal outcomes. Identifying the relevance of social science information to the issues that are determined in labour law cases and understanding the extent to which judges draw upon this information is, therefore, important when evaluating the role of courts in the application and development of labour law.

Social and economic factors will often play a significant, even decisive, role in the determination of labour law cases. Consequently, judges may need to be provided with additional information to support their decision-making about these issues. For example, in many types of labour law disputes, the court’s task is to determine the reasonableness of the employer’s actions by weighing up the needs of the employer’s business against the needs of the employee, an exercise which requires the court to understand both the commercial needs of the business and the social and economic needs of the worker.²

In deciding whether or not an employer’s conduct in a given labour law case is ‘reasonable’, judges will typically need to draw on their own understanding of the business context and of human behaviour. For example, in deciding whether a decision to require a worker to be present at the workplace full-time is ‘reasonable’, a judge may be influenced by their own experience of flexible working arrangements in the workplace, their view of the nature of full-time work, and their own expectations of themselves as full-time workers. These experiences of a single individual are unlikely to account for the broader experience of workers and employers in the wider community. In order to access this wider field of experience, judges may need to draw on evidence from the social sciences. Similarly, in deciding whether a worker is an employee or a contractor running an independent business, a judge may benefit from a broader survey of modern business practices than the anecdotal accounts drawn from common law cases.

¹ Michael J Saks, ‘Judicial Attention to the Way the World Works’ (1990) 75(4) *Iowa Law Review* 1011.

² This judicial balancing exercise is illustrated in the discussion of cases involving indirect discrimination and unreasonable hours of work in Part IV.

In decisions made under labour law statutes to determine whether a decision or requirement is 'reasonable' or 'fair', and in common law determinations about the status of a worker, judges are expected to make decisions based on an intuitive assessment of a wide range of factors. In making these assessments, it is important that judges are aware of the potential for bias. As Deborah Merritt points out in her discussion of the widespread use of social science evidence in discrimination cases in the United States ('US'): '[i]t is difficult for individuals to overcome their own prejudice or even to see that it exists ... Social science is one of the tools we have for overcoming bias, for showing people that the world is not the way they think it is.'³ It is particularly important that judicial prejudice is addressed in labour law cases where a legislative requirement of 'reasonableness' or 'fairness' is designed to challenge bias in workplace decision-making.

In an article published in 1990, American scholar Michael Saks explores the recognition and use of extra-legal knowledge by courts to improve their understanding of 'the way the world works'.⁴ Quoting an evidence text, Saks points out that when judges are creating rules, they must 'act either upon knowledge already possessed or upon assumptions, or upon investigations of the pertinent general facts, social, economic, political, or scientific'.⁵ He therefore concludes that 'not only do judges take into account knowledge of the way the world works, they are unable to do otherwise'.⁶ The 'facts' of which Saks speaks here are usually identified as 'legislative' facts serving courts to create law,⁷ and are often distinguished from the 'adjudicative' facts

³ Deborah Jones Merritt, 'The Future of *Bakke*: Will Social Science Matter?' (1998) 59(3) *Ohio State Law Journal* 1055, 1058.

⁴ Saks (n 1). A slightly alternative label is that applied by Kylie Burns: Kylie Burns, 'The Way the World Is: Social Facts in High Court Negligence Cases' (2004) 12(3) *Torts Law Journal* 215 ('The Way the World Is'). Saks's article, among other things, is a critique of Peggy C Davis, "'There is a Book Out...': An Analysis of Judicial Absorption of Legislative Facts' (1987) 100(7) *Harvard Law Review* 1539.

⁵ Saks (n 1) 1015, quoting Edward W Cleary (ed), *McCormick on Evidence* (West Publishing, 3rd ed, 1984) 928.

⁶ Saks (n 1) 1015. Saks's recognition that judges draw on extra-legal knowledge may be distinguished from the more limited understanding of the judicial role found in the legalist theory of judging, which requires judicial decisions to be based only on the law itself, not on extra-legal material. For a discussion of this approach, see Richard A Posner, *How Judges Think* (Harvard University Press, 2008) 42.

⁷ Kylie Burns, 'It's Just Not Cricket: The High Court, Sport and Legislative Facts' (2002) 10(3) *Torts Law Journal* 234, 247-8.

in dispute between the parties in the particular case.⁸ Social science materials may assist judges to determine both ‘adjudicative’ and ‘legislative’ facts.⁹

In the US, social science evidence is regularly drawn upon in labour law cases, particularly in the area of discrimination law. In gender discrimination cases, courts allow experts to draw on social science studies to identify the general factors that contribute to systemic bias in the treatment of workers and then to identify those factors in the particular workplace as evidence of less favourable treatment of female workers.¹⁰ For example, in *Dukes v Wal-Mart Stores Inc* (‘Walmart’), in deciding to certify as a class action a sex discrimination claim brought on behalf of more than 1.5 million female employees of Wal-Mart, a US District Court relied on a sociologist’s ‘social framework analysis’ of Wal-Mart’s human resources policies and practices.¹¹ Having identified through this analysis that Wal-Mart allowed decisions about pay rises and promotions to be based on the subjective views of individual managers, a practice that is linked to biased outcomes in social science studies, the sociologist had concluded that this practice contributed to disparity in the pay and promotion outcomes of men and women at the company.¹²

Given the lack of scholarship on the use of extra-legal knowledge in Australian labour law cases, a preliminary objective of this article is to establish that courts may need to access extra-legal knowledge to expand their knowledge of ‘the way the world works’. It is also important to consider which disciplinary fields may provide this information and to explore the capacity of courts to engage adequately with disciplines and methodologies in which judges have little (if any) training, particularly social science fields such as economics, anthropology, statistics, psychology, and behavioural science. For

⁸ The distinction between ‘adjudicative’ and ‘legislative’ facts originates in the work of Professor Kenneth Culp Davis: Kenneth Culp Davis, ‘An Approach to Problems of Evidence in the Administrative Process’ (1942) 55(3) *Harvard Law Review* 364, 402–25. These concepts are explored in greater detail in Part III.

⁹ Social science material may also be used to provide a context for determining ‘adjudicative’ facts. This hybrid category of fact is labelled ‘social framework’ in the US, but this terminology has not been adopted in Australia: see below nn 76–78 and accompanying text.

¹⁰ See, eg, *International Healthcare Exchange Inc v Global Healthcare Exchange LLC*, 470 F Supp 2d 345 (SD NY, 2007); *Dukes v Wal-Mart Inc*, 509 F 3d 1168 (9th Cir, 2007) (‘Dukes II’).

¹¹ *Dukes v Wal-Mart Stores Inc*, 222 FRD 137, 141–2, 153, 187–8 (ND Cal, 2004) (Jenkins J) (‘Dukes I’). This approach was affirmed on appeal to the US Court of Appeals: *Dukes II* (n 10) 1174, 1178 [12], 1179–80 [14] (Pregerson J).

¹² *Dukes I* (n 11) 153 (Jenkins J); *Dukes II* (n 10) 1178–80 [12]–[14] (Pregerson J). The certification decision was ultimately overturned by the US Supreme Court: *Wal-Mart Stores Inc v Dukes*, 564 US 338 (2011).

the purpose of this discussion, the term ‘social science’ is used in a broad sense to encompass disciplines that provide insights about the way the world works.

Part II of this article examines judicial approaches to interdisciplinarity in the US and Australia by first considering the evolution of legal training and scholarship in both countries, and then by exploring Australian studies that analyse judicial use of extra-legal information in cases outside the field of labour law. Part III investigates the various categories used by scholars and courts in the US to explain judicial use of social science material and the approaches taken by Australian scholars to conceptualise these issues. Part IV examines selected Australian labour law cases where judicial intuition, rather than social science information, has underpinned decision-making, and rare cases where judicial decision-making has either been informed by social science studies or by an awareness of the need for such studies. Part V reflects on the importance of social science disciplines as a source of information for judicial decision-makers in the field of labour law and suggests some preliminary steps that could be taken to increase the level of engagement with these disciplines in legal education programs and labour law scholarship.

II JUDICIAL APPROACHES TO INTERDISCIPLINARITY IN THE UNITED STATES AND AUSTRALIA

The major body of literature examining how judges deal with social science and other sources of extra-legal knowledge comes from the US. John Monahan and Laurens Walker have observed that there has been a substantial change in judicial and scholarly attitudes towards the use of social science since the publication of their influential text, *Social Science in Law: Cases and Materials*, in 1985.¹³ But these developments of recent decades should be viewed against a much longer history of concern about the ‘trade school–apprenticeship’ model of training in US law schools.¹⁴ The push to incorporate more ‘theoretical’ or ‘inter-disciplinary’ courses into the law curriculum (even if such courses were relatively narrowly conceived in the form of subjects on comparative law, diplomatic and constitutional history,

¹³ John Monahan and Laurens Walker, *Social Science in Law: Cases and Materials* (The Foundation Press, 1985), discussed in John Monahan and Laurens Walker, ‘Twenty-Five Years of *Social Science in Law*’ (2011) 35(1) *Law and Human Behavior* 72 (‘Twenty-Five Years’).

¹⁴ See, eg, Anders Walker, ‘Bramble Bush Revisited: Llewellyn, the Great Depression and the First Law School Crisis, 1929–1939’ (2014) 64(2) *Journal of Legal Education* 145.

and jurisprudence) began in the late nineteenth century and eventually came to the fore as a major aspiration in the 1920s and 1930s.¹⁵ The events of the Great Depression raised awareness within law schools that not all law graduates were ending up in law firms but were instead taking up positions in politics and the public service.¹⁶ As a consequence, in 1935 Karl Llewellyn declared that it was no longer sufficient to supplement the law curriculum with theoretical and interdisciplinary courses. He instead urged law schools to 'integrate the background of social and economic fact and policy, course by course' into the existing curriculum.¹⁷ By the early 1940s, Kenneth Culp Davis had begun seriously to explore the mixed and confusing distinction(s) between law and fact with an analysis which now underpins the broad general approach to this subject matter.¹⁸

The accounts of these developments suggest that US law schools have a long history of recognising the importance of interdisciplinary and theoretical approaches to the legal curriculum. This acknowledgement of the importance of non-legal disciplines in legal training has inevitably influenced the practices of courts.

When Monahan and Walker first published *Social Science in Law: Cases and Materials*, in 1985, the use of social science evidence by US courts was recognised as legitimate, but in practice its use was 'often confused and always contested'.¹⁹ By the time Monahan and Walker published the seventh edition of their text in 2010,²⁰ this was no longer the case — the use of social science evidence by contemporary courts in the US had come to be 'so common as to be unremarkable'.²¹ During this same period in the US, there had been an increased tendency for law schools to hire academics with doctorates in social science disciplines, and for papers and articles to be jointly authored between

¹⁵ Ibid 146–7, 156.

¹⁶ Ibid 164–6.

¹⁷ KN Llewellyn, 'On What is Wrong with So-Called Legal Education' (1935) 35(5) *Columbia Law Review* 651, 671.

¹⁸ See Davis, 'An Approach to Problems of Evidence in the Administrative Process' (n 8).

¹⁹ Monahan and Walker, 'Twenty-Five Years' (n 13) 80.

²⁰ John Monahan and Laurens Walker, *Social Science in Law: Cases and Materials* (The Foundation Press, 7th ed, 2010).

²¹ Monahan and Walker, 'Twenty-Five Years' (n 13) 72. See also Joseph A Colquitt, 'Judicial Use of Social Science Evidence at Trial' (1988) 30(1) *Arizona Law Review* 51; Murray Levine and Barbara Howe, 'The Penetration of Social Science into Legal Culture' (1985) 7(2) *Law & Policy* 173; John Monahan and Laurens Walker, 'Social Authority: Obtaining, Evaluating, and Establishing Social Science in Law' (1986) 134(3) *University of Pennsylvania Law Review* 477 ('Social Authority').

legal and social science scholars.²² Overall, the debate has shifted from the question of ‘whether’ to admit social science evidence to questions of ‘how best’ to deal with such evidence.²³

If this broad historical account is compared with Australian approaches to legal training and scholarship, there seem to be some marked differences of approach, but the accounts of these differences are limited. One study suggests that, compared with Australian law schools, US law schools hire more staff with post-graduate qualifications in the social sciences; that historically most Australian legal scholarship has been doctrinal in orientation; and that there is less interdisciplinary scholarship in Australian law schools than in their US counterparts.²⁴ While there are a significant number of Australian legal scholars who participate in socio-legal and interdisciplinary research, there are only a limited number of studies that investigate the use of social science evidence by Australian courts.²⁵ Some scholarship has suggested that higher level Australian courts make less use of social science information than US courts.²⁶ Some of the data on which these views are based are now dated, but more recent scholarship supports the view that there is less of a tendency

²² See, eg, Tom Ginsburg and Thomas J Miles, ‘Empiricism and the Rising Incidence of Coauthorship in Law’ [2011] (5) *University of Illinois Law Review* 1785. For an examination of the social and political implications of these kinds of developments in US law schools, see, eg, William Davies, *The Limits of Neoliberalism: Authority, Sovereignty and the Logic of Competition* (Sage, 2014) ch 3.

²³ Monahan and Walker, ‘Twenty-Five Years’ (n 13) 80.

²⁴ James Farrell and Russell Smyth, ‘Trends in Co-Authorship in the Australian Group of Eight Law Reviews’ (2013) 39(3) *Monash University Law Review* 815, 822, 828–9. There are exceptions to this trend in law departments outside law schools. For example, there is a strong tradition of socio-legal scholarship at La Trobe University stemming from the interdisciplinary approach of the original Legal Studies Department which, at the time of its creation in 1972, was housed in the School of Social Sciences: Susanne Davies, ‘From Law to “Legal Consciousness”: A Socio-Legal Pedagogical Expedition’ (2013) 29(2) *Law in Context* 42; Christopher Arup, ‘Business Law: The Sometime Subject of Socio-Legal Studies’ (2013) 29(2) *Law in Context* 10.

²⁵ See below nn 35, 45, 61, 90 for these Australian studies.

²⁶ See, eg, Russell Smyth, ‘Other than “Accepted Sources of Law”? A Quantitative Study of Secondary Source Citations in the High Court’ (1999) 22(1) *University of New South Wales Law Journal* 19, 24 (‘Other than “Accepted Sources of Law”?’); Russell Smyth, ‘The Authority of Secondary Authority: A Quantitative Study of Secondary Source Citations in the Federal Court’ (2000) 9(1) *Griffith Law Review* 25, 31 (‘The Authority of Secondary Authority’); Russell Smyth, ‘Academic Writing and the Courts: A Quantitative Study of the Influence of Legal and Non-Legal Periodicals in the High Court’ (1998) 17(2) *University of Tasmania Law Review* 164, 171–2, 176 (‘Academic Writing and the Courts’).

towards interdisciplinary examination in Australian judicial practice when compared with the US experience.²⁷

Nevertheless, measured against previous Australian experience, changing outlooks and practices are observable in some areas. In a series of citation analysis studies, the Australian economist Russell Smyth has examined at length the various citation practices and legal referencing of senior courts and judges in Australia.²⁸ Some of this analysis identifies the types of non-legal sources used in judicial decision-making, the frequency of citation and the reasons why non-legal sources are relied upon. Taken as a whole, this research suggests that there is an increasing tendency in Australian courts to have resort to non-legal sources (as authority). Smyth also points to the increased explicit recognition among senior members of the Australian judiciary of their policy-making role and the necessity, therefore, of examining the work of experts (either legal or non-legal) in carrying out that role.²⁹

It is important, however, not to overemphasise the tendency of Australian courts to embrace interdisciplinarity as suggested in these findings. For example, the research by Smyth indicates that across senior Australian courts, at least 80% of secondary source citations are to legal rather than non-legal sources (a much higher figure than in the US),³⁰ and of non-legal sources

²⁷ See, eg, Kylie Burns, 'Judges, "Common Sense" and Judicial Cognition' (2016) 25(3) *Griffith Law Review* 319, 329 ('Judges, "Common Sense" and Judicial Cognition'); Keith Kendall, 'The Use of Economic Analysis in Court Judgments: A Comparison between the United States, Australia and New Zealand' (2011) 28(2) *UCLA Pacific Basin Law Journal* 107, 143–7.

²⁸ See, eg, above n 26. See also Russell Smyth, 'What Do Intermediate Appellate Courts Cite? A Quantitative Study of the Citation Practice of Australian State Supreme Courts' (1999) 21(1) *Adelaide Law Review* 51; Russell Smyth, 'Citing outside the Law Reports: Citations of Secondary Authorities on the Australian State Supreme Courts over the Twentieth Century' (2009) 18(3) *Griffith Law Review* 692 ('Citing outside the Law Reports'); Russell Smyth, 'Citation of Judicial and Academic Authority in the Supreme Court of Western Australia' (2001) 30(1) *University of Western Australia Law Review* 1; Russell Smyth, 'What Do Judges Cite? An Empirical Study of the "Authority of Authority" in the Supreme Court of Victoria' (1999) 25(1) *Monash University Law Review* 29.

²⁹ Smyth, 'Other than "Accepted Sources of Law"?' (n 26); Smyth, 'The Authority of Secondary Authority' (n 26) 27, 36; Smyth, 'Citing outside the Law Reports' (n 28) 696–700.

³⁰ Smyth, 'The Authority of Secondary Authority' (n 26) 39; Smyth, 'Citing outside the Law Reports' (n 28) 706–7, 710. Even in this comparison it is necessary to be cautious. The US Supreme Court cites a much higher proportion of non-legal secondary sources, but these are largely confined to death penalty cases and cases involving the US Bill of Rights: Dietrich Fausten, Ingrid Nielsen and Russell Smyth, 'A Century of Citation Practice on the Supreme Court of Victoria' (2007) 31(3) *Melbourne University Law Review* 733, 761. At the US State Supreme Court level, research indicates only a slight use of non-legal sources, though this research is dated: Lawrence M Friedman et al, 'State Supreme Courts: A Century of Style and Citation' (1981) 33(5) *Stanford Law Review* 773, 810–17. For a more recent account of 'in

cited, a high proportion are to non-legal dictionaries in cases of statutory interpretation.³¹ In the High Court, over the period of review in Smyth's research, only 3% of citations were to non-legal periodicals (including economics, political science, history and medical journals).³² Even where these non-legal periodicals were cited, often the citations were to legal articles in those journals.³³

To supplement this quantitative picture, there is a limited body of scholarship which provides a more detailed analysis of the ways in which judges use social science information. The disciplines which have been most prominent in these discussions in Australia are economics, history, psychology and psychiatry.

From the discipline of economics, the types of evidence that tend to be drawn upon by Australian courts include both expert opinion, which is used to explain economic concepts, and quantitative studies.³⁴ In Australia, a major line of scholarly enquiry in this area is found in the work of Maureen Brunt who, in several important studies, examined the use of economic evidence in trade practices litigation.³⁵ This work dealt at length with the various problems associated with the reception of economic argument into courts, such as the constraints imposed by the rules of evidence, lack of judicial

house' factual research in the US Supreme Court, see Allison Orr Larsen, 'Confronting Supreme Court Fact Finding' (2012) 98(6) *Virginia Law Review* 1255. For a study of the use of social science evidence by US family courts, district courts, circuit courts, and the US Supreme Court, see Amy Rublin, 'The Role of Social Science in Judicial Decision Making: How Gay Rights Advocates Can Learn from Integration and Capital Punishment Case Law' (2011) 19(1) *Duke Journal of Gender Law & Policy* 179.

³¹ Smyth, 'The Authority of Secondary Authority' (n 26) 39–40; Smyth, 'Other than "Accepted Sources of Law"?' (n 26) 36; Smyth, 'Citing outside the Law Reports' (n 28) 713.

³² Smyth, 'Academic Writing and the Courts' (n 26) 176.

³³ *Ibid.*

³⁴ Andrew Dahdal, 'The Admissibility of Expert Opinion Economic Evidence in Judicial Review' (2006) 3 *Macquarie Journal of Business Law* 63, 64.

³⁵ See, eg, Maureen Brunt, 'The Use of Economic Evidence in Anti-Trust Litigation: Australia' (1986) 14(4) *Australian Business Law Review* 261 ('The Use of Economic Evidence in Anti-Trust Litigation'); Maureen Brunt, '"Market Definition" Issues in Australian and New Zealand Trade Practices Litigation' (1990) 18(2) *Australian Business Law Review* 86; Maureen Brunt, 'The Australian Anti-Trust Law after 20 Years: A Stocktake' (1994) 9(5) *Review of Industrial Organization* 483 ('The Australian Anti-Trust Law after 20 Years'). See also Karen Yeung, 'The Court-Room Economist in Australian Antitrust Litigation: An Underutilised Resource?' (1992) 20(6) *Australian Business Law Review* 461; Gaire Blunt, Peter Shafron and Benedict Keneally, 'From *Arnotts* to *QIW*: A Study of Expert Evidence in Trade Practices Cases' (1994) 1(3) *Competition & Consumer Law Journal* 181; Justice RS French, 'Judicial Approaches to Economic Analysis in Australia' (1994) 9(5) *Review of Industrial Organisations* 547.

training in the discipline of economics and the confines of legal reasoning. It also traced the perceived gradual acceptance of the idea of ‘economic law’ in trade practices cases, and the modification of judicial approaches to economic argument as a result.³⁶

There remains, however, some uncertainty about the status of economic evidence in Australian courts. While there is some suggestion that there has been an increase in the use of economic analysis in cases of judicial review,³⁷ other work points to a comparative *lack* of use of economic analysis in Australian courts, coupled with ongoing problems associated with the rules of evidence³⁸ and the capabilities of courts to deal with such evidence when brought into play.³⁹

Another field of social science to have increasingly drawn the attention of legal scholars is the discipline of history. This field, perhaps rather more self-evidently than in the case of economics, is commonly employed in the process of legal argument and reasoning.⁴⁰ The problems of historical ‘indeterminacy’ and the perceived general failure overall of Australian courts to ‘do’ history properly in a methodological sense, against a background of increasing use of historical sources and references in recent decades (particularly in constitutional cases)⁴¹ is widely discussed in the scholarly literature.⁴² Scholars

³⁶ See, eg, Brunt, ‘The Australian Anti-Trust Law after 20 Years’ (n 35); French (n 35) 496, 521.

³⁷ Dahdal (n 34) 65, 72.

³⁸ See, eg, Yeung (n 35) 461.

³⁹ Published in 2000, Russell Smyth’s citation study on the impact of economics in Australian courts concluded that ‘the impact of economics ... in the High Court and Federal Court [had] not been significant’: Russell Smyth, ‘Law or Economics? An Empirical Investigation into the Influence of Economics on Australian Courts’ (2000) 28(1) *Australian Business Law Review* 5, 16. See also Charles Sweeney and Deirdre L Hay, ‘Quantitative Economic Evidence in Australian and New Zealand Courtrooms’ (2003) 10(3) *Competition & Consumer Law Journal* 284; Kendall (n 27).

⁴⁰ According to Justice Michael Kirby in 2001, ‘[t]he *Commonwealth Law Reports* are full of cases in which the High Court of Australia has explored and decided contested issues of legal history to resolve cases before it’: Justice Michael Kirby, ‘Alex Castles, Australian Legal History and the Courts’ (2005) 9(1) *Australian Journal of Legal History* 1, 9. See also Bradley Selway, ‘The Use of History and Other Facts in the Reasoning of the High Court of Australia’ (2001) 20(2) *University of Tasmania Law Review* 129; Helen Irving, ‘Constitutional Interpretation, the High Court, and the Discipline of History’ (2013) 41(1) *Federal Law Review* 95.

⁴¹ See Carl McCamish, ‘The Use of Historical Materials in Interpreting the Commonwealth Constitution’ (1996) 70(8) *Australian Law Journal* 638; Paul Schoff, ‘The High Court and History: It Still Hasn’t Found(ed) What It’s Looking For’ (1994) 5(4) *Public Law Review* 253.

⁴² See, eg, above nn 40–1. See also Rob McQueen, ‘Why High Court Judges Make Poor Historians: The Corporations Act Case and Early Attempts to Establish a National System of

have also attempted to propose solutions to the judicial dilemma with history.⁴³ However, while various suggestions are advanced, the general conclusion reached inclines to the view, as with the law–economics interrelationship, that there are many ongoing difficulties with the judicial use of historical evidence and argument.⁴⁴

Other fields of relevance to judicial decision-making from both the sciences and social sciences include the disciplines of psychiatry and psychology, which are drawn upon in family law proceedings, and the forensic science disciplines, which are used extensively in criminal law proceedings. Again we find substantial scholarly coverage of the use of what are commonly labelled ‘legislative’ or ‘social’ facts, and the difficulties associated with the relevant rules of evidence in such proceedings.⁴⁵ In relation to family law

Company Regulation in Australia’ (1990) 19(3) *Federal Law Review* 245; James A Thomson, ‘Constitutional Interpretation: History and the High Court’ (1982) 5(2) *University of New South Wales Law Journal* 309.

⁴³ See, eg, Irving (n 40) 120–6.

⁴⁴ See, eg, *ibid* 98–9, 120–6; Selway (n 40) 29–30.

⁴⁵ This scholarly work includes the work of Ian Freckelton, Gary Edmond and colleagues, particularly in relation to criminal law proceedings. This body of work is very extensive, and only some select examples are mentioned here: see, eg, Ian Freckelton, ‘Judicial Attitudes towards Scientific Evidence: The Antipodean Experience’ (1997) 30(4) *University of California, Davis Law Review* 1137; Ian Freckelton and Terese Henning, ‘Speculation, Uncorroborated Opinions and Forensic Expertise in Child Sex Prosecutions: *HG v R* (1999) 160 ALR 554 (High Court of Australia) per Gleeson CJ, Gaudron, McHugh, Gummow and Hayne JJ’ (1999) 6(1) *Psychiatry, Psychology and Law* 105; Ian Freckelton, ‘Judicial Pedagogy and Expert Evidence on Victims’ Responses to Trauma: *J v The Queen* (1994) 75 A Crim R 522’ (1997) 4(1) *Psychiatry, Psychology and Law* 79; Ian Freckelton, ‘Problems Posed by DNA Evidence: Of Blood, Babies and Bathwater’ (1992) 17(1) *Alternative Law Journal* 10; Gary Edmond and Mehera San Roque, ‘The Cool Crucible: Forensic Science and the Frailty of the Criminal Trial’ (2012) 24(1) *Current Issues in Criminal Justice* 51; Gary Edmond ‘The Admissibility of Forensic Science and Medicine Evidence under the Uniform Evidence Law’ (2014) 38(3) *Criminal Law Journal* 136; Gary Edmond, ‘What Lawyers Should Know about the Forensic “Sciences”’ (2015) 36(1) *Adelaide Law Review* 33; 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. In relation to family law, see, eg, Zoe Rathus, ‘A Call for Clarity in the Use of Social Science Research in Family Law Decision-Making’ (2012) 26 *Australian Journal of Family Law* 81 (‘A Call for Clarity’); Graham R Mullane, ‘Evidence of Social Science Research: Law, Practice, and Options in the Family Court of Australia’ (1998) 72(2) *Australian Law Journal* 434; Zoe Rathus, ‘Social Science or “Lego-Science”? Presumptions, Politics, Parenting and the New Family Law’ (2010) 10(2) *Queensland University of Technology Law and Justice Journal* 164 (‘Social Science or “Lego Science”?’); Zoe Rathus, ‘Shifting Language and Meanings between Social Science and the Law: Defining Family Violence’ (2013) 36(2) *University of New South Wales Law Journal* 359 (‘Shifting Language and Meanings’); Zoe Rathus, ‘Mapping the Use of

cases, for example, while the established familiarity of judges with social science is welcomed (or at least accepted as desirable) by scholars, there are strong suggestions that much of the social science evidence adduced may not be admissible, and its use may be problematic.⁴⁶ One important aspect of this literature is that it illustrates the particular problems associated with interdisciplinarity in judicial decision-making:

[W]hile advances in the social sciences can and should continue to inform social policy and ultimately ... law, this is not at all the same as the legislature (or judges) dipping into the huge potpourri of social science ... Such particular ideas have a place as a part of the discussion ... but lawyers must be cautious about transporting social science language into the legal system or thinking that the same words have the same meaning in the law as in social science.⁴⁷

As might be expected, much of the discussion in this area, both in Australia and elsewhere, revolves around the ways in which judges make use of social science evidence depending on the type of ‘fact’ that is due for determination.⁴⁸ In the next part of the article, the various categories of ‘facts’ are described to highlight the contexts in which social science evidence might be used and the nature of that use.

III CATEGORISING JUDICIAL USE OF SOCIAL SCIENCE EVIDENCE

As noted earlier in this article,⁴⁹ the early literature on the use of social science evidence draws a distinction between ‘adjudicative facts’ and ‘legislative facts’. Adjudicative facts are judicial findings of fact that pertain to the immediate dispute between the litigants; whereas legislative facts provide the basis for judges to develop law and policy.⁵⁰ This distinction is particularly important in the US, where it is well established that the traditional rules of evidence

Social Science in Australian Courts: The Example of Family Law Children’s Cases’ (2016) 25(3) *Griffith Law Review* 352 (‘Mapping the Use of Social Science in Australian Courts’).

⁴⁶ See Rathus, ‘Social Science or “Lego-Science”?’ (n 45); Rathus, ‘Shifting Language and Meanings’ (n 45) 360–1.

⁴⁷ Rathus, ‘Shifting Language and Meanings’ (n 45) 389.

⁴⁸ See, eg, Davis, ‘An Approach to Problems of Evidence in the Administrative Process’ (n 8); Kenneth Culp Davis, ‘Judicial Notice’ (1955) 55(7) *Columbia Law Review* 945; Andrew J Serpell, *The Reception and Use of Social Policy Information in the High Court of Australia* (Lawbook, 2006); Mullane (n 45).

⁴⁹ See above nn 8, 18 and accompanying text.

⁵⁰ Davis, ‘An Approach to Problems of Evidence in the Administrative Process’ (n 8) 402.

apply to adjudicative facts but not to legislative facts.⁵¹ For instance, to determine adjudicative facts, the doctrine of judicial notice allows judges to draw upon knowledge that is exogenous to law but only where that knowledge is indisputable and capable of verification. This doctrine does not constrain the court in relation to legislative facts, which may be drawn not only from expert evidence on the record, but also from social science information which they have accessed independently.⁵²

The significance of the distinction between legislative and adjudicative facts is less clear in Australia than it is in the US. Whether the doctrine of judicial notice has application to legislative facts in Australia is not settled.⁵³ Nevertheless, in practice, Australian courts regularly draw upon exogenous material to determine legislative facts, whether explicitly or implicitly.⁵⁴

In developing three categories to describe different judicial uses of social science evidence, Monahan and Walker have replaced the categories of adjudicative fact and legislative fact with 'social fact'⁵⁵ and 'social authority',⁵⁶ respectively, and have created a third, hybrid category, 'social framework'.⁵⁷ These three categories have been widely adopted and adapted by scholars in the US to explore the ways in which judges draw upon social science evidence.⁵⁸

⁵¹ Ibid 402–3.

⁵² Ibid 403–6.

⁵³ David Hamer and Gary Edmond, 'Judicial Notice: Beyond Adversarialism and into the Exogenous Zone' (2016) 25(3) *Griffith Law Review* 291, 300–3; Kylie Burns, 'The Australian High Court and Social Facts: A Content Analysis Study' (2012) 40(3) *Federal Law Review* 317, 319–20 ('The Australian High Court and Social Facts').

⁵⁴ See Hamer and Edmond (n 53) 303. The systematic analysis by Kylie Burns of negligence cases identifies the extent of implicit and explicit use of exogenous material in the High Court: Burns, 'The Australian High Court and Social Facts' (n 53).

⁵⁵ Laurens Walker and John Monahan, 'Social Facts: Scientific Methodology as Legal Precedent' (1988) 76(4) *California Law Review* 877, 881 ('Social Facts').

⁵⁶ Monahan and Walker, 'Social Authority' (n 21) 488. For a useful review of the three categories, see Monahan and Walker, 'Twenty-Five Years' (n 13) 75–9.

⁵⁷ Laurens Walker and John Monahan, 'Social Frameworks: A New Use of Social Science in Law' (1987) 73(3) *Virginia Law Review* 559, 559.

⁵⁸ See, eg, Saks (n 1) 1023–5; Tristin K Green, "'It's Not You, It's Me": Assessing an Emerging Relationship between Law and Social Science' (2013) 46(1) *Connecticut Law Review* 287; Neil J Vidmar and Regina A Schuller, 'Juries and Expert Evidence: Social Framework Testimony' (1989) 52(4) *Law and Contemporary Problems* 133; David L Faigman 'To Have and Have Not: Assessing the Value of Social Science to the Law as Science and Policy' (1989) 38(4) *Emory Law Journal* 1005; David L Faigman, Elise Porter and Michael J Saks, 'Check Your Crystal Ball at the Courthouse Door, Please: Exploring the Past, Understanding the Present, and Worrying about the Future of Scientific Evidence' (1994) 15(6) *Cardozo Law Review* 1799;

The first category, ‘social fact’, refers to the use of social science evidence to determine the immediate dispute between the parties where the evidence has been produced for the purpose of the litigation.⁵⁹ A typical example is the use of survey research that has been produced to determine whether there is consumer confusion between two products in trademark litigation.⁶⁰

The second category used by Monahan and Walker is ‘social authority’, or, alternatively, what Andrew Serpell calls ‘social policy information.’⁶¹ Social policy information is ‘used by a judge to assist in determining the social, economic or other consequences of law made through a judicial decision.’⁶² Monahan and Walker have used the term ‘social authority’ to highlight the similarities between ‘social authority’ and ‘legal authority.’⁶³ Once social science evidence is adopted by a court to shape the law, the judicial findings of this ‘social authority’ have precedential value.⁶⁴ This is illustrated by the seminal case, *Brown v Board of Education*, in which the US Supreme Court was required to consider the effect of segregation in schools on African American children.⁶⁵ In concluding that segregation deprived those children of educational opportunities that were equal to those of white American children, the Court gave considerable weight to evidence about the psychological effects of segregation on African American children, particularly a sense of inferiority that could undermine the child’s motivation to learn.⁶⁶

The third category adopted by Monahan and Walker to describe judicial use of social science evidence is ‘social framework’. This category does not fit neatly into the adjudicative–legislative fact divide. Social science research is used as evidence of a ‘social framework’ where ‘general research results are used to construct a frame of reference or background context for deciding

Richard L Wiener, ‘Social Analytic Jurisprudence in Sexual Harassment Litigation: The Role of Social Framework and Social Fact’ (1995) 51(1) *Journal of Social Issues* 167; Claire L’Heureux-Dubé, ‘Re-Examining the Doctrine of Judicial Notice in the Family Law Context’ (1994) 26(3) *Ottawa Law Review* 551.

⁵⁹ Monahan and Walker, ‘Twenty-Five Years’ (n 13) 72.

⁶⁰ *Ibid* 75.

⁶¹ Andrew J Serpell, ‘Social Policy Information: Recent Decisions of the High Court of Australia’ (2011) 21(2) *Journal of Judicial Administration* 109, 109.

⁶² *Ibid*. See also Burns, ‘The Australian High Court and Social Facts’ (n 53) 322.

⁶³ See especially Monahan and Walker, ‘Social Authority’ (n 21).

⁶⁴ *Ibid* 478, 488, 493–4.

⁶⁵ 347 US 483 (1954).

⁶⁶ *Ibid* 494 (Warren CJ for the Court).

factual issues crucial to the resolution of a specific case.⁶⁷ This may be distinguished from Monahan and Walker's first category, where empirical research is conducted for the purpose of the particular case.⁶⁸

An illustration of the use of 'social framework' evidence is provided by discrimination cases in the US. These cases often draw on general social science evidence about stereotyping to support a claim that an employer's policies or practices have a disparate impact on a protected class of employees.⁶⁹ A well-known example of this use of social framework evidence is the *Wal-Mart* case, in which the Court relied on a sociologist's 'social framework analysis' of the employer's human resources policies and practices to support a finding that Wal-Mart treated its female employees less favourably than its male employees.⁷⁰ Industrial psychologists have also been called upon in discrimination litigation to assess the adverse impact of specific recruitment tests on minority groups and to identify ways to alleviate this impact.⁷¹

As was the case with the work of Kenneth Culp Davis before it, the work of Monahan and Walker has been widely influential in the development of scholarship in the US.⁷² This influence has found its way into the US court system to the extent that reliance on social science evidence, and the adoption

⁶⁷ Walker and Monahan, 'Social Frameworks' (n 57) 559. See also Burns, 'The Australian High Court and Social Facts' (n 53) 322. For a debate about the appropriate role of 'social framework' evidence in judicial decision-making, see Melissa Hart and Paul M Secunda, 'A Matter of Context: Social Framework Evidence in Employment Discrimination Class Actions' (2009) 78(1) *Fordham Law Review* 37; John Monahan, Laurens Walker and Gregory Mitchell, 'The Limits of Social Framework Evidence' (2009) 8(4) *Law, Probability & Risk* 307. Whereas Hart and Secunda argue that experts who provide social framework evidence should be given an opportunity to draw a link between that evidence and the particulars of the case, Monahan, Walker and Mitchell argue that experts should only be permitted to assist the judge in evaluating the evidence, and should not be permitted to draw subjective conclusions about how the case should be decided in light of that evidence.

⁶⁸ See, eg, Walker and Monahan, 'Social Facts' (n 55) 880–2.

⁶⁹ John Monahan, Laurens Walker and Gregory Mitchell, 'Contextual Evidence of Gender Discrimination: The Ascendance of "Social Frameworks"' (2008) 94(7) *Virginia Law Review* 1715, 1716–17.

⁷⁰ *Dukes II* (n 10) 1178–80 [12]–[14], 1183 [23] (Pregerson J). The certification decision was ultimately overturned by the United States Supreme Court: *Wal-Mart Stores Inc* (n 12).

⁷¹ Robin Stryker, Danielle Docka-Filipek and Pamela Wald, 'Employment Discrimination Law and Industrial Psychology: Social Science as Social Authority and the Co-Production of Law and Science' (2012) 37(4) *Law & Social Inquiry* 777.

⁷² See, eg, Saks (n 1) 1031; Green (n 58) 291; L'Heureux-Dubé (n 58) 555; Faigman, Porter, and Saks (n 58) 1823–25; Vidmar and Schuller (n 58); Hart and Secunda (n 67) 40.

and instruction of methodological approaches pertaining to such evidence, are both sanctioned and encouraged.⁷³

In Australia, the categories of ‘adjudicative fact’ and ‘legislative fact’ have been utilised in the academic literature since at least the 1960s,⁷⁴ and these categories are regularly referenced in Australian court decisions.⁷⁵ In contrast, Monahan and Walker’s three categories of social science information have had very little influence in Australia. A systematic review of court decisions in the Federal Court, Full Federal Court and High Court found no judicial references to Monahan and Walker’s categories of ‘social framework’ and ‘social authority’.⁷⁶ A number of judicial decisions make reference to ‘social facts’ in the course of their reasoning, but there is no sense in which this term is adopted as an accepted category of evidence which should be approached in

⁷³ Monahan and Walker, ‘Twenty-Five Years’ (n 13) 80. See, eg, *Cimino v Raymark Industries Inc*, 751 F Supp 649, 661 (ED Tex, 1990) (social facts); *New Jersey v Cromedy*, 727 A 2d 457, 461–3 (NJ, 1999) (social authority); *Washington v Grayson*, 111 P 3d 1183, 1187 [13] (Wash, 2005) (social authority); *Wisconsin v Dubose*, 699 NW 2d 582, 598 [43] (Wis, 2005) (social authority); *Dukes II* (n 10) 1178–80 [12]–[14] (social frameworks).

⁷⁴ See PH Lane, ‘Facts in Constitutional Law’ (1963) 37(4) *Australian Law Journal* 108. See generally Justice JD Heydon, ‘Developing the Common Law’ in Justin T Gleeson and Ruth CA Higgins (eds), *Constituting Law: Legal Argument and Social Values* (Federation Press, 2011) 93.

⁷⁵ For references to ‘legislative facts’, see, eg, *Maloney v The Queen* (2013) 252 CLR 168, 299 [352]–[354] (Gageler J); *Momcilovic v The Queen* (2011) 245 CLR 1, 172 [431] (Heydon J); *Australian Communication Exchange Ltd v Deputy Commissioner of Taxation* (2003) 201 ALR 271, 284 [55] (Kirby J); *Muin v Refugee Review Tribunal* (2002) 190 ALR 601, 635 [138] (McHugh J), quoting *Castillo-Villagra v Immigration and Naturalization Service*, 972 F 2d 1017, 1026–7 (Kleinfeld J) (9th Cir, 1992); *Commonwealth v Tasmania* (1983) 158 CLR 1, 167 (Murphy J) (*Tasmanian Dam Case*), quoting *Vance v Bradley* (1979) 440 US 93, 111 (White J); *Stocks & Holdings (Sales) Pty Ltd v Federal Commissioner of Taxation* (1969) 122 CLR 139, 145 (McTiernan J). For references to ‘adjudicative facts’, see, eg, *Prentice v Cummins* (2002) 124 FCR 67, 85–6 [77], 87 [82], [84] (Sackville J); *Carlos v Minister for Immigration and Multicultural Affairs* (2001) 183 ALR 719, 730 [41] (Merkel J), quoting Mark Aronson and Bruce Dyer, *Judicial Review of Administrative Action* (LBC Information Services, 2nd ed, 2000) 425–6; *Century Metals and Mining NL v Yeomans* (1989) 17 ALD 644, 647 (French J), quoting *FAI Insurances Ltd v Winneke* (1982) 151 CLR 342, 363 (Mason J); *Powell v Evreniades* (1989) 21 FCR 252, 268 (Hill J), quoting *FAI Insurances Ltd v Winneke* (1982) 151 CLR 342, 363 (Mason J); *FAI Insurances Ltd v Winneke* (1982) 151 CLR 342, 363 (Mason J). For a discussion of both categories, see, eg, *Woods v Multi-Sport Holdings Pty Ltd* (2002) 208 CLR 460, 478–9 [63]–[65] (McHugh J); *Aytugrul v The Queen* (2012) 247 CLR 170, 200–3 [70]–[74] (Heydon J).

⁷⁶ This review was undertaken in March 2016 by searching for these terms in the AustLII databases for these courts: *AustLII* (Web Page) <<http://www.austlii.edu.au/databases.html>> (*AustLII*). These databases include decisions dating back to 1903 for the High Court, 2002 for the Full Federal Court and 1977 for the Federal Court.

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particular way.⁷⁷

There is also very little discussion of Monahan and Walker's system of classification in Australian scholarship. One exception is the exploration by Julie Stubbs and Julia Tolmie and others of the use of 'social framework' evidence to support the defence of battered women in homicide cases.⁷⁸ The work of Kylie Burns also engages with the origins and evolution of Monahan and Walker's categories of social science evidence.⁷⁹ However, Burns does not adopt these categories for her study of negligence cases, but uses the label 'social fact' to describe 'statements made as part of judicial development and general application of law'.⁸⁰ This understanding of social facts aligns more closely with Monahan and Walker's category of 'social authority' rather than their category of 'social facts'.⁸¹ Burns adopts a broad meaning for her 'social facts' classification, encompassing statements about 'the nature and behaviour

⁷⁷ There are four Federal Court decisions that refer to 'social facts': *Victorian Women Lawyers' Association Inc v Federal Commissioner of Taxation* (2008) 170 FCR 318, 344 [112], 345 [116] (French J); *Zentai v O'Connor* [No 3] (2010) 187 FCR 495, 547 [223] (McKerracher J), quoting *Sykes v Cleary* (1992) 176 CLR 77, 105–7 (Mason CJ, Toohey and McHugh JJ); *Tji v Minister for Immigration and Ethnic Affairs* (1998) 158 ALR 681, 689 (Finkelstein J), quoting *Nottebohm (Liechtenstein v Guatemala) (Second Phase)* [1955] ICJ Rep 4, 23; *Koe v Minister for Immigration and Multicultural Affairs* (1997) 74 FCR 508, 517 (Black CJ, Foster and Lehane JJ), quoting *Nottebohm (Liechtenstein v Guatemala) (Second Phase)* [1955] ICJ Rep 4, 23. There are also seven High Court decisions: *Forge v Australian Securities and Investments Commission* (2006) 228 CLR 45, 125 [204] (Kirby J); *Cattanach v Melchior* (2003) 215 CLR 1, 64 [164] (Kirby J); *Osland v R* (1998) 197 CLR 316, 371 [159] (Kirby J); *Powell v Powell* (1948) 77 CLR 521, 539 (Dixon J); *Secretary, Department of Health and Community Services v JWB* (1992) 175 CLR 218, 293 (Deane J) ('*Marion's Case*'); *Monis v The Queen* (2013) 249 CLR 92, 131 [66] (French CJ); *Commercial Banking Co of Sydney Ltd v Federal Commissioner of Taxation* (1917) 23 CLR 102, 116 (Isaacs J).

⁷⁸ Julie Stubbs and Julia Tolmie, 'Falling Short of the Challenge? A Comparative Assessment of the Australian Use of Expert Evidence on the Battered Woman Syndrome' (1999) 23(3) *Melbourne University Law Review* 709; Julie Stubbs and Julia Tolmie, 'Battered Women Charged with Homicide: Advancing the Interests of Indigenous Women' (2008) 41(1) *Australian and New Zealand Journal of Criminology* 138; Elizabeth Sheehy, Julie Stubbs and Julia Tolmie, 'Securing Fair Outcomes for Battered Women Charged with Homicide: Analysing Defence Lawyering in *R v Falls*' (2014) 38(2) *Melbourne University Law Review* 666; Dell Marie Butler, 'Holding Back the "Battered Woman": *Western Australia v Liyanage* [2016] WASC 12' (2016) 41(1) *The University of Western Australia Law Review* 321.

⁷⁹ Burns, 'The Way the World Is' (n 4) 217–19.

⁸⁰ Burns, 'The Australian High Court and Social Facts' (n 53) 318. See also Burns and Hutchinson's use of the term 'empirical facts': Kylie Burns and Terry Hutchinson, 'The Impact of "Empirical Facts" on Legal Scholarship and Legal Research Training' (2009) 43(2) *Law Teacher* 153, 155–6. Serpell uses the term 'social policy': Serpell (n 48).

⁸¹ See Monahan and Walker, 'Social Authority' (n 21) 488.

of people and institutions and the nature of the world and society.⁸² Examples include statements about the anticipated effect of particular judicial outcomes on potential tortfeasors and the tendency for litigation about children to cause distress and injury to children.⁸³

Graham Mullane similarly uses his own definition of ‘social facts’, rather than the Monahan and Walker category, for his examination of child custody cases. Reflecting the context of his study, Mullane limits the meaning of the term ‘social facts’ to statements ‘concerning human behaviour’.⁸⁴ Examples include statements about the effect on children of interspousal violence⁸⁵ and about the importance of providing stability in the lives of children pending final resolution of custody disputes.⁸⁶

In the work of Maureen Brunt and others that examined the use of ‘economic’ facts in Australian judicial decision-making,⁸⁷ there is little use of the term ‘social fact’ or any of the other categories used in the US as a means of ordering the discussion and analysis. Similarly, most of the academic work on the use of ‘historical’ facts in judicial decision-making leaves unaddressed the question of categorisation.⁸⁸ One exception is the work of Bradley Selway, which deals with the use of history in relation both to ‘adjudicative’ and ‘legislative’ facts.⁸⁹

Given the confusion that may arise when using the term ‘social fact’ in light of its fixed meaning in the US and its inconsistent conceptualisation in Australia, this article adopts ‘social science information’ as a catch-all term for information about ‘the way the world works’, which may be drawn from the social science disciplines. This article is not concerned with categorisation of uses of social science information, nor with the application of evidential rules, but with the thought processes and evaluative procedures through which judges arrive at their findings about ‘the way the world works’. Here Burns points to some important research findings. Through her content analysis of Australian High Court decisions in negligence cases (2001–05), Burns

⁸² Burns, ‘The Australian High Court and Social Facts’ (n 53) 317–18. See also Burns, ‘The Way the World Is’ (n 4) 219–21.

⁸³ Burns, ‘The Australian High Court and Social Facts’ (n 53) 327.

⁸⁴ Mullane (n 45) 434.

⁸⁵ *Ibid* 440.

⁸⁶ *Ibid* 447.

⁸⁷ See above nn 35, 37–8 and accompanying text.

⁸⁸ See, eg, McQueen (n 42); Thomson (n 42); Schoff (n 41); McCamish (n 41).

⁸⁹ Selway (n 40) 130–2, 157–8.

identified a high level of judicial use of ‘social facts’ in determining cases.⁹⁰ The more significant the case, the more likely it was that ‘social facts’ would form a ‘significant’ part of the court’s reasoning.⁹¹ Critically, Burns found that 74% of all ‘social fact’ findings in these cases provided no reference or source for such findings.⁹² Rather, most ‘were drawn from judges’ own general knowledge or intuition’⁹³ and ‘ostensibly based on judicial conceptions of “common sense” or “common knowledge”’.⁹⁴ While Burns also observed that the Court, in making decisions, overwhelmingly relied on conventional legal sources such as previous case decisions, she notes that ‘legal’ sources themselves might be ‘poor quality sources of [social fact] information.’⁹⁵ As some Australian scholars have pointed out, an obvious outcome of the use of such methods in the identification and utilisation of ‘social fact’ information is that they might lead to the wrong decision being made.⁹⁶

Similarly, Mullane’s study of child custody judgments made by the Family Court of Australia in 1990 indicated that in 60% of ‘social fact’ findings, no source for such findings was provided in the judge’s reasoning.⁹⁷ In a further 5% of these cases, the judge acknowledged that the finding was based on ‘research’, but failed to identify the source of that research.⁹⁸ Mullane’s subsequent survey of 48 judges of the Family Court supported these findings.⁹⁹ Sixty-two per cent of these judges reported that they relied on their own understandings of social science research in custody cases, but only 36% of them stated that they *always* referred to the source of this research in their judgments, while 39% of them stated that they *sometimes* identified the relevant research.¹⁰⁰ Twenty-five per cent of the judges reported that they

⁹⁰ Burns, ‘The Australian High Court and Social Facts’ (n 53) 329–31.

⁹¹ *Ibid* 331.

⁹² *Ibid* 333.

⁹³ *Ibid* 334.

⁹⁴ *Ibid*. Burns’ analysis also suggests that some ‘social fact’ findings may be based on ‘unstated source[s] such as counsel’s submissions, expert witness testimony or the judge’s own research’: at 333–4.

⁹⁵ *Ibid* 337.

⁹⁶ See *ibid* 335–6; Harold Luntz, ‘The Use of Policy in Negligence Cases in the High Court of Australia’ in Michael Bryan (ed), *Private Law in Theory and Practice* (Routledge-Cavendish, 2007) 55, 78–83; Rathus, ‘A Call For Clarity’ (n 45) 90; Serpell (n 48) 1–2; Burns, ‘Judges, “Common Sense” and Judicial Cognition’ (n 27) 319–21.

⁹⁷ Mullane (n 45) 453.

⁹⁸ *Ibid*.

⁹⁹ *Ibid* 453–4.

¹⁰⁰ *Ibid* 454.

never made reference to the relevant research underpinning ‘social fact’ information in their decision-making.¹⁰¹

A more recent study of children’s cases in Australian family courts between 1976 and 2015 carried out by Zoe Rathus identified a lack of clarity in these cases about the legal basis for judges’ use of extrinsic material.¹⁰² Given the reality that judges are in fact making use of extrinsic material in children’s cases (whether or not they reference that material in the judgement), Rathus argues that judges should be provided with clearer guidance about the proper basis for making use of social science in their decision-making and the process for doing so.¹⁰³

As Selway points out in the case of the use of ‘historical’ fact information, the use of ‘social facts’ in legal reasoning is so pervasive that, in many instances, it is quite likely that there is a lack of awareness on the part of the judge as to what has in fact transpired.¹⁰⁴ Even in cases where judges do identify, and even appraise the relevant ‘social fact’ information openly in giving the reasons for their decisions, problems may arise which might still throw such decisions into doubt. Much of the literature points to the fact that judges often lack appropriate training to enable them to evaluate material from disciplines outside the law.¹⁰⁵ In many of these disciplines, the outcomes of research are very often equivocal and contested. Each discipline will apply different principles to interpret those outcomes, yet judges may have overlooked these nuances of interpretation in the process of extracting the relevant ‘facts’ that assisted them in arriving at a decision.

In relation to the discipline of history, for example, Selway has argued that the disputed nature of ‘historical’ fact is often ignored in the judicial process.¹⁰⁶ While historians frequently revise interpretations of events over time, a judicial finding about an historical proposition may tend to harden into a legal fact, which may then be adopted in subsequent cases.¹⁰⁷ If judges

¹⁰¹ *Ibid.* On the other hand, Zoe Rathus suggests that, in more recent times, family law judges are more explicitly turning to social science in their decision-making: Rathus, ‘A Call For Clarity’ (n 45) 81.

¹⁰² Rathus, ‘Mapping the Use of Social Science in Australian Courts’ (n 45) 353.

¹⁰³ *Ibid.* 354, 374.

¹⁰⁴ Selway (n 40) 148.

¹⁰⁵ See Rathus, ‘A Call for Clarity’ (n 45) 113; Brunt, ‘The Use of Economic Evidence in Antitrust Litigation’ (n 35) 303.

¹⁰⁶ Selway (n 40) 153. See also McQueen (n 42) 245–6.

¹⁰⁷ Selway was referring, in particular, to the transformation of historical evidence into ‘constitutional fact’: Selway (n 40) 139.

fail to understand the rules of the relevant discipline or to apply them rigorously, there is a danger that social science data may be used selectively to support a judge's predetermined views about a situation requiring the use of social fact. Again, turning to history as a case in point, this could be a problem where historical facts are adopted to support a particular line of argument without appropriate evaluation of competing interpretations.¹⁰⁸ While problems of interpretation also arise when courts are required to evaluate and adopt legal authority,¹⁰⁹ Australian judges are extensively trained and experienced in legal reasoning, whereas they are typically disadvantaged by a lack of training in disciplines outside of the law.¹¹⁰

In addition to evidentiary rules and other requirements of legal process,¹¹¹ there are other serious questions to be considered when assessing the validity or otherwise of the decision-making processes in relation to 'social fact' information. Given the difficulties of proof in social science disciplines and the lack of relevant training among judges in many cases, it is not surprising that there are often concerns expressed about some decisions, particularly where these may be perceived to have potentially far-reaching social or economic implications.¹¹²

There appears to be a consensus among scholars that judges frequently make use of information from non-legal disciplines when making decisions, but that the legal basis for doing so in the majority of cases is unclear.¹¹³ Commentators have advanced various suggestions as to how the gathering and evaluation of 'social facts' or 'social policy' information by courts might be improved. These include, for example, the need for courts dealing with historical facts to be aware of certain methodological approaches and their

¹⁰⁸ Described as "'law-office" history': Alfred H Kelly, 'Clio and the Court: An Illicit Love Affair' [1965] *Supreme Court Review* 119, 122.

¹⁰⁹ This, of course, is not contentious: Saks (n 1) 1013; Selway (n 40) 157.

¹¹⁰ See Brunt, 'The Use of Economic Evidence in Antitrust Litigation' (n 35) 303; Burns and Hutchinson (n 80) 158, 167.

¹¹¹ See, eg, the discussion in Serpell (n 48) 47–74.

¹¹² See, eg, the criticism of court decisions in the area of discrimination law in K Lee Adams, 'A Step Backward in Job Protection for Carers' (2002) 15(1) *Australian Journal of Labour Law* 93 ('A Step Backward'); Beth Gaze, 'Context and Interpretation in Anti-Discrimination Law' (2002) 26(2) *Melbourne University Law Review* 325; Fiona Knowles, 'Misdirection for Indirect Discrimination' (2004) 17(2) *Australian Journal of Labour Law* 185.

¹¹³ See Hamer and Edmond (n 53) 313; Burns, 'Judges, "Common Sense" and Judicial Cognition' (n 27) 320; Rathus, 'Mapping the Use of Social Science in Australian Courts' (n 45) 353.

problems (and perhaps even their insolvability),¹¹⁴ and in economics, for a more receptive, even pro-active, approach to economic learning and expertise.¹¹⁵ Others, including in family law, have suggested the need for clearer guidelines for courts¹¹⁶ and models of information provision which can assist judges with their deliberations.¹¹⁷ In the context of labour law cases, the debate is at a more preliminary stage. Before attention can be given to appropriate models for judicial use of social science information, it is first necessary to identify the types of matters where this information may have an important role to play.

IV APPROACHES TO SOCIAL SCIENCE IN LABOUR LAW CASES

The potential relevance of social science to matters concerning labour lawyers is well illustrated in the literature in the US. The widespread acceptance of the use of social science evidence in the US is often traced back to the decision in *Muller v Oregon*, a landmark labour law decision that upheld statutory limits on working time in 1908.¹¹⁸ In that case, an employer challenged an Oregon state legislative provision that prohibited the employment of women in mechanical establishments, factories and laundries beyond a limit of 10 hours per day.¹¹⁹ The employer argued that this law infringed its right to freedom of contract, found in the 14th Amendment to the *United States Constitution*.¹²⁰ However, this constitutional right was not absolute, but subject to state laws protecting the welfare, safety and health of the public.¹²¹ Hence the question for the Court turned to the reasonableness of the State law in limiting female hours of work to this end.¹²²

The case presented on behalf of the State of Oregon by its counsel, Louis Brandeis, consisted principally of references to studies and reports detailing

¹¹⁴ See, eg, Irving (n 40); Selway (n 40).

¹¹⁵ See Brunt, 'The Australian Anti-Trust Law after 20 Years' (n 35) 516–17; French (n 35) 564; Sweeney and Hay (n 39) 302–22.

¹¹⁶ Rathus, 'Mapping the Use of Social Science in Australian Courts' (n 45) 372.

¹¹⁷ Cf Rathus, 'Shifting Language and Meanings' (n 45) 360–1, 387–9. Serpell's work proposes a complete protocol on the use of 'social fact' ('social policy', in the author's terms) information generally, including evidentiary, procedural and evaluative matters: Serpell (n 48) 173–7.

¹¹⁸ 208 US 412 (1908).

¹¹⁹ *Ibid* 416–17 (Brewer J for the Court).

¹²⁰ *Ibid* 417.

¹²¹ *Ibid* 421–3.

¹²² *Ibid*.

the social and medical problems potentially arising for females as a result of long hours of employment.¹²³ In the Court's view, the expressions of opinion contained in the brief 'may not [have been], technically speaking, authorities' and 'in them [was] little or no discussion of the constitutional question presented ... for determination.'¹²⁴ However, such 'opinions' were regarded by the Court as 'significant of a widespread belief that woman's physical structure, and the functions she performs in consequence thereof, justify special legislation restricting or qualifying the conditions under which she should be permitted to toil.'¹²⁵ '[W]hen a question of fact is debated and debatable', the Court continued, 'and the extent to which a special constitutional limitation goes is affected by the truth in respect to that fact, a widespread and long continued belief concerning it is worthy of consideration. We take judicial cognizance of all matters of general knowledge'¹²⁶

Based on the 'facts' disclosed in the Brandeis brief, the Court upheld the working hours limitations on female labour.¹²⁷ This labour law case is generally recognised as the first decision of the US Supreme Court to be based not only on the application of legal concepts, but also on the authority of works examining the social and economic bases and consequences of legal policy.¹²⁸ The use of the so-called 'Brandeis Brief' approach subsequently became commonplace in US courts, particularly in relation to constitutional challenges to social reform laws. Social science is now frequently used to inform judicial decision-making by US trial courts, federal and state appellate courts, as well as the US Supreme Court, giving rise to an extensive scholarly literature exploring its use.¹²⁹ There are numerous examples of cases where

¹²³ Ibid 419–20.

¹²⁴ Ibid 420.

¹²⁵ Ibid.

¹²⁶ Ibid 420–1.

¹²⁷ Ibid 423.

¹²⁸ For a detailed study of the case, the evidence adduced, and subsequent criticism, see Nancy Woloch, *Muller v Oregon: A Brief History with Documents* (Bedford Books, 1996). See also Marion E Doro, 'The Brandeis Brief' (1958) 11(3) *Vanderbilt Law Review* 783; David E Bernstein, 'Brandeis Brief Myths' (2011) 15 *Green Bag* 9.

¹²⁹ See, eg, Saks (n 1); Colquitt (n 21); Green (n 58); Faigman (n 58); Faigman, Porter and Saks (n 58); Wiener (n 58).

courts have admitted social science material into evidence or allowed social science experts to provide their opinion.¹³⁰

In contrast to the position in the US, the issue of judicial use of social science information does not seem to be a 'live' one in Australian labour law, despite the highly visible relationship between labour law and the socio-economic context and purposes in which it operates and for which it is designed. This may in part be explained by the Australian judicial tradition, which encourages judges to rely on their own understanding of 'the way the world works'. This is very different from the US judicial tradition, which has evolved to include a much more explicit role for judges in policy making, often in reliance on information from the social sciences.

In the field of labour law, in particular, the Australian courts have largely been excluded from involvement in the major disputes that have turned on social science information. Instead, disputes about key policy issues in labour regulation have been determined by industrial tribunals through test cases to create standard award provisions about matters such as parental leave,¹³¹ hours of work¹³² and redundancy.¹³³ These tribunals have also conducted annual reviews to determine the minimum wage;¹³⁴ and more recently, four yearly reviews of modern awards.¹³⁵

The Fair Work Commission's penalty rates decision, which was handed down in 2017 as part of the four-yearly award review process, provides a useful illustration of the approach taken by the tribunal to an issue of broad application across the hospitality and retail sectors.¹³⁶ The decision was heard by a five-member full bench, involving 10 principal employer parties, 4 trade unions and 143 lay and expert witnesses. A webpage dedicated to the case contained links to 164 items of relevant research and 5,845 submissions from individuals and other interested parties.¹³⁷ The full bench decision of 551 pages included a detailed assessment of the quantitative and qualitative

¹³⁰ See, eg, *Dukes II* (n 10); *Brown* (n 65); *Cimino* (n 73); *Processed Plastic Co v Warner Communications Inc*, 675 F 2d 852 (7th Cir, 1982). See also Walker and Monahan, 'Social Facts' (n 55) 880–2.

¹³¹ See, eg, *Parental Leave Case* (1990) 36 IR 1; *Family Leave Test Case* (1994) 57 IR 121.

¹³² *Working Hours Case* (2002) 114 IR 390.

¹³³ *Termination, Change and Redundancy Case* (1984) 8 IR 34; *Redundancy Case* (2004) 129 IR 155.

¹³⁴ See, most recently, *Re Annual Wage Review 2016–17* (2017) 267 IR 241.

¹³⁵ As required by the *Fair Work Act 2009* (Cth) s 156 ('*Fair Work Act*').

¹³⁶ *Re 4 Yearly Review of Modern Awards — Penalty Rates* (2017) 265 IR 1.

¹³⁷ *Ibid* 27–8 [23], [29]–[32], 83 [302], 508–17.

evidence presented by the parties, drawing on the submissions from the public, the parties and an array of witnesses.¹³⁸

Although some of the issues and concerns of this article may be of relevance to, or relate to, tribunal practices in identifying ‘the way the world works’ in relation to workplace matters, the differences between courts and tribunals are too extensive for lessons from one forum to be carried over to the other.¹³⁹ These differences include, first, that industrial tribunals in Australia were (and are still) unconfined by the evidentiary rules and processes that apply to judicial bodies.¹⁴⁰ Accordingly, many of the legal issues that arise when courts and judicial officers deal with social science evidence are not relevant to tribunals. Second, tribunal members are drawn from a broad range of backgrounds beyond the legal profession, including trade union, employer association and policy roles.¹⁴¹ Test case and award review decisions are made by a full bench of the tribunal which will typically include members with educational and/or professional experience in social science disciplines.¹⁴² In contrast, judges are typically drawn from the legal profession. Finally, in exercising arbitral powers, the tribunal’s role is to determine what ought to be the rights of the parties, whereas the role of the court is to ascertain existing rights through the exercise of judicial power.¹⁴³ Tribunal decisions about award entitlements of broad application may warrant the expenditure of substantial resources and the extension of hearings over many months, whereas court decisions will typically have direct application to a limited number of parties and, as noted, will be constrained by the rules of evidence and the limited resources available to the court and the particular parties to the dispute.

¹³⁸ Ibid 107–65 [424]–[690].

¹³⁹ For a discussion of the use of unsupported social facts by UK employment tribunals in discrimination cases, see Alysia Blackham, ‘Legitimacy and Empirical Evidence in the UK Courts’ (2016) 25(3) *Griffith Law Review* 414, 420–2.

¹⁴⁰ See, eg, *Fair Work Act* (n 135) s 591.

¹⁴¹ See, eg, *ibid* s 627; ‘Members & Panels’, *Fair Work Commission* (Web Page, 9 February 2018) <<https://www.fwc.gov.au/about-us/members-panels>>, archived at <<https://perma.cc/D39Y-GKTM>>.

¹⁴² See *Fair Work Act* (n 135) ss 616–17, 620.

¹⁴³ *R v Kirby; Ex parte Boilermakers’ Society of Australia* (1956) 94 CLR 254, 281 (Dixon CJ, McTiernan, Fullagar, Kitto JJ), quoting *Waterside Workers’ Federation of Australia v JW Alexander Ltd* (1918) 25 CLR 434, 463 (Isaacs and Rich JJ); *Precision Data Holdings Ltd v Wills* (1991) 173 CLR 167, 188–9 (Mason CJ, Brennan, Deane, Dawson, Toohey, Gaudron and McHugh JJ).

In order to highlight some of the issues that arise when judges confront social science information, the next section will consider judicial references to ‘industrial relations realities’ or ‘common sense’ in Australian labour law cases, followed by a discussion of judicial approaches to the use of social science studies.

A Judicial Reliance on Intuition

In the context of trade practices cases, Charles Sweeney and Deirdre Hay have observed that judicial reference to ‘commercial realities’ allows judges to fall back on personal intuition.¹⁴⁴ In labour law cases, judges may similarly refer to ‘modern business arrangements’ or ‘common sense’ in order to draw on their own knowledge and assumptions about workplace relations issues.¹⁴⁵

One legal distinction in labour law that requires judges to consider the evolving commercial context in which businesses operate is the distinction between an employee and an independent contractor. Judges are typically required to decide whether a worker is an employee as a threshold issue that determines whether the worker has access to benefits under industrial instruments and statutes such as the *Fair Work Act 2009* (Cth).¹⁴⁶

The Federal Court has recently affirmed the value of the multifactorial test that is used to determine this issue:

Because of the multiplicity and diversity of work arrangements and the ingenuity of those fostering disguised relationships, there is value in a multifactorial test which recognises that one spotlight will not necessarily adequately illuminate the totality of the relationship. Such an approach also involves what may be described as a ‘smell test’, or a level of intuition.¹⁴⁷

This multifactorial approach allows courts to ‘paint a picture from the accumulation of detail’.¹⁴⁸ One important factor that contributes to this picture is the degree to which the employer exercises significant control over

¹⁴⁴ Sweeney and Hay (n 39) 310–11, quoting *Eastern Express Pty Ltd v General Newspapers Pty Ltd* (1991) 30 FCR 385, 421 (Wilcox J).

¹⁴⁵ See, eg, *Rogalski v PMP Print Pty Ltd* [2016] FCCA 281 [39] (Judge Riethmuller). See generally Burns, ‘Judges, “Common Sense” and Judicial Cognition’ (n 27).

¹⁴⁶ See, eg, *Fair Work Act* (n 135) ss 11, 12 (definition of ‘employee’ and ‘national system employee’), 13–14, 15, 42, 60, 133, 170, 283, 380.

¹⁴⁷ *On Call Interpreters and Translators Agency Pty Ltd v Federal Commissioner of Taxation* [No 3] (2011) 214 FCR 82, 121–2 [204] (Bromberg J) (‘*On Call Interpreters*’).

¹⁴⁸ *Hall (Inspector of Taxes) v Lorimer* [1992] 1 WLR 939, 944 (Mummery J) quoted in *ibid* 122 [205] (Bromberg J).

the worker.¹⁴⁹ Whereas a contractor will typically be directed to produce a certain outcome, but will be given freedom to decide the manner in which the work will be carried out, a worker will be given instructions by the employer about both the outcome to be achieved and the manner in which the work should be executed.¹⁵⁰

In the recent case of *Rogalski v PMP Print Pty Ltd* (*'Rogalski'*), Judge Riethmuller of the Federal Circuit Court was required to decide whether two distributors of printed material were contractors or employees of PMP Print Pty Ltd (*'PMP Print'*). In determining that the workers were contractors, his Honour conceived control as a factor that must be 'seen in the context of *modern business arrangements*':¹⁵¹

For example, in many franchise agreements the extent of control by the franchisor of the manner in which the franchisee must conduct their business descends to incredible levels of minutiae. Indeed, it is only by an extensive level of control that in some franchise arrangements, the level of uniformity that is a central part of the business model is achieved: for example, in fast food [r]estaurants.¹⁵²

While PMP Print exercised considerable control over the manner in which the work was carried out by providing 'Best Practice Guidelines' in a 47-page manual and imposing auditing and complaints processes to monitor the delivery of material, the Court nevertheless considered this to be consistent with a contracting (rather than employment) relationship given 'the practical difficulties that businesses confront if a contractor is not complying with relevant regulations'.¹⁵³

In this case, Judge Riethmuller drew on his knowledge of franchise agreements to make a finding about the extent of control that is exercised in 'modern business arrangements'. This finding was pivotal to the decision and raises questions about whether the judge's prior knowledge of these arrangements is sufficient to support the findings. It is not at all clear that it is appropriate to extrapolate from the judge's knowledge of a specific context (franchise arrangements) to modern business arrangements in general. The

¹⁴⁹ *On Call Interpreters* (n 147) 126 [218], 135 [261] (Bromberg J).

¹⁵⁰ See *ibid* 124 [214]–[215], 126 [218] (Bromberg J).

¹⁵¹ *Rogalski* (n 145) [39] (Judge Riethmuller) (emphasis added).

¹⁵² *Ibid*.

¹⁵³ *Ibid* [40]–[44] (Judge Riethmuller).

missing evidence here is information that sheds light on the changing nature of modern business arrangements. In particular, the judge needs to know whether these arrangements have shifted to such an extent that the exercise of a high degree of control over the manner of work performance has ceased to be a key indicator of an employment relationship.

The question of whether modern business relationships are typically characterised by detailed control over the manner in which the work is carried out is an example of a contested legislative fact. The Court's finding about this issue in *Rogalski* shaped its characterisation of the common law test for the existence of an employment relationship. As a Federal Circuit Court decision, this interpretation is not binding on other courts. Nevertheless, the case usefully illustrates the ways in which judicial findings about the way that the world works based on limited information may make a crucial contribution to the overall picture which determines the outcome of the case.

Another area of labour law that provides a context for judges to consider realities of the modern workplace is indirect discrimination. In these cases, judges are required to weigh the employer's reasons for the imposition of particular working conditions against the anticipated adverse impact of those conditions on a protected class of employees. The High Court decision of *New South Wales v Amery* ('*Amery*') provides an example of an indirect discrimination case where the judges have made empirical findings without identifying the basis for the assumptions that underpin those findings.¹⁵⁴

In that case, long-term teachers who imposed geographical restrictions on where they were prepared to work were classified as casual supply teachers, while other teachers who were willing to be relocated without restriction were classified as permanent teachers.¹⁵⁵ Despite the fact that the casual teachers were otherwise carrying out the same work as the permanent teachers, the latter were paid a salary that was, on average, 20% higher than their casual counterparts.¹⁵⁶ The casual teachers claimed that the requirement that they comply with a condition of deployability in order to access higher salary levels amounted to indirect discrimination under the *Anti-Discrimination Act 1977* (NSW). They argued that a much higher proportion of men than women were

¹⁵⁴ (2006) 230 CLR 174 ('*Amery*').

¹⁵⁵ *Ibid* 180 [9], 181 [12] (Gleeson CJ).

¹⁵⁶ *Ibid* 206 [109]–[110] (Kirby J).

able to meet the requirement.¹⁵⁷ This argument was supported by statistics provided by the Department of Education ('Department').¹⁵⁸

Six justices of the High Court decided against the casual teachers in four separate judgments and one justice (Kirby J) dissented. Siding with the majority, Gleeson CJ decided that it was not unreasonable for the Department to refuse to make over-award payments to casuals who were performing identical work to permanent staff. One significant factor that contributed to this decision was his Honour's finding that 'from the point of view of the Department, the question of making over-award payments to some teachers would have been a matter of considerable managerial, and industrial, significance. Issues of relativity are notoriously sensitive in any workplace.'¹⁵⁹ His Honour did not make reference to any evidence in support of these claims about the impact of over-award payments on the industrial relations environment.

Gleeson CJ's statement appears to be based on a kind of industrial relations folklore about the disruptive impact of any alteration to salary scales outside the accepted mechanism of a work value case in the industrial tribunal. Casual and permanent teachers working side-by-side may well have views about their relative pay entitlements which fall outside these judicial expectations. Their views about these matters might vary depending on the context. For example, if the High Court were to decide that it was discriminatory to pay permanent and casual workers differently based on their geographical availability, it may well be that permanent teachers would come to accept an increase in payments to casual teachers. These are all matters which are open to speculation but which could be empirically tested.

The outcome of this decision in the High Court and the reasoning of the majority judgments have been widely criticised for taking a narrow approach to indirect discrimination, which is out of step with the purposes of the legislation.¹⁶⁰ Another indirect discrimination case in which the judges on

¹⁵⁷ Ibid 209 [119] (Kirby J).

¹⁵⁸ Ibid 207 [112]–[113] (Kirby J).

¹⁵⁹ Ibid 184 [18], [21] (Gleeson CJ). Justice Kirby acknowledged that interfering with settled pay rates 'would cause a measure of disruption and industrial uncertainty': at 222 [166], but noted that inconvenience was sometimes necessary to overcome 'settled ways of doing things' in order to address past discrimination: at 223 [168].

¹⁶⁰ See Belinda Smith, 'Australian Anti-Discrimination Laws: Framework, Developments and Issues' in Roger Blanpain, Hiroya Nakakubo and Takashi Araki (eds), *New Developments in Employment Discrimination Law* (Kluwer Law International, 2008) 115, 133; Belinda Smith, 'What Kind of Equality Can We Expect from the *Fair Work Act*?' (2011) 35(2) *Melbourne University Law Review* 545, 564–5; K Lee Adams, 'Defining Away Discrimination' (2006)

appeal have relied on judicial intuition to decide against the complainants is *Victoria v Schou* ('*Schou*').¹⁶¹ Again, the judgements of the Victorian Supreme Court and the Court of Appeal have attracted widespread criticism.¹⁶²

Ms Schou was employed as a sub-editor for Hansard. Under her contract of employment she was required to work long hours on site on Parliamentary sitting days. Ms Schou's second child had asthma, chest infections and separation anxiety. Ms Schou sought a change to her working arrangements in order to be closer to her son. After protracted negotiations, her employer ultimately agreed to provide a modem to allow her to work from home for two days per week. However, after 11 weeks, the Department had not provided the modem and Ms Schou resigned on the basis that full-time work on site was untenable because of her responsibilities as a parent and carer.¹⁶³ The Victorian Civil and Administrative Tribunal ('VCAT') found that the Department had indirectly discriminated against Ms Schou on the basis of her responsibilities as a carer. VCAT held that the failure to provide a modem effectively imposed on Ms Schou a requirement that she work full-time on site ('the attendance requirement'). Ms Schou could not comply with the requirement because of her status as a parent and carer and a higher proportion of people without these attributes could comply with the requirement.¹⁶⁴ The most important finding of VCAT, which was the subject of the later appeals, was that the attendance requirement was not reasonable.¹⁶⁵

19(3) *Australian Journal of Labour Law* 263, 277–82; Margaret Thornton, 'The Political Contingency of Sex Discrimination Legislation: The Case of Australia' (2015) 4(3) *Laws* 314, 320–1.

¹⁶¹ (2001) 3 VR 655 ('*Schou*') (Supreme Court of Victoria); *Victoria v Schou [No 2]* (2004) 8 VR 120 ('*Schou [No 2]*') (Victorian Court of Appeal).

¹⁶² In relation to the Supreme Court decision, see, eg, Adams, 'A Step Backward' (n 112) 96–103; Gaze (n 112) 341–54; Juliet Bourke, 'Using the Law to Support Work/Life Issues: The Australian Experience' (2004) 12(1) *American University Journal of Gender, Social Policy & Law* 19, 48–50. In relation to the Court of Appeal decision, see Knowles (n 112) 190–5; Carolyn Sutherland, 'Applying *Victoria v Schou*: The Approach of VCAT and the Federal Magistrates Court' (2007) 29(1) *Australian Bar Review* 45, 52–7, 72–4.

¹⁶³ *Schou* (n 161) 656–7 [1], [4]–[5] (Harper J); *Schou [No 2]* (n 161) 125–6 [13], 127 [18]–[21] (Phillips JA).

¹⁶⁴ *Schou v Victoria (Department of Victorian Parliamentary Debates)* [2000] EOC ¶93-100, 74,427–8, 74,430 (Member Perlman) (VCAT decision on liability).

¹⁶⁵ *Ibid.* See also *Schou v Victoria (Department of Victorian Parliamentary Debates)* [2000] EOC ¶93-101 (VCAT decision on the remedy).

The VCAT decision was overturned on appeal to the Supreme Court and the matter was referred back to VCAT to be reconsidered.¹⁶⁶ However, after rehearing the matter, VCAT again found in Ms Schou's favour and the State of Victoria appealed that decision to the Court of Appeal.¹⁶⁷

In the first appeal decision, before deciding against Ms Schou, Harper J mused about the implications of allowing Ms Schou to work from home:

What if Ms Schou's colleagues also had sick children who needed extra care at home? How many sub-editors could the department afford to have at home during sitting hours, even with a modem? How many modems would the department be required to install for how many carers? Which other employees/carers would seek what other favours? A reasonable request made by one employee may place quite unreasonable burdens upon an employer when made by a number of employees. In such circumstances, the determination of what is reasonable in the particular case could generate problems which are very difficult, if not impossible, of solution.¹⁶⁸

Some of these questions are speculative. Others could be addressed by a person with suitable expertise or by relevant studies about organisational behaviour. In the end, Harper J did not address these questions, but determined instead that the tribunal had fallen into error by focusing narrowly on the reasonableness of the modem proposal rather than weighing all the matters which were relevant to the reasonableness of the broader attendance requirement.¹⁶⁹ The Court of Appeal similarly decided that the core issue was the reasonableness of the attendance requirement and that the option of installing a modem was only relevant to the extent that having Schou working from home via modem was equally suited to the requirements of the job as the alternative, which involved full-time attendance on site.¹⁷⁰ Following this reasoning, the Court concluded it was 'obvious that sub-editors had to work on site' and accordingly the existence of the modem proposal was not a relevant factor in deciding whether the attendance requirement was reasonable.¹⁷¹

¹⁶⁶ *Schou* (n 161) 666 [47] (Harper J).

¹⁶⁷ *Schou v Victoria Melbourne (Department of Parliamentary Debates)* [2002] EOC ¶93-217, 76,518-19 (Duggan J); *Schou [No 2]* (n 161) 122-3 [1] (Phillips JA).

¹⁶⁸ *Schou* (n 161) 665 [41] (Harper J).

¹⁶⁹ *Ibid* 661-2 [25]-[26], 663 [33] (Harper J).

¹⁷⁰ *Schou [No 2]* (n 161) 129-30 [25]-[27] (Phillips JA).

¹⁷¹ *Ibid* 130 [27] (Phillips JA).

Drawing on feminist approaches, these decisions have previously been criticised for their reliance on conservative ideas about the role of the worker and the rights of employers to design working conditions in the way they see fit, that is, to accommodate the ‘ideal worker’ — a worker who is able to work full-time, accommodate requests to work overtime, and travel at short notice.¹⁷² This approach usefully raises awareness of the entrenched and unconscious nature of workplace norms. Social science evidence provides an additional tool to challenge this form of bias by providing a more complete picture of modern workplace arrangements and expectations.¹⁷³

B *Judicial Reference to Social Science Studies*

How do judges draw on social science information about the way the world works in labour law cases? Judges may draw on their own background knowledge, undertake their own research or draw on information from the internet to improve their understanding of the context to a dispute. Occasionally, a judge may identify the source of this contextual information, such as Wikipedia.¹⁷⁴ Only rarely will the attention of the court be drawn to relevant empirical studies through submissions from the parties or via expert evidence. The benefit of this direct approach is that the information is made available to both parties so that any flaws in the material can be identified and addressed.

There are very few Australian labour law cases which explicitly draw upon social science studies. Following a systematic search for these studies,¹⁷⁵ the

¹⁷² See Joan Williams, *Unbending Gender: Why Family and Work Conflict and What to Do about It* (Oxford University Press, 2000) 2. For a discussion of the ‘ideal worker’ in the context of indirect discrimination claims, see Belinda Smith and Joellen Riley, ‘Family-Friendly Work Practices and the Law’ (2004) 26(3) *Sydney Law Review* 395, 416–17; K Lee Adams, ‘The Problem of Voluntariness: Parents and the Anti-Discrimination Principle’ (2003) 8(1) *Deakin Law Review* 91, 109–110. See also the discussion of the ‘unencumbered worker’ in Sandra Berns, *Women Going Backwards: Law and Change in a Family Unfriendly Society* (Ashgate, 2002).

¹⁷³ See Merritt (n 3).

¹⁷⁴ See, eg, the reference to Wikipedia to explain the history of the introduction of public holiday entitlements in legislation in the UK and Western Australia in *Shop, Distributive and Allied Employees’ Association v Woolworths Ltd* [2012] FCA 540, [33] (Barker J).

¹⁷⁵ This systematic search was undertaken in August 2017 by searching for relevant terms in databases of court decisions on the AustLII website: *AustLII* (n 76). The search terms were: ‘quantitative’ or ‘qualitative’ or ‘economic evidence’ or ‘sociology’ or ‘sociologist’ or ‘psychological evidence’ or ‘psychiatric evidence’ or ‘social science’ or ‘empirical’; and ‘Industrial Relations Act’ or ‘Workplace Relations Act’ or ‘Fair Work Act’ or ‘contract of employment’. The selected AustLII databases provided access to decisions of the High Court

author has only uncovered two labour law cases that draw upon empirical studies from the social sciences. This search also uncovered a further case where the Court bemoaned a lack of available empirical data to resolve a key issue in dispute.

The first case, *Christie v Qantas Airways Ltd* ('Christie'), dates back to 1995 during the period in which the Industrial Relations Court of Australia adjudicated dismissal claims brought under the *Industrial Relations Act 1988* (Cth).¹⁷⁶ Mr Christie worked for Qantas as an international pilot. He claimed that he was unlawfully terminated by Qantas on the basis of his age when he was required to retire upon turning 60.¹⁷⁷ Qantas admitted that the dismissal was based on its policy of compulsory retirement for pilots at the age of 60 but relied on the defence that, due to his age, Mr Christie was no longer able to perform the inherent requirements of the job.¹⁷⁸ A key issue in dispute was whether Qantas's compulsory retirement policy was necessary to maintain health and safety standards.¹⁷⁹

To support its argument that the retirement policy was necessary for health and safety reasons, Qantas relied on the evidence of an expert witness, Dr Billings, a physician and pilot from the US.¹⁸⁰ Based on numerous reports produced in the US to evaluate the longstanding rule of the Federal Aviation Administration that pilots must retire at 60 (the 'age 60 rule'), Dr Billings argued that the rule was necessary because older pilots were more likely to be

(1903 to 2017); Full Federal Court (2002 to 2017); Federal Court (1977 to 2017); Industrial Relations Court (1994 to 2002); Federal Magistrates Court 2000 to 2013) and Federal Circuit Court (2013 to 2017).

¹⁷⁶ (1995) 60 IR 17 ('Christie').

¹⁷⁷ Under the unlawful termination provisions in s 170DF(1)(f) of the *Industrial Relations Act 1988* (Cth) ('*Industrial Relations Act*').

¹⁷⁸ *Christie* (n 176) 17–18 (Wilcox CJ); *ibid* s 170DF(2).

¹⁷⁹ *Ibid* 28–9 (Wilcox CJ). A second issue in dispute was whether the policy was justified on the basis of Qantas's operational needs since the policies of a number of relevant foreign governments prevented pilots aged 60 and over from entering their airspace. Qantas succeeded on the basis of operational needs before Wilcox CJ: at 29, 57. This finding was reversed on appeal to the Full Court of the Industrial Relations Court but was ultimately upheld by the High Court: *Qantas Airways Ltd v Christie* (1998) 193 CLR 280, 286 [6] (Brennan CJ), 287 [9], 296 [41] (Gaudron J); 311 [88] (McHugh J); 320 [121] (Gummow J); 344 [167] ('*Qantas Airways*'). For a detailed discussion of the High Court decision, see Anna Chapman, '*Qantas Airways Ltd v Christie*' (1998) 22(3) *Melbourne University Law Review* 743.

¹⁸⁰ *Christie* (n 176) 30 (Wilcox CJ).

involved in aircraft accidents.¹⁸¹ The reports provided statistical analysis of US data to demonstrate the relationship between pilot age and accident rates.¹⁸²

The weakness of this evidence was that any data which linked age to accident rates related to US pilots in general, rather than data that was confined to pilots on commercial international routes.¹⁸³ Relevant data about accident rates for US international pilots over the age of 60 was not available due to the longstanding implementation of the age 60 rule.¹⁸⁴ Wilcox CJ ultimately concluded that ‘none of the cited studies supports any conclusion about the relationship between that rule and aircraft safety’.¹⁸⁵

A further argument presented in these reports was that it was not feasible for airline operators to individually test the medical capacity of pilots at age 60. This argument was rebutted by a medical aviation expert, Dr Zentner, who presented evidence about recent developments in psychological and computer-generated simulated assessments of performance that made individual testing feasible.¹⁸⁶ On the basis of this evidence, Wilcox CJ decided that the Qantas retirement policy was not justified by health and safety considerations.¹⁸⁷ This confirms the well-established rule in anti-discrimination case law that inability to meet the inherent requirements of the job should be assessed on an individual basis rather than through the implementation of a blanket rule.¹⁸⁸

The second labour law case to consider empirical studies from the social sciences was *MacPherson v Coal & Allied Mining Services Pty Ltd [No 2]* (*MacPherson*).¹⁸⁹ Although this case was determined by a lower court, it is nevertheless significant as the first judicial application of a recently-introduced provision in the *Workplace Relations Act 1996* (Cth) governing reasonable hours of work.¹⁹⁰ The Federal Magistrates Court was required to

¹⁸¹ Ibid 30–8 (Wilcox CJ).

¹⁸² Ibid.

¹⁸³ Ibid 36–43 (Wilcox CJ).

¹⁸⁴ Ibid 33 (Wilcox CJ).

¹⁸⁵ Ibid 42.

¹⁸⁶ Ibid 44–8 (Wilcox CJ).

¹⁸⁷ Ibid 56.

¹⁸⁸ See Chapman, ‘*Qantas Airways Ltd v Christie*’ (n 179) 749. This aspect of Wilcox CJ’s decision was not challenged by Qantas on appeal to the Full Court of the Industrial Relations Court or the High Court: see *Qantas Airways* (n 179) 324 [132] (Kirby J).

¹⁸⁹ (2009) 189 IR 50 (Federal Magistrates Court of Australia) (*MacPherson*).

¹⁹⁰ Section 226(1), as inserted by the *Workplace Relations Amendment (Work Choices) Act 2005* (Cth) sch 1 cl 71.

decide whether an employer's request for an employee (Mr MacPherson) to work additional hours beyond 38 per week was 'reasonable' under s 226.¹⁹¹ The requirement that additional hours be 'reasonable' is typical of the open-textured provisions that tend to be used in Australian labour law regulations to provide broad scope for judges to balance the needs of employers and employees.

Section 226(4) lists a number of factors that may be relevant to the court's determination, including 'any risk to the employee's health and safety that might reasonably be expected to arise if the employee worked the additional hours'; 'the employee's personal circumstances (including family responsibilities)'; and 'the operational requirements of the workplace, or enterprise, in relation to which the employee is required or requested to work the additional hours'.¹⁹²

Mr MacPherson was a skilled electrical fitter employed by Coal & Allied Mining Services Pty Ltd to perform maintenance work at an open cut mine. He had two teenage children living at home, aged 13 and 15. The dispute in this case arose when Mr MacPherson was required by his employer to transfer from a 40-hour per week rotating roster of day and afternoon shifts to a 44-hour per week roster of day shifts, which included three consecutive 12-hour shifts and one eight-hour shift. He was concerned that the new roster would encroach on his family life, particularly his ability to participate in the evening family meal and to attend sports carnivals and training sessions with his children during the week.¹⁹³

In undertaking the exercise of balancing the needs of the employer against the needs of the employee, the Court considered a number of adjudicative facts concerning the impact of the new roster, first, on family life; and, second, on business efficiency and safety.¹⁹⁴ Both sides called expert evidence in support of their competing claims. Mr MacPherson relied on evidence from a sociologist, Ms Georgina Murray. Ms Murray had conducted qualitative research which examined the impact of shift arrangements in the mining industry on workers, families and communities. On the basis of this research and her knowledge of related studies, Ms Murray formed the view that the

¹⁹¹ *MacPherson* (n 189) 52 [3]–[4] (Raphael FM). For a critique of this decision, see Anna Chapman, 'Industrial Law, Working Hours and Work, Care and Family' (2010) 36(3) *Monash University Law Review* 190, 209–10.

¹⁹² *Workplace Relations Act 2005* (Cth) s 226(4)(a)–(c).

¹⁹³ *MacPherson* (n 189) 51–2 [1]–[2], 71 [47] (Raphael FM).

¹⁹⁴ *Ibid* 71–3 [47]–[48] (Raphael FM).

new shift arrangements, particularly the three 12-hour shifts, would have an adverse impact on Mr Macpherson's ability to participate in family life.¹⁹⁵

In assessing this evidence, Raphael FM expressed concern that Ms Murray's claims were 'based upon qualitative rather than quantitative research' and that the number of participants in the study was 'small'.¹⁹⁶ His Honour also found it problematic that Mr MacPherson's roster was not typical in the mining industry and differed from the rosters examined in Ms Murray's qualitative study. Raphael FM suggested that the particular roster 'should have been the subject of its own research if a convincing case was to be made against it'.¹⁹⁷

In contrast, his Honour was 'impress[ed]' by the quantitative evidence given by the employer's expert, Mr James Huemmer, a roster specialist from a consulting firm.¹⁹⁸ Mr Huemmer's evidence relied on various large surveys of mining workers. These surveys indicated that the workers generally preferred longer weekly hours (between 46 and 50 hours per week) in preference to a 40-hour week; and that they preferred to work 12-hour shifts rather than shorter shifts. Mr Huemmer attributed these preferences to the financial incentives which were associated with these longer hours. He also demonstrated that the proposed roster fell well within the recommendations for shift work set by various government authorities.¹⁹⁹

Raphael FM acknowledged that he was 'more attracted by the statistical based evidence of Mr Huemmer than the qualitative approach adopted by Ms Gibson'.²⁰⁰ Nevertheless, he somewhat grudgingly accepted 'that qualitative research is a legitimate academic tool' which would have been more influential if it had been more directly relevant to Mr MacPherson's particular roster.²⁰¹

However, it appears from the discussion of the evidence in the decision that the quantitative data may have been marred by the same problem that had affected the qualitative evidence. The data was not directly relevant to Mr MacPherson's circumstances since his proposed roster was not typical within the mining industry.²⁰² In his evidence, Mr Huemmer indicated that the most

¹⁹⁵ Ibid 64–5 [27]–[29] (Raphael FM).

¹⁹⁶ Ibid 65 [30].

¹⁹⁷ Ibid 65–6 [30]–[31].

¹⁹⁸ Ibid 66 [32], 68 [37] (Raphael FM).

¹⁹⁹ Ibid 66–8 [32]–[36] (Raphael FM).

²⁰⁰ Ibid 68 [38].

²⁰¹ Ibid.

²⁰² Ibid 75–6 [57]–[59] (Raphael FM).

common roster in the industry was of four consecutive 12-hour shifts followed by four days off, a pattern worked at residential based mine sites.²⁰³ This is clearly quite different from the rosters (both new and proposed) which Mr MacPherson was attempting to integrate with his family life while residing at his own home.

In relation to the impact of the new roster on business efficiency and safety, Raphael FM readily accepted the employer's assertions that the new rosters would lower safety risks and increase efficiency by making better use of the mining equipment and relying more on in-house maintenance workers rather than external consultants.²⁰⁴ On the other hand, Raphael FM dismissed Mr MacPherson's concern that he would be disadvantaged by having to miss the 6pm family meal on a regular basis.²⁰⁵ His Honour commented that 'given the age of the two boys involved here, there seems to me to be no reason why dinner hour cannot be advanced to 7pm or a time nearest that at which Mr MacPherson arrives home.'²⁰⁶

Based on the limited evidence available in the case, Raphael FM concluded that the 'benefits to the employer of the new rosters outweigh[ed] the detriment to Mr MacPherson' in light of the compensation and extra rostered days off that he received under the new arrangement.²⁰⁷ Accordingly, the additional hours that Mr MacPherson was required to work over the statutory standard of 38 hours per week were reasonable.²⁰⁸ This conclusion is underpinned by a number of assumptions about the social consequences of particular shift arrangements. While empirical questions are raised about the effects on teenage children of parental absence from the home and the effects on the broader community of parental absence from local sporting clubs, these questions were not explored in any depth by Raphael FM. Like the judges in *Schou*, Raphael FM appears to have fallen back on an intuitive understanding of the way families work when concluding that Mr MacPherson's concerns could be addressed by delaying the timing of the family meal. The decision may also have been underpinned by the assumption that the second parent (the mother) is already at home attending to the teenage children's needs.

²⁰³ Ibid 66 [32] (Raphael FM).

²⁰⁴ Ibid 72-3 [48].

²⁰⁵ Ibid 71-2 [47].

²⁰⁶ Ibid 72 [47].

²⁰⁷ Ibid 77 [63].

²⁰⁸ Ibid.

This case raises questions about the extent to which the courts are equipped with the necessary training to assess the validity of social science evidence. Some understanding of the relative strengths and weaknesses of different methodologies would seem to be a necessary prerequisite for making these assessments. The case also highlights the extent to which judges may be required to rely on their own intuitive understanding of critical issues in the absence of adequate evidence. In this case, those critical issues extended to the needs of teenagers within a family dynamic and the strength of a business case for particular work practices.

There is one further case which highlights the potential for quantitative data to be produced in labour law cases to address empirical questions. In 2001, in *Hamzy v Tricon International Restaurants* ('Hamzy'), the Full Federal Court was required to determine the validity of a regulation which excluded casual employees from accessing unfair dismissal protections.²⁰⁹ One of the issues in dispute was whether the regulation was authorised by s 170CC(1)(e)(i) of the *Workplace Relations Act 1996* (Cth), which allowed regulations to be made to exclude employees in relation to whom the operation of unfair dismissal laws would cause 'substantial problems because of ... their particular conditions of employment'.²¹⁰

To defend the validity of the regulation, the Minister for Employment, Workplace Relations and Small Business intervened in the case, drawing upon expert evidence provided by Professor Mark Wooden, an economist whose research focused on labour studies.²¹¹ Professor Wooden testified that the failure to exclude casuals from legal protection against unfair dismissal 'would be likely to have an adverse effect of [sic] job creation in Australia ... [T]here would be fewer jobs, especially for early school leavers, unemployed people and persons seeking to re-enter the workforce after a period of absence'.²¹²

This assertion was challenged by Dr Richard Hall, an expert in work and organisational studies, who noted that it was not supported by 'directly relevant evidence, statistical or otherwise', but on Professor Wooden's 'theorisation of the decision-making processes followed by hirers'.²¹³

In response to this evidence, the Court concluded that 'the suggestion of a relationship between unfair dismissal laws and employment inhibition is

²⁰⁹ (2001) 115 FCR 78, 80–2 [1]–[6] (Wilcox, Marshall and Katz JJ).

²¹⁰ *Ibid* 81 [4] (Wilcox, Marshall and Katz JJ).

²¹¹ *Ibid* 83 [12], 92 [55] (Wilcox, Marshall and Katz JJ).

²¹² *Ibid* 92 [59], 93 [61] (Wilcox, Marshall and Katz JJ).

²¹³ *Ibid* 94 [69] (Wilcox, Marshall and Katz JJ).

unproven. It may be accepted, as a matter of economic theory, that each burden that is placed on employers, in that capacity, has a tendency to inhibit, rather than encourage, their recruitment of additional employees ... Whether the possibility of encountering an unlawful dismissal claim makes any practical difference to employers' decisions about expanding their labour force is entirely a matter of speculation.²¹⁴

This rejection of speculative theories about the impact of unfair dismissal laws on hiring decisions is refreshing. If the Court had not had access to expert evidence, the Court may have been tempted to fall back on the government's assertions and judicial 'common sense' to accept the link between unfair dismissal laws and hiring decisions. In contrast, having heard expert evidence which highlighted the lack of empirical support for the proposition, the Court was unable to go along with this theory. While accepting Professor Wooden's assertion that such research would be difficult, the Court opined that 'any empirical material would be an improvement on mere assertion.'²¹⁵

V CONCLUSION

Labour law cases typically deal with a wide range of aspects of human behaviour in the workplace. To apply labour law principles to a particular dispute, judges often need to draw on their own understanding of commercial realities and human behaviour. The cases discussed in this article illustrate that labour law disputes at times raise empirical questions that can be addressed directly by information from social science disciplines such as sociology, human resources management, economics and psychology. In the absence of expert or other evidence that illuminates these fields of enquiry, the extent of the judge's prior knowledge may exert a significant influence over the outcome of the case.

When judges explicitly rely on intuition in labour law cases, this may be expressed as an understanding of 'obvious' or 'notorious' workplace norms or of 'common sense' and 'modern business arrangements'. Alternatively, the judge's background knowledge may be a 'silent lens' that is not cited but is nevertheless influential on the decision-making process.²¹⁶ In either case, the reliance on intuition means that judges are unlikely to challenge their own

²¹⁴ Ibid 95 [70] (Wilcox, Marshall and Katz JJ).

²¹⁵ Ibid 94 [68] (Wilcox, Marshall and Katz JJ).

²¹⁶ Burns, 'Judges, "Common Sense" and Judicial Cognition' (n 27) 324.

biases about the way the world works. This is particularly problematic when it comes to deciding cases under laws that are designed to challenge systemic bias in workplace rules. Social science may therefore have a role to play in assisting judges to see beyond their own intuitive understanding of the way that workers and workplace operate.

The cases of *Rogalski*, *Amery*, *Schou* and *MacPherson* were all decided in favour of the employer (or business) rather than the complainant worker(s). An analysis of those cases suggests that the decision-makers were relying, at least in part, on their own assumptions about ‘the way the world works’. These decisions may be criticised where judicial assumptions are out of step with current thinking in social science disciplines. The outcomes in these cases may well have been different if the intuitive views of the decision-makers had been seriously challenged by compelling extra-legal evidence. Yet, even where expert evidence and social science studies are made available, there is a risk that this evidence will be used to bolster a pre-existing view if judges are not sufficiently equipped to evaluate this information.²¹⁷

This article has drawn attention to a significant collection of Australian scholarship that has examined the implications of the use of social science evidence in particular fields of law, including the use of history in constitutional law cases, the use of economic argument in trade practices litigation, the use of psychiatry and psychology in family law and the use of the forensic sciences in criminal law cases. In Australian labour law cases, access to social science information is rare, and scholars have not yet examined the potential significance of this information to inform judicial decision-making in this field.

Accordingly, this article does not advocate the rapid expansion of the use of social science evidence in labour law cases. Nor does it promote the introduction of new evidentiary rules or litigation practices to ensure such evidence is dealt with adequately.²¹⁸ Before these options can be contemplated, there are two preliminary steps that should first be explored. The first is to expand the scope of the law school curriculum and of professional development programs to ensure that law students, advocates and judges become familiar with methods beyond their own discipline and are equipped with the necessary tools to evaluate studies outside law. This would not require the addition of new subjects to the existing undergraduate,

²¹⁷ See Richard E Redding, ‘Reconstructing Science through Law’ (1999) 23(3) *Southern Illinois University Law Journal* 585, 607–8.

²¹⁸ For a discussion of possible approaches, see Burns, ‘Judges, “Common Sense” and Judicial Cognition’ (n 27) 339–45.

postgraduate and professional programs. Instead, critical analysis of social science studies could be incorporated into existing courses to establish their relevance and demonstrate techniques for evaluating their findings. In undergraduate and postgraduate subjects that deal with labour law, in particular, social science studies could be introduced to help to fill the gaps where legislative rules and case law have failed to keep pace with the rapid developments in business arrangements. For example, the legal status of gig economy employment arrangements has not been settled by Australian courts, yet there are detailed studies (from academic and government sources) which shed light on the nature and scope of this form of work.²¹⁹ Once disseminated amongst members of the legal profession, these studies have the potential to broaden courts' understanding of the context of these arrangements when called upon to apply common law principles to determine the status of gig workers.

An expansion in the scope of legal training programs would also help to raise awareness of the types of questions that are capable of being addressed by social science disciplines. At the very least, this awareness should prompt judges to recognise and articulate the degree of uncertainty associated with factual findings that are based on intuition alone and to adjust the weight given to those findings. Returning to Deborah Merritt's insight that social science can be an effective tool to challenge judicial understandings about the way the world works,²²⁰ the decisions of *Christie* and *Hamzy* suggest that, even where social science data is missing or inadequate, judicial awareness of the potential for such data to shed light on the issue in dispute can be helpful in blocking judicial reliance on common sense reasoning which might otherwise be unassailable.

A second, important step is for labour law scholars to escalate their level of engagement with social science disciplines, either by adopting methods and perspectives from those disciplines or by drawing on relevant studies from the social sciences when addressing research questions in labour law. Until recently, very little of this type of work had been undertaken in labour law.²²¹

²¹⁹ See, eg, Arun Sundararajan, *The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism* (MIT Press, 2016); Matthew Taylor et al, *Good Work: The Taylor Review of Modern Working Practices* (Report, Department for Business, Energy and Industrial Strategy, Parliament of the United Kingdom, July 2017). See also the special issue on work in the 'gig' economy: Symposium, 'Work in the "Gig" Economy' (2017) 28(3) *The Economic and Labour Relations Review* 378.

²²⁰ Merritt (n 3) 1058.

²²¹ Chris Arup et al, 'Assessing the Impact of Employment Legislation: The Coalition Government's Labour Law Programme 1996–2007 and the Challenge of Research' (Research

However, this trend is changing with an increasing number of labour law scholars making use of methods and theoretical frameworks from other disciplines in order to answer complex questions.²²²

It is clear from studies undertaken in other fields, such as family law, that the social science studies which are most frequently cited in the courtroom are those which have been included in current debates within the community of lawyers, academics and other practitioners in the particular legal field.²²³ Labour law scholars, practitioners and educators therefore have an important role to play in curating knowledge from social science disciplines and demonstrating its relevance to the matters in dispute in labour law cases.

Report, Monash University, 2009) 29; John Howe, Anna Chapman and Ingrid Landau, 'The Evolving Project of Labour Law in Australia' in John Howe, Anna Chapman and Ingrid Landau (eds), *The Evolving Project of Labour Law: Foundations, Development and Future Research Directions* (Federation Press, 2017) 1, 9–10.

²²² See, eg, the recent special issue of *International Journal of Comparative Labour Law and Industrial Relations*: Symposium, 'Labour Law Research Methodologies' (2017) 33(1) *International Journal of Comparative Labour Law and Industrial Relations* 1. The issue focuses on research methods and perspectives external to law which have been used in labour law research, including philosophical, historical, feminist, and sociological perspectives; and law and economics, leximetrics and critical legal studies methodologies. See also Amy Ludlow and Alysia Blackham (eds), *New Frontiers in Empirical Labour Law Research* (Hart Publishing, 2015). For recent Australian studies employing empirical methods, see also Howe, Chapman and Landau (n 221) 10 n 28.

²²³ Rathus, 'Mapping the Use of Social Science in Australian Courts' (n 45) 352, 361, 365.