



UNIVERSITY *of*
TASMANIA

UNIVERSITY OF TASMANIA
LAW REVIEW

VOLUME 37, NUMBER 2

SPECIAL ISSUE:
IMAGINING A DIFFERENT FUTURE,
OVERCOMING BARRIERS TO CLIMATE JUSTICE

University of Tasmania Law Review

VOLUME 37 NUMBER 2 2018

SPECIAL ISSUE: IMAGINING A DIFFERENT FUTURE, OVERCOMING BARRIERS TO CLIMATE JUSTICE

- Introduction** NICKY VAN DIJK, JAN LINEHAN AND
PETER LAWRENCE 1
- Articles**
- Imagining Different Futures through the
Courts: A Social Movement Assessment of
Existing and Potential New Approaches to
Climate Change Litigation in Australia DANNY NOONAN 25
- Justice and Climate Transitions
JEREMY MOSS AND ROBYN KATH 70
- Ecocide and the Carbon Crimes of the
Powerful ROB WHITE 95
- Individual Moral Duties Amidst Climate
Injustice: Imagining a Sustainable Future STEVE VANDERHEIDEN 116
- Lawfare, Standing and Environmental
Discourse: A Phronetic Analysis
BRENDON MURPHY AND JEFFREY MCGEE 131
- Non-Peer Reviewed Article**
- Climate, Culture and Music: Coping in the
Anthropocene SIMON KERR 169

The *University of Tasmania Law Review* (UTLR) has been publishing articles on domestic, international and comparative law for over 50 years. Two issues are published in each volume. One issue is published in winter, and one is published in summer.

Contributors

We welcome the submission of scholarly and research articles of any length (preferably 4000–10 000 words) on legal topics, particularly those concerning Tasmania, Australia or international law. Articles and papers should be accompanied by a brief (200 word) abstract. Contributions are to be submitted using the online form available at:

<http://www.utas.edu.au/law/publications/university-of-tasmania-law-review/submission-form>. Co-authored articles should be identified as such in the ‘Comments to the Editors’ field and all authors other than the lead author are required complete the University of Tasmania Law Review Submission and Publication Agreement using the form available at: <http://www.utas.edu.au/law/publications/university-of-tasmania-law-review/co-author-submission-form>.

All articles and papers must be submitted in English. All papers published as scholarly or research articles will be refereed by two peers pursuant to a double-blind refereeing policy. The UTLR is published in conformity with the *Australian Guide to Legal Citation* 3rd ed, which can be viewed at: <http://mulr.law.unimelb.edu.au/go/aglc>. It would greatly facilitate the publishing process if articles could be submitted in accordance with this reference style.

Information for Subscribers

The cost of the UTLR is \$55.00 including GST per issue for subscribers resident in Australia and \$60.00 for subscribers residing overseas. Prices are in Australian dollars and include economy postage. Readers can also purchase a one-off copy of a particular issue. You may either send a cheque with your subscription notice, or we will invoice you when you receive your first issue.

Intending Subscribers should write to:

Publications Assistant,
Law School, University of Tasmania, Private Bag 89
Hobart, Tasmania 7001
Australia.
Fax: (+ 61 3) 6226 7623.
Email: Law.Publications@utas.edu.au

North and South American readers should obtain subscriptions direct from the sole North and South American agent:

William S Hein & Co Inc.
1285 Main Street, Buffalo, New York 14209, USA.

All subscribers can obtain back issues from Hein.

Journal Homepage:

<http://www.utas.edu.au/law/publications/university-of-tasmania-law-review>

EDITORS:

Frances Medlock
Kathryn Ellis
Rose Mackie

EDITORIAL BOARD:

Bryanna Workman
Callum Jones
Daniel Westbury
Georgina Barnes
Meghan Scolyer
Sarah Ho
Sean Low
Taylor Bachand

**FACULTY ADVISORS AND
SUPERVISING EDITORS:**

Peter Lawrence
Jan Linehan

ISSN 0082-2108

Printed 2019

Introduction to the Special Issue: Imagining a Different Future, Overcoming Barriers to Climate Justice

NICKY VAN DIJK,^{*} JAN LINEHAN^{**} AND PETER LAWRENCE^{***}

I INTRODUCTION

This special issue is focused on climate justice and grew out of a multi-disciplinary conference entitled *Imagining a Different Future, Overcoming Barriers to Climate Justice*, held in Hobart in early 2018.¹ The conference was inspired by a concern that the prevailing neoliberal political and economic thinking is not responding effectively to the challenge of climate change, and excludes key ethical considerations, despite climate change's urgency and seriousness.² The announcement by the United States in 2016 of its intention to withdraw from the Paris Agreement and the seeming turn to nativism and populism in a number of countries, with the implicit or explicit rejection of cooperative global³ approaches, are particularly

^{*} PhD candidate, Faculty of Law, College of Arts, Law and Education, University of Tasmania.

^{**} Adjunct Researcher, Faculty of Law, College of Arts, Law and Education, University of Tasmania.

^{***} Senior Lecturer, Faculty of Law, College of Arts, Law and Education, University of Tasmania.

¹ In this introduction, the *Imagining a Different Future, Overcoming Barriers to Climate Justice* Conference, Hobart, Australia 8-10 February 2018 will be referred to as 'IDF'. See www.climatejustice.network for the program; for recordings of the more than 80 presentations, the talk at the Town Hall by Steve Vanderheiden, and the evening of *Climate Music*; and for student reports of the discussions in the conference and the community forums. Jan Linehan and Peter Lawrence were co-convenors of the Conference, and would like to express their gratitude to all the supporting institutions, speakers, volunteers and participants in the Conference and community forums. The conference took place at the University of Tasmania on the land of the muwinina and palawa people. We acknowledge the Tasmanian Aboriginal community, who have survived invasion and dispossession, and continue to maintain their identity, culture and Aboriginal rights.

² Successive the Intergovernmental Panel on Climate Change (IPCC) reports and national scientific agency reports reference the scientific consensus on climate change, and the most recent 2018 IPCC Report considers possible impacts and pathways to a 1.5°C temperature rise. See eg Valerie Masson-Delmotte et al, 'IPCC, 2018: Summary for Policymakers' in Valerie Masson-Delmotte et al (eds) 'Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty' (Special Report, World Meteorological Organisation, 2018); see, for a recent Australian report, Australian Bureau of Meteorology and CSIRO, *State of the Climate 2018* (Report, 2018). See also Nathan Bindoff, 'Changing Oceans and Cryosphere: Assessment by the IPCC' (Presentation delivered at the IDF Conference, Hobart, 8 February 2018).

³ These developments only exacerbate the ongoing impact of domestic politics in many countries. 'International climate change law presents a moving target. Since its birth in the early 1990s, it has been whiplashed by the vicissitudes of domestic politics,' Daniel

worrying.⁴ Even without these developments, the scale of the challenge presented by climate change, the seemingly intractable nature of the policy challenge⁵ – sometimes described as a super wicked or diabolical problem⁶ – coupled with the lack of ambition represented by the latest UN multilateral climate agreement, the 2015 Paris Agreement,⁷ and the resistance in many quarters to considering fairness and justice approaches⁸ suggest the need for more imaginative thinking on climate justice.⁹

One of the goals for the conference was to facilitate a discussion that was interdisciplinary, engaging a broad range of participants, scientists, academics, non-specialists, activists and students, as well as local community members, many of whom attended both the Conference and the community forums. The use of ‘imagination’ of different futures was designed to encourage discussion which assumed a range of possible futures and was ‘outside the box.’¹⁰ As well as academic presentations, the

Bodansky, Jutta Brunnée and Lavanya Rajamani, *International Climate Change Law* (Oxford University Press, 2017) v.

⁴ For an analysis of the impact of the United States’ retreat from the Paris Agreement on other countries, see Jonathan Pickering et al, ‘The Impact of the US Retreat from the Paris Agreement: Kyoto Revisited?’ (2017) 18(7) *Climate Policy* 818-27; Johannes Urpelainen and Thijs van de Graaf, ‘United States Non-Cooperation and the Paris Agreement’ (2017) 18(7) *Climate Policy* 839-51. For more articles on this topic, see the 2007 special issue of *Climate Policy*.

⁵ See Bodansky, Brunnée and Rajamani, above n 3, 2.

⁶ Will Steffen, ‘A Truly Complex and Diabolical Policy Problem’ in John S Dryzek, Richard B Norgaard and David Schlosberg (eds), *Oxford Handbook of Climate Change and Society* (Oxford University Press, 2011) 21; Richard J Lazarus, ‘Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future’ (2009) 94(5) *Cornell Law Review* 1153.

⁷ *Paris Agreement*, signed 22 April 2016, ATS 24 (entered into force 4 November 2016). For the *United Nations Framework Convention on Climate Change* climate regime and the Paris Agreement, see Daniel Bodansky, Brunnée and Rajamani, above n 3. For the limited progress under the Paris Agreement, see Fiona Harvey, ‘UN Climate Accord “Inadequate” and Lacks Urgency, Experts Warn’ *The Guardian* (online), 16 December 2018 <<https://www.theguardian.com/environment/2018/dec/16/un-climate-accord-inadequate-and-lacks-urgency-experts-warn>>.

⁸ For the contention that the United States’ policy position has consistently been, in effect, ‘climate first, justice maybe later’, see Henry Shue, *Climate Justice Vulnerability and Protection* (Oxford University Press, 2013) 5. For the position of United States negotiators and commentators, see Sonja Klinsky et al, ‘Why Equity Is Fundamental in Climate Change Policy Research’ (2017) 44 *Global Environmental Change* 171; cf Robert Keohane, *Keohane on Climate: What Price Equity and Justice?* (6 September 2016) Climate Home News <<https://www.climatechangenews.com/2016/09/06/keohane-on-climate-what-price-equity-and-justice/>>.

⁹ For example, see recent other academic dialogues, conferences and resources, such as the Sydney Environment Institute 2017 Conference on Environmental Justice, detailed in *SEI Magazine*, Issue 1, 2019, and links to recordings at Sydney Environment Institute, *Environmental Justice 2017 – Looking Back, Looking Forward* <<http://sydney.edu.au/environment-institute/publication-type/video/>>; Arizona State University, *Climate Justice and Equity Network* <<https://sustainability.asu.edu/climate-justice-equity/>>.

¹⁰ For the role of imagination in addressing climate change, see eg, Valerie A Brown et al, ‘Towards a Just and Sustainable Future’ in Valery A Brown, John A Harris and Jacqueline

conference also included responses from artists, writers, filmmakers, musicians and arts activists, who explored their artistic response to climate change, art as activism, and the connection with nature and place.¹¹

The conference involved a wide-ranging discussion of the science of climate change, ethics, hope and despair, justice, equity, law, local and international politics, climate activism, economics, and technology. The program attempted a systematic analysis of barriers to climate justice, ranging from 'structural barriers', such as economic and legal structures, through to the roles of social and human psychology and the media. A goal was to look at strategies to advance action on climate change and to incorporate different values and perspectives, drawing on international, regional and local experience. In this context, a number of speakers looked at the scope for considerations of equity and justice to inform the ongoing development of the international climate change regime and national climate policies. Others looked at the implications of technological change, such as the potential of renewable energy or more speculatively geoengineering interventions, the linkages between climate change and refugee and human rights, and the potential of different forms of strategic activism, including local and international climate litigation.

This introduction seeks to survey some of the key issues in the climate justice field that were covered by the conference as well as the six articles in this special issue. We hope that we can show in this introduction that considerations of fairness and justice remain central in the consideration of mitigation and adaptation to climate change, and are neither barriers to nor distractions from efforts to take effective action on climate change. This is a longstanding point of contention in the UN negotiations that has spilled over to the academic community in terms of questions of appropriate research focus.¹² Climate justice theorists, philosophers and political scientists, governments of the most vulnerable countries, civil society activists, and UN agencies continue to articulate claims and frameworks for justice. There are signs that considerations of justice and equity are recognised as important in policy responses to climate change. For example, the 2018 IPCC report states that:

Ethical considerations, and the principle of equity in particular, are central to this report, recognising that many of the impacts of warming

Y Russell, *Tackling Wicked Problems Through the Transdisciplinary Imagination* (Earthscan, 2010) 3, 5-6; Paul Wapner, 'Introduction: Reimagining Climate Change,' in Paul Wapner and Hilal Elver (eds), *Reimagining Climate Change* (Earthscan, 2016) 1.

¹¹ For an analysis of a change in the climate justice discourse towards local experience and community voice, see David Schlosberg and Lisette B Collins, 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice' (2014) 5(3) *Wiley Interdisciplinary Reviews: Climate Change* 359.

¹² See sources in footnote 8 above. See subsequently, Kate Dooley, Joyeeta Gupta and Anand Patwardhan (eds), 'Special Issue: Achieving 1.5 °C and Climate Justice' (2018) 18(1) *International Environmental Agreements: Politics, Law and Economics* 1.

up to and beyond 1.5°C, and some potential impacts of mitigation actions required to limit warming to 1.5°C, fall disproportionately on the poor and vulnerable.¹³ ... Equity has procedural and distributive dimensions and requires fairness in burden sharing, between generations, and between and within nations. ... Consideration for what is equitable and fair suggests the need for stringent decarbonisation and up-scaled adaptation that do not exacerbate social injustices, locally and at national levels ... uphold human rights ... are socially desirable and acceptable ... address values and beliefs ... and overcome vested interests.¹⁴

This introduction is structured as follows. Section II examines why justice matters in the climate context, looking at the pragmatic and moral arguments, as well as considering the link to the Paris Agreement. Section III looks at some of the barriers to implementing climate justice. Section IV examines strategies, including legal strategies, for addressing these barriers. Section V draws conclusions about the importance of justice and the need for further research.

II JUSTICE

A Why Climate Justice Matters

It is often assumed that addressing climate change is only a matter of reducing the emission of greenhouse gases (GHG), of so-called 'mitigation,' and of adaptation to climate impacts, instead of a matter also of justice.¹⁵ Indeed some argue that taking justice into account will make the difficult job of mitigation even harder.¹⁶ In this first section we discuss why taking justice into account may be beneficial from a pragmatic point of view, as well as required by our ethical obligations to address human

¹³ Miles Allen et al, 'Framing and Context' in Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty' (Special Report, World Meteorological Organisation, 2018) 51 (citations omitted).

¹⁴ Joyashree A Halim et al, 'Sustainable Development, Poverty Eradication and Reducing Inequalities' in Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty' (Special Report, World Meteorological Organisation, 2018) 469 (citations omitted).

¹⁵ There are different approaches to climate justice in ethics, political science and law. See respectively Stephen M. Gardiner et al (eds), *Climate Ethics. Essential Readings* (Oxford University Press, 2010); Steve Vanderheiden, *Atmospheric Justice. A Political Theory of Climate Change* (Oxford University Press, 2008); Benoit Meyer, *The International Law of Climate Change* (Cambridge University Press, 2018); Cinnamon P Carlame, Kevin R Gray and Richard Tarasofsky, *Oxford Handbook on International Climate Change Law* (Oxford University Press, 2016); Rosemary Lyster, *Climate Justice and Disaster Law* (Cambridge University Press, 2016).

¹⁶ For a discussion of this point see: Simon Caney, 'Just Emissions' (2013) 40(4) *Philosophy and Public Affairs* 255.

wellbeing. We discuss different dimensions (such as international and intergenerational justice) and specific theories of justice, with reference to several presentations at the conference and articles by Jeremy Moss and Robyn Kath and Steve Vanderheiden in this issue.

There are pragmatic, as well as moral reasons, to focus on the justice aspects of climate change. First, understanding matters of fairness and equity in the climate debate may offer us a better understanding of current inaction by individuals, and private and public organisations to address climate change.¹⁷ Secondly, as discussed by Jeremy Moss and Robyn Kath in their article in this issue ‘Justice and Climate Transitions,’ unless justice is taken into account, individuals may be less likely to endorse mitigation measures. Justice and equity play a role in political dynamics: this is so in the context of global regimes¹⁸ and local politics. ‘Perceptions and experiences of justice lead people to take action’ and fight for futures that they see as fairer and more desirable.¹⁹ Thirdly, focusing on justice may prevent already disadvantaged groups from bearing more costs, and give them the opportunity to develop. Moss and Kath use a case study about a possible climate transition distributing renewable energy to demonstrate this.²⁰ Finally, a failure to include an analysis of the impact of climate policies and measures on different socio-economic groups will obscure the impacts involved in policy trade-offs, and implicitly sacrifice the interests of the most vulnerable groups, tacitly favouring the interests of the most privileged.²¹

These pragmatic reasons for including justice considerations in climate thinking and policy-making raise the question of *how* these considerations and interests are to be factored into the political process, entailing issues of inclusion and democracy. In her conference presentation ‘Democracy and Climate Justice: Never the Twain Shall Meet’, Robyn Eckersley addressed the question of how – in the face of pluralism and political disagreement – substantive outcome-oriented justice and procedural justice, including democracy, should be linked. Currently there seems to be a tension between open-ended, fair and multilateral procedures – those required by a pluralistic society – and the felt need for collective outcomes necessary

¹⁷ For a thorough analysis of the complex ethical dimensions of climate change, see Stephen Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford University Press, 2011).

¹⁸ Oran Young, ‘Does Fairness Matter in International Environmental Governance? Creating an Effective and Equitable Climate Regime’ in Todd L Cherry, Jon Hovi and David M McEvoy (eds), *Toward a New Climate Agreement: Conflict, Resolution and Governance* (Taylor and Francis, 2014) 171.

¹⁹ Klinsky et al, above n 8.

²⁰ See also Franziska Mey, ‘Community Energy Solutions for a Just Energy Transition in Australia’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

²¹ Klinsky et al, above n 8, 170-3.

to prevent massive climate injustices.²² It is often falsely assumed that greater procedural justice necessarily leads to fairer outcomes.²³ Another concern of Eckersley is the assumed ‘untainted nature’ of democracy. However, she argues, democracies are fragile and prone to self-destruction. We should not wait for an ‘environmental holocaust’ before we save our democracy, but rescue her now. Following this thought, many political scientists²⁴ articulate the need for deliberative democracy and inclusive processes in the climate context. The link between procedural justice and possible substantive justice outcomes in this context is one that requires further reflection and research.²⁵

In addition to pragmatic reasons for being concerned about matters of justice, there is also a need to address climate change because of our ethical obligations to address human wellbeing.²⁶ On this view, climate change is considered to be an ethical, political and legal problem, instead of merely one having to do with changes in physical nature. Climate justice poses two distinct questions.²⁷ First, the ‘just target question’ asks how much protection is owed to those suffering climate change impacts, including future generations. This is relevant, as a failure to reduce GHG emissions results in myriad forms of harm to human wellbeing, including increases in temperature, extreme weather events, sea level rise, tropical diseases, negative impacts on food and security, and even the risk of catastrophic

²² Robyn Eckersley, ‘Democracy and Climate Justice: Never the Twain Shall Meet’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

²³ Steve Vanderheiden, ‘Climate Justice: Beyond Burden Sharing’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

²⁴ For general introductions, see Karin Bäckstrand (ed), *Environmental Politics and Deliberative Democracy* (Edward Elgar, 2010). For geoengineering and deliberative democracy, see William C G Burns and Jane A Flegal, ‘Climate Geoengineering and the Role of Public Deliberation: A Comment on the US National Academy of Sciences’ (2015) 5 *Climate Law* 252; Catriona McKinnon, ‘Sleepwalking into Lock-In? Avoiding Wrongs to Future People in the Governance of Solar Radiation Management Research’ (2018) *Environmental Politics* 1.

²⁵ For an analysis of the challenges to improve the democratic quality of global climate governance, see Haley Stevenson and John S Dryzek, ‘The Discursive Democratisation of Global Climate Governance’ (2012) 21(2) *Environmental Politics* 189; John S Dryzek and Kayley Stevenson, ‘Global Democracy and Earth System Governance’ (2011) 70 *Ecological Economics* 1865. For a fuller overview of democratic discourses in environmental politics, see John S Dryzek, *The Politics of the Earth: Environmental Discourses* (Oxford University Press, 1997). For an argument that democratic legitimacy is vital for the quality of decision making see Jonathan W Kuypers, ‘Gridlock in Global Climate Change Negotiations: Two Democratic Arguments against Minilateralism’ in Aaron Maltais and Catriona McKinnon (eds), *The Ethics of Climate Governance* (Rowman and Littlefield 2015) 67.

²⁶ Due to the short length of this Introduction we do not discuss justice for non-human animals, plants or ecosystems. However, we acknowledge that the scope of justice could extend to non-human beings, as do other theories of justice. For an introduction to this, see Angie Pepper, ‘Delimiting Justice: Animal, Vegetable, Ecosystem?’ (2018) 13(1) *Ethics Forum* 210.

²⁷ For a discussion of these questions, see Simon Caney, ‘Distributive Justice and Climate Change’ in Serena Olsaretti (ed), *Oxford Handbook of Distributive Justice* (Oxford University Press, forthcoming).

climate change.²⁸ On top of this, these harms are not spread evenly, as the (future) poor, elderly and disabled will suffer most. Wealthy countries are in a better position to take mitigation action and to adapt to climate change impacts.

Second, the ‘just burden question’ asks how the burdens (and benefits) of climate change should be distributed. For example, should only wealthy countries have responsibility for mitigation, finance, compensation or adaptation? Is this responsibility best based on capacity to pay or historic responsibility in causing climate change?

B Environmental Principles and the Paris Agreement

Within academic discussions of both environmental law and environmental philosophy, the use of principles has gained popularity as a way to address the justice dimensions of environmental problems. Turning first to ethics, these principles describe ethical obligations actors have in regard to environmental problems, even if other actors (e.g. countries or individuals) do not comply.²⁹ A widely accepted ethical principle is that of ‘no harm’, which in this context translates to a duty to prevent major transboundary pollution. The ‘polluter pays principle’ has been widely accepted as an ethical principle suitable for guiding climate mitigation and adaptation policy. The gist of this principle is that whoever has caused a harm – in this instance, pollution – should rectify the situation.³⁰ In the climate context this translates into countries having a responsibility to reduce emissions in proportion to their historic emissions.³¹ It has been argued convincingly that the polluter pays principle is insufficient to guide climate policy-making,³² and needs to be supplemented by the ‘ability to pay principle’³³ which involves ethical duties falling on those best placed to take action. These principles suggest that, although all countries have a responsibility to mitigate, the larger burden rests on developed countries, i.e. countries with an ability to reduce emissions. The more controversial ‘precautionary

²⁸ Valerie Masson-Delmotte et al, above n 2.

²⁹ See Simon Caney, ‘Climate Change and Non-Ideal Theory: Six Ways of Responding to Noncompliance’ in Clare Heyward and Dominic Roser (eds), *Climate Justice in a Non-Ideal World* (Oxford University Press, 2016) 21. For an elaborate introduction to non-ideal climate justice, i.e. political theorising in unfavourable circumstances working with agents who fail to comply with the demands of justice, see Claire Heyward and Dominic Roser (eds), *Climate Justice in a Non-Ideal World* (Oxford University Press, 2016).

³⁰ Simon Caney, ‘Cosmopolitan Justice, Responsibility, and Global Climate Change’ (2005) 18(4) *Leiden Journal of International Law* 752.

³¹ Cf Jeremy Moss and Robyn Kath, ‘Historical Emissions and the Carbon Budget’ (forthcoming) *Journal of Applied Philosophy*; Jeremy Moss, ‘Historical Injustice and Climate Transitions’ (Presentation delivered at the IDF Conference, Hobart, 8 February 2018).

³² Caney, above n 30, 747-75.

³³ Simon Caney, ‘Climate Change and the Duties of the Advantaged’ (2010) 13(1) *Critical Review of International Social and Political Philosophy* 203.

principle' argues for mitigation to happen sooner rather than later to avoid possible catastrophic risk, even where there is no scientific certainty.³⁴

Within climate ethics there is a wide consensus that a combination of these principles lead our moral duties, and should therefore guide our legal and political decision making. These ethical principles find some reflection in principles of international environmental law.³⁵ They are also included in the climate regime, but here their content is contested.³⁶ This is the case with the principle of 'common but differentiated responsibility' (CBDR). This principle involves countries' having a common or shared responsibility for the protection of the environment but obligations to address the particular problem which vary according to their contributions to causing the problem.³⁷ While the UN Framework Convention on Climate Change (UNFCCC)³⁸ incorporates CBDR (art 3(1)), its content has been contested. CBDR has, for example, been interpreted by some industrialised countries as connoting capacity to pay, whereas many developing countries interpret the principle as involving a responsibility of industrialised countries to take the lead in reducing emissions based on their historic contributions to causing climate change in the first place.³⁹ The Paris Agreement gives a new twist to these principles, with a shift to 'auto differentiation' with parties deciding on their own level of mitigation in their individual nationally determined contributions (NDCs). CBDR and equity remain relevant to a number of other parts of the Agreement, including finance and assistance to developing countries in adaptation.⁴⁰

³⁴ See Stephen M Gardiner, 'A Core Precautionary Principle' (2006) 14(1) *Journal of Political Philosophy* 33; Henry Shue, 'Deadly Delays, Saving Opportunities: Creating a More Dangerous World?' in Stephen M Gardiner et al (eds), *Climate Ethics Essential Readings* (Oxford University Press, 2010) 146; Simon Caney, 'Climate Change and the Future: Discounting for Time, Wealth, and Risk' (2009) 40(2) *Journal of Social Philosophy* 163.

³⁵ See Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (Cambridge University Press, 2018) 197-249.

³⁶ For example, the suggestion of responsibility for historical emissions has been strongly contested in the UN climate negotiations by the United States (and others), arguing that it is unfair for them to be made responsible for GHG emissions which occurred at a time when they did not know that these emissions were causing harm.

³⁷ See eg Robyn Eckersley, 'The Common but Differentiated Responsibilities of States to Assist and Receive "Climate Refugees"' (2015) 14(4) *European Journal of Political Theory* 481; Thierry Ngosso, 'Acceptable Pollution and Unacceptable Pollution: Do Burdened Societies Owe Strong Climate Obligations to Their Citizens?' (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

³⁸ United Nations Framework Convention on Climate Change, opened for signature 3 June 1992, 1771 UNTS 107 (entered into force 21 March 1994).

³⁹ In the Paris Agreement, CBDR is formulated slightly differently with a reference to 'different national circumstances'. *Paris Agreement*, signed 22 April 2016, ATS 24 (entered into force 4 November 2016) art 2.2. See Bodansky, Brunnée and Rajamani, above n 3, 221-6.

⁴⁰ Lavanya Rajamani, 'Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics' (2016) 65(2) *International and Comparative Law Quarterly* 1.

One such provision is the provision of the Paris Agreement establishing the ‘global stocktake’, which involves a collective review process designed to provide the basis for ramping up mitigation action under the Agreement based on science and ‘equity.’⁴¹ The elaboration of rules for implementing the Paris Agreement at COP 24 in December 2018 in Katowice, Poland glossed over the task of developing common understandings of how equity should translate into concrete rules relating to the global stocktake.⁴² However, this will not see these issues go away. Rather, governments will themselves explicitly or implicitly make decisions on what is perceived to be fair.⁴³ Moreover, climate change think tanks, research institutes, academics and civil society will continue to make judgments about the fairness of individual NDCs based on the justice-related principles mentioned above, which will feed in to the political process.⁴⁴

While the Paris Agreement and rulebook are strong in terms of transparency, the system of voluntary NDCs, the relatively weak ‘managerial’ non-compliance mechanism, and the financing arrangements raise serious questions as to the Agreement’s likely effectiveness.⁴⁵ This necessarily gives rise to justice issues, as a weak global regime will impact negatively upon both intragenerational and intergenerational justice. International relations studies suggest that global agreements that are perceived to be fair are more likely to be implemented and effective.⁴⁶ Some may argue that the strength of commitments made at Paris by sub-state actors (e.g. federal states and cities) and industry can overcome these deficiencies, but questions remain as to the legitimacy and effectiveness of these initiatives.⁴⁷ These are arguments for working hard at the national

⁴¹ *Paris Agreement*, signed 22 April 2016, ATS 24 (entered into force 4 November 2016).

⁴² At COP 24 it was agreed that the stocktake include ‘loss and damage’ and equity across all of its elements, but with little indication as to how this is to occur. See COP 24 CMA Decision of 15 December 2018, FCCC/CP/2018/L.16 para 36.

⁴³ Vegard Torstad and Hakon Saalen, ‘Fairness in the Climate Negotiations: What Explains Variation in Parties’ Expressed Conceptions’ (2018) 18(5) *Climate Policy* 1. See also Chukwumerije Okereke and Philip Coventry, ‘Climate Justice and the International Regime: Before, During, and After Paris’ (2016) 7(6) *WIREs Climate Change* 834, 846.

⁴⁴ Peter Lawrence and Michael Reder, ‘Equity and the Paris Agreement, Legal and Philosophical Perspectives’ (2019) *Journal of Environmental Law* (forthcoming).

⁴⁵ Peter Lawrence and Daryl Wong, ‘Soft Law in the Paris Climate Agreement: Strength or Weakness?’, (2017) 26(3) *Review of European, Comparative and International Environmental Law* 276.

⁴⁶ Young, above n 18.

⁴⁷ Karin Baekstrand and Jonathan W. Kuyper, ‘The Democratic Legitimacy of Orchestration: the UNFCCC, Non-State Actors, and Transnational Climate Governance’ (2017) 26(4) *Environmental Politics* 764.

level,⁴⁸ and, over time, initiating proposals to strengthen the Paris Agreement.⁴⁹

C Justice Within and Among States, Generations and Individuals

In relation to climate change, justice has many dimensions. The main focus is often on *intragenerational* justice, i.e. a combination of international justice (between states) and national justice (between e.g. the rich and poor within a state) of all humans currently alive. Questions of responsibility for mitigation, financing, adaptation, and assisting those inadequately able to engage in adaptation and mitigation are often considered matters of intragenerational justice.

However, two other dimensions of justice have to be considered. First, *intergenerational* justice involves questions of how to balance the needs and aspirations of those currently alive and those of future generations. This dimension includes questions concerning the risks of climate change, or actions such as some forms of geoengineering,⁵⁰ and possible large scale compensation when moral obligations are not met. For a long time the philosophical discussion concerning intergenerational justice has been stuck on the abstract problem of whether having responsibility for people not yet alive is theoretically at all possible.⁵¹ However, current insights show that trade-offs between mitigation and adaptation are related to a trade-off between current and future generations. When mitigative measures are adequate, little adaptation may be needed. But in case of limited mitigation, adaptation will not be able to handle the climate stresses. Inaction also brings injustice, as in this case, adaptation measures are taken autonomously by individuals themselves, often rendering them accessible only to the wealthy.⁵² In her presentation at the conference Jan

⁴⁸ Kate Dooley, *We Finally Had the Rulebook for the Paris Agreement But Global Climate Action is Still Inadequate* (18 December 2018) Conversation <<https://theconversation.com/we-finally-have-the-rulebook-for-the-paris-agreement-but-global-climate-action-is-still-inadequate-108918>>.

⁴⁹ Lawrence and Wong, above n 45, 276-286.

⁵⁰ Stephen Gardiner, 'Is 'Arming the Future' with Geoengineering Really the Lesser Evil? Some Doubts About the Ethics of Intentionally Manipulating the Climate System' in Stephen M Gardiner et al (eds), *Climate Ethics Essential Readings* (Oxford University Press, 2010) 284.

⁵¹ Cf Derek Parfit, 'Energy Policy and the Further Future: the Identity Problem' in Stephen M Gardiner et al (eds), *Climate Ethics. Essential Readings* (Oxford University Press, 2010) 112; Derek Parfit, *Reasons and Persons* (Oxford: Clarendon Press, 1987). Cf Derek Bell, 'Does Anthropogenic Climate Change Violate Human Rights?' (2011) 14(2) *Critical Review of International Social and Political Philosophy* 109.

⁵² Caney, above n 30; Caney, above n 29; Michael D Doan, 'Responsibility for Collective Inaction and the Knowledge Condition' (2016) 30(5-6) *Social Epistemology* 532; Byron Williston, *The Anthropocene Project: Virtue in the Age of Climate Change* (Oxford University Press, 2015).

McDonald argued that we should focus on avoiding impacts instead of later compensating for them.⁵³

Secondly, as well as considering justice on a state level, *individuals* are also actors able to positively or negatively influence the risks and impacts of climate change. Many philosophers argue that individuals also have a moral responsibility to engage in climate actions.⁵⁴ Objections to this view are often grounded in the idea that minimising the impact of one's actions would be too demanding for individuals, or would not make a significant difference. Even if we wanted to act sustainably, the demands of our work or living situation might make this difficult, or our limited ability to know how our consumption pattern influences the environment in this untransparent global market might leave us making understandable – but unsustainable – choices.

Steve Vanderheiden, in his article in this issue 'Individual Moral Duties Amidst Climate Injustice: Imagining a Sustainable Future', argues that even if individual efforts to reduce greenhouse gas emissions may make negligible difference to climate change in a causal sense, such efforts can have a significant influence on others through the construction of 'low carbon public imaginary.' Arguing against Armstrong and Kingston's rejection of individual responsibilities to refrain from 'joyguzzling,' i.e. recreational driving,⁵⁵ Vanderheiden argues in favour of resisting pollution-enabling social norms and unsustainable consumption patterns, and instead advocates for contributing to the development and spread of foundational norms which could make the transition to a sustainable society feasible. He argues that sustainable consumption choices can spread through 'norm cascades' (drawing this concept from international relations literature). New norms emerge, coming to be accepted on a wider scale, challenging existing norms, and offering viable alternatives, in a similar fashion to how unsustainable consumption norms spread by a 'keeping up with the Joneses'-driven contagion. This framing is helpful in overcoming the sense of powerlessness individuals may face in the context of government inaction.

Applying an analysis of the dimensions of justice together with the ethical obligations described, it becomes clear that many states, including Australia, do not meet their fair share of emissions reduction and related

⁵³ Jan McDonald, 'Fairness in Climate Adaptation Law' (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

⁵⁴ Cf Walter Sinnott-Armstrong, 'It's Not My Fault: Global Warming and Individual Moral Obligations' in Stephen M Gardiner et al (eds), *Climate Ethics: Essential Readings* (Oxford University Press, 2010) 332.

⁵⁵ Ewan Kingston and Walter Sinnott-Armstrong, 'What's Wrong with Joyguzzling?' (2018) 21 *Ethical Theory and Moral Practice* 169. For an earlier version of this position, see Walter Sinnott-Armstrong, 'It's Not My Fault: Global Warming and Individual Moral Obligations' in Walter Sinnott-Armstrong and Richard Hobarth (eds), *Perspectives on Climate Change* (Elsevier, 2005) 221.

climate action. In their article in this issue, Jeremy Moss and Robyn Kath argue that Australia does not meet her historical responsibility by insufficiently reducing her emissions and also fails to take responsibility for the export of emissions or assisting the global community in their transition.⁵⁶

D Frameworks for Justice

Various frameworks to assess justice in a climate context have been proposed,⁵⁷ including the human rights framework and the capability approach which we will discuss below, and frameworks using cosmopolitanism, communitarianism, (Rawlsian) impartialism, reciprocity or feminist philosophy.⁵⁸ In his presentation at the conference, Marcus Düwell argued that a new universalist story is needed to make sense of current climate threats and our corresponding obligations.⁵⁹ His account is grounded in something all humans have in common: human dignity.⁶⁰ Respect for this does not only extend to all humans, independent of their state, background or preferences, but also extends to future generations.⁶¹ Düwell argues that there is need for a cultural project, moving towards a shared humanity.⁶²

The widely used human rights regime is based on this concept of human dignity: human beings have rights because they all have human dignity.⁶³ Simon Caney has argued that climate change infringes core human rights to life, health and subsistence.⁶⁴ Adopting a human rights framework

⁵⁶ See Jeremy Moss and Robyn Kath, 'Justice and Climate Transitions' in this issue. For duties concerning assisting other countries, see Jonathan Pickering, 'Supporting a Justice Transition: National Responsibilities for Cross-Border Impacts of Climate Policies' (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

⁵⁷ For a more complete overview of different justice frameworks, see Ryan Holifield, Jayajit Chakraborty and Gordon Walker (eds), *The Routledge Handbook of Environmental Justice* (Routledge, 2017); David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (Oxford University Press, 2007).

⁵⁸ See eg Gardiner, above n 34.

⁵⁹ Marcus Düwell, 'Human Dignity, Imagination and the Framings of Climate Justice' (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

⁶⁰ For an analysis of the current state of considerations of human dignity and its relationship with the human rights framework, see Pablo Gilabert, *Human Dignity and Human Rights* (Oxford University Press, forthcoming).

⁶¹ Marcus Düwell, 'Human Dignity and Intergenerational Human Rights' in Gerhard Bos and Marcus Düwell (eds), *Human Rights and Sustainability: Moral Responsibilities for the Future* (Routledge, 2016) 69; Marcus Düwell and Gerhard Bos, 'Human Rights and Future People – Possibilities of Argumentation' (2015) 15(2) *Journal of Human Rights* 231.

⁶² For an explanation of 'the ethics of the future' and a corresponding research agenda, see Marcus Düwell and Karsten Klint Jensen, 'Ethics of a Green Future: A Research Agenda' in Marcus Düwell, Gerhard Bos and Niomi van Steenbergen (eds), *Towards the Ethics of a Green Future* (Routledge, 2018) 191, 192.

⁶³ Marcus Düwell, 'The Future of Human Dignity' (2013) 31(4) *Netherlands Quarterly of Human Rights* 400.

⁶⁴ Simon Caney, 'Climate Change, Human Rights and Moral Thresholds' in Stephen Gardiner et al (eds), *Climate Change: Essential Readings* (Oxford University Press, 2010)

means that mitigation practices should not compromise human rights, and that in addition to duties of mitigation and adaptation, there is also a duty to provide compensation when rights are violated.⁶⁵

A similar but different framework is grounded in the capability approach. Scholars such as Amartya Sen and Martha Nussbaum focus on whether each individual's circumstances allow them to actually achieve wellbeing, taking into account personal, social and environmental barriers to this achievement.⁶⁶ For example, an Indigenous community living in a remote area may have the *opportunity* to use cheaper and greener renewable energy, but when they have limited literacy (a personal conversion factor), are unfairly discriminated against (a social conversion factor), or live in an environment prone to natural disasters (an environmental conversion factor), then they may be unable to transform this opportunity into an *achievement*.⁶⁷ Jeremy Moss and Robyn Kath, in their article in this issue, show how the capability approach, in the form of the Human Development Index, can be used to measure countries' achievements in health, education and standard of living, in addition to the efficacy of their emission reductions. A number of speakers in the conference, including David Schlosberg and Rosemary Lyster, used the capability approach to explore climate issues.⁶⁸

Unfortunately, even if we find answers to these difficult ethical questions surrounding climate change – i.e. using principles or moral frameworks to fairly balance different dimensions of justice – we may still not engage in climate action. Stephen Gardiner uses the term 'moral corruption' to describe the tendency of individuals and political actors to engage in

166. For a further introduction to legal analysis of the link between climate change and human rights, see eg Stephen Humphreys (ed), *Human Rights and Climate Change* (Cambridge University Press, 2010); John H Knox and Ramin Pejan (eds), *The Human Right to a Healthy Climate* (Cambridge University Press, 2017); Ottavio Quirico and Mouloud Boumghar (eds), *Climate Change and Human Rights: An International and comparative law perspective* (Routledge 2016); Michael Burger and Jessica A Wentz, *Climate Change and Human Rights* (United Nations Environment Program Report, December 2015).

⁶⁵ For analysis of several objections to the link between human rights and moral obligations in the climate context, see Derek Bell, 'Does Anthropogenic Climate Change Violate Human Rights?' (2011) 14(2) *Critical Review of International Social and Political Philosophy* 99.

⁶⁶ Amartya Sen, *Development as Freedom* (Oxford University Press, 1999). See also Martha Nussbaum, *Creating Capabilities: The Human Development Approach* (Harvard University Press, 2011).

⁶⁷ The capability approach calls these opportunities to achieve wellbeing 'capabilities,' and actually achieved instances of wellbeing 'functionings.' For a recent overview of the capabilities approach, see Ingrid Robeyns, *Wellbeing, Freedom and Social Justice* (OpenBook Publishers, 2017).

⁶⁸ See also David Schlosberg, 'Just Adaptation: Public Engagement and Capabilities in Adaptation Planning' (Presentation delivered at IDF Conference, Hobart, 9 February 2018); Rosemary Lyster, 'Neoliberalism, Climate Justice and Non-Human Capabilities' (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

manulative or self-deceptive behaviour in favour of inaction.⁶⁹ A striking example of such moral corruption is the argument that many countries' greenhouse gas emissions do not matter as they are only a small percentage of global emissions.⁷⁰ Due to the highly complex character of the climate problem, which Gardiner calls a moral storm, we are vulnerable to applying our attention selectively, making it seem perfectly convenient for us to burden future generations with mitigation and adaptation (and possible compensation to them for actualised climate harms).⁷¹ If this is so, this is a significant barrier that needs more attention in our thinking about climate justice, along with the other barriers we discuss in the next section.

III BARRIERS

Does disagreement on what constitutes justice in the context of climate change itself constitute a significant barrier to action to address or adapt to climate change?⁷² A striking feature of the philosophical literature on climate change ethics and justice over recent years is the broad level of agreement amongst philosophers that wealthy countries bear the greatest ethical duties in terms of mitigation and adaptation.⁷³ This is not to deny that significant disagreement continues in terms of specific cases, such as appropriate use of technology in climate mitigation. As noted above, there is no single universally accepted ethical justice framing in relation to climate change. Nevertheless, some influential framings such as that based on human dignity (presented by Marcus Düwell at the conference), and those resting on core human rights (such as Simon Caney's),⁷⁴ arguably rest on values that are universally accepted. The more significant barriers seem to be linked to the bridge between ethical or justice principles and action.⁷⁵

We need to understand better the structural and human barriers to making the necessary personal and policy choices and ensuring our actions are fair. Further research and discussion of equity in the context of the international climate regime is important, as discussed above, but is also relevant in national and local settings.⁷⁶ Jeremy Moss and Robyn Kath, in their article

⁶⁹ Stephen Gardiner, 'A Perfect Moral Storm: Climate Change, Intergenerational Justice and the Problem of Moral Corruption' (2006) 15(3) *Environmental Values* 407-8.

⁷⁰ See eg Liesbeth Feikema, 'Corruption and Climate Change: An Institutional Approach' (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

⁷¹ Gardiner, above n 69.

⁷² See Mike Hulme, *Why We Disagree on Climate Change* (Cambridge University Press, 2009).

⁷³ Stephen M Gardiner, 'Ethics and Global Climate Change' in Stephen M Gardiner et al (eds), *Climate Ethics: Essential Readings* (Oxford University Press, 2010) 3-38.

⁷⁴ Caney, above n 30, 122-145.

⁷⁵ See eg 'Part II. Less Injustice: Steps in the Right Direction' in Clare Heyward and Dominic Roser (eds), *Climate Justice in a Non-Ideal World* (Oxford University Press, 2016).

⁷⁶ See also Moss, above n 31; Sivan Kartha, 'Fair Shares: a Civil Society Approach to Climate Equity' (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

in this issue, make the case for a justice-based strategy for decarbonising in the Australian context. They argue that this approach is necessary if individuals are to endorse robust climate transitions, and that it may also reduce inequality. Nonetheless, they do not underestimate the challenge and the burdens of the transition involved.

While a comprehensive analysis of the systemic barriers against the many changes required to address climate change – in the areas of both mitigation and adaptation – is a work in progress, much thinking has already been done on the structural economic, political issues and governance barriers at the international and national levels. A number of speakers at the conference acknowledged constraints arising from the increasing fragmentation of local and global politics,⁷⁷ and the complexity inherent in that politics as a result of factors such as lack of ambition in the global UN climate regime, arguable assumptions about growth trajectories,⁷⁸ and divergent ideas about the relative roles of governments and markets in addressing climate change.⁷⁹

Nonetheless, many urged continued engagement and discussion with a broad range of actors – policy makers, business and communities – about choices. For example, while fossil fuel dependency seems an intractable problem, there was optimistic discussion of the potential for rapid development and uptake of renewable energy and community-led renewable energy systems. In many countries, including Australia, this change might occur through efforts by businesses and communities, in spite of government policy.⁸⁰ This is not to understate the contested nature of the discussion of increasing use of renewables – at least in the Australian context – or the calls for divestment from fossil fuel projects, as Ben Richardson explored in his presentation.⁸¹ In very contested situations, governments may also erect barriers, such as limitations upon access to the courts, as Brendan Murphy and Jeff McGee show in their article in this issue ‘Lawfare, Standing and Environmental Discourse: A Phronetic Analysis’. They explore the role of neoliberal values, power and law in the

⁷⁷ Eckersley, above n 22.

⁷⁸ See Karey Harrison, ‘Limits to Growth and Fair Shares: Neoliberal Economics Leads Climate Justice Astray’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018). Peter Christoff, ‘How Will Climate Change Affect the Welfare State? A Study of Burden Sharing in Australia’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018). For discussions on neoliberalism, see also Lyster, above n 68; Jeff McGee, ‘Polanyi, Neoliberalism and Climate Change’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018).

⁷⁹ Jack Pezzey, ‘The Case for not Valuing Climate Change Monetarily and Setting Physical Targets Instead’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

⁸⁰ See Dan Cass, ‘Renewables and Climate Strategy: Generating Power from Energy’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Mey, above n 20.

⁸¹ See Ben Richardson, ‘Divesting from Fossil Fuels: a Useful Strategy for Climate Justice?’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

context of the attempts by the federal government to stop legal challenges to the Adani Carmichael Coal mine in the Galilee Basin in Queensland.

In the context of a decarbonising world, technology-based approaches are seen as an essential part of meeting ‘tolerable’ global emissions scenarios.⁸² These technologies include negative emissions technologies, such as carbon capture and storage technologies, and more speculative geoengineering technologies.⁸³ Justice issues are critical to policy decisions and technology choices, as they may impact current and future generations. Specifically, future generations will be most affected by the consequences of use of these technologies, especially with the risk of ‘lock in’ of particular technology choices that involve serious risks for future generations.⁸⁴ Many of these technologies raise issues of feasibility and risk, and there is currently limited scope for public participation in choices about which technologies are developed and the way they are governed.⁸⁵

In recent years, greater attention has turned to trying to understand the lack of concerted action on climate change, despite the fact the scientific consensus has firmed, with enquiries into attacks on the science, the impact of influential denialists, and critics in politics, and some sections of business and the media.⁸⁶

⁸² See Masson-Delmotte et al, above n 2, 14-5, 19: ‘existing and potential [carbon dioxide removal] CDR measures include afforestation and reforestation, land restoration and soil carbon sequestration, [bioenergy with carbon capture and storage] BECCS, direct air carbon capture and storage (DACCS), enhanced weathering and ocean alkalisation. These differ widely in terms of maturity, potentials, costs, risks, co-benefits and trade-offs. ... Solar radiation modification (SRM) measures are not included in any of the available assessed pathways. Although some SRM measures may be theoretically effective in reducing an overshoot, they face large uncertainties and knowledge gaps as well as substantial risks, institutional and social constraints to deployment related to governance, ethics, and impacts on sustainable development. They also do not mitigate ocean acidification.’

⁸³ McKinnon, above n 24; Aylin Tofighi, ‘Climate Intervention: What, Why and Whom?’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018); Michel Bourban and Lisa Brousseau, ‘Effective Altruism, Climate Change and Geoengineering’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018). See also University of Tasmania Faculty of Law, *Australian Forum for Climate Intervention Governance* <<http://www.utas.edu.au/climate-intervention-governance>>.

⁸⁴ See McKinnon, above n 24. See also Catriona McKinnon, ‘Sleepwalking into Lock-In? Avoiding Wrongs to Future People in the Governance of Solar Radiation Management Research’ (2018) *Environmental Politics* 1.

⁸⁵ See Netra Chhetri et al, *Governing Solar Radiation Management* (Forum for Climate Engineering Assessment Report, 2018).

⁸⁶ For analyses of climate science denial, see David Coady and Richard Corey, *The Climate Change Debate: An Epistemic and Ethical Enquiry* (Palgrave, 2013); David Coady, ‘Two Epistemic Errors of Many Climate Change Sceptics’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Robert Brulle, *30 Years Ago Global Warming Became Front-page News – and Both Republicans and Democrats Took it Seriously* (19 July 2018) *The Conversation* <<https://theconversation.com/30-years-ago-global-warming-became-front-page-news-and-both-republicans-and-democrats-took-it-seriously-97658>>; Simon Lewandowski, ‘In Whose Hands the Future?’ in Joseph E Uscinski (ed), *Conspiracy Theories and the People Who Believe Them* (Oxford University Press, 2019); cf Mike

Understanding the role of human and social psychology as a barrier to changes in social and individual behaviours is key.⁸⁷ This is a complex field where it is important to have more research. In a related development, many scientists and people working in the climate change field report experiencing despair.⁸⁸ Catriona McKinnon has argued against this attitude of despair in relation to climate change.⁸⁹ McKinnon is not pleading for naive optimism about climate change, but argues instead that we should embrace hope when it comes to engaging in effective climate action. Given that an attitude of despair would lower the probability of effective agency, she provides an instrumental reason for becoming a ‘prisoner of hope.’⁹⁰ A number of people in the community forum mentioned the value of McKinnon’s reasoned approach as a support for their work on climate justice.

IV STRATEGIES FOR OVERCOMING BARRIERS

Assuming a disposition of hope, what strategies are likely to see change? What follows reflects just some ideas explored in the conference. As noted above, some speakers, such as Marcus Düwell and Steve Vanderheiden, proposed focusing on reframing justice and cultural change. Other speakers at the conference focussed on better understanding the nature of the task of

Hulme, *Science Can’t Settle What Should be Done About Climate Change* (4 February 2014) The Conversation <<https://theconversation.com/science-cant-settle-what-should-be-done-about-climate-change-22727>>. For impact of media on discourse surrounding climate action, see David Holmes, ‘What Role Have Media Played in Polarising Views on Climate Change in Australia?’ (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Claire Konkes, ‘Are We Getting Better at Communicating Climate Justice?’ (Presentation delivered at IDF Conference, Hobart, 10 February 2018).

⁸⁷ See eg Linda Steg, ‘What Motivates Individuals to Act on Climate Change?’ (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Chloe Lucas, ‘Understanding Unconcern about Climate Change’ (Presentation delivered at IDF Conference, Hobart, 10 February 2018). See also Robert Gifford, Christine Kormos and Amanda McIntyre, ‘Behavioural Dimensions of Climate Change: Drivers, Responses, Barriers, and Interventions’ (2011) 2(6) *Wiley International Reviews: Climate Change* 801; George Marshall, *Don’t Even Think About it. Why Our Brains are Wired to Ignore Climate Change* (Bloomsbury, 2014); David Holmes, ‘Changing the Climate: Modernity at its Limits’ in David Holmes, Kate Hughes and Roberta Julian (eds), *Australian Sociology: A Changing Society* (Pearson 2014) 350.

⁸⁸ For a collection of letters written by scientists, see *Is This How You Feel?* <<https://www.isthisshowyoufeel.com>>. For a recent general survey focused on mental health and wellbeing, see Katie Hayes et al, ‘Climate Change and Mental Health: Risks, Impacts and Priority Actions’ (2018) 12(28) *International Journal of Mental Health Systems* 1.

⁸⁹ Catriona McKinnon, ‘Climate Change: Against Despair’ (2014) 19(1) *Ethics and the Environment* 31.

⁹⁰ For other uses of the term ‘hope’ in political philosophy and environmental ethics, see Luc Bovens, ‘The Value of Hope’ (1999) 59(3) *Philosophy and Phenomenological Research* 667; Darrel Moellendorf, ‘Hope as a Political Virtue’ (2006) 35(3) *Philosophical Papers* 413; John Nolt, ‘Hope, Self-Transcendence and Environmental Ethics’ (2010) 53(2) *Inquiry* 162.

incorporating climate justice into policy and law⁹¹ or how to garner support for alternative approaches. Examples include reframing equity issues,⁹² developing better international approaches to migration and displacement,⁹³ focusing more on corporations,⁹⁴ learning from local, community-based or participatory projects,⁹⁵ focusing on more effective climate communication,⁹⁶ reforming governance and law,⁹⁷ more effective advocacy within the UNFCCC,⁹⁸ learning from indigenous perspectives

⁹¹ See eg Schlosberg, above n 68; Lyster, above n 68.

⁹² See eg Lavanja Rajamani, 'Equity and Differentiation in the 2015 Paris Agreement: Evolution, Maturity, Prospects' (Presentation delivered at IDF Conference, Hobart, 9 February 2018); Kartha, above n 76.

⁹³ Guy Goodwin-Gill, 'Climate Refugees: Pathways for Justice' (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Guy Goodwin-Gill, 'People on the Move' (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

⁹⁴ See Anita Foerster, 'Corporate Climate Justice' (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

⁹⁵ See eg Rebecca Byrnes, 'Scaling Up Access to Renewable Energy in Rwanda and Least Developed Countries' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Anel Du Plessis, 'Reconfiguring the Role of Cities In the Global Pursuit of Socially Just and Climate Resilient Communities' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Steve Williams, 'Implementing Just Energy Transition: the Alberta Energy Futures Lab' (IDF); Franziska Mey, 'Community Energy Solutions for a Just Energy Transition' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Cass, above n 80.

⁹⁶ See eg Konkes, above n 86; Holmes, above n 86; Don McArthur, 'Imagery and Climate Politics: How is the Climate Movement Using Imagery to Shape the Climate Debate?' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Cynthia Nixon, 'The Adani Carmichael Coalmine Conflict: In the Courts and in the Media' (Presentation delivered at IDF Conference, Hobart, 10 February 2018). See also Jamie Clarke, Adam Corner and Robin Webster, *Public Engagement for a 1.5C World – Shifting Gear and Scaling up* (Climate Outreach Report, 2018).

⁹⁷ Shirley Scott, 'The UN and Climate Change' (Presentation delivered at IDF Conference, Hobart, 9 February 2018); Michelle Lim, 'Can "Governing Through Goals" Advance Climate Justice or International Environmental Governance?' (Presentation delivered at IDF Conference, Hobart, 9 February 2018); Ben Boer, 'Eco-Civilisation and International Environmental Law' (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Louis Kotzé, 'A Global Environmental Constitution and the Achievement of Socio-Ecological Justice in the Anthropocene' (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Tim Stephens, 'What is the Point of International Environmental Law in the Anthropocene' (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Tim Stephens, 'What's the Point of International Environmental Law Scholarship in the Anthropocene' in Ole W Pedersen (ed), *Perspectives on Environmental Law Scholarship. Essays on Purpose, Shape and Direction* (Cambridge University Press, 2018); Timothy Baxter, 'Is There a Future for Negligence in Australian Climate Change Litigation?' (Presentation delivered at IDF Conference, Hobart, 9 February 2018); Danny Noonan, 'Discourses of Climate Justice in Climate Litigation: Time for a New Approach' (Presentation delivered at IDF Conference, Hobart, 9 February 2018);

⁹⁸ Eg Matthew Stilwell, 'Climate Justice: International Civil Society Perspectives' (Presentation delivered at IDF Conference, Hobart, 10 February 2018), Wesley Morgan, 'Pivotal Players: Pacific Islands and the End of the Fossil Fuel Era' (Presentation delivered at IDF Conference, Hobart, 10 February 2018).

and youth advocacy⁹⁹ or activist religious movements,¹⁰⁰ the potential of human rights law and approaches, including rights for future generations,¹⁰¹ how to incorporate justice into planning¹⁰² and how to challenge cultural and gender assumptions.¹⁰³

In terms of individual responses to climate change, Steve Vanderheiden in his Hobart Town Hall presentation asked ‘what if our individual obligations had a different, more attainable objective?’ He listed things like reading, observing, listening, supporting science and professional journalism and government institutions, joining with others in cooperative efforts, monitoring personal footprints, divesting from the carbon economy, and above all, persevering: essentially, we should resist a sense of powerlessness. We should refrain from seeing climate injustice and believing we cannot do anything about it, as resisting powerlessness is necessary for imagining a sustainable future. His article in this issue provides a fuller case for individuals to take action.

A Legal Strategies

This special issue includes articles looking at aspects of the role of law as a potential lever for change and its limitations in this capacity. These articles add to the already well-developed literature on climate litigation.¹⁰⁴ Taking action in the courts is an important strategy for addressing the failure of governments to address climate change, explored in Danny Noonan’s article in this issue ‘Imagining Different Futures Through the

⁹⁹ Zac Romognoli-Townsend, ‘Climate Justice Youth Activism: An Indigenous Youth Perspective’ (Presentation delivered at IDF Conference, Hobart, 10 February 2018).

¹⁰⁰ Neil Ormerod, ‘Laurato Si: A Case for Action or Wasted Opportunity?’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Thea Ormerod, ‘From Spiritual Traditions to Collective Action: Insights from the Australian Religious Response to Climate Change’ (Presentation delivered at IDF Conference, Hobart, 10 February 2018).

¹⁰¹ Hugh Breakey, ‘Climate Justice: Understanding Human Rights as Moral Rights’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Bridget Lewis, ‘Human Rights Approaches to Climate Change – Can They Live Up to Their Potential?’ (Presentation delivered at IDF Conference, Hobart, 8 February 2018); Trevor Daya-Winterbottom, ‘Civil Strategies for Future Generations’ (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Caney, above n 64.

¹⁰² See eg David Schlosberg, above n 68; Jason Byrne, ‘Factors Shaping Enablement of Climate-Just Adaptation by Local Government and NGOs in Australia’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018).

¹⁰³ Bob Pease, ‘Men’s Privilege, Hegemonic Masculinity & Global Warming: Towards a Profeminist Environmentalist Response’ (Presentation delivered at IDF Conference, Hobart, 9 February 2018). See also Sonja Klinsky, ‘Climate Equity and Justice Scholarship needs Feminism’ (2019) 118(1) *Feminist Review* 118, 103.

¹⁰⁴ Jacqueline Peel and Hari Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, 2015); Jacqueline Peel et al, ‘Shaping the “Next Generation” of Climate Change Litigation in Australia’ (2017) 41 *University of Melbourne Law Review* 793; Michal Nachmany and Joana Setzer, *Policy Brief: Global Trends in Climate Change Legislation and Litigation: 2018 Snapshot* (Grantham Research Institute on Climate Change and the Environment, and Centre for Climate Change Economics and Policy, 2018). See also Baxter, above n 97; Danny Noonan, above n 97.

Courts: A Social Movement Assessment of Existing and Potential New Approaches to Climate Litigation in Australia.’ Noonan observes that in Australia, climate litigation has tended to involve a narrow procedural administrative law framing, involving only indirect challenges to government policies. In this framing, decisions by ministers are challenged on narrow procedural grounds for failing to take into account, for example, a particular threatened species. This indirect approach has meant that systemic decisions of governments to support fossil fuel industries have not been challenged. It has also meant that the broader justice-related issues – involving the impacts of such ongoing emissions on the vulnerable (particularly the young and future generations) – have not been ventilated in the courts. Noonan argues that the barriers to climate litigation in Australia should not be considered fixed. Rather, he argues for a ‘social movement’ approach, which emphasises the position of climate litigation within broader protest and reform movements. While Noonan acknowledges the significant barriers in Australia to climate litigation (including legal culture and constitutional impediments), he argues that this broader framing offers the potential to overcome constraints in the Australian context provided a suitable ‘strategy entrepreneur’ can be identified to take up the cause.

Links between climate litigation and the broader social context are also an important dimension of Brendon Murphy and Jeffrey McGee's article in this volume, ‘Lawfare, Standing and Environmental Discourse: A Phronetic Analysis’. This article analyses the Australian government’s attempts to repeal third-party standing provisions of the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth). McGee and Murphy use a phronetic analysis which links legal discourse to values and power. They demonstrate that the legal-political process in this case study can be explained through analysis of three competing discourse coalitions of actors. The three key discourses involved are an economic primacy discourse, an environmental harm discourse, and a discourse of government accountability. The latter (advocated by academics and environment NGOs) emphasised the need to keep the executive accountable, while opponents of third-party standing argued (uncomfortably) that the economic disruption involved amounted to ‘lawfare’. While their analysis gives some hope that interest mobilised around climate justice discourses may have success, this is tempered by the fact that the context of the case study analysed by McGee and Murphy was one involving an attempt to reduce the scope of standing provisions, which in any event have to date only in a tiny minority of cases led to large-scale projects not proceeding.

Both the Noonan and Murphy and McGee articles underscore the need for ensuring that legal strategies for addressing climate injustice are sensitive to the power dynamics and competing values at play. For example, while rapid expansion of renewables involves exciting prospects for carbon

transition and expanded job creation, challenges to large-scale mining and fossil fuel-related projects will continue to face pushback owing to the coalition of vested interests advocating economic primacy rooted in neoliberal discourses.

'Green criminology' offers a rather different approach to these issues, taken up by Rob White in his article 'Ecocide and the Carbon Crimes of the Powerful' in this issue. White points out that green criminology has a strong normative and aspirational dimension in its proposals to criminalise environmentally harmful conduct, well beyond the current reach of criminal law, national and international. In the climate change context, he argues that this approach entails analysis of the role of not just the state, but transnational corporations who are engaged in the crime of 'ecocide', which entails destruction of ecological systems upon which human beings are dependent. White acknowledges that this should not entail criminalisation of every person implicated in greenhouse gas emissions. Rather, responsibility for harm must be proportional to contribution to harm, with states and major corporations most culpable. He argues that the collusion between the state and major corporations in destruction of the planet through climate change needs to be called out for what it is: 'intentional and systematic ecocide'. White's article raises the question as to whether the use of the language of crime is effective in terms of climate justice political strategies; this is an important issue which needs urgently to be addressed through empirical research.

B The Arts as a Strategy for Change

An important part of the conference was the inclusion of artists, musicians, writers, activists, film makers, photographers, performers, and academics whose work reflects on climate change and the arts or arts-engaged activism.¹⁰⁵ Many practitioners of the visual arts,¹⁰⁶ music, film making and writing are increasingly turning to imagining different futures, either as personal responses to a changing climate, or with the intention of making climate change less abstract, or giving people a sense of being supported

¹⁰⁵ See Jan Hogan, 'The Art of Negotiation, the Negotiation of Art' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Andrea Breen, 'The Planet is Warming and Precarious' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Guy Abrahams, 'Culture for Change: If Not Now, When?' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Meg Keating and Jacqueline Fox, 'The Tasmanian Arts and Activism Project' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); David Stephenson, 'The Derwent Project' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); Selena de Carvalho, 'Art in the Anthropocene' (Presentation delivered at IDF Conference, Hobart, 10 February 2018).

¹⁰⁶ For photography, see Marion Marrison, 'Close to Home: A Photographic Investigation of the Local Landscape' (Exhibition at IDF Conference, Hobart); David Stephenson, 'The Derwent Project: Visualising the Environmental Dynamics of the Watershed' (Exhibition at IDF Conference, Hobart); and Selena de Carvalho, 'Art in the Anthropocene' (Exhibition at IDF Conference, Hobart). For film, see the conference panel discussion with Owen Tilbury, Kyia Clayton and Alex Kelly.

in their efforts to help combat climate change.¹⁰⁷ The focus on the role of the arts in the area of the environment and climate change is an important development and one that requires further study, particularly as different practices become more numerous and publicised.¹⁰⁸ At the conference, Guy Abrahams, CEO of the CLIMARTE project, explored the motivation behind creating the CLIMARTE Biennial Arts Festival and its success in building awareness of climate change and connections with the local Melbourne community.¹⁰⁹ The discussion of the arts at the conference also allowed space for discussion of different narratives of climate change and personal stories.¹¹⁰

The recognition of the role of music in this context was a particularly interesting aspect of the conference.¹¹¹ There are few studies on the influence of the music on social issues and, as with all aspects of the arts, more experiential and empirically-based studies are important.¹¹² In his article in this issue, 'Climate, Culture and Music: Coping in the Anthropocene,' Simon Kerr reflects on his experience as a musician and

¹⁰⁷ See the discussion by Simon Kerr in his article in this issue, 'Climate, Culture and Music: Coping in the Anthropocene.' See also Liselotte J Roosen, Christian A Klockner and Janet K Swim, 'Visual Art as a Way to Communicate Climate Change: A Psychological Perspective on Climate Change-Related Art' (2017) 8(1) *World Art* 85.

¹⁰⁸ See the recent survey by Ben Richardson, 'Climate Change Law: Encounters with Aesthetics and Art' (2018) 8 *Climate Law* 279; William L Fox, 'The Art of the Anthropocene' in Jennifer Newell, Libby Robin, and Kristen Wehner (eds), *Curating the Future: Museums, Communities and Climate Change* (London: Earthscan, 2017) 196; Emily Brady, 'Climate Change and Future Aesthetics' in Alexander Elliott, James Cullis, and Vinita Damodaran (eds), *Climate Change and the Humanities* (London: Palgrave Macmillan, 2017) 201. See also Leslie Sklair, 'The Anthropocene Media Project. Mass Media on Human Impacts on the Earth System (2018) 10 *Visions for Sustainability* 8.

¹⁰⁹ See Guy Abrahams, 'Culture for Change: If Not Now, When?' (Presentation delivered at IDF Conference, Hobart, 10 February 2018); *CLIMARTE: Arts for a Safe Climate* <<http://climarte.org>>.

¹¹⁰ Susan Greenhill, 'The Role of Writers: Climate Change and the Ecological Imagination' (Presentation delivered at IDF Conference, Hobart, 10 February 2018). Rachel Edwards, *Climate Change and the Apocalypse in Literature* (9 February 2018) Climate Justice Blog <<https://www.climatejustice.network/blog/2018/2/9/climate-change-and-the-apocalypse-in-literature>>.

¹¹¹ The conference included the world premiere performance of a song cycle, *Global Warming*, for soprano and string quartet, by Tasmanian composer Owen Davies, with Helen Thomson, soprano, and the Pillinger String Quartet (Owen Davies and Tara Murphy (violins), Damien Holloway (viola) and Kate Calwell (cello)), as well as performances of *White Cockatoo Spirit Dance*, by Ross Edwards, played by Tara Murphy (solo violin); *Summer from Le Quattro Stagioni (The Four Seasons)* by Antonio Vivaldi, by Tara Murphy (solo violin) with the Pillinger String Quartet and Gabrielle Robin (violin); and *Jazz in Stormy Weather* performed by Toby Straton (keyboard and vocals) and John Keenan (saxophone). For a Hobart based music and performance project, see also Breen, above n 105; *Welcome to Nelipot Collective* <<http://nelipotcollective.com.au/artists/>>.

¹¹² For studies generally, see David J Curtis, Nick Reid and Ian Reeve, 'Towards Ecological Sustainability: Observations on the Role of the Arts' (2014) 7(1) *SAPIENS Surveys and Perspectives Integrating Environment and Society* 1. For the role of music, see Rob Rosenthal and Richard Flacks, *Playing for Change: Music and Musicians in the Service of Social Movements* (London: Routledge, 2010).

co-producer of the *Music for a Warming World Project*.¹¹³ Kerr notes that while science is the most powerful narrative voice in climate change, scientific facts are inadequate to change human beliefs and behaviour. Other narratives where climate change is viewed variously as a market failure, a technological failure, a moral issue, and a story of overconsumption or planetary tipping points are equally unlikely to help us ‘see’ a sustainable future and empower human action. Kerr promotes the use of music to tell stories, cultivate empathy, increase solidarity, and provide emotional release and space for creativity in the Anthropocene. He argues this could move us to cultivate social connection, emotional resources and creative interventions, instead of merely being passive victims of change. He is not alone in this: one of our late collaborators, Sue Anderson, created the Lynchpin Ocean project and sponsored musicians and composers because she believed passionately in the power of music and art to bring greater understanding of oceans science and climate change.¹¹⁴

V CONCLUSION

Justice-related issues arise in relation to the full continuum of responses to climate change, including adaptation, mitigation and climate transitions. We have seen that justice issues arise at a number of levels: intergenerational, international, national, local and individual. Ignoring justice implicitly benefits the powerful with the result that burdens are shifted onto vulnerable groups, with the future poor most severely impacted. Both procedural and substantive justice is required to ensure the interests of the vulnerable are protected. Climate justice is neither a barrier to nor a distraction from effective responses to climate change, and is required for both intrinsic and instrumental reasons. For example, climate justice can maximise the likelihood of implementation or effectiveness in relation to the global climate regime. It can also help to ensure support for transition policies at the national and local level.

The challenge of climate change is intrinsically interdisciplinary and complex, involving science, political science, economics, law and ethics to name a few disciplines. Though interdisciplinary research is inherently difficult, it is essential,¹¹⁵ both to understanding the problem of climate change and to devising effective and fair solutions. For example, while

¹¹³ See Simon Kerr, *Music for a Warming World* <<https://www.musicforawarmingworld.org>>.

¹¹⁴ See *Lynchpin – Arts/Ocean Science Conversations and Collaborations* <<http://www.lyncpin.org.au/about>>. See reference to this and other projects in Simon Kerr’s article in this issue.

¹¹⁵ In addition to the subjects covered at the conference, justice studies include health and food security, among other areas, and encompass a range of theoretical frameworks. There is also need to look carefully at how interdisciplinary research can be conducted. See Noel Castree et al, ‘Changing the Intellectual Climate’ (2014) 4 *Nature Climate Change* 7.

moral psychology is a well-established field, only in the very recent period has work begun on the linkage between climate justice and the ethics and issues of motivation. Without well-grounded understandings in this field, effective policies have little hope of achieving their objectives.

There is a clear case for more interdisciplinary research on substantive and procedural justice as central aspects of climate change studies. Identifying the issues to focus on and thinking about how to have those conversations is important. Consideration of justice comes into play in a range of societal and personal decisions, and involves questions about whose interests are represented and voices are heard. A commitment to more reflexive and participatory approaches where we learn from each other is crucial. The *Imagining a Different Future Conference* and other initiatives provide models for the kind of interdisciplinary and community-inclusive discussions needed.

Imagining Different Futures through the Courts: A Social Movement Assessment of Existing and Potential New Approaches to Climate Change Litigation in Australia

DANNY NOONAN*

Abstract

In response to the growing climate crisis and deficiencies in the international and domestic political responses to this crisis, climate change activists, campaign groups and others are turning towards innovative approaches to climate change litigation. Previous assessments of the potential and prospects of these new approaches have focused on perceived jurisprudential differences between a given overseas jurisdiction and Australia, both with respect to the availability and prospects of a particular cause of action, and general legal obstacles such as standing, justiciability and adverse costs.

Drawing on the insights of social movement literature, this article attempts to provide a more nuanced assessment of the merits of existing approaches, the potential of select new approaches, and the reasons for non-adoption of these new approaches in Australia. Specifically, this article argues that these analyses have treated aspects of the legal opportunity for new approaches as fixed when they are better considered as contingent on judicial receptiveness. This article also considers the comparative potential of these approaches to frame public debates over climate change liability, as well as socio-institutionalist and resources-based explanations. Incorporating the insights and analytical framework of social movement theory into an ongoing assessment of new climate

* JD (University of Sydney), GradDipLegalPrac; Global Program Coordinator, Our Children's Trust. Danny Noonan has authored the article in his personal capacity. The views and opinions expressed in this article are the author's own and not those of Our Children's Trust or any other organisation or institution.

Parts of this article were delivered as the paper 'Climate Justice And Climate Litigation: The Need For A Paradigm Shift' at the 'Environmental Justice 2017: Looking Back, Looking Forward' conference at the University of Sydney, 6-8 November 2017; and as the paper 'Discourses of Climate Justice in Climate Litigation: Time for a New Approach' at the 'Imagining a Different Future: Overcoming Barriers to Climate Justice' conference at the University of Tasmania in Hobart, 8-10 February 2018. The author would like to thank those who provided feedback at those conferences.

The author would also like to thank those who provided guidance, assistance and feedback, including Hallie Warnock, several anonymous reviewers and the referees. All remaining errors and omissions are the author's own. The author may be contacted at danny@ourchildrenstrust.org.

litigation approaches both provides a more nuanced assessment of climate change litigation's likely future trajectory in Australia and may contribute to more compelling arguments for a strategic shift towards new approaches.

Keywords

Administrative Law; Climate Change Litigation; Framing; Justice; Social Movement Theory

I INTRODUCTION

Australia has a long and significant history of climate change litigation (climate litigation).¹ Although the term 'climate change litigation' at its broadest encompasses cases ranging from those where climate change is the central issue or subject matter to those where climate change is only a peripheral or implicit concern,² most climate litigation in Australia has involved administrative law-based challenges.³ Outside of Australia, while administrative law-based approaches to litigation continue to be common,⁴ climate change activists and campaigners, municipalities and private litigants (collectively, climate litigants) are increasingly pursuing other approaches.⁵ Compared to the existing approach, this so-called 'next generation' of climate litigation typically involves 'an accountability model whereby legal interventions are designed to hold governments and corporations *directly* to account for the climate change implications of their activities'; 'a broader range of parties pursuing climate change-related litigation with a different range of motivations than those of first-generation litigants'; and a 'rights turn' that 'move[s] away from using only administrative law avenues under environmental legislation to also exploring causes of action found in the common law or in other areas of law outside of the environmental field'.⁶

¹ Jacqueline Peel et al, 'Shaping the "Next Generation" of Climate Change Litigation in Australia' (2017) 41 *University of Melbourne Law Review* 793, 795. As these authors recognise, the first instance of climate change litigation in Australia was *Greenpeace Australia Ltd v Redbank Power Pty Ltd* (1994) 86 LGERA 143.

² Ibid 801-2. See also Jacqueline Peel and Hari Osofsky, 'Climate Change Litigation: Lessons and Pathways' (2017) 29(11) *NSW Judicial Officers' Bulletin* 99, 100-1, citing Jacqueline Peel and Hari Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, 2015) 8.

³ Peel et al, above n 1, 802 ('[i]n Australia, most climate change litigation to date has pursued a standard statutory pathway, albeit with variations depending upon the legislation under which a case is brought.' See also Peel and Osofsky, 'Climate Change Litigation', above n 2, 102 ('[t]he bread-and-butter climate change cases in the US and Australia though remain those brought under environmental statutes'.)

⁴ Peel and Osofsky, 'Climate Change Litigation', above n 2, 102.

⁵ Ibid 99-100; Peel et al, above n 1, 799.

⁶ Peel et al, above n 1, 803-4; Jacqueline Peel and Hari Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7 *Transnational Environmental Law* 37.

The emergence of these approaches to climate litigation in other jurisdictions has resulted in ongoing analysis and assessments of their strategic potential, ‘prospects of success’, and expected challenges in Australia. These assessments range from the relatively ad hoc to the relatively comprehensive,⁷ but have almost uniformly focused on perceived legal differences between Australian law and the law in jurisdictions in which a novel approach has been pursued.⁸ Legal

⁷ For a discussion of the regulatory impositions related to ‘prospects of success’ in New South Wales in the context of climate change litigation, see Peter Cashman and Ross Abbs, ‘Tort Liability for Loss or Damage Arising from Human Induced Climate Change: Is This What Justice Requires and Fairness Demands’ in Rosemary Lyster (ed) *In the Wilds of Climate Law* (Australian Academic Press, 2010) 235, 261-2. For an attempted comprehensive assessment see Peel et al, above n 1. For more ad-hoc analyses see Sue Higginson, *Court Sets Emission Reduction Targets for Dutch Government* (25 June 2015) EDO NSW <http://www.edonsw.org.au/court_sets_emission_reduction_targets_for_dutch_government>; Felicity Nelson, *Dutch Climate Change Case no Roadmap for Aus* (16 July 2015) Lawyers Weekly <<https://www.lawyersweekly.com.au/news/16831-can-we-replicate-the-dutch-climate-change-victory>> ([e]nvironmental Justice Australia lawyer Ariane Wilkinson said it was unlikely an identical case [to the *Urgenda* case] could be brought in Australia’); Megan Darby, *Could Australians Sue for Stronger Climate Action?* (22 July 2015) Climate Change News <<http://www.climatechangenews.com/2015/07/22/could-australians-sue-for-stronger-climate-action/>> (“Australia has a very conservative legal system”, says Higginson. “We would have substantial and significant difficulties if we were to walk in in the same way”); Sue Higginson, ‘Climate Change Litigation: Landmark Dutch Ruling Raises Questions for Australia’ (2015) 9 *Law Society Journal* 22, 23 ([i]t is a sad indictment on the state of our climate and environmental laws in Australia that we are looking back to torts for opportunities to hold governments to account’); Tim Baxter, ‘*Urgenda*-Style Climate Litigation has Promise in Australia’ (2017) 32 *Australian Environment Review* 70.

⁸ Some analyses have focused either additionally or instead on the categorical propriety or efficacy of courts intervening in a complex, polycentric issue like climate change. See, for example, Jacqueline Peel, ‘The Role of Climate Change Litigation in Australia’s Response to Global Warming’ (2007) 24 *Environmental and Planning Law Journal* 90, 103 (‘the ad hoc nature of court proceedings, the expense involved in bringing them, and the uncertainty as to their results means that, in the long-term, litigation alone is unlikely to be an optimal approach for bringing about effective action to address climate change’); Mathew Miller, ‘The Right Issue, the Wrong Branch: Arguments against Adjudicating Climate Change Nuisance Claims’ (2010) 109(2) *Michigan Law Review* 257; Felicity Millner and Kirsty Ruddock, ‘Climate Litigation: Lessons Learned and Future Opportunities’ (2011) 36(1) *Alternative Law Journal* 27, 32 ([c]limate litigation is necessarily ad hoc and depends on the law, the facts, and a willing and able client being available to run a case at the appropriate time. Lack of available causes of action and circumstance mean that litigation is often not an option to address the most significant or urgent aspects of climate change. It should not be seen as a means to comprehensively address the inadequate regulation of climate change causes and impacts’); Jacqueline Peel, ‘Issues in Climate Change Litigation’ (2011) 1 *Carbon and Climate Law Review* 15, 24 (‘... climate change litigation presents a number of difficult issues and as a form of governance faces challenges related to its lack of comprehensiveness and overall legitimacy’). Cf Shawn LaTourette, ‘Global Climate Change: A Political Question?’ (2008) 40 *Rutgers Law Journal* 219; Benjamin Ewing and Douglas Kysar, ‘Prods and Pleas: Limited Government in an Era of Unlimited Harm’ (2011) 121(2) *Yale Law Journal* 350; Henry Weaver and Douglas Kysar, ‘Courting Disaster: Climate Change and the Adjudication of Catastrophe’ (2017) 93(1) *Notre Dame Law Review* 295. This article discusses the propriety of judicial intervention in section V-A below.

differences previously identified include both the availability of and jurisprudence governing comparable causes of action, as well as preliminary or auxiliary features of litigation such as doctrines of standing and justiciability, and rules governing adverse costs orders.⁹ Previous analyses have also, by and large, considered these differences to be fixed rather than potentially malleable or contingent.

This article argues that prior analyses have largely overlooked the broader issue of why climate litigants pursue litigation as a strategy, and particularly why they pursue certain litigation approaches and not others. In doing so, and in contrast to existing analyses, this article conceptualises the emergence of the ‘next generation’ of climate litigation as stemming from a conscious strategic decision by social movement organisations (SMOs), in much the same way that choosing litigation rather than lobbying or protest is itself a conscious strategic choice.¹⁰ Choosing a particular litigation approach, therefore, may be influenced by factors including not only (to use the language of social movement literature) the ‘structural’ legal concerns described above, but also ‘contingent’ (that is, variable and malleable) legal and non-legal concerns, such as framing, legal culture, organisational and sectoral resources and identity, the receptiveness of individual judges, and the influence of ‘strategy entrepreneurs’.¹¹

Section II of this article expands on and justifies its methodology by reviewing the relevant social movement literature and applying it to the context of climate change. Section III applies social movement theory in reassessing the existing approach to climate change litigation and stated justifications for continuing to pursue this approach in the future. Section IV applies social movement theory in assessing the potential, prospects, and comparative advantages and vulnerabilities of two categories of new approaches that have emerged in non-Australian jurisdictions. Section V suggests and evaluates additional explanatory factors for why climate litigants have yet to adopt these new approaches. Section VI concludes.

⁹ See, for example, Peel et al, above n 1, 805 (‘[t]he legal prospects of an *Urgenda*-style case in Australia may be significantly lower given differences between the relevant provisions of the Dutch Civil Code relied on by the *Urgenda* plaintiffs and tortious causes of action in Australia’s common law system’).

¹⁰ See Bruce Wilson and Juan Carlos Cordero, ‘Legal Opportunity Structure and Social Movements: The Effects of Institutional Change on Costa Rican Politics’ (2006) 39(3) *Comparative Political Studies* 325.

¹¹ See, for example, Chris Hilson, ‘New Social Movements: the Role of Legal Opportunity’ (2002) 9(2) *Journal of European Public Policy* 238; Chris Hilson, *The Courts and Social Movements: Two Literatures and Two Methodologies Mobilising Ideas* (18 February 2013) Mobilising Ideas <<https://mobilizingideas.wordpress.com/2013/02/18/the-courts-and-social-movements-two-literatures-and-two-methodologies/>>; Lisa Vanhala, ‘Is Legal Mobilisation for the Birds? Legal Opportunity Structures and Environmental Nongovernmental Organisations in the United Kingdom, France, Finland, and Italy’ (2018) 51(3) *Comparative Political Studies* 380.

II METHODOLOGY: CLIMATE CHANGE AND THE CHOICE OF LITIGATION APPROACHES BY SOCIAL MOVEMENT ORGANISATIONS

A varied body of social movement literature has considered why certain SMOs pursue their objectives through one strategy as opposed to others. The typical strategies considered are political lobbying, protest and litigation.¹² There are recognised difficulties with empirically-distinguishing the causal and extraneous factors underpinning the strategic preferences of SMOs.¹³ Social movements are often highly heterogeneous in terms of their values, preferences and activities; it is methodologically- and practically-difficult to observe strategic decisions and isolate proposed independent variables in real-time; there may be barriers to accessing information as to the deliberative processes of social movements; and quite often the same SMOs will pursue multiple strategies concurrently or in quick succession.

One way to partly resolve these difficulties has been to adopt a multi-jurisdictional analysis, ‘which allows for some disentangling of the effects’, even if it cannot determine which is determinative.¹⁴ Accordingly, this article applies recognised factors influencing the strategic choices of SMOs to the situation of the adoption (or non-adoption) of new climate litigation approaches in Australia and other jurisdictions. The most-commonly cited non-Australian jurisdiction for the purposes of this article is the United States, which has by some margin experienced the most climate change litigation of any country and has already seen many cases filed under the approaches discussed in Section IV.¹⁵

A Overview of Social Movement Theory

Chris Hilson has written that a social movement organisation (SMO)’s choice of lobbying, litigation or protest (as a dependant variable) is in part determined by the social movement’s assessment of the political opportunity (PO) and legal opportunity (LO) (as independent variables) in that jurisdiction, as well as other factors.¹⁶ These factors are discussed in turn. PO is described as the ‘structural openness or closedness of the political system, and... the more contingent receptivity of political elites to collective action’.¹⁷ LO is also described as consisting of ‘both structural

¹² Hilson, ‘New Social Movements’, above n 11, 238.

¹³ Hilson, *The Courts and Social Movements*, above n 11.

¹⁴ Vanhala, above n 11, 382. See also Gianluca De Fazio, ‘Legal Opportunity Structure and Social Movement Strategy in Northern Ireland and Southern United States’ (2012) 53(1) *International Journal of Comparative Sociology* 3.

¹⁵ Peel and Osofsky, ‘Climate Change Litigation’, above n 2, 101-2.

¹⁶ Hilson, ‘New Social Movements’, above n 11, 239; Hilson, *The Courts and Social Movements*, above n 11.

¹⁷ Hilson, ‘New Social Movements’, above n 11, 242.

and contingent features'.¹⁸ Structural features include 'relatively stable features relating to access to justice such as laws on standing and the availability of state legal funding',¹⁹ as well as 'legal stock' ('the body of laws that exist in a particular field'), 'the rules determining legal standing, and the rules on legal costs'.²⁰ Both what one might describe as 'objective LO' – the real-world prospects of a given legal strategy – and an SMO's subjective perception and understanding of LO may influence strategic choices.²¹ With respect to the interaction between PO and LO, Hilson writes that:

'... a lack of PO may influence the adoption of litigation as a strategy in place of lobbying, and that the choice of protest as a strategy may be influenced by poor political and legal opportunities. The emphasis on "influence" here is important. ... There are numerous other factors which may also influence the choice of strategy in any particular case – such as resources, identity, ideas and values...'.²²

Beyond PO and LO, the social movement literature has identified other factors that help explain the strategic choices of SMOs. These can be broadly categorised as resources-based, framing-based and sociological institutionalist explanations. Resources-based explanations are simply those that posit that SMOs adopt strategies that fit their resources, with 'resources' defined so as to include not only finances but also factors such as the professional and educational background of personnel.²³ Thus, SMOs pursuing litigation are likely to be those who have both sufficient financial resources to litigate and/or legally-trained staff.²⁴ Indeed, much of the social movement literature suggests that the choice of litigation as a strategy is more likely where a 'an individual within a[n] SMO or its network has direct experience of the law',²⁵ such as where an SMO employs in-house lawyers.²⁶

Comparatively little attention appears to have been paid to the fact that, in many jurisdictions, pursuing litigation requires engaging external legal representation. In these jurisdictions, the values and preferences of these external litigators will also influence whether and what kind of litigation is pursued. In building on the theoretical basis for resources-based explanation of SMO behaviour, this article argues that a more nuanced analysis of resources is required where external legal representation is

¹⁸ Ibid 243.

¹⁹ Ibid.

²⁰ Vanhala, above n 11, 384.

²¹ Ibid 391.

²² Hilson, 'New Social Movements', above n 11, 239.

²³ Ibid 240, citing John McCarthy and Mayer Zald, 'Resource Mobilisation and Social Movements: a Partial Theory' (1977) 82 *American Journal of Sociology* 1212; Paul Byrne, *Social Movements in Britain* (Routledge, 1997).

²⁴ Hilson, 'New Social Movements', above n 11, 240-1.

²⁵ Ibid 241.

²⁶ Vanhala, above n 11, 405-7.

present (such as Australia) compared to jurisdictions where there is no external legal representation or significant overlap between the internal and external legal expertise (such as the United States).²⁷ In the former case, it is suggested that a litigator's assessment of the legal stock and principles (i.e., structural LO) will override a more holistic strategic assessment by the SMO. Australian media reports following the *Urgenda* decision, in which lawyers from Australia's Environmental Defenders Offices (EDOs) described being approached by climate SMOs wanting to bring analogous litigation and in which those same lawyers publicly expressed doubt as to the prospects of such a case, provide some preliminary support for this proposition.²⁸

Framing 'involves the social construction and communication of reality and is inevitably partial' and is 'a strategic choice about which aspects of an issue to focus on and which to exclude'.²⁹ Frames 'diagnose, evaluate and prescribe' social issues by 'identifying the issue or problem and its causes, ... making moral judgements, ... suggesting remedies or solutions'.³⁰ A related concept to framing is that of a 'discourse', the 'ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena'.³¹

The literature has typically regarded framing as a separate explanatory factor to LO or PO. Accordingly, how an SMO frames and understands a social issue – such as who is responsible for the issue and what should be done about it – shapes an SMO's strategic preferences. Given the specific focus on the choice of different approaches to climate litigation, this article also applies the concept of framing as an aspect of LO. That is, if different approaches to litigation embody different frames or discourses about the

²⁷ As is well known, in the United States public interest environmental law organisations are often the nominal plaintiff in environmental litigation, and source much (if not all) of their legal representation from 'staff attorneys'. See Murray Hogarth, *Law of the Land: Rise of the Environmental Defenders* (EDO NSW, 2016) 22. This model was briefly contemplated by the Australian public interest environmental law movement before being discarded in favour of an independent, non-campaigning model, due in large part to prohibitive regulatory obstacles. See also Vanhala, above n 11.

²⁸ Abby Digham, *Environmentalists Consider Legal Challenge to Climate 'Inaction'* (1 July 2015) SBS News <<https://web.archive.org/web/20150702200055/http://www.sbs.com.au/news/article/2015/06/30/environmentalists-consider-legal-challenge-climate-inaction>>.

²⁹ Chris Hilson 'Framing Fracking: Which Frames Are Heard in English Planning and Environmental Policy and Practice?' (2015) 27 *Journal of Environmental Law* 177, 179.

³⁰ Ibid, citing Robert Entman, 'Framing: Towards Clarification of a Fractured Paradigm' (1993) 43 *Journal of Communication* 51, 52.

³¹ Maarten Hajer and Wytke Versteeg 'A Decade of Discourse Analysis of Environmental Politics: Achievements, Challenges, Perspectives' (2005) 7(3) *Journal of Environmental Policy and Planning* 175, 175, cited in Christopher Shaw, 'Choosing a Dangerous Limit for Climate Change: Public Representations of the Decision Making Process' (2013) 23 *Global Environmental Change* 563, 564. See also Katherine Lofts, 'Analysing Rights Discourses in the International Climate Regime' in Sébastien Duyck et al (eds) *Routledge Handbook of Human Rights and Climate Governance* (Routledge, 2018) 16.

relationship between climate change, the law and justice, then choosing one approach over another is itself a framing exercise. ‘Law is expressive: it constructs narratives that attach moral significance to otherwise meaningless, stochastic events’.³² Framing is therefore both an *internal* process within social movements and SMOs, and an *external* strategic exercise in public communication.

Much of the non-social movement literature has already recognised that climate litigation plays a role in framing and influencing these external political, social, cultural and psychological discourses surrounding climate change and climate justice.³³ Generally, these analyses go no further than recognising litigation’s general potential to raise government and public awareness of climate change issues and influence partisan debates.³⁴ Little attention has yet been paid to the comparative strategic advantages of different frames.³⁵ This article thus focuses its discussion of framing on this latter question.

Finally, sociological institutionalist explanations consider ‘cultural conventions, norms, and cognitive frames’, including ‘mimesis; the idea that in a context of uncertainty and limited rationality, institutions have a tendency to imitate one another.’³⁶ These explanations also consider ‘the role individuals can play in shaping organisational structure and meaning frames’, including ‘strategy entrepreneurs’ – those who pioneer the use of particular tactics within an SMO.³⁷ In Australia, litigators play a critical

³² Weaver and Kysar, above n 8, 300.

³³ Chris Hilson, ‘Climate Change Litigation: A Social Movement Perspective’ (Paper presented at Legal and Criminological Consequences of Climate Change Workshop, Onati, 29-30 April 2010) 6; Hari Osofsky, ‘The Continuing Importance of Climate Change Litigation’, (2010) 1 *Climate Law* 3; Ewing and Kysar, above n 8; Peel and Osofsky, *Climate Change Litigation*, above n 2, 221 (‘[I]tigation on important social issues, such as climate change, is often initiated not just to advance regulation but also with the goal of influencing the public debate’); Jonathan Cannon, *Environment in the Balance* (Harvard University Press, 2015) 27-8; Grace Nosek, *Climate Change Litigation and Narrative: How to Use Litigation to Tell Compelling Climate Stories* (2018) 42(3) *William and Mary Environmental Law and Policy Review* 733; Weaver and Kysar, above n 8, 300 (‘[I]legal narrative, in other words, imbues bare facts with social and cultural significance’).

³⁴ Osofsky, above n 33, 5; Brian Preston, ‘The Influence of Climate Change Litigation on Governments and the Private Sector’ (2011) 2 *Climate Law* 485; Peel and Osofsky, *Climate Change Litigation*, above n 2, 100.

³⁵ An exception is Nicole Rogers, ‘Making Climate Science Matter in the Courtroom’ (2017) 34 *Environmental and Planning Law Journal* 475. Rogers’ central argument is that the frames or narratives advanced by new approaches are preferable to those advanced by the existing approach. This article goes somewhat further by comparing and identifying points of differentiation and harmonisation between these emerging frames, and by proposing analytical groups for these emerging cases based not on their underlying cause(s) of action but on their frames. Another exception is Weaver and Kysar, above n 8, which considers the potential of different lawsuits and the courts’ response to them to construct narratives around and shape our understanding of the concept of catastrophe.

³⁶ Vanhala, above n 11, 397-398.

³⁷ *Ibid* 381, 397-398.

gatekeeping role to a climate SMO's access to the legal system.³⁸ Consequently, the socio-institutionalist discussion in this article will focus on structure, norms and values of the public interest environmental law sector rather than the climate SMO community more broadly.

B Social Movement Theory Applied to the Choice of Climate Litigation Approaches

This article's focus on climate litigants' choice of different approaches to litigation is distinguishable from much of the social movement literature, which instead concerns itself with their choice of litigation as a strategy vis-à-vis other potential strategies. It is assumed for the purposes of this article that factors which would normally cause an SMO to choose political lobbying or protest over litigation are either not present, or only relevant to an SMO's choice of a specific litigation approach. It is also assumed that the suite of available litigation approaches should be largely identical across sample jurisdictions. Otherwise, the choice of a particular litigation approach in a given jurisdiction would not necessarily be a choice vis-à-vis other litigation approaches, but a choice vis-à-vis lobbying or protest.

This article argues that these assumptions can be made (with minimal caveating) when comparing climate change litigation preferences in the Australia and the United States.³⁹ First, in the context of climate change, the factors that the literature indicates would conventionally lead to an SMO choosing protest or lobbying appear immaterial in both the United States and Australia. With respect to protest, it is generally understood that 'protest as a strategy may be influenced by poor political and legal opportunities.'⁴⁰ Therefore, in jurisdictions where there is already a high frequency of climate litigation – as is the case in Australia and the United States – it can be assumed that there is at least sufficient LO that the question is not whether to pursue protest to the exclusion of legal strategies but whether to pursue protest alongside legal strategies. The same explanation applies to lobbying; that is, the pre-existence of litigation in these jurisdictions means that litigation is already regularly considered a feasible strategy alongside protest. This view is reflected in publicly available internal strategy documents from the climate SMO movement.⁴¹

Second, the evidence suggests that in both Australia and the United States there is a growing divide between the feasible outcomes of political lobbying and the level of emissions reductions needed to prevent

³⁸ Hogarth, above n 27, 57.

³⁹ Note that differences between climate litigation experiences in the US and Australia have already been analysed elsewhere. See Peel and Osofsky, *Climate Change Litigation*, above n 2, 321-324.

⁴⁰ Hilson, 'New Social Movements', above n 11, 239.

⁴¹ John Hepburn et al, 'Stopping the Australian Coal Export Boom: Funding Proposal for the Australian Anti-Coal Movement' (Proposal, November 2011) 6.

dangerous climate change. The difficulties of crafting policy solutions to climate change are well-studied; climate change's characterisation as a 'super wicked' problem is frequently cited in scholarship concerning both legal and policy responses to climate change.⁴² In contrast, the increasingly wicked and imminent consequences of multi-decadal political dysfunction on climate change have, to some extent, been underemphasised or taken for granted in the climate litigation literature.⁴³ There is, however, increasing recognition in the broader scientific literature that dangerous climate change is already upon us and that, if not quickly redressed, the consequences will be unprecedented and catastrophic.⁴⁴ Yet, in both the

⁴² See Richard Lazarus, 'Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future' (2009) 94 *Cornell Law Review* 1153; Kelly Levin et al, 'Overcoming the Tragedy of Super Wicked Problems: Constraining Our Future Selves to Ameliorate Global Climate Change' (2012) 45 *Policy Sciences* 123; Chris Hilson, 'It's All About Climate Change, Stupid! Exploring the Relationship Between Environmental Law and Climate Law' (2013) 25(3) *Journal of Environmental Law* 359, 363; Hari Osofsky and Jacqueline Peel, 'Litigation's Regulatory Pathways and the Administrative State: Lessons from US and Australian Climate Change Governance' (2013) 25 *Georgetown International Environmental Law Review* 207, 208-9; Cannon, above n 33, 287 ('[i]t is wicked because of the extremely broad dispersion of causes and effects, both spatially across the entire planet and temporally across generations, and the inadequacy of international institutions to deal with the problem at a global scale. Added to these recalcitrant features are cultural barriers that have discouraged meaningful deliberation on the science of climate change and policies to address it'); Geoffrey Palmer, 'New Zealand's Defective Law on Climate Change' (2015) 13 *New Zealand Journal of Public and International Law* 115, 115; Elizabeth Fisher and Eloise Scotford, 'Climate Change Adjudication: The Need to Foster Legal Capacity: An Editorial Comment' (2016) 28 *Journal of Environmental Law* 1, 2-3; Brian Preston, 'Foreword' (2016) 39(4) *UNSW Law Journal* 1480, 1480; Elizabeth Fisher et al, 'The Legally Disruptive Nature of Climate Change' (2017) 80(2) *The Modern Law Review* 173, 177; Rogers, above n 35, 475.

⁴³ For a recent example of this phenomenon, see Kim Bouwer, 'The Unsexy Future of Climate Change Litigation' (2018) 30 *Journal of Environmental Law* 1, 3-4, 10-11.

⁴⁴ A growing body of recent literature indicates, based on multiple lines of evidence, that the threshold for dangerous climate change has already been passed, and that the threshold for catastrophic and likely irreversible climate change impacts is perilously close. See, for example, Danny Harvey, 'Dangerous Anthropogenic Interference, Dangerous Climatic Change, and Harmful Climatic Change: Non-Trivial Distinctions with Significant Policy Implications' (2007) 82 *Climatic Change* 1; James Hansen et al, 'Assessing "Dangerous Climate Change": Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature' (2013) 8(12) *PLOS One* e81468; James Hansen et al, 'Ice Melt, Sea Level Rise and Superstorms: Evidence from Paleoclimate Data, Climate Modelling, and Modern Observations that 2°C Global Warming Could be Dangerous' (2016) 16 *Atmospheric Chemistry and Physics* 3761; James Hansen et al, 'Young People's Burden: Requirement of Negative CO₂ Emissions' (2017) 8 *Earth System Dynamics* 577; Yangyang Xu and Veerabhadran Ramanathan, 'Well Below 2°C: Mitigation Strategies for Avoiding Dangerous to Catastrophic Climate Changes' (2017) 114(39) *Proceedings of the National Academy of Sciences* 10315; Will Steffen et al, 'Trajectories of the Earth System in the Anthropocene' (2018) 11(5) *Proceedings of the National Academy of Sciences* 8252; Joyashree Roy et al, 'Chapter 5: Sustainable Development, Poverty Eradication and Reducing Inequalities' in Valerie Masson-Delmotte et al (eds) 'Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty' (Special Report, World Meteorological

United States and Australia, greenhouse gas (GHG) emissions reduction policies and programs are being watered-down or rescinded;⁴⁵ there is open, ongoing support for new fossil fuel development;⁴⁶ government negotiators continue to obstruct progress and heightened ambition in international climate negotiations;⁴⁷ and national emissions continue to rise.⁴⁸ Globally, emissions continue to grow and remain on a trajectory that is entirely incommensurate with internationally-agreed targets and the best available science of climate stabilisation.⁴⁹

These circumstances therefore suggest that what is arguably the most important policy objectives to the climate SMO community – global mitigation of greenhouse gas emissions in such a manner as to stabilise atmospheric greenhouse gas emissions and preserve a safe climate – is at this late stage unlikely to be achievable through conventional political lobbying and/or protest alone. This indicates that climate SMOs in both Australia and the United States are likely to view litigation as part of a last-

Organisation, 2018) 5-1, 5-15 <<https://www.ipcc.ch/sr15/>> ('[w]arming of 1.5°C is not considered "safe" for most nations, communities, ecosystems, and sectors and poses significant risks to natural and human systems as compared to current warming of 1°C (*high confidence*) ...'); Kevin Burke et al, 'Pliocene and Eocene Provide Best Analogues for Near-Future Climates' (2018) 115 *Proceedings of the National Academy of Sciences* 13289.

⁴⁵ Ryan Martel, *Unnatural Instincts: the Trump Effort to Rollback Critical Climate Regulations is Bad Science and Bad Business* (25 October 2018) Ceres <<https://www.ceres.org/news-center/blog/unnatural-instincts-trump-effort-rollback-critical-climate-regulations-bad-science>>; Adam Morton, 'Australia Abandons Plan to Cut Carbon Emissions' (2018) 561 *Nature* 293 <<https://www.nature.com/articles/d41586-018-06675-9>>.

⁴⁶ See eg Eric Lipton and Hiroko Tabuchi, 'Driven by Trump Policy Changes, Fracking Booms on Public Lands' *New York Times* (online) 27 October 2018 <<https://www.nytimes.com/2018/10/27/climate/trump-fracking-drilling-oil-gas.html>>; Katherine Murphy, 'Coalition Signals it will Provide Taxpayer Support for New and Existing Coal Plants' *Guardian* (online) 12 December 2018 <<https://www.theguardian.com/environment/2018/dec/13/coalition-signals-it-will-provide-taxpayer-support-for-new-and-existing-coal-plants>>.

⁴⁷ See eg Ben Doherty, 'Australia Only Nation to Join US at Pro-Coal Event at COP24 Climate Talks' *Guardian* (online) 10 December 2018 <<https://www.theguardian.com/environment/2018/dec/11/australia-only-nation-to-join-us-at-pro-coal-event-at-cop24-climate-talks>>; Kate Aronoff, *From Obama to Trump, Climate Negotiations Are Being Run by the Same Crew of American Technocrats* (14 December 2018) Intercept <<https://theintercept.com/2018/12/14/cop24-climate-change-talks-paris-agreement/>>.

⁴⁸ Lisa Cox, 'Australia on Track to Miss Paris Climate Targets as Emissions Hit Record Highs' *Guardian* (online) 13 September 2018 <<https://www.theguardian.com/australia-news/2018/sep/14/australia-on-track-to-miss-paris-climate-targets-as-emissions-hit-record-highs>>; Ari Natter, 'US Greenhouse Gas Emissions Rising Again, Defying Trump's Boasts' *Bloomberg* (online) 13 December 2018 <<https://www.bloomberg.com/news/articles/2018-12-13/u-s-greenhouse-gas-emissions-rising-again-defying-trump-boasts>>.

⁴⁹ United Nations Environment Programme, *The Emissions Gap Report 2018* (United Nations Environment Programme, 2018) <<https://www.unenvironment.org/resources/emissions-gap-report-2018>>; Joeri Rogelj et al, 'Paris Agreement Climate Proposals Need a Boost to Keep Warming Well Below 2°C' (2016) 534 *Nature* 631; Hansen et al, 'Assessing "Dangerous Climate Change"', above n 44, 15-16; Hansen et al, 'Young People's Burden', above n 44, 595.

ditch strategy to circumvent political gridlock or prevent further political setbacks, rather than as an alternative strategy for achieving already-pursued ends. This article therefore confines its focus to how climate litigants assess and select between different litigation approaches.

Finally, this article recognises a distinction between a descriptive analysis that seeks to explain a climate litigant's choice of litigation approaches, and instrumental arguments concerning the preferability of one approach vis-à-vis others. Most existing analyses of the potential new climate litigation approaches in Australia have either consciously or inadvertently included an instrumental component. These analyses have focused on the structural LO of a novel litigation approach pioneered outside Australia, and have typically concluded that the new approach is not legally-arguable and therefore should not be pursued in Australia. The few analyses that have incorporated framing and contingent LO have also argued on instrumental grounds that the comparative framing advantages of these new approaches should carry some weight in the strategic choices of climate litigants.⁵⁰ This article adopts a similar approach insofar as it uses the analytical framework of social movement theory to both assess the efficacy of existing and potential new approaches and provide a more complete explanation for the non-adoption of new approaches in Australia.

III RE-ASSESSING THE EXISTING APPROACH TO CLIMATE LITIGATION IN AUSTRALIA THROUGH A SOCIAL MOVEMENT LENS

As noted above, the vast majority of climate litigation in Australia has been brought under an 'administrative review'-based approach: that is, an approach involving either judicial or merits review of administrative decision-making.⁵¹ This approach to climate litigation is essentially an extension of the dominant approach to environmental litigation that has subsisted since the advent of statutory environmental law in the 1970s.⁵² Climate change-related administrative challenges have most prominently involved development approvals of, *inter alia*, coal mines, power plants

⁵⁰ Rogers, above n 35, 482 ('[i]t is certainly arguable that the urgency of climate science predictions is better understood and provides a more pressing imperative for effective judicial decision-making, when framed within the context of governmental duties of care and hazardous negligence, the public trust doctrine in its application to the atmosphere, civil and constitutional rights, or even the criminal defence of necessity').

⁵¹ Murray Wilcox, 'The Role of Environmental Groups in Litigation' (1985) 10(1) *Adelaide Law Review* 41, 41-2; Peel, 'The Role of Climate Change Litigation in Australia's Response to Global Warming', above n 8, 91; Peel and Osofsky, 'Climate Change Litigation', above n 2, 101-2.

⁵² See, for example, the discussion of this paradigm in Mary Wood, *Nature's Trust: Environmental Law for a New Ecological Age* (Cambridge University Press, 2014) 49-67.

and airport expansions.⁵³ The most common legal challenge in Australia has been to coal mines.⁵⁴

Optimistic assessments of the ongoing potential and future prospects of the existing approach to climate litigation in Australia have been made elsewhere.⁵⁵ Generally, these assessments reason that climate litigants have brought and continue to bring litigation under this approach because of the robustness of the ‘legal stock’ that underpins its LO.⁵⁶ In particular, there have been ‘minimal problems for climate change litigants taking merits or judicial review claims under Australian environmental legislation’ in establishing standing; in contrast, standing may potentially re-emerge as a major obstacle for new, non-statutory approaches.⁵⁷ However, characterising the existing approach as better established and less legally risky than emerging approaches underemphasises that one of the purposes of administrative law-based climate litigation is to test and push the boundaries of statutory environmental law.⁵⁸ Accordingly, arguments focusing solely on the perceived legal robustness of the existing approach are questionable.

A Vulnerabilities Associated with Legal Opportunity

The existing approach is not without its legal shortcomings, several of which have been brought into focus by more recent case law. These shortcomings are inherent in the dependence of the approach on favourable legal stock; namely, adequate environmental and planning statutes.⁵⁹ In this vein, it has been argued that the existing approach to climate litigation in

⁵³ Brian Preston, ‘Climate Change Litigation (Part 2)’ (2011) 2 *Carbon and Climate Law Review* 244, 247-9, citing *Australian Conservation Foundation v Latrobe City Council* (2004) 140 LGERA 100; *Gray v Minister for Planning* (2006) 152 LGERA 258.

⁵⁴ Rogers, above n 35, 475, citing Osofsky and Peel, above n 42, 212.

⁵⁵ Justine Bell-James and Sean Ryan, ‘Climate Change Litigation in Queensland: a Case Study in Incrementalism’ (2016) 33(6) *Environmental and Planning Law Journal* 515; Peel et al, above n 1, 829-30.

⁵⁶ Peel et al, above n 1, 831-2, 844 (‘... existing approaches have achieved important successes and may represent the greatest likelihood for positive outcomes in the future’).

⁵⁷ *Ibid* 832.

⁵⁸ *Ibid* 796 (‘[o]ver time – in an incremental and iterative fashion – these cases have consolidated the practice of including climate change considerations in environmental impact assessment undertaken for projects with substantial GHG emissions or the potential to be impacted by climate change consequences such as sea level rise’).

⁵⁹ Brian Preston, ‘Environmental Public Interest Litigation: Conditions for Success’ (Paper presented at the ‘Towards an Effective Guarantee of the Green Access: Japan’s Achievements and Critical Points from a Global Perspective’ Symposium, Awaji Island, Japan, 30-31 March 2013) (‘[f]irst and foremost the laws of the land must provide a foundation for environmental public interest litigation. The laws must create or enable legal suits or actions in relation to the aspect of the environment that is sought to be protected. If there is no right of action, there can be no litigation’). Arguably, in the Australian context the shortcomings of the existing approach also inhere in the notion of parliamentary supremacy and the limited scope and role of the judiciary vis-à-vis the legislative and executive branches. See section V-A of this article.

Australia lacks an achievement analogous to that represented by the US case of *Massachusetts v EPA*,⁶⁰ a result that is in no small part due to the lack of Commonwealth legislation equivalent to the United States' federal *Clean Air Act of 1970*. More fundamentally, climate change and GHG emissions are generally not listed as explicit considerations in Australian environmental and planning statutes.⁶¹ In New South Wales, for instance, it is recognised that there is a 'lack of integration between the need to reduce greenhouse gas emissions and the land-use planning system'.⁶² Specifically, there is presently 'no part of the NSW planning, development assessment, approval or licensing framework' that 'performs strategic climate risk assessment', 'links to an emissions reduction target or a finite "carbon budget"', or has an overarching global temperature goal.⁶³ At the Commonwealth level, the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) continues to lack a trigger for GHG emissions as a 'matter of national environmental significance', reflective of the Commonwealth government's recent efforts to reduce its own regulatory oversight and fast-track development approvals.⁶⁴

Consequently, in many cases, climate change-related legal arguments have been pursued via other statutory considerations. These include general considerations such as the 'public interest',⁶⁵ and specific considerations such as impacts on particular endangered species and World Heritage areas.⁶⁶ Even where consideration of climate change-related issues by a decision-maker is an express or implied requirement of legislation, such legislation is almost invariably drafted so as to give the decision-maker broad discretion as to the appropriate weight to give this consideration vis-à-vis others.⁶⁷

⁶⁰ *Massachusetts v Environmental Protection Agency*, 549 US 497 (2007); Peel et al, above n 1, 796.

⁶¹ Sharon Christensen et al, 'Regulating Greenhouse Gas Emissions from Coal Mining Activities in the Context of Climate Change' (2011) 28 *Environmental and Planning Law Journal* 381, 403 ('to date, a requirement for environmental impacts caused by greenhouse gas emissions to form part of the EIA process is rarely, if ever, imposed').

⁶² EDO NSW, 'Planning for Climate Change: How the NSW Planning System can Better Tackle Greenhouse Gas Emissions' (Report, EDO NSW, July 2016) <https://www.edonsw.org.au/planning_for_climate_change> 8.

⁶³ *Ibid*; cf *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7, [526]-[527], [550]-[556].

⁶⁴ Jacqueline Peel, 'The Role of Climate Change Litigation in Australia's Response to Global Warming', above n 8, 93; Chris McGrath, 'One Stop Shop for Environmental Approvals a Messy Backward Step for Australia' (2014) 31 *Environmental and Planning Law Journal* 164.

⁶⁵ *Environmental Planning and Assessment Act 1979* (NSW), s 79C(1)(e).

⁶⁶ For recent examples, see *Adani Mining Pty Ltd v Land Services of Coast and Country Inc* [2015] QLC 48; *Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042; *Australian Conservation Foundation Incorporated v Minister for the Environment and Energy* [2017] FCAFC 134.

⁶⁷ Rogers, above n 35, 480.

The New South Wales Land and Environment Court's jurisprudence regarding the principle of 'ecologically sustainable development' (ESD) – which has been described as paradigmatic of contemporary Australian environmental law – is illustrative.⁶⁸ While ESD has been advanced and accepted as a legitimate ground of review in many climate change-related cases before the Court,⁶⁹ ultimately even minimal consideration of ESD by the decision-maker will suffice to survive judicial review.⁷⁰ Additionally, 'ESD principles do not require that the GHG issue, including downstream emissions, override all other considerations', and the decision-maker has the discretion to 'decide how the ESD principles in their entirety are to be applied'.⁷¹ Summarising the jurisprudence of ESD-based climate litigation, Professors Peel and Osofsky wrote:

In sum, the case law seems to have been important and useful in making climate change and greenhouse gases a "mainstream" issue for consideration by decision makers assessing coal projects. However, there is concern that consideration of the issue is not producing any real change in government decision-making processes, which invariably end up approving any new coal-fired power station or coal mine application.⁷²

Another example is the consideration of downstream (so-called 'Scope 3')⁷³ emissions in the context of coal mine approvals.⁷⁴ To the extent that Australian courts have required consideration of these emissions, those courts have found it both lawful and reasonable for lawmakers to accept the 'perfect substitution' argument that 'if the coalmine is not built another will supply the same amount of coal, thus leaving the quantum of global GHG emissions unchanged or even increased if the new source involves "dirtier" coal'.⁷⁵ It is telling that Australian jurisprudence in this area is considerably more deferential to this argument than that of other common

⁶⁸ Rosemary Lyster et al, *Environmental and Planning Law in New South Wales* (Federation Press, 4th ed, 2016) 27.

⁶⁹ See Jacqueline Peel, 'Ecologically Sustainable Development: More Than Mere Lip Service?' (2008) 12(1) *Australasian Journal of Natural Resources Law and Policy* 1; Brian Preston, 'The Judicial Development of Ecologically Sustainable Development' (Paper presented at the 2016 IUCNAEL Colloquium, 'Environment in Court', Olso, 22 June 2016).

⁷⁰ *Drake-Brockman v Minister for Planning* [2007] NSWLEC 490 [129].

⁷¹ *Gray v Minister for Planning* [2006] NSWLEC 720 at [136], cited in Peel, 'The Role of Climate Change Litigation in Australia's Response to Global Warming', above n 8, 100-1.

⁷² Peel and Osofsky, *Climate Change*, above n 2, 100.

⁷³ Downstream emissions are emissions produced from combustion of fossil fuels extracted from a proposed development, such as that of the coal extracted from a coal mine or the petroleum products extracted from an oil well.

⁷⁴ See Kane Bennett, 'Australian Climate Change Litigation: Assessing the Impact of Carbon Emissions' (2016) 33 *Environmental and Planning Law Journal* 538.

⁷⁵ Rogers, above n 35, 477-9; Bell-James and Ryan, above n 55; *Australian Conservation Foundation Incorporated v Minister for the Environment and Energy* [2017] FCAFC 134 [61].

law jurisdictions known for judicial deference to executive discretion,⁷⁶ including the United States.⁷⁷

B *Vulnerabilities Associated with Political Opportunity*

In addition to the above deficiencies with the approach's LO, the PO for the existing approach to climate litigation has become increasingly constrained over time. For instance, the failure of successive state and federal governments to amend environmental and planning statutes to squarely and expressly incorporate consideration of GHG emissions – an act that would immediately increase the LO of the existing approach – appears politically motivated to limit opportunities for judicial review of fossil fuel development. This phenomenon is not confined to climate change. Recent examples abound of state and federal governments watering down and crafting loopholes to existing laws in response to successful legal challenges to coal mine approvals,⁷⁸ indigenous land-use agreements⁷⁹ and land-clearing regulations.⁸⁰ Rare legal successes have invited vehement political backlash.⁸¹

Admittedly, a well-considered proposal for law reform has been brought forward by the Australian Panel of Experts on Environmental Law (APEEL) and the 'Places You Love Alliance',⁸² which if enacted in whole

⁷⁶ Wood, above n 52, 110-11, citing *Chevron USA v Natural Resources Defense Council* 467 US 837, 844 (1984).

⁷⁷ See *WildEarth Guardians v United States Bureau of Land Management*, 870 F 3d 1222, 1236 (10th Cir, 2017) ('[e]ven if we could conclude that the agency had enough data before it to choose between the preferred and no action alternatives, we would still conclude this perfect substitution assumption arbitrary and capricious because the assumption itself is irrational (i.e., contrary to basic supply and demand principles)').

⁷⁸ See *Anature Incorporated v Centennial Springvale Pty Ltd* [2017] NSWCA 191; Gavin Coote and Pablo Vinales, *Springvale Mine: NSW Government to Defy Court Ruling with Legislation to Keep Coal Mine Running* (9 October 2017) ABC News <<http://www.abc.net.au/news/2017-10-09/miners-celebrate-as-springvale-mine-saved-from-closure/9030424>>; Michael McGowan, 'NSW to Approve Coalmine Blocked by Courts for Polluting Sydney's Drinking Water' *Guardian* (online) 9 October 2017 <<https://www.theguardian.com/australia-news/2017/oct/09/nsw-to-approve-coalmine-blocked-by-courts-for-polluting-sydneys-drinking-water>>.

⁷⁹ *McGlade v Native Title Registrar* [2017] FCAFC 10; Joe Kelly, 'Senate to Amend Native Title Clearing Way for Adani Mine' *Australian* (online) 13 June 2017 <<https://www.theaustralian.com.au/national-affairs/indigenous/senate-to-amend-native-title-clearing-way-for-adani-mine/news-story/314b12a3838f50a6b6ad76d91640dd2f>>.

⁸⁰ Michael Slezak, 'Laws that Make Land Clearing Easier Ruled Invalid by NSW Court' *Guardian* (online) 9 March 2018 <<https://www.theguardian.com/australia-news/2018/mar/09/laws-that-make-land-clearing-easier-ruled-invalid-by-nsw-court>>; Michael Slezak, 'NSW Laws that Make Land Clearing Easier Reinstated by Berejiklian Government' *Guardian* (online) 11 March 2018 <<https://www.theguardian.com/australia-news/2018/mar/11/nsw-laws-that-make-land-clearing-easier-reinstated-by-berejiklian-government>>.

⁸¹ See section V-C of this article.

⁸² Places You Love Alliance, *A New Generation of Nature Laws*, Places You Love <<http://www.placesyoulove.org/australiawelove/naturelaws/>>; Australian Panel of Experts on Environmental Law, *The Future of Australian Environmental Laws* (Overview Paper,

or part would likely increase the space for litigation.⁸³ However, it is questionable whether the PO exists to enact and fully implement these laws, let alone in a manner and timeframe commensurate with preventing or minimising catastrophic climate change impacts.⁸⁴ Rather, the well-documented examples of the crony capitalism and revolving-door relationship between the fossil fuel industry and government will likely continue to stymie necessary reform.⁸⁵ It is also questionable whether reforms that largely reproduce the existing administrative discretion-based environmental law paradigm will redress its deficiencies, including regulatory capture and excessive judicial deference to the ‘expertise’ of executive decision-makers.⁸⁶ There are therefore limited prospects that the PO for more efficacious litigation under the existing approach will increase in the short to medium term.

2017)

<http://apeel.org.au/s/APEEL_Future_of_Australian_Environmental_Laws_Overview.pdf>; Bruce Lindsay and Hannah Jaireth, ‘Australian Environmental Democracy and the Rule of Law – Thoughts from APEEL’ (2016) 31(7) *Australian Environment Review* 245.

⁸³ See Australian Panel of Experts on Environmental Law, *Democracy and the Environment* (Technical Paper 8, April 2017) <http://apeel.org.au/s/APEEL_democracy_and_environment.pdf>.

⁸⁴ See Paul Karp and Lisa Cox, ‘Labor Announces Environmental Overhaul, Avoiding Pre-Election Internal Battle’ *Guardian* (online) 16 December 2018 <<https://www.theguardian.com/australia-news/2018/dec/16/labor-announces-environmental-overhaul-avoiding-pre-election-internal-battle>> ([b]ut rather than create a national environment commission, Labor will instead direct the environment department to establish national environmental plans that will set *non-binding* “targets and approaches to proactively protect the environment” (emphasis added)).

⁸⁵ See Clive Hamilton, *Running from the Storm: The Development of Climate Change Policy in Australia* (UNSW Press, 2001); Clive Hamilton, *Scorcher: The Dirty Politics of Climate Change* (Black Inc Agenda, 2007); Guy Pearce, *High & Dry: John Howard, Climate Change and the Selling of Australia’s Future* (Penguin Books, 2007); Guy Pearce, *Quarry Vision: Coal, Climate Change and the End of the Resources Boom* (Black Inc, 2009); Philip Chubb, *Power Failure: The Inside Story of Climate Politics Under Rudd and Gillard* (Black Inc Agenda, 2014); Maria Taylor, *Global Warming and Climate Change: What Australia Knew and Buried ... then Framed a New Reality for the Public* (Canberra, ANU Press, 2014); Marc Hudson, *How Climate Denial Gained a Foothold in the Liberal Party, and Why it Still Won’t Go Away* (10 March 2016) Conversation <<https://theconversation.com/how-climate-denial-gained-a-foothold-in-the-liberal-party-and-why-it-still-wont-go-away-56013>>; Anna Krien, *The Long Goodbye: Coal, Coral and Australia’s Climate Deadlock* (Black Inc, 2017); Mark Butler, *Climate Wars* (Melbourne University Press, 2017); Marc Hudson, *Coal and the Coalition: the Policy Knot that Still Won’t Untie* (6 September 2017) Conversation <https://theconversation.com/coal-and-the-coalition-the-policy-knot-that-still-wont-untie83565#comment_1392464>.

⁸⁶ Mary Wood, ‘Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part I): Ecological Realism and the Need for a Paradigm Shift’ (2009) 39 *Environmental Law* 43, 54-65; Wood, above n 52, 49-67. A paradigm of environmental law that presumes judicial deference to executive expertise is arguably even less defensible within Australia’s constitutional structure, where members of the legislature (ministers) are in charge of executive departments.

C Vulnerabilities Associated with Framing

In addition to issues with LO and PO, the existing approach to climate litigation in Australia is also, in this author's view, vulnerable from a framing standpoint. As noted above, typically the grounds of review advanced by legal challenges brought under this approach have either only tangentially concerned climate change, or have advanced arguments directly concerning climate change as an alternative or afterthought to more conventional grounds. One example of this is the *Mackay Conservation Group* challenge to the Adani Carmichael Coal Mine.⁸⁷ Although climate change impacts were raised as a ground of review in the initial challenge, the development approval was voluntarily rescinded (and later re-granted) by the Commonwealth Environment Minister upon realisation that insufficient consideration had been given to two endangered species: the yakka skink and the ornamental snake.⁸⁸ Another example is the recent challenge in New South Wales to land-clearing regulations.⁸⁹ Again, because the applicants succeeded on the basis of a conventional procedural error, the court's decision did not advance to consideration of the climate change-related grounds of review. These regulations were also remade, this time within hours of the NSW Land and Environment Court's decision.⁹⁰ Although it may be strategically sound to prioritise non-climate change-related grounds of review where doing so would achieve the same litigation outcome, such a strategy has failed to both ultimately prevent fossil fuel development approvals and fully ventilate in court the science of GHG emissions and climate change impacts.⁹¹

There is arguably an even greater issue with the existing approach's frame. This is its potential implication, both before the courts and in the public sphere, that the alleged 'injustice' giving rise to the legal challenge is merely the failure of the decision-maker to follow statutory procedure or more general norms of administrative decision-making. The real-world injustices of climate change, including the consequences of the decision-maker's approval of emissions-intensive development in exacerbating the

⁸⁷ *Mackay Conservation Group v Commonwealth of Australia* (Federal Court of Australia, NSD33/2015).

⁸⁸ Environmental Law Australia, *Carmichael Coal Mine Cases in the Federal Court* <<http://envlaw.com.au/carmichael-coal-mine-federal-court/>>.

⁸⁹ See above n 80.

⁹⁰ *Ibid.*

⁹¹ Rogers, above n 35, 480. Although the first climate change case in Australia, *Greenpeace Australia Ltd v Redbank Power Pty Ltd* (1994) 86 LGERA 143, was decided in 1994, 2018 marked the first time that expert evidence regarding global 'emissions budget' in the context of a proposed new coal mine was presented in an Australian court. See Matthew Kelly, 'Land and Environment Court Reserves its Judgement in the Rocky Hill Coal Mine Case' *Newcastle Herald* (online) 6 September 2018 <<https://www.theherald.com.au/story/5630931/court-reserves-judgement-in-rocky-hill-coal-mine-case/>>.

climate crisis, are neither litigated nor communicated by the litigation.⁹² Put differently, both ‘existing statutory law’ and litigation brought under it ‘embod[y] the wrong cultural narrative for the climate change era’,⁹³ and therefore have little potential to frame and influence public attitudes. Admittedly, this implication is much stronger with respect to judicial review than merits review. But it should be noted that merits review is not always available for emissions-intensive development,⁹⁴ and even where it is available its effectiveness is limited by, *inter alia*, the strong statutory presumption in favour of approving development, and politically motivated, *ex post facto* legislative overrides.⁹⁵

In either case, the standard frame under the existing approach lacks coherence with arguments being made by campaign groups outside of the courtroom. Specifically, it is difficult to argue that ‘clarifying important principles of law’ with respect to the often narrow issues that form the subject of administrative law-based litigation is the sole or dominant motivation for plaintiffs commencing litigation.⁹⁶ Rather, the evidence indicates that campaign groups consider litigation a pillar of the broader effort to prevent further fossil fuel development and reduce Australia’s contribution to climate change.⁹⁷ Consequently, where lawyers inside the courtroom are presenting arguments that it is only the decision-maker’s inherently fixable procedural or legal errors that has resulted in an injustice, but campaign groups outside the courtroom are arguing that the development’s very approval constitutes an injustice, this invites confusion and criticism across the political spectrum. Proponents of fossil fuel development can allege that litigation under the existing approach is illegitimate or vexatious, even if the empirical evidence suggests these allegations lack credibility.⁹⁸ Opponents of fossil fuel development, frustrated by the limited scope and results of litigation, increasingly

⁹² Rogers, above n 35.

⁹³ Robyn Craig, ‘Learning to Live with the Trickster: Narrating Climate Change and the Value of Resilience Thinking’ (2016) 33 *Pace Environmental Law Journal* 351, 358, cited in Rogers, above n 35, 481.

⁹⁴ Sarah Wright, ‘Holding Regulators to Account in New South Wales Pollution Law: Part 1 – The Limits of Merits Review’ (2016) 86 *AIAL Forum* 78, 86.

⁹⁵ Rogers, above n 35, 481.

⁹⁶ Bell-James and Ryan, above n 55, 537.

⁹⁷ Hepburn et al, above n 41, 6 (‘[l]egal challenges can stop projects outright, or can delay them in order to buy time to build a much stronger movement and powerful public campaigns. They can also expose the impacts, increase costs, raise investor uncertainty, and create a powerful platform for public campaigning’).

⁹⁸ Chris McGrath, ‘Myth drives Australian Government Attack on Standing and Environmental “Lawfare”’ (2016) 33 *Environmental and Planning Law Journal* 3; Bell-James and Ryan, above n 55, 537; Cristy Clark, ‘The Politics of Public Interest Environmental Litigation: Lawfare in Australia’ (2016) 31(7) *Australian Environment Review* 258.

question the legitimacy of the statutory environmental laws themselves and the utility of further litigation.⁹⁹

This leads to a further vulnerability concerning the appropriateness of the approach's frame. The existing approach to litigation arose out of different (i.e. discrete) environmental challenges to those posed by climate change.¹⁰⁰ While the approach has been of debatable utility in addressing and remedying those discrete challenges, it is categorically unsuited to climate change's spatial and temporal aspects.¹⁰¹ With the problem of achieving necessary atmospheric GHG mitigation and transitioning away from a fossil fuel-based economy in mind, the current frame puts forward a piecemeal and incremental response as the solution,¹⁰² where a sweeping, systemic action is in fact needed. At worst, this endorses 'tinkering around the edges with approaches that have failed in the past' and 'holds no more promise than throwing a rescue rope that is too short'.¹⁰³ In the face of a worsening climate crisis, the existing approach communicates a frame that considers 'some progress, some minor victories, and some incremental development in the law' an indicator of success.¹⁰⁴ The approach should therefore be seriously questioned in light of new, more ambitious and more systemic approaches that seek remedies proportionate to the challenges posed by the climate crisis.¹⁰⁵

⁹⁹ Environmental Defenders Office Queensland, *ACF Appeals Federal Court Decision on Adani* (19 September 2016) <https://www.edoqld.org.au/acf_appeals_federal_court_adani> (quoting then-Australian Conservation Foundation President Geoff Cousins] 'Australia's system of environment laws is broken if it allows the Federal Environment Minister to approve a mega-polluting coal mine – the biggest in Australia's history – and claim it will have no impact on the global warming and the reef').

¹⁰⁰ For a brief account of the modern public interest environmental law movement's US origins, see John Bonine, 'Private Public Interest Environmental Law: History, Hard Work, and Hope' (2009) 26(2) *Pace Environmental Law Review* 465, 466-72.

¹⁰¹ Cannon, above n 33, 287.

¹⁰² Bell-James and Ryan, above n 55, 518.

¹⁰³ Mary Wood, 'Atmospheric Trust Litigation' in William Rodgers et al (eds) *Climate Change: A Reader* (Carolina Academic Press, 2011) 1018, 1019.

¹⁰⁴ Bell-James and Ryan, above n 55, 531.

¹⁰⁵ Randall Abate, 'Atmospheric Trust Litigation in the United States: Pipe Dream or Pipeline to Justice for Future Generations?' in Randall Abate (ed) *Climate Justice: Case Studies in Global and Regional Governance Challenges* (West Academic, 2016) 543, 566 ('[t]he success of ATL ["Atmospheric Trust Litigation"] – part of the government mitigation approach discussed below] should be gauged not by how many victories are achieved in state and federal courts under this theory. Rather, ATL's success ultimately should be judged on the basis of the role it played in facilitating state and federal government actors in the United States and abroad to establish and enforce rights and remedies for climate justice').

IV EVALUATING NEW APPROACHES TO CLIMATE LITIGATION THROUGH A SOCIAL MOVEMENT LENS

A Identifying New Approaches: 'Government Mitigation' and 'Adaptation Damages' Approaches

This article considers two emerging approaches: litigation seeking court orders compelling government action to reduce GHG emissions (government mitigation approaches), and litigation seeking court-ordered damages from fossil fuel companies to fund climate change adaptation measures (adaptation damages approaches). Climate change is uniformly the central issue in the cases brought under these two approaches.¹⁰⁶ The cases under these approaches are also 'well known in the existing legal and socio-legal literature on climate change' and have been described as the 'poster child',¹⁰⁷ and 'holy grail',¹⁰⁸ climate litigation cases. Several other approaches have been pioneered that differ in whole or part from these two approaches, perhaps most notably claims based on corporations or securities law,¹⁰⁹ and the attempted use of the 'climate necessity' defence in response to criminal prosecutions of direct action protests.¹¹⁰ However, it is argued that government mitigation and adaptation damages approaches are distinct in terms of their clear framing of climate change liability, the centrality of climate change to the legal arguments raised in the cases, and the amount of public attention they have garnered.¹¹¹ These cases therefore make an ideal case study because, where these approaches are pursued, it is more likely litigants are solely or predominantly pursuing climate change-related objectives rather than extraneous objectives such as prevention of localised impacts or pecuniary concerns.

¹⁰⁶ Peel et al, above n 1, 803.

¹⁰⁷ Chris Hilson, 'Framing Time in Climate Change Litigation' (2018) *Oñati Socio-legal Series* (forthcoming) 6.

¹⁰⁸ Bower, above n 43, 2-3.

¹⁰⁹ Peel and Osofsky, 'Climate Change Litigation', above n 2, 101.

¹¹⁰ Rogers, above n 35, 482; Nosek, above n 33, 792-800.

¹¹¹ Two cases that straddle the approaches discussed in this article are similarly distinct in terms of their framing and the amount of public attention they have received. The first is *Asghar Leghari v Federation of Pakistan* (Lahore High Court Green Bench, WP No 25501/2015, commenced 29 August 2015), where a plaintiff farmer successfully sued Pakistan's government for failing to implement its climate change adaptation laws. An ongoing case in Uganda, *Mbabazi et al v Attorney General* (Kampala High Court, High Court Civil Suit No 283 of 2012, commenced 20 September 2012), which was originally filed in 2012, is proceeding on similar grounds. The second is the threatened legal action by *Milieudefensie* (Friends of the Earth Netherlands) against Shell in the Netherlands, which is based on the same provision of the Dutch Civil Code and requests the same form of injunctive remedy as in the *Urgenda case*. See Karen Savage, *Netherlands Group to Shell: Stop Wrecking the Climate, Or We Will Sue* (4 April 2018) Climate Liability News <<https://www.climateliabilitynews.org/2018/04/04/royal-dutch-shell-milieudefensie-climate-change/>>.

Government mitigation approaches have been brought on a variety of legal bases. These include relatively conventional administrative law-based claims challenging emissions reductions targets set under statute and/or by executive prerogative;¹¹² tortious claims targeting government targets and/or actions;¹¹³ ‘public trust doctrine’ and constitutional claims predicated on a constellation of laws, actions and policies incentivising high levels of GHG emissions;¹¹⁴ and hybrid claims.

The government mitigation approach frames the issue of climate change as fundamentally one of government misfeasance and abrogation of sovereign responsibilities to the public – and often specifically to its most vulnerable sectors, including young people, future generations and the elderly. The solution is framed as one of relatively extraordinary judicial intervention to restrain this misfeasance. The government mitigation frame therefore:

highlight[s] the imminent perils associated with climate change, the related concerns of present and future generations, and contemporary political responsibilities and challenges far more effectively than is the case in the coalmine challenges.¹¹⁵

Adaptation damages approaches have a somewhat longer history than government mitigation approaches and are similarly heterogeneous. A number of earlier cases were pursued in the US by individuals, indigenous communities and several US states against fossil fuel, automobile manufacturing and electric utility companies.¹¹⁶ Each of these cases was ultimately unsuccessful.¹¹⁷ More recent iterations of this approach have

¹¹² See *Foster v Washington Department of Ecology* (Wash Sup Ct, 14-2-25295-1 SEA, 19 November 2015) slip op; *Kain v Department of Environmental Protection*, 474 Mass 278 (2016); *Thomson v Minister for Climate Change Issues* [2018] 2 NZLR 160; *Friends of the Irish Environment CLG v Government of Ireland* (High Court of Ireland, 2017 793 JR, commenced October 2017); *Plan B Earth v Secretary of State for Business, Energy and Industrial Strategy* (High Court of the United Kingdom, Queen’s Bench Division, Claim No CO/16/2018, commenced 8 December 2017).

¹¹³ *Urgenda Foundation v Government of the Netherlands (Ministry of Infrastructure and the Environment)* (The Hague District Court, ECLI:NL:RBDHA:2015:7145, commenced 24 June 2015).

¹¹⁴ See *Juliana v United States*, 217 F Supp 3d 1224 (D Or, 2016); *Union of Swiss Senior Women for Climate Protection v Swiss Federal Council* (Supreme Court of Switzerland, A-2992/2017, commenced 25 October 2016).

¹¹⁵ Rogers, above n 35, 482.

¹¹⁶ *Comer v Murphy Oil USA*, 585 F 3d 855 (5th Cir, 2009); Order of Jenkins J in *California v General Motors Corp*, (ND Cal, C06-05755 MJJ, 17 September 2007); *American Electric Power Company v Connecticut*, 564 US 410 (2011); *Native Village of Kivalina v ExxonMobil Corp*, 696 F 3d 849, 11657 (9th Cir, 2012). Notably, *American Electric Power v Connecticut* is an early example of a hybrid of new approaches, insofar as the plaintiffs sought injunctive rather than damages-based relief. See *American Electric Power Company v Connecticut*, 564 US 410, 415 (2011) (‘[a]s relief, the plaintiffs ask for a decree setting carbon-dioxide emissions for each defendant at an initial cap, to be further reduced annually’).

¹¹⁷ *Comer*’s disposition, which ultimately occurred as a result of a procedural technicality, was particularly perplexing. See the discussion in Weaver and Kysar, above n 8, 323-4.

been brought in the US by local municipalities,¹¹⁸ and in one instance an assortment of local commercial fishermen.¹¹⁹ Two of these recent cases were dismissed by their respective District Courts and have been appealed.¹²⁰ In Germany, an analogous cause brought by a Peruvian farmer has successfully avoided dismissal and is progressing towards trial.¹²¹ A campaign involving local municipalities has also been mooted in Canada, but has to this point resulted only in municipalities sending letters of demand (so-called ‘climate accountability letters’) to fossil fuel companies.¹²² Cases filed in the US have been based largely on various tortious grounds.

The adaptation damages approach is largely modelled on previous waves of tobacco and asbestos litigation.¹²³ Its resurgence in recent years is due to several factors. The genesis for the most recent wave of litigation in the US has been traced to a 2012 conference ‘compar[ing] the evolution of public attitudes and legal strategies related to tobacco control with those

¹¹⁸ See, eg, *County of San Mateo v Chevron Corp* (Cal Sup Ct, 7CIV03222, commenced 17 July 2017); *County of Marin v Chevron Corp* (Cal Sup Ct, CIV1702586, commenced 17 July 2017); *City of Imperial Beach v Chevron Corp* (Cal Sup Ct, C17-01227, commenced 17 July 2017); *County of Santa Cruz v Chevron Corp* (Cal Sup Ct, 17CV03242, commenced 20 December 2017); *City of Santa Cruz v Chevron Corp* (Cal Sup Ct, 17CV03243, commenced 20 December 2017); *County of Richmond v Chevron Corp* (Cal Sup Ct, C-18-00055, commenced 22 January 2018); *People of the State of California v BP PLC* (Cal Sup Ct, RG17875889, commenced 19 September 2017); *People of the State of California v BP PLC* (Cal Sup Ct, CGC-17-561370, commenced 19 September 2017); *City of New York v BP PLC* (2nd Cir, 18-2188, commenced 9 January 2018); *Board of County Commissioners of Boulder County et al v Suncor Energy (USA) Inc.* (D Colo, 1:2018cv01672, commenced 17 April 2018); *State of Rhode Island v Chevron* (RI Sup Ct, PC-2018-4716, commenced 2 July 2018); *Mayor and City Council of Baltimore v BP PLC*, (D Md, 1:18-cv-02357 commenced 20 July 2018).

¹¹⁹ *Pacific Coast Federation of Fishermen’s Associations Inc v Chevron Corp* (Cal Sup Ct, CGC-18-571285, commenced 14 November 2018).

¹²⁰ *City of Oakland v BP PLC*, 2018 WL 310972 (ND Cal); *City of New York v BP PLC* (SDNY, 18 cv 182, 19 July 2018) slip op.

¹²¹ *Lliuya v RWE AG* (Regional Administrative Court of Essen, Germany, Az 2 O 285/15, Decision on Appeal, commenced 15 December 2016).

¹²² See Bill Cleverley, ‘Victoria Councillors want Fossil-Fuel Companies to Share in Climate Costs’ *Times Colonist* (online) 13 October 2017 <<http://www.timescolonist.com/news/local/victoria-councillors-want-fossil-fuel-companies-to-share-in-climate-costs-1.23063534>>. In what should be considered an interesting example of PO and LO interacting, and an indication that, at least in Canada, climate change SMOs consider the current LO for these cases to be low, but the PO for facilitating litigation high, legislators in several provinces have introduced bills seeking to provide a simplified statutory means for pursuing adaptation damages from fossil fuel companies.

¹²³ See Vincent Oleszkiewicz and Douglas Sanders, ‘The Advent of Climate Change Litigation Against Corporate Defendants’ (2004) 27 *International Environment Reporter* 936, 940-941; Angela Lipanovich, ‘Smoke Before Oil: Modeling a Suit Against the Auto and Oil Industry on the Tobacco Tort Litigation is Feasible’ (2005) 25(3) *Golden Gate University Law Review* 429; Daniel Farber, ‘Basic Compensation for Victims of Climate Change’ (2007) 155 *University of Pennsylvania Law Review* 1605, 1616; Martin Olszynski et al, ‘From Smokes to Smokestacks: Lessons from Tobacco for the Future of Climate Change Liability’ (2018) 30 *Georgetown Environmental Law Review* 1>.

related to anthropogenic climate change'.¹²⁴ Further evidence has since been uncovered regarding the fossil fuel industry's advanced knowledge of climate change dating back decades, and its attempts to confuse the public's understanding of climate science and stymie political action to reduce GHG emissions.¹²⁵ This evidence forms a core part of the approach's frame. The factual basis for adaptation damages approaches has also strengthened in other areas. Climate science has progressed to the point where it is now possible to demonstrate up to a legal standard of proof that anthropogenic GHG emissions have increased the frequency and/or severity of certain climate change-related impacts and extreme weather events.¹²⁶ Emissions accounting studies have quantified the proportionate historical responsibility of a number of individual fossil fuel companies for anthropogenic GHGs emitted since the beginning of the industrial era.¹²⁷

¹²⁴ Union of Concerned Scientists and Climate Accountability Institute, 'Establishing Accountability for Climate Change Damages: Lessons from Tobacco Control' (Summary of the Workshop on Climate Accountability, Public Opinion and Legal Strategies, Martin Johnson House, Scripps Institution of Oceanography, La Jolla, California, 14-15 June 2012) 3, cited in Jack Luellen, *Climate Litigation is Coming – Is Your Co Ready?* (26 March 2018) Law360 <<https://www.law360.com/energy/articles/1025890/climate-change-litigation-is-coming-is-your-co-ready->>.

¹²⁵ Naomi Oreskes and Erik Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth in Issues from Tobacco Smoke to Global Warming* (Bloomsbury, 2010); Neela Banerjee et al, *Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago* (16 September 2015) InsideClimate News <<https://insideclimatenews.org/news/15092015/Exxons-own-research-confirmed-fossil-fuels-role-in-global-warming->>; Centre for International Environmental Law, 'Smoke and Fumes: The Legal and Evidentiary Basis for Holding Bil Oil Accountable for the Climate Crisis' (Report, November 2017) <<http://www.ciel.org/wp-content/uploads/2017/11/Smoke-Fumes-FINAL.pdf>>; Centre for International Environmental Law, 'A Crack in the Shell: New Documents Expose a Hidden Climate History' (Report, April 2018) <http://www.ciel.org/wp-content/uploads/2018/04/A-Crack-in-the-Shell_April-2018.pdf>; Geoffrey Supran and Naomi Oreskes, 'Assessing ExxonMobil's climate change communications (1977–2014)' (2017) 12 *Environmental Research Letters* 084019. Interestingly, some of the most recent revelations involve Royal Dutch Shell anticipating the recent wave of lawsuits in the United States. See Karen Savage, *Documents Detail What Shell Knew About Climate Change Decades Ago* (5 April 2018) Climate Liability News <<https://www.climate-liabilitynews.org/2018/04/05/shell-knew-climate-change-liability/>> ("[f]ollowing the storms, a coalition of environmental NGOs brings a class action suit against the US government and fossil-fuel companies on the grounds of neglecting what scientists (including their own) have been saying for years: that something must be done," the report projects).

¹²⁶ See Theodore Shepherd, 'A Common Framework for Approaches to Extreme Event Attribution' (2016) 2(1) *Current Climate Change Reports* 28; Sophie Marjanac et al, 'Acts of God, Human Influence and Litigation' (2017) 10 *Nature Geoscience* 616; Sophie Marjanac and Lindene Patton, 'Extreme Weather Event Attribution Science and Climate Change Litigation: an Essential Step in the Causal Chain?' (2018) 36(3) *Journal of Energy and Natural Resources Law* 256.

¹²⁷ Richard Heede, 'Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854-2010' (2013) 122 *Climatic Change* 229; Carbon Disclosure Project, 'The Carbon Majors Database: CDP Carbon Majors Report 2017' (Report, July 2017) <<https://www.cdp.net/en/reports/downloads/2327>>.

B *Distinguishing New Approaches from the Existing Approach*

The differences between adaptation and government mitigation, and between these approaches and the existing approach, can be further elucidated by applying social movement theory. First, in terms of PO, as described in Section II the existing approach is highly dependent on prior successful lobbying to pass environmental laws that are favourable to litigants (both in terms of permissive procedural rules in relation to, for example, standing, and the substantive laws governing judicial review). In contrast, both the government mitigation approach and the adaptation damages approach hark back to the pre-statutory environmental law era by invoking common law and constitutional causes of action and principles.¹²⁸ One strategic rationale for doing so is the belief that, contrary to the experience of a number of recent administrative law decisions,¹²⁹ a favourable judicial decision on a more fundamental legal principle may be less vulnerable to legislative override. As Elaine Johnson, principal solicitor of EDO NSW, recently commented:

... I think the challenge for us now is developing other ways to deal with environmental issues that doesn't rely on legislation that parliament has passed, because legislation can be undone and overridden if there's a political will to do so.¹³⁰

With respect to LO, as mentioned earlier, successful examples of new approaches in other jurisdictions have been largely dismissed as containing lower LO than existing approaches and untranslatable to the Australian legal context. These assessments have emphasised purported jurisprudential differences between jurisdictions where new approaches have succeeded and Australia, which would allegedly be fatal to the prospects of an analogous case in the latter jurisdiction.¹³¹ Dismissive accounts of the LO of these new approaches have been made both with respect to the underlying cause(s) of action, such as negligence or the public trust doctrine, and with respect to general obstacles to successful

¹²⁸ Sue Higginson, 'Climate Change Litigation', above n 7, 23; Peel et al, above n 1, 804 ('[i]ndeed, one of the ironies of next-generation litigation is that legal advocates are often looking to the past to shape the litigation of the future').

¹²⁹ See, for example, above nn 78-80.

¹³⁰ Angela Heathcote, 'A Day in the Life of an Australian Environmental Lawyer' *Australian Geographic* (online) 10 August 2018 <<https://www.australiangeographic.com.au/topics/history-culture/2018/08/a-day-in-the-life-of-an-australian-environmental-lawyer/>>. Note, however, the risk that a ruling based on common law principles, as opposed to one based on deeply-entrenched constitutional provisions, is still relatively vulnerable to legislative override. This is reflected in the calls by the fossil fuel industry in the United States to support the introduction of a carbon tax in exchange for, *inter alia*, legislative abolition of public nuisance suits in the vein of the adaptation damages approach. See Lee Wasserman and David Kaiser, 'Beware of Oil Companies Bearing Gifts' *New York Times* (online) 25 July 2018 <<https://www.nytimes.com/2018/07/25/opinion/carbon-tax-lott-breaux.html>>.

¹³¹ See above n 33.

public interest litigation in Australia, such as standing, justiciability, the spectre of adverse costs orders¹³² and even causation.¹³³ However, as discussed above, absent legislative reform the existing approach's LO is also relatively low.

Additionally, as other commentators have argued, dismissive assessments of the prospects of new approaches in Australia vis-à-vis other jurisdictions were likely premature.¹³⁴ New approaches in other jurisdictions have needed to overcome similar preliminary hurdles and have also needed to overturn or evolve legal precedent.¹³⁵ Australian courts are not without a history of overturning precedent when faced with a compelling case relating to an issue of broad public interest. *Mabo* is of course the most famous example.¹³⁶ But it is not the only one. The recent evolution of the doctrine of negligence to recognise the availability of an anticipatory injunction for imminent harm, as occurred in *Plaintiff S99/2016 v Minister for Immigration and Border Protection* and subsequent cases,¹³⁷ is another example. Given that some impacts associated with past and present anthropogenic GHG emissions have yet to fully materialise but are nevertheless imminent, this latter example of doctrinal evolution has potentially quite significant implications for both the government mitigation and adaptation damages approaches in Australia.¹³⁸

Litigation predicated on the public trust doctrine could potentially be another example of a new government mitigation approach with underestimated LO.¹³⁹ The doctrine's treatment in contemporary Australian jurisprudence is peculiar, having been described variously as

¹³² Anne Kallies and Lee Godden, 'What Price Democracy? *Blue Wedges* and the Hurdles to Public Interest Environmental Litigation' (2008) 33(4) *Alternative Law Journal* 194.

¹³³ Peter Cashman, 'Litigation that Holds Government to Account' (Paper presented at 2014 National Environmental Law Association conference, 'Transformation or Train Wreck? Environmental and Climate Change Law at the Crossroads', Sydney, 21 November 2014); Cashman and Abbs, above n 7, 264.

¹³⁴ Baxter, above n 7, 70.

¹³⁵ Weaver and Kysar, above n 8, 341 ('[a]t every stage of its analysis, the *Urgenda* court overcame doctrinal barriers to a finding of climate change negligence against the most powerful defendant in its jurisdiction: the sovereign itself'). As another example, the existence of a federal public trust doctrine in the US, unlike the existence of the public trust doctrine in the 50 US states, is and will continue to be a live issue in *Juliana v United States*, 217 F Supp 3d 1224, 1256-1259, 1272-1276 (D Or, 2016). See also Michael Blumm, 'The Federal Public Trust Doctrine: Misinterpreting Justice Kennedy and *Illinois Central Railroad*' (2015) 45 *Environmental Law* 399.

¹³⁶ *Mabo v Queensland (No 2)* (1992) 175 CLR 1 (overturning the doctrine of *terra nullius* and recognising the existence of native (aboriginal) title in Australia).

¹³⁷ *Plaintiff S99/2016 v Minister for Immigration and Border Protection* (2016) 243 FCR 17, cited in Baxter, above n 7, 71. See also *FRX17 as litigation representative for FRM17 v Minister for Immigration and Border Protection* [2018] FCA 63.

¹³⁸ See Baxter, above n 7; Peel et al, above n 1, 822 fn 120.

¹³⁹ Peel et al, above n 1, 815, 817 fn 94.

‘forgotten’,¹⁴⁰ ‘sleeping’,¹⁴¹ and an invention of American jurisprudence.¹⁴² Each of these descriptions, while a simplification, contains some truth. The doctrine is no longer forgotten, although it has fallen into dormancy since its principles were successfully applied in a series of cases concerning the use of national parks in New South Wales in the 1990s.¹⁴³ More recent attempts to revive the doctrine have been unsuccessful. These attempts were arguably both convoluted and misguided, insofar as they attempted to ‘graft’ the public trust doctrine – a doctrine that is fundamentally about the inalienability of public rights in and government ownership of natural resources – onto, respectively, the statutory pollution licences of private parties and the lawful level of consideration given by a decision-maker to ESD and the precautionary principle.¹⁴⁴ In any case, the doctrine is hardly a US invention. Its roots run deep in the common law and Justinian Roman law. As much was recognised by the Indian Supreme Court in its wholesale adoption of US public trust jurisprudence in *MC Mehta v Kamal Nath*.¹⁴⁵ The doctrine’s principles of public rights in and common ownership of natural resources are peppered throughout Australian case law.¹⁴⁶ Its evolution in the US into a coherent doctrine owes itself as much to the vision, ingenuity and persuasiveness of Sax and other scholars in weaving these principles

¹⁴⁰ Paul Finn, ‘The Forgotten “Trust”: the People and the State’ in Malcolm Cope (ed), *Equity: Issues and Trends* (Federation Press, Sydney, 1995) 131.

¹⁴¹ Gary Meyers, ‘Divining Common Law Standards for Environmental Protection: Applications of the Public Trust Doctrine in the Context of Reforming NEPA and the Commonwealth Environmental Protection’ (1994) 11 *Environmental and Planning Law Journal* 289, 297.

¹⁴² Tim Bonyhady, ‘A Usable Past: The Public Trust in Australia’ (1995) 12 *Environmental and Planning Law Journal* 329, 331.

¹⁴³ Paul Stein, ‘Ethical Issues in Land-Use Planning and the Public Trust’ (1996) 13 *Environmental and Planning Law Journal* 493, 499-501, citing *Willoughby City Council v Minister Administering the National Parks and Wildlife Act* (1992) 78 LGERA 19, *Woollahra Municipal Council v Minister for the Environment* (1991) 23 NSWLR 710, and *Packham v Minister for the Environment* (1993) 80 LGERA 205.

¹⁴⁴ *Environment Protection Authority v Ballina Shire Council* [2006] NSWLEC 289; (2006) 148 LGERA 278 [83]; *Upper Mooki Landcare Inc v Shenhua Watermark Coal Pty Ltd* [2016] NSWLEC 6 [183]-[185]. Indeed, both these cases may well reflect the folly of sticking to a litigation approach, the success of which requires resorting to increasingly convoluted and idiosyncratic legal arguments.

¹⁴⁵ *MC Mehta v Kamal Nath* (1997) 1 SCC 388, [34] (‘[o]ur legal system – based on English common law – includes the public trust doctrine as part of its jurisprudence. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment. Public at large is the beneficiary of the sea-shore, running waters, airs, forests and ecologically fragile lands. The State as a trustee is under a legal duty to protect the natural resources. These resources meant for public use cannot be converted into private ownership’).

¹⁴⁶ See, for example, the discussion of English common law concerning the essentially trustee-beneficiary relationship between the Crown and the public in respect of public rights of fishing and navigation in territorial waters in *Commonwealth and Australia v Yarmirr* (1999) 101 FCR 171, 292-299 (Merkel J). See also Stein, above n 143, 498-501.

together,¹⁴⁷ as it does to the affinity between these principles and those concerning popular sovereignty and intergenerational justice.¹⁴⁸

Standing, justiciability and adverse costs orders are also not a complete answer to the purportedly low LO of new approaches in Australia. Similarly restrictive standing and/or justiciability rules exist in jurisdictions outside Australia. These obstacles were acknowledged by the proponents of new approaches in those jurisdictions.¹⁴⁹ They have also been raised, often unsuccessfully, by the defendants in those jurisdictions.¹⁵⁰ Litigation falling under these new approaches has also been brought in adverse cost jurisdictions including the UK, Ireland and New Zealand. As the New Zealand High Court recognised in the recent case of *Thomson v Minister for Climate Change Issues*:

...it may be appropriate for domestic courts to play a role in Government decision making about climate change policy. ...The courts have not considered the entire subject matter is a 'no go' area... The importance of the matter for all and each of us warrants some scrutiny of the public power in addition to accountability through Parliament and the General Elections.¹⁵¹

¹⁴⁷ Michael Blumm and Rachel Guthrie, 'Internationalising the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxion Vision', (2012) 45 *University of California, Davis Law Review* 741, 747, citing, *inter alia*, Joseph Sax, 'The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention' (1970) 68 *Michigan Law Review* 471, and Joseph Sax, 'Liberating the Public Trust Doctrine from Its Historical Shackles' (1980) 14 *University of California, Davis Law Review* 185. A wave of scholarship also preceded the doctrine's recent judicial expansion to the atmosphere. See Gerald Torres, 'Who Owns the Sky?' (2001) 18 *Pace Environmental Law Review* 227; Mary Wood, 'Nature's Trust: Reclaiming an Environmental Discourse' (2007) 25 *Virginia Environmental Law Journal* 243; Wood, 'Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part I)', above n 86, 43; Mary Wood, 'Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part II): Instilling a Fiduciary Obligation in Governance' (2009) 39(1) *Environmental Law* 91; Gregory Munro, 'The Public Trust Doctrine and the Montana Constitution as Legal Bases for Climate Change Litigation in Montana' (2012) 73 *Montana Law Review* 123; Kylie Wha Kyung Wager, 'In Common Law We Trust: How Hawaii's Public Trust Doctrine Can Support Atmospheric Trust Litigation to Address Climate Change' (2014) 20(1) *Hastings West-Northwest Journal of Environmental Law and Policy* 55.

¹⁴⁸ Paul Finn, 'Public Trusts and Fiduciary Relations', in Charles Sampford et al (eds), *Fiduciary Duty and the Atmospheric Trust* (Routledge, 2012) 31, 35.

¹⁴⁹ Ewing and Kysar, above n 8, 355; Roger Cox, 'The Liability of European States for Climate Change' (2014) 30(78) *Utrecht Journal of International and European Law* 125, 131-4.

¹⁵⁰ See *Juliana v United States*, 217 F Supp 3d 1224, 1262 (D Or, 2016) ('[a] deep resistance to change runs through defendants' and intervenors' arguments for dismissal: they contend a decision recognising plaintiffs' standing to sue, deeming the controversy justiciable, and recognising a federal public trust and a fundamental right to climate system capable of sustaining human life would be unprecedented, as though that alone requires its dismissal'); *Thomson v Minister for Climate Change Issues* [2017] NZHC 733, [133]-[134].

¹⁵¹ *Thomson v Minister for Climate Change Issues* [2017] NZHC 733, [133]- [134] (Mallon J) ('*Thomson*'). *Thomson* is an interesting case that in many respects represented a hybrid

In terms of framing, several features of the government mitigation approach's frame distinguish it from and are arguably advantageous to that of the existing administrative law approach. The government mitigation approach shifts the focus of the litigation – in whole or in part – from plaintiffs' procedural rights (that is, their rights as interested individuals or community groups to have decision-makers comply with statutory procedure) to their substantive rights, including those protected by the common law, and corresponding governmental duties and responsibilities.¹⁵² The government mitigation approach also shifts the focus of litigation from the micro-level concern of government deliberation over discrete sources of GHG emissions to the macro-level concern of government's systemic control and influence over, and consequent duties and liabilities for, the entire fossil-fuel based energy and transportation system.¹⁵³ As a result of these shifts, government mitigation cases invariably request more comprehensive judicial relief than the existing approach, whether that be an order that the government revise its unlawful emissions reduction target,¹⁵⁴ or an order that the government prepare a comprehensive 'climate recovery plan'.¹⁵⁵ Consequently, the approach's legal and framing aspects are more coherent: the shift from procedural to substantive rights and the comprehensiveness of the requested remedy means that the legal arguments brought under the government mitigation

approach between the existing approach and government mitigation approach described here, insofar as one of its claims involved a fairly conventional judicial review challenge to New Zealand's economy-wide statutory emissions reduction target (rather than, for example, a discrete fossil fuel development like a coal mine or power station). Justice Mallon's quoted findings came in the context of the applicant's second claim, which was a judicial review challenge to New Zealand's Nationally Determined Contribution under the Paris Agreement, which was not set by statute but was instead set under the Crown prerogative. In surveying various common law and non-common law authorities on the categorical justiciability of climate change, Justice Mallon rejected the respondent's argument that the challenge was *per se* non-justiciable. Her Honour nevertheless went on to find that none of the applicant's grounds of review in respect of this claim were made out.

¹⁵² David Schlosberg, 'Climate Justice and Capabilities: A Framework for Adaptation Policy' (2012) 26(4) *Ethics and International Affairs* 445, 448, citing Simon Caney, 'Cosmopolitan Justice, Rights, and Global Climate Change' (2006) 19(2) *Canadian Journal of Law and Jurisprudence* 255, Simon Caney, 'Climate Change, Human Rights and Moral Thresholds' in Stephen Humphreys (ed) *Human Rights and Climate Change* (Cambridge University Press, 2010) 69, and Steve Vanderheiden, *Atmospheric Justice* (Oxford University Press, 2008); Rogers, above n 35, 482; Peel and Osofsky, above n 6, 38-40.

¹⁵³ Mary Wood and Dan Galpern, 'Atmospheric Recovery Litigation: Making the Fossil Fuel Industry Pay to Restore a Viable Climate System' (2015) 45 *Environmental Law* 259, 282-284.

¹⁵⁴ *Thomson* [2017] NZHC 733, [5]-[7].

¹⁵⁵ *Juliana v United States*, 217 F Supp 3d 1224, 1239 (D Or, 2016) ('[p]laintiffs do not seek to have this Court direct any individual agency to issue or enforce any particular regulation. Rather, they ask the Court to declare the United States' current environmental policy infringes their fundamental rights, direct the agencies to conduct a consumption-based inventory of United States CO2 emissions, and use that inventory to "prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO2 so as to stabilise the climate system and protect the vital resources on which Plaintiffs now and in the future will depend." First Am Compl 94').

approach are more consistent with the mitigation messaging by climate litigants and other climate SMOs in fora outside the courtroom.¹⁵⁶

The adaptation damages approach also contains a number of differences from and potential advantages over existing approaches. By targeting the activities of fossil fuel companies directly, rather than government approval of those activities, the approach arguably better reflects the attitudes and shift in lobbying and protest strategies that has occurred in sectors of the climate SMO community. As McKibben describes of his decision to switch 350.org's campaigning approach in the early 2010s:

In a way, every time I went to [Washington] DC I felt like I was visiting the cashier at the front of the store. That's the obvious place to start when you've got a problem – maybe [they] can solve it for you. But if not, going to [them] for help year after year is just perverse; at a certain point you've got to take your problem to the manager in the backroom and demand what you need. Congress is the cashier. Exxon-Mobil, the Koch brothers, and Peabody Energy are the big boys. That's who we were gearing up to go after now.¹⁵⁷

By choosing adaptation damages approaches, climate litigants frame the issue of climate change as one where corporations hold the most power to address the issue, governments are comparatively impotent, and targeting corporations directly is the most efficacious strategy. Such a frame also parallels popular discourses regarding the intersection between climate change and the emergence of the neoliberal economic hegemony.¹⁵⁸

¹⁵⁶ Abate, above n 105, 567 ('[t]he growth of ATL is due in part to the helpful synergy it enjoys with the climate change and human rights movement at the international level that began in the wake of the Inuit petition one decade ago and has gained significant momentum since that time'); Shilpa Jindia, *Ocasio-Cortez's Green New Deal Is a Product of Youth Uprising* (8 February 2019) Truthout <<https://truthout.org/articles/ocasio-cortezs-green-new-deal-is-a-product-of-youth-uprising/>>; Anny Martinez, *Youth Movements Changing Tactics in the Face of Climate Crisis* (11 February 2019) Inequality <<https://inequality.org/great-divide/youth-movements-climate-crisis/?source=newsletter>>.

¹⁵⁷ Bill McKibben, *Oil and Honey: The Education of an Unlikely Activist* (St Martin's Griffin, 2014) 204.

¹⁵⁸ Naomi Klein, *This Changes Everything: Capitalism vs the Climate* (Allen Lane, 2014) 63 ('... the real reason we are failing to rise to the climate moment is because the actions required directly challenge our reigning economic paradigm (deregulated capitalism combined with public austerity), the stories on which Western cultures are founded (that we stand apart from nature and can outsmart its limits), as well as many of the activities that form our identities and define our communities (shopping, living virtually, shopping some more)'); Peter Burdon, 'Wild Law: A Proposal for Radical Social Change' (2015) 13 *New Zealand Journal of Public and International Law* 157, 168 ('[t]oday the dominant discourse that is shaping law is neoliberal capitalism'); Naomi Klein, *Capitalism Killed our Climate Momentum, Not 'Human Nature'* (3 August 2018) Intercept <<https://theintercept.com/2018/08/03/climate-change-new-york-times-magazine/>>. Cf Nathaniel Rich, 'Losing Earth: The Decade We Almost Stopped Climate Change' *New York Times Magazine* (online) 1 August 2018.

The frame underpinning the adaptation damages approach addresses an aspect of climate justice left unaddressed by the existing approach's focus on scrutinising discrete, proposed developments; namely, that of who should bear the costs of climate change impacts that have already occurred or are effectively 'locked in' by current levels of emissions. In the absence of such litigation, the *de facto* policy answer to this question has been the public. In Australia, the history of the 2011 Queensland floods is illustrative. There, the costs were borne variously by individuals and communities that did not or could not obtain flood insurance,¹⁵⁹ a large section of the tax-paying Australian public in the form of a one-off 'flood levy',¹⁶⁰ and potentially by dam operators arising out of a negligence-based class action lawsuit filed against them.¹⁶¹ In the context of 'climate disasters' such as these¹⁶² – that is, disasters which can be at least partially attributed to climate change¹⁶³ – adaptation damages approaches articulate a distributive justice frame that, in the context of climate change, is more compelling than the existing approach's focus on procedural justice.¹⁶⁴

Additionally, compared to existing approaches, the adaptation damages approach is better situated to 'prod and plea' the political branches to implement a broader political fix to climate change.¹⁶⁵ Adaptation damages cases are already being filed with increasing frequency. This trend will likely accelerate should one of these cases survive summary dismissal, placing pressure on the political branches to relieve an unmanageable judicial burden.¹⁶⁶ Again, previous tobacco and asbestos litigation provides

<<https://www.nytimes.com/interactive/2018/08/01/magazine/climate-change-losing-earth.html>>.

¹⁵⁹ Alex Lo, *Why Are So Many Queenslanders Still Without Flood Insurance?* (29 January 2013) Conversation <<https://theconversation.com/why-are-so-many-queenslanders-still-without-flood-insurance-11829>>.

¹⁶⁰ Megan Levy, 'Levy to Pay for \$5.6b Flood Bill' *Sydney Morning Herald* (online) 27 January 2011 <<https://www.smh.com.au/business/levy-to-pay-for-5-6b-flood-bill-20110127-1a64x.html>>.

¹⁶¹ See *Rodriguez & Sons Pty Ltd v Queensland Bulk Water Supply Authority t/as Seqwater (No 4)* [2015] NSWSC 1352.

¹⁶² Rosemary Lyster and Robert Verchick, 'Introduction to the Research Handbook on *Climate Disaster Law*' in Rosemary Lyster and Robert Verchick (eds) *Research Handbook on Climate Disaster Law* (Edward Elgar, 2018) 1, 1-5.

¹⁶³ The Climate Council, 'Intense Rainfall and Flooding: The Influence of Climate Change' (Report, 1 April 2017) <<https://www.climatecouncil.org.au/uploads/5d4fe61d7b3f68d156abd97603d67075.pdf>>.

¹⁶⁴ Distributive approaches to adaptation in the climate justice literature are, however, increasingly critiqued. See Schlosberg, above n 152, 449 ('[m]ost discussions of adaptation in the climate justice literature have focused on equitable distribution of the costs of adaptation, rather than the specific vulnerabilities and needs experienced by those at risk').

¹⁶⁵ Ewing and Kysar, above n 8.

¹⁶⁶ It is by no means certain that a political fix to a wave of adaptation damages litigation would facilitate the recovery of compensation for adaptation costs from the fossil fuel industry. Depending on the extent and nature of public pressure, the political fix could be to statutorily abolish the relevant cause of action. This would be consistent with Australian state and Commonwealth responses to successful public interest litigation in other contexts. See above nn 96-98. See also Wasserman and Kasier, above n 130.

both a precedent and model.¹⁶⁷ An analogous political fix can be seen in Australia in quasi-judicial fora such as the New South Wales Dust Diseases Tribunal, which are designed to reduce the cost, time and complexity of compensation claims.¹⁶⁸ Accordingly, even if ultimately unsuccessful, litigation brought under adaptation damages approaches may potentially increase the PO of other strategic decisions.

Combined, both government mitigation and adaptation damages approaches have clear advantages as a frame for climate litigation. The approaches represent a shift in focus away from what at times seems little more than a box-ticking exercise of administrative decision-making, and towards the longstanding knowledge and responsibility of both government and corporate actors for the accumulation of greenhouse gas emissions and climate change impacts. This frame accords with the approaches' requested legal remedies, which aim to redress substantive rather than procedural wrongs. In the case of government mitigation approaches, this means emissions reductions and carbon sequestration commensurate with preserving a habitable climate for present and future generations. In the case of adaptation damages approaches, this means proportionate compensation to protect against unavoidable climate change impacts to which the corporate defendants have materially contributed. These requested remedies better parallel the demands of campaign groups outside the court room. As a result, the scope and messaging of litigation under these approaches arguably have greater potential to catalyse a broader political response to climate change.

C Potential Vulnerabilities of New Approaches

The above reassessment of the legal prospects, and emphasis on potential strategic advantages, of new approaches is not meant to suggest that these approaches lack vulnerabilities aside from those already identified with their legal stock. For example, views differ within these approaches regarding how to frame the science of climate change and the requisite legal remedy for the complained-of harms. Some cases have sought both court-ordered implementation of targets set under the UNFCCC, essentially through judicial notice of the scientific conclusions of the Intergovernmental Panel on Climate Change (IPCC).¹⁶⁹ This includes most

¹⁶⁷ Michael Byers et al, 'The Internationalisation of Climate Damages Litigation' (2017) 7(2) *Washington Journal of Environmental Law and Policy* 264, 302-9.

¹⁶⁸ NSW Dust Diseases Tribunal, *History*

<http://www.dustdiseasestribunal.justice.nsw.gov.au/Pages/ddt_aboutus/ddt_history.aspx>.

¹⁶⁹ See *Thomson* [2017] NZHC 733, [18] ('[t]he New Zealand Government has approved the AR5. For the purposes of this proceeding it is appropriate to proceed on the basis of the AR5, as the plaintiff accepts, while recognising that there are respected scientific experts who regard it as conservative'). See also *Swiss Senior Women for Climate Protection v Swiss Federal Council* (Switzerland, filed 25 October 2016) <http://klimasenioren.ch/wp-content/uploads/2017/05/request_KlimaSeniorinnen.pdf>; *Friends of the Irish Environment CLG v Government of Ireland* (High Court of Ireland, filed October 2017); *Plan B Earth v*

notably the *Urgenda* case, which successfully argued that as the Dutch Government had endorsed UNFCCC temperature targets and IPCC reports in international fora it could not take a contrary position in domestic courts – including the necessity of domestic emissions reductions commensurate with a 2°C temperature goal.¹⁷⁰ On the other hand, numerous government mitigation cases coordinated by the US climate change SMO Our Children’s Trust have advocated for a more stringent legal standard of mitigation, on the basis of mounting evidence that targets set under the UNFCCC are demonstrably unsafe and carry unacceptable risks of surpassing catastrophic and irreversible tipping points in the climate system.¹⁷¹ Reconciling these arguments regarding the science of climate stabilisation may therefore require difficult trade-offs between strategic considerations that seek to maximize LO, and factual considerations that seek to maximise a climate SMO’s strategic objectives.¹⁷²

Another potential vulnerability concerns the framing of liability by the government mitigation and adaptation damages approaches. For instance, the frame advanced by the cases filed by the various cities, counties and states within the US (US municipalities litigation) essentially concerns both internalising the presently largely externalised costs of GHG emissions, and shifting the costs of climate change impacts from the plaintiff municipalities to those corporate entities with the highest proportionate responsibility for anthropogenic GHG emissions. The filings in the majority of these cases therefore include language to the effect that the lawsuits do not seek to impose liability on defendants for their direct emissions of GHGs or restrain defendants from engaging in their business operations.¹⁷³ The inclusion of this language appears to be strategically

Secretary of State for Business, Energy and Industrial Strategy (High Court of the United Kingdom, Queen’s Bench Division, Grounds of Review filed December 2017); *Greenpeace v Norwegian Ministry of Petroleum and Energy* (Oslo District Court, No 16-166674TVI-OTIR/06, Judgement, 4 January 2018).

¹⁷⁰ Cox, above n 149, 127-8; Roger Cox, *A Climate Change Litigation Precedent: Urgenda Foundation v The State of the Netherlands* (Centre for International Governance Innovation Paper No 79, November 2015) <https://www.cigionline.org/sites/default/files/cigi_paper_79web.pdf> 7, 11.

¹⁷¹ See above n 44.

¹⁷² These differences are not irreconcilable. Several cases may be able to effectively argue both for compliance with the Paris Agreement’s temperature goals and for a standard of government responsibility based on the best available scientific evidence as alternative remedies or tiered levels of ambition. See *Juliana v United States*, 217 F Supp 3d 1224, 1240 (D Or, 2016) (‘[t]here is no contradiction between promising other nations the United States will reduce CO₂ emissions and a judicial order directing the United States to go beyond its international commitments to *more aggressively* reduce CO₂ emissions’).

¹⁷³ *The People of the State of California v BP PLC* (ND Cal, Nos 17-cv-06011-WHA and 17-cv-06012-WHA, 2 February 2018) slip op 2; *Board of County Commissioners of Boulder County v Suncor Energy (USA) Inc.* (Boulder County Dist Ct Colo, filed 17 April 2018) [6] (‘[p]laintiffs are not asking this Court to stop or regulate the production of fossil fuels in Colorado or elsewhere and they are not asking this Court to stop or regulate emissions in Colorado or elsewhere; they ask only that Defendants help remediate the nuisance caused by their intentional, reckless and negligent conduct, specifically by paying their share of the

directed at maximising LO and pre-empting defendants' justiciability arguments.

Nevertheless, this frame raises several issues. To start with, it may be difficult to square the limited liability frame in the US municipalities litigation with widespread activist support for these cases.¹⁷⁴ This is because, by limiting its scope to adaptation costs without challenging the practices causing those costs, this frame reflects a 'market-based' or 'economic rationalist' approach that arguably internalises and reinforces the logic of neoliberalism.¹⁷⁵ Additionally, there are both economic and ecological limitations to adaptation that raise questions as to whether adaptation can be successful where greenhouse gas emissions are not stopped or otherwise heavily regulated.¹⁷⁶ Given that climate change adaptation will be needed in virtually all the world's communities and ecosystems,¹⁷⁷ it is also questionable whether the fossil fuel industry has sufficient funds and resources to fully compensate all communities facing adaptation needs. There are further questions regarding the equity of this litigation approach's 'first-come, first-served' logic (i.e., the first plaintiff municipality to obtain a favourable court judgment or settlement will be the first to be paid). Those concerns being raised, it nevertheless should be noted that the current round of climate adaptation cases is at an early stage

Plaintiffs' abatement costs'). Note that while the pleadings filed by the cities of San Francisco, Oakland, Santa Cruz and Richmond in California, and by New York City, each contain express statements to the effect of the statement in the pleadings filed by the City of Boulder and Boulder and San Miguel Counties in Colorado, this theory of liability is only implicit in the pleadings filed by the City of Imperial Beach and by Marin and San Mateo Counties in California.

¹⁷⁴ A recent media article dubbed these US cases 'climate liability suits', despite the filings in these cases expressly disavowing the notion that they are seeking to hold the defendants liable for climate change. See Jennifer Dorroh, *Republican AGs File Brief Opposing Climate Liability Suits* (23 April 2018) Climate Liability News <<https://www.climateliabilitynews.org/2018/04/23/climate-liability-suits-republican-ags/>>. See also Chris Mooney and Dino Grandoni, 'New York City Sues Shell, ExxonMobil and Other Oil Companies Over Climate Change' *Washington Post* (online) 10 January 2018 <https://www.washingtonpost.com/news/energy-environment/wp/2018/01/10/new-york-city-sues-shell-exxonmobil-and-other-oil-majors-over-climate-change/?noredirect=on&utm_term=.dec38147e7e2> ('Bill McKibben, an author and co-founder of the climate advocacy group 350.org, praised the city's actions Wednesday. "I've been watching the climate fight for the last 30 years," McKibben told reporters. "This is one of the handful of most important moments in that 30-year fight"); Bill McKibben, 'Pay Up Fossil Fuel Industry – Your Free Ride to Pollute is Over' *Sydney Morning Herald* (online) 25 April 2018 <<https://www.smh.com.au/national/fossil-fuel-industry-free-ride-pollution-mckibben-20180424-p4zbb1.html>>.

¹⁷⁵ Brendan Sydes, 'The Challenges of Putting Wild Law into Practice: Reflections on the Australian Environmental Defenders Office Movement' in Michell Maloney and Peter Burdon (eds) *Wild Law – In Practice* (Routledge, 2014) 58, 65.

¹⁷⁶ CSIRO, *Why Should We All Adapt?* <<https://research.csiro.au/climate/introduction/why-should-we-all-adapt/>>.

¹⁷⁷ Intergovernmental Panel on Climate Change, *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014) 4.

and we are already seeing significant variations in these cases that may better address these concerns.¹⁷⁸

V ADDITIONAL FACTORS EXPLAINING THE NON-ADOPTION OF NEW APPROACHES IN AUSTRALIA

A Judicial Receptiveness, Constitutional Structure and Legal Culture

As the above discussion has demonstrated, legal stock-based analyses of new approaches to climate litigation are neither comprehensive nor satisfactory. They have inadvertently undersold the potential of these approaches by overlooking or underemphasising the comparative strategic value of the more compelling frames of climate justice communicated by new approaches. Furthermore, many aspects of Australia's legal stock – including the jurisprudence surrounding particular causes of action and the rules governing standing and justiciability – have been treated as largely structural, when in fact they are no more fixed or incapable of doctrinal evolution than elsewhere. Rather, experiences in other jurisdictions suggest that the success of these litigation approaches in overcoming perceived legal obstacles is in no small part contingent on the receptiveness of individual judges.

In particular, judicial receptiveness has played and continues to play a critical role in determining whether cases brought under emerging approaches survive preliminary challenges based on justiciability and, more specifically, separation of powers arguments. Working outside of social movement theory, Benjamin Ewing and Douglas Kysar,¹⁷⁹ and later Henry Weaver and Douglas Kysar,¹⁸⁰ offer a useful framework for categorising and understanding judicial attitudes towards this issue in the context of climate change. The first attitude is to 'duck and weave',¹⁸¹ or

¹⁷⁸ For instance, one of the first adaptation damages cases was brought by a severely disadvantaged indigenous community in Alaska. See *Native Village of Kivalina v ExxonMobil Corp*, 696 F 3d 849 (9th Cir, 2012). The most prominent adaptation damages case pursued outside the US, *Lliuya v RWE* (Essen Regional Court, Germany, No Az 2 O 285/15), was brought by a farmer from the Peruvian Andes with the assistance of a German NGO. Additionally, the recently filed Rhode Island lawsuit has incorporated a claim based on the public trust doctrine, which has altered the framing of the case, and a case is proposed in the Netherlands in which the plaintiffs would seek injunctive relief (i.e. a reduction in emissions) rather than monetary damages. See *State of Rhode Island v Chevron* (Providence/Bristol County Sup Ct RI, No PC-2018-4716, filed 2 July 2018); Savage, above n 111. Finally, several scholars have proposed adaptation damages cases that would, at least in theory, resolve many of the concerns with the present round of cases. See Wood and Galpern, above n 153; Randall Abate, 'Corporate Responsibility and Climate Justice: A Proposal for a Polluter-Financed Relocation Fund for Federally Recognised Tribes Imperiled by Climate Change' (2015) 25(1) *Fordham Environmental Law Review* 10; Mary Wood, 'Tribal Trustees in Climate Crisis' (2017) 2(2) *American Indian Law Journal* 518.

¹⁷⁹ Ewing and Kysar, above n 8.

¹⁸⁰ Weaver and Kysar, above n 8.

¹⁸¹ Ewing and Kysar, above n 8, 350, 416.

to engage in an act of ‘judicial nihilism’ by ‘refus[ing] responsibility over the extraordinary and the indeterminate’ and ‘[b]y various means, candidly or covertly, ... abdicat[ing] their duty to decide because of the complex or dramatic nature of a harm and the remedy it seems to necessitate’.¹⁸² This attitude is demonstrated not only by virtually all of the first wave of adaptation damages cases in the United States, but also by two recent decisions dismissing claims brought by the cities of San Francisco and Oakland and by New York City. As pithily stated by Judge Keenan in the New York City case, ‘[c]limate change is a fact of life... But the serious problems caused thereby are not for the judiciary to ameliorate’.¹⁸³

The second attitude is to ‘prod and plea’, described as ‘a corollary to the more traditionally-emphasised function of checks and balances’ that ‘redeem[s] the very possibility of law’ by ‘promot[ing] consideration of the underlying visions of right, responsibility, and social order that are adopted (or implied) by judicial decision’.¹⁸⁴ As Ewing and Kysar argue:

Rather than counselling against common law adjudication... the complexity and enormity of the climate change problem counsel in its favour, in order that baseline norms of responsibility – whatever their content – may be more clearly specified as public and private actors embark on what undoubtedly will be a centuries-long struggle to deal with greenhouse gas emissions and their impacts.¹⁸⁵

This attitude is reflected in the Mallon J’s justiciability-related findings in *Thomson*, discussed above,¹⁸⁶ and more explicitly in the judgment of Aiken J in *Juliana v United States*,¹⁸⁷ which asserted that ‘[f]ederal courts too often have been cautious and overly deferential in the arena of environmental law, and the world has suffered for it’.¹⁸⁸ As Ewing and Kysar conclude with respect to issue of separation of powers:

If the heart of the political question and related doctrines consists of ‘prudential concerns calling for mutual respect among the three branches of Government’, then it is significant to note that respect can mean prodding and pleading as much as it does ducking and deferring. It overstates the case only slightly to say that such actions are akin to asking the other branches of government to live up to their better instincts, rather than succumb to an institutional bias toward inaction. Respecting an equal need not mean simply letting alone. It can also mean signalling high

¹⁸² Weaver and Kysar, above n 8, 354.

¹⁸³ *City of New York v BP PLC*, (SDNY, No 18 cv 182, 19 July 2018) slip op 20. See also *City of Oakland v BP PLC*, 325 F Supp 3d 1017, 1029 (ND Cal, 2018) (Alsup J) (‘[t]he dangers raised in the complaints are very real. But those dangers are worldwide. Their causes are worldwide. The benefits of fossil fuels are worldwide. ... The Court will stay its hand in favour of solutions by the legislative and executive branches’).

¹⁸⁴ Ewing and Kysar, above n 8, 354, 356; Weaver and Kysar, above n 8, 295

¹⁸⁵ Weaver and Kysar, above n 8, 356.

¹⁸⁶ See above n 151.

¹⁸⁷ *Juliana v United States*, 217 F Supp 3d 1224 (D Or, 2016).

¹⁸⁸ *Ibid* 1262 (Aiken, J.).

expectations, which imply a belief in the other's ability to meet them (internal citations omitted).¹⁸⁹

The potentially high variance of judicial attitudes with respect to fundamental legal doctrines raises the question of whether there might be other aspects of LO in Australia that are both less contingent and unfavourable towards new approaches than elsewhere. This article suggests that there are at least two. The first is Australia's constitutional structure. Although the High Court's jurisprudence has been increasingly influenced by notions of popular sovereignty,¹⁹⁰ there is little argument that Australia's constitution is historically and structurally imbued with the principle of parliamentary sovereignty and 'the Australian drafters' commitment to a philosophy of utilitarianism... and the sense that "the protections to individual rights provided by the traditions of acting as honourable men were quite sufficient for a civilised society"' (internal citations omitted).¹⁹¹ This can be contrasted with the comparatively stronger emergence in the United Kingdom of notions of popular sovereignty and judicial supremacy,¹⁹² and their dominance in the United States.¹⁹³ As a result, it may be argued that it is the more judicially-deferential Australian constitutional structure rather than legal doctrine that renders new approaches to climate litigation less viable than they are elsewhere.

The second aspect is Australia's legal culture, and particularly that of the High Court. As Jonathan Cannon has argued in respect of the US Supreme Court, a jurisdiction's apex court 'is the exemplar of the law culture, which presents itself as distinct from surrounding culture'.¹⁹⁴ Empirically and anecdotally, the High Court in both its historical development and present constitution embodies a culture of concurrence and conformity rather than political division, doctrinal conservatism rather than reform, and efficiency

¹⁸⁹ Ewing and Kysar, above n 8, 416-417.

¹⁹⁰ See Brian Fitzgerald, 'Proportionality and Australian Constitutionalism' (1993) 12(2) *University of Tasmania Law Review* 263; Andrew Lynch, 'Review Essay: The High Court – Legitimacy and Change' (2001) 29(2) *Federal Law Review* 295; Michael Kirby, 'Deakin: Popular Sovereignty and the True Foundation of the Australian Constitution' (1996) 3(2) *Deakin Law Review* 129, 138-9; George Winterton, 'Popular Sovereignty and Constitutional Continuity' (1998) 26 *Federal Law Review* 1, 1; Finn, above n 148, 35.

¹⁹¹ Hilary Charlesworth, 'International Human Rights Law and Australian Federalism', in Brian Opeskin and Donald Rothwell (eds), *International Law and Australian Federalism* (1997, Melbourne University Press) 280, 284.

¹⁹² Harley Wright, 'Sovereignty of the People – the New Constitutional *Grundnorm*?' (1998) 26 *Federal Law Review* 166.

¹⁹³ See Akhil Amar, 'The Central Meaning of Republican Government: Popular Sovereignty, Majority Rule, and the Denominator Problem' (1993) 65 *University of Colorado Law Review* 749; Keith E Whittington, *Political Foundations of Judicial Supremacy: The Presidency, the Supreme Court, and Constitutional Leadership in US History* (Princeton University Press, 2007), cited in Robert Woods, 'Rights Review in the High Court and the Cultural Limits of Judicial Power' (2013) 41 *Federal Law Review* 587, 590 fn 25.

¹⁹⁴ Cannon, above n 33, 37.

in opposition to perceived ‘judicial peacocking’.¹⁹⁵ It has thus been argued that ‘the calcification of a deeply formalist politico-legal culture’ in the High Court has ‘had the effect of undercutting the Court’s capacity or inclination to move into more elevated and openly political forms of rights review’.¹⁹⁶ The High Court’s culture may therefore counteract variance in lower court judicial attitudes by discouraging doctrinal evolution, strong dissents and lengthy *obiter dicta* that lower courts may otherwise look to as a basis for accepting novel cases and arguments in the first instance.

B Socio-Institutionalist Factors

The above discussion indicates that there may be significant structural and cultural barriers restricting judicial receptiveness of new approaches to climate litigation. To some extent, these barriers appear to be distinctly Australian. However, these barriers have generally played only a minor, implicit role in existing explanations for the non-adoption of new approaches. What, then, explains the tendency for many of the existing analyses to treat perceived doctrinal hurdles as if comparable hurdles do not exist elsewhere? Similarly, what might explain the high prevalence of dismissive analyses of climate litigation (both existing and new approaches) by litigators that frequently represent and arguably are themselves a part of the climate SMO community?¹⁹⁷

From a socio-institutionalist perspective, one answer may be mimesis within a relatively homogeneous and conservative Australian public interest environmental law sector. With respect to the sector’s homogeneity, effectively the entire Australian public interest environmental law sector has grown out of a single model – that of the EDO NSW.¹⁹⁸ This is atypical of experiences in the United States, where multiple public interest environmental lawyering models have elsewhere

¹⁹⁵ Regarding the historical development of the High Court’s culture, see Woods, above n 193. Regarding its current culture see Susan Kiefel, ‘The Individual Judge’ (2014) 88 *Australian Law Journal* 554; Katie Walsh, ‘Productivity Over Prose for High Court in 21st Century: Chief Justice Susan Kiefel’ *Australian Financial Review* (online) 17 March 2017 <<https://www.afr.com/news/productivity-over-prose-for-high-court-in-21st-century-chief-justice-susan-kiefel-20170315-guyz3m>>; Susan Kiefel, ‘The Adaptability of the Common Law to Change’ (Presentation presented at The Australasian Institute of Judicial Administration, Brisbane, 24 May 2018) <<http://www.hcourt.gov.au/assets/publications/speeches/current-justices/kiefelj/KiefelCJ24May2018.pdf>>; Michael Pelly, ‘High Court Troika “the Most Powerful Bloc of Judges in History”’ *Australian Financial Review* (online) 9 August 2018 (‘[f]rom 2013 to 2017, all members of the court backed the final orders in 75 per cent of cases. This is well ahead of 2007-2012 (67 per cent), 2003-2007 (54 per cent) and 1998-2003 (61 per cent)’). Cf Ruth Bader Ginsburg, ‘The Role of Dissenting Opinions’ (2010) 95 *Minnesota Law Review* 1.

¹⁹⁶ Woods, above n 193, 605.

¹⁹⁷ Hogarth, above n 27, 14.

¹⁹⁸ See David Robinson, ‘The Environmental Defender’s Office NSW, 1985-1995’ (1996) 13 *Environmental and Planning Law Journal* 155; Hogarth, above n 27.

evolved concurrently.¹⁹⁹ As for the sector's conservatism, while some of the first lawyers at EDO NSW hoped to bring ambitious cases paralleling those in the United States, the firm's board was not in favour and the cases of the day did not lend themselves to such an approach.²⁰⁰ Arguably, the EDOs' self-conception of their purpose has since expanded only incrementally. The EDOs continue to consider themselves at the conservative, technocratic end of the environmental movement.²⁰¹ This narrow, essentially defensive idea of public interest environmental litigation has solidified itself. Its dual purposes are to 'enforce the proposal examination mechanisms of environmental legislation' and 'gain time' to increase public scrutiny of and opposition to a suspect development.²⁰²

Despite this mimesis, change and diversity is slowly coming to the sector. This change is reflected in, for instance, the former Environmental Defenders Office of Victoria's decision to rename itself Environmental Justice Australia and adopt a distinct, environmental justice-centric model within the sector.²⁰³ It has also been suggested recently that 'new opportunities are emerging for advocacy organisations to partner in climate change litigation and related legal interventions with commercial players who have aligned interests in clean energy transition and adaptation'.²⁰⁴ Nevertheless, Australia has yet to see the emergence of the kind of strategy entrepreneurs that were evidently instrumental to the advent and success

¹⁹⁹ See Bonine, above n 100, 478-9 ('[p]ublic interest environmental lawyers work in six types of organisations: non-profit environmental law firms that litigate at the regional or national level, the same at state or local level, general public interest law firms that are not confined to environmental matters, environmental law clinics, legal staff in environmental groups (some of whom litigate), and "private public interest" law firms. If one's field of vision only sees Earthjustice, the Natural Resources Defence Council, the Environmental Defence Fund, or the National Wildlife Federation, that person is blinded from much of the picture'). See also Vanhala, above n 11, 397-9, 403-6.

²⁰⁰ Hogarth, above n 27, 50-3, 128.

²⁰¹ Ibid 14; Sydes, above n 175, 62 ('... the work of EDOs often specifically disavows any political grounding or ethical choice. ... This is an approach to law and legal practice that aligns closely with a view of the role of lawyers as one of applying technical expertise and expert legal judgment to instructions and directions provided by clients whose interests it is the lawyers' duty to serve, subject only to the paramount duty to the court').

²⁰² Wilcox, above n 51, 47-8.

²⁰³ Environmental Defenders Office Victoria, 'Environmental Justice Project: Final Report' (Report, 2011) <https://envirojustice.org.au/sites/default/files/files/Submissions%20and%20reports/enviromental_justice_report.pdf>; Hogarth, above n 27, 131.

²⁰⁴ Peel et al, above n 1, 836-7.

(at least at a preliminary stage) of cases such as *Urgenda*²⁰⁵ and *Juliana v United States*.²⁰⁶

Additionally, it can also be argued that the culture of Australia's legal sector is generally more conservative, and therefore warier of notions of 'passion' in legal practice, 'cause lawyering', 'social change lawyering' and 'law and organising' practice models than legal cultures elsewhere.²⁰⁷ There are also significant institutional obstacles that interact with this culture. The split of the legal profession between barristers and solicitors, the existence of adverse costs, comparatively onerous economic and regulatory barriers to practising without supervision, a lack of incentives for early-career public interest legal employment,²⁰⁸ and Australia's unique constitutional and historical political context all operate as handbrakes on

²⁰⁵ *Stichting Urgenda v Government of the Netherlands (Ministry of Infrastructure and the Environment)* (ECLI:NL:RBDHA:2015:7145, Rechtbank Den Haag, C/09/456689/HA ZA 13-1396, 24 June 2015). The legal strategy for the *Urgenda* case was hatched and spearheaded by a commercial lawyer from outside the public interest environment environmental law movement. See Felicity Nelson, *Dutch Climate Champion Brings "Case for Hope" to Australia* (24 July 2015) Lawyers Weekly <<https://www.lawyersweekly.com.au/news/16874-dutch-climate-champion-brings-a-case-for-hope-to-australia>> ('Urgenda's case was led by Roger Cox, a partner at the Dutch law firm Paulussen Advocaten and the author of *Revolution Justified*, which lays out the legal thinking behind the case'), cited in Peel et al, above n 1, 806 fn 48.

²⁰⁶ Olivia Molodanof and Jessica Durney, 'Hope is a Song in a Weary Throat: An Interview with Julia Olson' (2018) 24(2) *Hastings Environmental Law Journal* 213, 214 ('I've always liked bringing worthy cases that others are unwilling to bring or think are not likely to be successful, and working hard to win them. ... I saw my colleagues and myself playing a lot of defence, trying to stop and hold the line on environmental protection, rather than being proactive and coming up with an offensive strategy. That perspective informed my desire for a new approach on climate change').

²⁰⁷ Sydes, above n 175, 68; Robert French, 'Lawyers, Causes and Passion' (Speech presented at the EDO NSW 25th Anniversary Dinner, Sydney, 25 June 2015) <<http://www.hcourt.gov.au/assets/publications/speeches/current-justices/frenchcj/frenchcj25June2015.pdf>>, citing Austin Sarat and Stuart Scheingold, *Cause Lawyering and the State in a Global Era* (Oxford University Press, 2001) 13, and Christos Boukalas, 'Politics as Legal Actors – Lawyers as Political Actors: Towards a Reconceptualisation of Cause Lawyering' (2013) 22(3) *Social and Legal Studies* 395, 396-7; Isabelle Reinecke, 'Global Approaches to Litigation For Change' (Winston Churchill Memorial Trust of Australia Churchill Fellowship Report 2016, 25 September 2017) <https://www.churchilltrust.com.au/media/fellows/Reinecke_I_2016_People_and_systemic_change_through_the_courts_1.pdf>.

²⁰⁸ Although comparing the financing of tuition fees at Australian and US law schools is likely akin to comparing apples and oranges, it is notable that many US law schools have programs in which some or all of a law graduate's education loans are forgiven for each year that graduate works in an approved public interest area, and there have been recent calls to further incentivise public interest career options for law graduates. See Richard Beck, 'Loan Repayment Assistance Programs for Public Interest Lawyers: Why Does Everyone Think They are Taxable?' (1996) 40 *New York Law School Law Review* 251; Pete Davis, *The First Thing We Do is Nudge the Lawyers* (26 January 2016) Aeon <<https://aeon.co/ideas/law-schools-should-nudge-their-students-into-civic-minded-jobs>>.

more entrepreneurial public interest litigation and a larger and more diverse public interest environmental law sector.²⁰⁹

C Resources-Based Factors

As mentioned in Section II of this article, SMOs that are poor in resources (human or financial) are expected to be unlikely to pursue litigation as a strategy. It stands to reason that resource-poor climate litigants, when choosing between litigation strategies, would therefore opt for more conventional approaches so as to minimise adverse costs risk. Peel and Osofsky have indicated that weaker sectoral financial and human resources in Australia partly explain the differences between the Australian and US climate litigation landscapes.²¹⁰ It has also been suggested on resources-based grounds that ‘building upon a well-established Australian litigation tradition... may have a higher rate of success than more innovative approaches’ and may therefore be a preferable future strategy.²¹¹ In contrast, given that Australia has essentially a single public interest climate change litigation model based on external, independent legal advice and representation,²¹² variance in the legal expertise of staff within climate SMOs is unlikely to have the explanatory value it potentially has in other contexts.²¹³

Consequently, a potential obstacle for new approaches in Australia is the philanthropic funding environment for public interest environmental law. Australia’s EDOs have for much of their history been largely dependent on government funding. For instance, EDO NSW was established in its early years on only a handful of relatively modest business and civil society donations, and a more substantial grant from the Legal Aid Commission of New South Wales.²¹⁴ EDO NSW did not escape its precarious funding situation until it received ‘secure, meaningful and ongoing funding from the Public Purpose Fund of the Law Society of NSW’.²¹⁵ A truly national network of EDOs did not emerge until the receipt of Commonwealth funding in 1995.²¹⁶ This can be contrasted with the funding model in other jurisdictions such as the United States and Canada, where public interest

²⁰⁹ Christine Forster and Vedna Jivan, ‘Public Interest Litigation and Human Rights Implementation: The Indian and Australian Experience’ (2008) 3(1) *Asian Journal of Comparative Law* 1; Paula O’Brien, ‘Changing Public Interest Law: Overcoming the Law’s Barriers to Social Change Lawyering’ (2011) 36(2) *Alternative Law Journal* 82; Andrea Durbach et al, ‘Public Interest Litigation: Making the Case in Australia’ (2013) 38(4) *Alternative Law Journal* 219, 221-2.

²¹⁰ Peel and Osofsky, *Climate Change Litigation*, above n 2, 321-4.

²¹¹ Peel et al, above n 1, 830.

²¹² See Sydes, above n 202, 62.

²¹³ See Vanhala, above n 11, 403-6.

²¹⁴ Ben Boer, ‘Legal Aid in Environmental Disputes’ (1986) 3 *Environmental and Planning Law Journal* 22, 36-37.

²¹⁵ Hogarth, above n 27, 12.

²¹⁶ David Robinson, above n 199, 165; Brendan Sydes, above n 175, 60.

environmental law offices were and continue to be seeded and funded primarily by large philanthropic foundations.²¹⁷

The historical reliance of Australian EDOs on public funding arguably creates the apprehension that public interest environmental litigators will be more likely to view themselves as ‘insiders’,²¹⁸ and will be less likely to bring cases that challenge the status quo or fall outside accepted approaches. As Hogarth writes of a 2007 visit to the United States and Canada by then-EDO NSW CEO Jeff Smith:

One telling insight was: ‘US environmental and environmental legal groups seem to operate much more outside of the mainstream’. Reading between the lines, the North Americans were incredulous that the EDO could both receive government funding and sue governments. With hindsight, this can be taken as a warning of challenges to come several years later.²¹⁹

This historical funding relationship between government and civil society in Australia did not, ultimately, insulate successful cases from political backlash, even where those cases only delayed rather than prevented the challenged development.²²⁰ Following the high profile community victories by the plaintiffs in *Bulga Milbrodale Progress Association v Minister for Planning and Infrastructure*,²²¹ and media revelations that representatives of two EDOs had been present at an anti-coal activist meeting,²²² EDOs throughout Australia lost most if not all of their Commonwealth and state funding.²²³ This has, however, been something

²¹⁷ Paul Sabin, ‘Environmental Law and the End of the New Deal Order’ (2015) 33(4) *Law and History Review* 965, 965 ([t]he most prominent organisations, founded between 1967 and 1971, included the Environmental Defence Fund (EDF), Centre for Law and Social Policy (CLASP), Natural Resources Defence Council (NRDC), and the Sierra Club Legal Defence Fund. Public Advocates and the Centre for Law in the Public Interest, two California-based firms founded during these same years, also initiated key litigation. These small but powerful legal organisations – all predominantly funded by the Ford Foundation – quickly achieved landmark victories that helped to define the early successes of modern environmentalism’).

²¹⁸ William Maloney, ‘Interest Groups and Public Policy: The Insider/Outsider Model Revisited’ (1994) 14(1) *Journal of Public Policy* 17; Klein, *This Change Everything*, above n 158, 204-11; Hogarth, above n 27, 14 (‘Walmsley nevertheless asserts that walking a political tightrope has worked surprisingly well. “Hopefully we will continue to go from strength to strength, and maintain our sophisticated relationship with government whereby we can sue a Minister on one issue while at the same time engaging with the same government on a law reform issue. In the majority of cases we still get an official Christmas card at the end of the year”. Walmsley’s scenario of mixing legal conflict with constructive policy collaboration is unusual, if not unique in the international experience of public interest environmental lawyering’).

²¹⁹ Hogarth, above n 27, 15.

²²⁰ See above nn 78-80, 85.

²²¹ [2013] NSWLEC 48.

²²² Hogarth, above n 27, 84.

²²³ EDO NSW, *EDO Offices Face Closure After Federal Funding Cuts* (17 December 2013) <https://www.edonsw.org.au/edo_offices_face_closure_after_government_funding_cuts>.

of a blessing in disguise, as non-government sources have largely filled the funding gap and, in the process, potentially opened up opportunities for litigation approaches that more directly challenge the political status quo.²²⁴

Indeed, resource considerations ultimately appear to have little explanatory value in explaining non-adoption of new approaches. ‘It is fair to say that climate change cases before federal courts in Australia have not achieved success as a legal matter’,²²⁵ meaning adverse costs orders are presumably ordered frequently against climate litigants, and yet Australia has and continues to see a relatively high volume of climate change litigation.²²⁶ Two additional developments have the potential to improve the funding environment for new approaches to climate litigation, especially with respect to the government accountability and adaptation damages approaches outlined above. The first is the establishment of Australia’s first public interest litigation funder, the ‘Grata Fund’.²²⁷ At its inception the Grata Fund cited the *Urgenda* case in the Netherlands as the kind of system-changing litigation it seeks to fund.²²⁸ Building on successful precedents for ‘civic crowdfunding’ of environmental litigation in Australia,²²⁹ the development of a formal public interest litigation funding sector in Australia is likely to increase opportunities for pro-active, novel climate litigation in Australia. This is reflected in the Grata Fund having already funded a novel climate change-related proceeding involving allegations by Commonwealth Bank shareholders that the Commonwealth Bank’s failure to report the foreseeable risks and impacts stemming from climate change was in breach of the *Corporations Act 2001* (Cth).²³⁰

The second development is the growth of commercial litigation funding in Australia.²³¹ This has particular implications for adaptation damages approaches. The majority of the recent cases filed under this approach in the United States have involved legal representation on a ‘contingency’

²²⁴ Hogarth, above n 27, 131.

²²⁵ Peel et al, above n 1, 796 fn 8.

²²⁶ Above n 1. See also EDO NSW, *Current Cases* <https://www.edonsw.org.au/current_cases>.

²²⁷ Grata Fund, *People Powered Justice* <<http://www.gratafund.org.au/>>.

²²⁸ Jennifer Robinson, ‘Citizens Must be Able to Challenge Government Power’ *Sydney Morning Herald* (online) 30 November 2015 <<https://www.smh.com.au/opinion/comment-jennifer-robinson-on-grata-fund-20151130-glbe10.html>> (‘[i]nspired by game-changing court cases that have disrupted unjust laws around the world this year, like the US Supreme Court decision to legalise marriage equality and the Hague decision to mandate climate change emissions reductions in the Netherlands, we want to facilitate opportunities to do the same in Australia’).

²²⁹ Evan Hamman, ‘Save the Reef! Civic Crowdfunding and Public Interest Environmental Litigation’ (2015) 15(1) *QUT Law Review* 159.

²³⁰ *Guy Abrahams v Commonwealth Bank of Australia* (Federal Court of Australia, VID 879/2017, Concise Statement, 8 August 2017).

²³¹ Jason Geisker and Jenny Tallis, ‘Australia’ in Leslie Perrin (ed), *The Third Party Litigation Funding Law Review* (Law Business Research, 2017) 1, 1.

basis; that is, the lawyers involved will receive a percentage of any damages awarded or settlement sum reached as their fee for legal services.²³² Such an arrangement is prohibited in Australia. Instead, third-party commercial litigation funders contract with a plaintiff or members of a class action, funding the litigation upfront in return for receiving a percentage of any damages awarded or settlement sum reached.²³³ Third-party litigation funding is commonly employed in class action litigation, as litigation funders are able to fund essentially one set of legal representatives while receiving a percentage of the aggregated claim value of a typically large number of clients.²³⁴ Additionally, there is no requirement in Australia for class actions to receive judicial ‘certification’ in order to proceed,²³⁵ and complex class actions proceedings have been brought by municipalities previously.²³⁶ Consequently, Australia may have an even more favourable funding environment for litigation (specifically, class action litigation) under adaptation damages approaches than currently exists in the United States.²³⁷

VI CONCLUSION

This article has sought to expand the discussion of what should inform decisions about the future of climate litigation in Australia, beyond the essential but well-trodden considerations of causes of action, prospects of success, standing, justiciability, evidentiary concerns and costs. Normatively, by applying an analytical framework informed by social movement theory, this article has argued that a more nuanced assessment of both existing and proposed approaches should consider the approach’s dependence on political opportunity; non-structural aspects of the approach’s legal opportunity; the strategic value of the frame or frames communicated by the approach; variance in judicial receptiveness within the confines of a jurisdiction’s constitutional structure and legal culture;

²³² Charlie Brennan, ‘Boulder Spearheads Lawsuit Seeking Damages from ExxonMobil, Suncor Over Climate Change Impacts’ *Daily Camera* (online) 17 April 2018 <http://www.dailycamera.com/news/boulder/ci_31810658/boulder-sues-exxon-suncor-climate-change>.

²³³ Michael Legg and Louisa Travers, ‘Necessity is the Mother of Invention: The Adoption of Third-Party Litigation Funding and the Closed Class in Australian Class Actions’ (2009) 38(3) *Common Law World Review* 245.

²³⁴ *Ibid.*

²³⁵ Edward Sherman, ‘Group Litigation under Foreign Legal Systems: Variations and Alternatives to American Actions’ (2002) 52(2) *DePaul Law Review* 401, 426.

²³⁶ See *Wingecarribee Shire Council v Lehman Brothers Australia Ltd (in liq)* [2012] FCA 1028; Neil Guthrie, ‘Successful Class Action by Municipalities Against Lehman Brothers Over Derivatives’ *Lexology* (online) 20 November 2012 <<https://www.lexology.com/library/detail.aspx?g=e77282ae-c921-42c1-a57b-2b3dfab8e9ab>>.

²³⁷ For a balanced discussion of the advantages and disadvantages of a hypothetical negligence-based climate change class action proceeding, see Cashman and Abbs, above n 7, 261.

the socio-institutionalist characteristics of litigants; and a litigant's financial and human resources. Instrumentally, this article has suggested that the deepening climate crisis, the failure of international law to adequately address this crisis, the inefficacy of the existing, administrative law-based approach to climate litigation, the framing deficiencies of the existing approach, and the framing advantages of new approaches all weigh towards increasing consideration and future adoption of novel, ambitious approaches.

The significant difficulties with isolating and empirically evaluating the factors affecting a climate litigant's strategic preferences prohibits this article from making robust conclusions regarding the reasons for the non-adoption to date of new approaches in Australia vis-à-vis the US. Nevertheless, the analysis in this article provides some weight to the argument that these preferences are as much due to, *inter alia*, differences between the cultures of each jurisdiction's judiciary and legal profession, and the absence of comparable 'strategy entrepreneurs' in the climate SMO community, as they are to supposedly immovable legal doctrine. In short, gazing into the crystal ball and imagining new futures for climate change litigation in Australia requires not only considering whether and how the law itself might change, but also whether and how the strategic choices of those availing themselves of the courts might change in the face of a deepening climate crisis.

Justice and Climate Transitions

JEREMY MOSS* AND ROBYN KATH**

Abstract

Plans for transitioning to a low carbon society often focus on the most efficient and effective methods of reducing GHG emissions. While emissions reduction is obviously key to avoiding dangerous climate change, it is by no means all a transition should aim to achieve. We will argue that a climate transition should also aim to achieve broader social justice goals. In particular, a climate transition should aim to reduce inequality. Further, a reduction in inequality should not simply be a ‘co-benefit’, but a central goal guiding the allocation of resources and the shape of any transition. We will outline a framework that balances social justice and mitigation goals through a focus on inequality in the Australian context. We will also discuss how such a framework can address our global obligations.

Keywords

Climate Change Mitigation; Climate Transitions; Distributed Energy; Inequality; Justice

I INTRODUCTION: MOTIVATING MITIGATION

A Why Justice?

There is widespread agreement that our transition to a low carbon society ought to be just and fair. Indeed, it would be surprising to find anyone who was prepared to argue explicitly that our transition should be *unjust* or *unfair*. However, despite widespread agreement on the need for a just transition, there has been little systematic attention paid to what principles at a general level ought to guide a just transition, once the extent of the transition has been determined.¹ Many responses to climate change

* Professor of Political Philosophy, School of Humanities and Languages, University of New South Wales.

** Research Associate, Practical Justice Initiative (Climate Justice stream), Faculty of Arts and Social Sciences, University of New South Wales. This paper benefitted from the comments of audiences at University of Tasmania’s *Imagining a Different Future* Conference in 2018. The authors would like to thank the Editors and the two anonymous reviewers of the *University of Tasmanian Law Review* for their very helpful comments. The authors would also like to acknowledge the support of the Australian Research Council through their Discovery Grants program through a grant entitled ‘Ethics, Responsibility and the Carbon Budget’.

¹ Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford University Press, 2008); John Broome, *Climate Matters: Ethics in a Warming World* (W W

acknowledge the need for normative principles yet focus mostly on mitigation issues.² Others acknowledge the importance of justice but claim that it makes mitigation too difficult.³

Part of the issue here is that a commitment to ‘justice’ or ‘fairness’ at a very abstract level does not, on its own, get us very far. It does not give us much guidance about what circumstances are really just or fair, or what justice consists of. What is needed is a conception of justice or fairness that tells us something concrete about what justice means in the context of a climate transition: for example, whether a just transition involves simply reducing emissions, or also assisting the disadvantaged; and, if the latter, what kind of assistance is called for? Should we focus on making people more equal, prioritising the needs of the disadvantaged, or something else? What if pursuing the goal of making people more equal makes our transition more costly or slow? Similarly, decisions about the speed and scope of a transition will also require us to consider our fundamental motivations for undergoing that transition.

Here we argue that a fair approach to the distribution of a climate transition’s benefits and burdens must be the focal point of any transition strategy. This fair distribution cannot be considered solely in terms of ‘co-benefits’ that are an afterthought to the development of such strategies. We argue that any climate transition should take a unified approach that balances mitigation goals with broader goals relating to justice. The arguments here are necessarily preliminary. However, we also develop a framework that translates these broader goals to a specific context, by focusing particularly on the goal of reducing inequality and on Australia as a case study. While our case study is only one example of the application of these broad normative goals, it does provide an indication of how and why such goals are important.

We also suggest that including justice considerations from the start may in fact be a better way to guarantee the success of a climate transition. Adopting goals other than the simple reduction of emissions may be a way of making a climate transition more acceptable as well as fairer. So not only will ignoring the importance of justice rob us of an ability to appropriately consider other benefits of a climate transition, it might also lessen the likelihood of that transition’s success. Justice considerations are

Norton, 2012). For a survey see Dominic Roser and Christian Seidle, *Climate Justice* (Routledge, 2017).

² See Craig Morris and Martin Pehnt, ‘Energy Transition: The German Energiewende’ (November 2012) Energy Transition: The Global Energiewende <<https://book.energytransition.org/>>. Sonja Klinsky et al, ‘Building Climate Equity: Creating a New Approach from the Ground Up’ (Report, 2015) <<https://www.wri.org/sites/default/files/building-climate-equity-072014.pdf>>.

³ For a discussion (though not endorsement) of this point see Simon Caney, ‘Just Emissions’ (2013) 40 *Philosophy and Public Affairs* 255.

also central to establishing and motivating the extent and speed of a country's transition. In Section I we begin by discussing how justice can motivate a transition. In Section II we argue that justice goals are unavoidable for a climate transition and that they must be combined with mitigation goals. In Section III we focus on why reducing inequality in particular ought to be a goal of a transition. In Section IV we apply this insight to through a case study of distributed energy.

B Transitions and the Carbon Budget

Principles of justice are of relevance to climate transitions in a number of ways. Climate change itself matters because of its impact on human society and the environment, which is fundamentally a moral issue. Further, a focus on justice is required to understand how to share the benefits and burdens of a transition. Without a framework for fairly allocating benefits and burdens we risk creating further injustices. A good illustration of these issues is how countries decide on domestic and global 'carbon budgets'.

To avoid dangerous climate change the world must transition from emitting high amounts of greenhouse gases (GHGs) to emitting very low amounts. The transition has already begun but needs to speed up considerably if the world is to meet its global emission targets. By signing the Paris Agreement, the majority of the world's countries have accordingly endorsed the common goal of keeping global temperature rise below 2°C. The global carbon budget is the total amount of GHGs we can emit globally from now on, if we are to have a good chance of meeting this goal.⁴ Local carbon budgets, then, are the share of this global carbon budget allocated to different individual countries. However, the world's current combined domestic emissions targets, even if they are all met, are unlikely to be consistent with the achievement of the 2°C goal. We need to aim higher, and transition faster.⁵

A fast and efficient transition is particularly urgent for countries, like Australia, that have very high current levels of GHG emissions. Australia's Nationally Determined Contribution (NDC), following the Paris Agreement, includes a target of reducing GHG emissions, including land use, land use change and forestry (LULUCF), by 26–28% below 2005 levels by 2030.⁶ This translates into a range of 445–458 MtCO₂-e allowed

⁴ Malte Meinshausen et al, 'Greenhouse-Gas Emission Targets for Limiting Global Warming to 2°C' (2009) 458 *Nature* 1158.

⁵ Rogeli et al, 'Paris Agreement Climate Proposals Need a Boost to Keep Warming Well Below 2 °C' (2016) 534 *Nature* 631.

⁶ Australian Government, 'Australia's 2030 Emissions Reduction Target: Strong, Credible, Responsible' (Fact Sheet, 2015) 4
<<http://www.environment.gov.au/system/files/resources/f52d7587-8103-49a3-aeb6-651885fa6095/files/summary-australias-2030-emissions-reduction-target.pdf>>.

emissions in 2030 (including LULUCF).⁷ Current Australian Government projections have Australia producing about 1000MtCO₂-e more between 2021 and 2030 than would be consistent with this target.⁸

Australia's obligation to transition away from a high-emitting way of life derives, in part, from its international commitments. On the basis of the targets we agreed to in Paris, we have an obligation to reduce our domestic emissions. Australia has also agreed in its Paris commitments to contribute to other countries' mitigation efforts via various mechanisms, including the Green Climate Fund, which was set up to address the pressing mitigation and adaptation needs of developing countries. Australia has pledged to contribute USD \$200 million to the Fund between 2015 and 2018.⁹ However, existing agreements are only part of the story. The commitments we have made so far do not, in all likelihood, go far enough.

1 *Further Responsibilities*

Australia's current emissions reduction target is most likely well below both what would accord with our fair share relative to other countries, and what would align fairly with global carbon budget targets. Most other industrialised countries, except Canada and New Zealand, have proposed 2025 or 2030 goals significantly below 1990 levels.¹⁰ For example, the European Union has pledged a reduction in domestic emissions of 30-39% below 1990 levels.¹¹ Australia's goal of reducing emissions by 26-28% below 2005 levels equates to a reduction of only 13–15% below 1990 emissions levels.¹² Based on this comparison alone, we seem not to be doing our fair share.

The view that Australia is required to follow a much steeper emissions reduction trajectory is widespread. The Climate Council states that:

Australia must cut its greenhouse gas emissions much more deeply and rapidly to contribute its fair share in meeting the climate change challenge. A 2030 target of a 40-60 per cent reduction below 2000 levels (or a range of approximately 45 to 65 per cent below 2005 levels) is the

⁷ Marcia Rocha et al, 'Australia Set to Overshoot its 2030 Target by Large Margin' (Report, Climate Action Tracker, 27 August 2015) <http://climateactiontracker.org/assets/publications/briefing_papers/Australia.pdf>.

⁸ Department of the Environment and Energy (Cth), 'Australia's Emissions Projections 2016', (Report, December 2016) iii <<https://www.environment.gov.au/system/files/resources/9437fe27-64f4-4d16-b3f1-4e03c2f7b0d7/files/aust-emissions-projections-2016.pdf>>.

⁹ Julie Bishop (Minister for Foreign Affairs), 'Australia to Lead Green Climate Fund Board in 2017' (Media Release, 16 December 2016) <https://foreignminister.gov.au/releases/Pages/2016/jb_mr_161216.aspx>.

¹⁰ Climate Action Tracker, 'Australia' (Assessment, Climate Action Tracker, 27 August 2015) <https://climateactiontracker.org/media/documents/2018/4/CAT_2015-08-27_CountryAssessment_Australia.pdf>.

¹¹ Climate Action Tracker, *EU* (2017) <<http://climateactiontracker.org/countries/eu.html>>.

¹² Rocha, above n 7.

bare minimum for Australia to be both in line with the science and the rest of the world.¹³

We arguably also have a duty to make more significant reductions in GHG emissions, both domestically and as a proportion of global emissions, for two further reasons: because we have emitted more than our share in the past, and because we contribute heavily to global emissions by exporting large quantities of fossil fuels.

2 *Historical Responsibility*

One important principle of justice that is often applied in this context is the principle of *historical responsibility*. According to this principle, historically high-emitting countries should be allocated a smaller amount of the remaining global carbon budget than historically low-emitting countries.¹⁴

Australia has emitted a disproportionately high share of GHG emissions in the past. This has been the case particularly in the more recent past, since the harmful consequences of GHG emissions have been well established. While there is no universally agreed upon formula for allocating responsibility for historical emissions, it is safe to say that Australia has far exceeded any quota it might reasonably have been allocated in the past.¹⁵

In 1990, Australia's per capita emissions were 28.02 tCO₂ (excluding LULUCF). In contrast, per capita emissions for the world, the EU, and China for the same year were 5.67 tCO₂, 9.82 tCO₂, and 2.78 tCO₂, respectively. These figures are less than one-third of Australia's per capita

¹³ Gerry Hueston et al, *Halfway to Paris: How the World is Tracking on Climate Change* (13 July 2015) Climate Council <<https://www.climatecouncil.org.au/halfway-to-paris-how-the-world-is-tracking-on-climate-change>>. Climate Action Tracker rates Australia's pledges as 'inadequate', indicating that Australia's commitment is not in line with most interpretations of a 'fair' approach to reach a 2°C pathway. See Rocha, above n 7, 2.

¹⁴ Other terminology associated with historical responsibility in this context includes 'polluter pays', 'accountability/sensitivity', 'contribution to problem' and 'Brazilian proposal' (the latter after a proposal along these lines made by the Brazilian delegation to the Kyoto Protocol negotiations in 1997 (included in annex I to the United Nations Framework Convention on Climate Change, opened for signature 3 June 1992, 1771 UNTS 107 (entered into force 21 March 1994)). See Simon Caney, 'Justice and the Distribution of Greenhouse Gas Emissions' (2009) 5(2) *Journal of Global Ethics* 125, 133; Eric Neumayer, 'In Defence of Historical Accountability for Greenhouse Gas Emissions' (2000) 33(2) *Ecological Economics* 185; Edward Page, 'Climate Change Justice' in Robert Falkner (ed), *The Handbook of Global Climate and Environmental Policy* (John Wiley and Sons, 2013) 231, 237; David R Morrow, 'Climate Sins of Our Fathers? Historical Accountability in Distributing Emissions Rights' (2016) 19(3) *Ethics, Policy and Environment* 335; Lukas H Meyer and Dominic Roser, 'Climate Justice and Historical Emissions' (2010) 13(1) *Critical Review of International Social and Political Philosophy* 229; Benito Müller et al, 'Differentiating (Historic) Responsibilities for Climate Change' (2009) 9(6) *Climate Policy* 593.

¹⁵ J Moss and R Kath, 'Historical Emissions and the Carbon Budget' (2018) *Journal of Applied Philosophy* (forthcoming).

emissions. As of 2013, Australia's per capita emissions were 25.09 tCO₂. Despite this small decrease, Australia's per capita emissions remained much higher than world, EU, and China figures for the same year (at 6.31 tCO₂, 8.32 tCO₂, and 8.65 tCO₂, respectively). Australia's 2013 per capita figure is still approximately three times higher than those of the EU and China.¹⁶

For decades now, we have continued to emit GHGs at these high rates, despite convincing evidence that we are thereby contributing to the risk of dangerous climate change. This, of course, affects everyone on the planet. A warming climate is bad for Australians; it is bad for those in other countries, and often worst for the poorest people in the world. By over-emitting we not only contribute to the risk of dangerous climate change; we also place more pressure on others to reduce their emissions more rapidly than would otherwise be required. By emitting more than our fair share we place a demand on others to 'take up the slack' in emissions reductions, which creates further difficulties and hardships.

Our responsibility for excessive historical emissions (in particular those produced in full knowledge of modern climate science) is one justice-based reason we have to make more significant cuts in our domestic emissions than we have so far committed to.¹⁷ A principle of historical responsibility is thus one issue of justice that should motivate and inform our climate transition strategy.

3 Exports

Australia is not only a heavy domestic emissions producer. We also export a huge quantity of coal and gas, which both contribute significantly to global emissions. As shown in the table below, the amount of emissions produced from Australia's exports of fossil fuels is double our domestic emissions. Arguably, we are partly causally responsible for those further emissions, though they do not currently count in our domestic emissions budget.

To see why we ought to take some responsibility for these export-based emissions, consider the following analogy. Suppose that a country exported tobacco to a developing country. Given what we know about the links between smoking and death and disease, the exporting country would plausibly be implicated in the harm caused by tobacco smoking in the developing country, and morally responsible for at least some of that harm.

¹⁶ World Resources Institute, *Introducing Climate Watch*, CAIT Climate Data Explorer <<http://cait2.wri.org>>.

¹⁷Göran Duus-Otterström, 'The Problem of Past Emissions and Intergenerational Debts' (2014) 17(4) *Critical Review of International Social and Political Philosophy* 448; Meyer and Roser, above n 14.

Another example concerns uranium exports. Most countries place restrictions on the destination of their uranium exports. The risks of uranium falling into the wrong hands, accidents, storage issues, and so on, are just too great with some countries to countenance an export program. Should one country knowingly export uranium to another country where these issues are present, we could rightly hold it liable for any resultant harms. If this is true, we ought to take some responsibility for those emissions produced by the burning of our fossil fuels, from which we profit significantly. For the same reasons that a country ought to share the blame when they knowingly contribute to harm via their exports of, say, uranium, a country ought also to share the blame for producing and selling commodities such as coal or gas. This is not to say that Australia ought to be responsible for *all* of those emissions, as well as its own domestic emissions. It is merely to say that Australia ought to bear *some* level of responsibility for these emissions, either by setting higher reductions targets to offset them, or by significantly downsizing its fossil fuel exports.

	Total Australian emissions with exports excluded	Total Australian emissions from coal exports	Total Australian emissions from natural gas exports	Total actual emissions	Total Australian emissions 2020 target
Unit	Mt CO ₂ -e	Mt CO ₂ -e	Mt CO ₂ -e	Mt CO ₂ -e	Mt CO ₂ -e
2014-15	565.6	1016.36	67	1648.96	
2015-16	594.4	1011.92	95.95	1702.27	
2016-17	617.3	1012.52	135.88	1765.7	
2017-18	638.2	1032.68	182.51	1853.39	
2018-19	652.7	1048.6	198.32	1899.62	
2019-20	655.6	1063.69	199.13	1918.42	
2020-21	659.8	1074.44	201.54	1935.78	532

Table 1: Summary of past, present and projected figures for Australian CO₂-e emissions. Data from the Department of the Environment's 'Australia's Emission Projections 2029-2030' (March 2015) 32, and the Office of the Chief Economist, 'Resources and Energy Quarterly' (March 2016).

If we consider the consensus view about the inadequacy of the commitment Australia has already set through the Paris Agreement, its historical responsibility for past emissions, and its status as a heavy exporter of fossil fuels, Australia is doing much less than its fair share in enabling a swift

and efficient global climate transition. To meet its justice-based obligations it would appear, then, that Australia ought to set more stringent reductions targets.

4 International Obligations

Establishing the source and strength of the motivations we have to reduce our emissions raises a further justice-related question: how much should we focus on our domestic transition, and how much on assisting other countries to transition? Given that our emissions have contributed to harming others, should we direct some of our efforts and resources toward their climate transitions? Or should we focus on making our own reductions as significant as possible? If Australia were to further reduce its domestic emissions (beyond its current Paris target, and beyond what would be required once historical responsibility and exports were taken into account) this would lessen the burden on other countries to cut their emissions. This might allow other countries to make a smoother climate transition. However, some action in addition to domestic emissions reductions might also be required. Many developing countries will have difficulty implementing the changes to lifestyles and infrastructure required by any robust climate transition.¹⁸ They will mostly likely need practical assistance with the transition process.

Moreover, Australia simply increasing its emissions reductions targets may not be enough to achieve justice. We should also assist other countries to implement their own plans to transition. This could be achieved in a number of ways, such as by shifting resources from a domestic transition to the Green Climate Fund or a similar fund. It might also mean sharing developments in renewable energy technologies. Helping other countries in this manner is a way to take seriously Australia's obligation to mitigate the harms that have been and are being caused by its high historical emissions and exports.

II JUSTLY DISTRIBUTING THE BENEFITS OF CLIMATE TRANSITIONS

A Dual Goals

We have suggested that Australia ought to adopt a more ambitious emissions reduction target, and embrace a faster climate transition, than it has done so far. Regardless of the final details of our climate change mitigation targets, however, Australia's transition will require that resources be directed towards two goals.

¹⁸ Organisation for Economic Co-operation and Development (OECD), 'Green Growth and Developing Countries: A Summary for Policymakers' (June 2012) 8 <<https://www.oecd.org/dac/50526354.pdf>>.

The first is ensuring that the emissions reduction target is met. Transitioning to a low-GHG society will of course involve many different processes, from transforming our electricity supply by investing in renewable energy, to increasing public transport, changing consumption habits, and so on. The challenges and costs here are considerable. For instance, a recent report from the Australian Energy Market Operator (AEMO) indicated that the cost of building a 100 per cent renewable power system is estimated to be at least \$219 to \$332 billion (by 2030 or 2050 respectively), depending on the transition scenario adopted.¹⁹

The second goal is making sure that the resources employed in transition are fairly distributed to achieve the best social justice outcomes. Evaluating this goal is the second key focus of this article.

B Justice is Everywhere

One reason we should put distributive justice at the heart of Australia's transition planning is because the effects of any climate transition on the wellbeing of many in society will be significant and widespread. In this sense, distributive justice is inescapable. Installing new renewable energy capacity, cutting subsidies for the fossil fuel industry, building extensive public transport, and so on: all of these measures will inevitably involve significant costs, and confer significant benefits. The costs might include restrictions on the types of choices that individuals can make and the imposition of additional forms of taxation. The benefits will include not only a fair contribution to mitigating climate change, but also cleaner air, reduced congestion, and many other kinds of benefit.

No matter what technologies we choose or policy mechanisms we adopt to achieve a climate transition, those technologies and mechanisms will generate benefits and burdens, and those benefits and burdens (particularly the burdens) will have to be paid for and shared by individuals or groups within society. Sharing benefits and burdens within (and between) societies is a question of distributive justice. In the broadest sense, distributive justice concerns the distribution of all the relevant benefits and burdens in a society, and often between societies as well. In relation to climate transitions, it concerns the sharing of the benefits and burdens that result from transitioning from a high- to a low-GHG society. Ultimately, it concerns making society a more equal place.

Of course, a focus on deploying the best technology to reduce emissions is paramount. But technology alone is not sufficient to achieve the best kind

¹⁹ Australian Energy Market Operator, '100 Per Cent Renewables Study: Modelling Outcomes' (July 2013) 34
<<https://www.environment.gov.au/system/files/resources/d67797b7-d563-427f-84eb-c3bb69e34073/files/100-percent-renewables-study-modelling-outcomes-report.pdf>>.

of climate transition. We must also incorporate justice-type goals and we need to be aware of why this is the case. It is well understood that a range of factors influence which technological and policy approach will reduce emissions most effectively in a given country or case. These factors include things like cost constraints, governance, research capacity, hostile environmental conditions, degree of urban sprawl, and so on. What is less widely acknowledged is that these factors, and perhaps others, also influence the distribution of benefits and burdens. That is, they influence which technological or policy approach will be most just in a given country or case. As we pursue the necessary goal of reducing our GHG emissions, we must also pay attention to our justice goals, which will be affected in myriad ways by our choice of transition path.

Moreover, the impacts of distributing burdens in the wrong way might be severe. If we are not careful, we might adopt an emissions reduction strategy that means the already disadvantaged bear more of the costs, for instance because of punitive tax arrangements. The impacts of our transition might also be felt more keenly by specific groups: for example, those who lose their jobs in fossil fuel intensive industries, or those whose health conditions require more electricity. We must pay attention to the distribution of the significant burdens that we will share (somehow) in the transition process. We must also pay attention to the distribution of the benefits. Some might unfairly miss out on the benefits of transitioning, for example if benefits such as jobs or energy subsidies are misdirected.

This kind of consideration is of course not unique to climate transitions. Various industries and professions regularly shut down or move to other countries, resulting in economic and wellbeing impacts for large numbers of people. However, it is likely that the transformation required in a robust climate transition will be more widespread than, say, the ceasing of logging in old growth forests. Because of changes to people's lifestyles as well as costly new infrastructure, a climate transition will potentially involve a more profound and broader societal adjustment. But it also offers a more profound opportunity: if we can replace high carbon societies with ones that are not only low carbon but also less unequal, that is a better outcome. All these considerations increase the need to focus on ensuring that the climate transitions are informed by issues of distributive justice.

C Unifying Justice

Considering the justice-related implications of our transition plans is an important first step. But awareness of these consequences, when considering which technologies to deploy or what kind of taxes to adopt, will not by itself lead to the best possible outcome. Considerations of distributive justice are relevant in a broader sense than discussed above. Societies are interested in improving numerous aspects of their citizens' lives, including their health, education, access to the environment,

mobility, and a number of other matters. What is important is that individuals have access to a range of goods that will enable them to live a better life.

It is the provision of this *package of goods* that ought to be the goal of any government. We care about health and education because each of these goods is in general necessary for individuals in a society to have a good life, even though various individuals will need such goods to different degrees. Moreover, we care about whether *all* the relevant goods are available to individuals. Ultimately, it is whether these goods are present that will determine whether the distributive arrangements in a society are fair. Moreover, we have broader moral obligations that are conceivably relevant. We have obligations to make society a more equal place, to improve the lives of those worst off, to compensate others for any harm we cause them, to prevent persecution and discrimination, to meet people's basic needs where possible, to fulfil our commitments, to protect the vulnerable and voiceless, to avoid wars, and so on. Ultimately, it is a combination of some of these broader goals that we should expect to be reflected in a justice-focused climate transition plan. It is the integration of these broader goals with the narrower goal of mitigating climate change that we are calling a 'unified' approach to a climate transition.

Contrast this unified approach with standard approaches to climate transition. One typical approach is to say that the main (if not the sole) aim of a climate transition is to reduce emissions as quickly and efficiently as possible. This is what we might call the 'isolationist' approach.²⁰ It is isolated because the main goal is morally simple and minimal: reduce emissions (even though there may be some attention paid to other kinds of issues along the way). It is one thing to say that we ought not to forget the moral consequences of our transition, but quite another to hold that we ought to have broader justice considerations at the heart of our transition, in conjunction with emission reduction goals.

According to the isolationist approach, we ought to set all of these other moral goals aside (or at least consider them of secondary importance) as we pursue the goal of minimising GHG emissions. According to the unified approach, on the other hand, we ought to pursue our other moral goals *in conjunction with* our emission reduction goal. This means that a transition ought to combine a concern for justice with a concern for mitigation. Ultimately, we will have to balance the demands of these two sets of goals. But it is important that we keep them both at the heart of our decision-making process.

²⁰ Simon Caney, 'Just Emissions' (2013) 40(4) *Philosophy and Public Affairs* 255.

1 *Does a Unified Approach Make the Transition Harder or Easier?*

One might worry that bringing these broader justice-based goals into our climate transition decision-making framework will over-complicate an already difficult task, and hamper progress towards mitigation. For example, requiring that a climate transition address health or education goals might be considered controversial, or practically infeasible. Some might argue that we should not complicate the climate transition planning process with the array of difficult disagreements over which further justice-based goals a society ought to pursue. This is an important point.

But, as the philosopher Simon Caney points out, much will depend on what kind of values or goals are at stake.²¹ What he calls a ‘maximal’ approach to justice will have very specific and perhaps controversial commitments; for example, it might entail a radical political program. No doubt some maximal ideas of distributive justice are like this and would drastically complicate the climate transition process. In contrast, we can find elements of distributive justice that are more minimal and less controversial, where disagreement would not be so great. In the rest of this article we focus on one such element: reducing inequality.²² We explore some of the implications of adopting inequality reduction as a goal which, alongside GHG emissions reduction, should guide a climate transition. Reducing inequality is thus an answer to the question posed at the start of the article: how we should understand what it means for a climate transition to be just.

There is a further response to the objection that picking a more substantive set of goals will just invite controversy and stymie mitigation efforts: that it may be the case that *not* considering justice-based goals as fundamental will make things worse. Failure to address people’s concerns about who obtains the benefits and who bears the costs of a wide-ranging and expensive climate transition seems likely to make such a transition unworkable.

The transformation of the stationary energy sector is a case in point. As some Australian states transition to a greater reliance on renewable energy, there is fierce debate concerning the effects of this on power prices

²¹ Ibid.

²² While by no means uncontroversial, the importance of reducing inequality has been discussed extensively within philosophy. For key discussions see Martin O’Neill ‘What Should Egalitarians Believe?’ (2008) 36 *Philosophy and Public Affairs* 119; Tim Scanlon, ‘The Diversity of Objections to Inequality’ in Matthew Clayton and Andrew Williams (eds), *The Ideal of Equality* (Palgrave Macmillan, 2002) 46. Reducing inequality has also been an influential idea in other disciplines and in broader debates. See eg Thomas Piketty, *Capital in the Twenty-First Century* (Harvard University Press, 2014).

(particularly for poor households), whether energy companies are profiting excessively, and whether a switch to renewables will allow reliable and secure electricity supply. Add in questions concerning whether there should be more ‘distributed’ energy²³ (in part because it allows more independence), and we have a complex set of justice-related goals that are (rightly) being considered as part of the switch to renewables. Failure to take considerations of this nature into account will plausibly make the acceptance of an ambitious climate transition, and thus the associated potential benefits, less likely.

2 Analogies (Justice in Other Contexts)

It should really come as no surprise that climate transitions ought to be planned with reference to a broader package of goods and values, and distributive justice generally. Numerous other public problems have this structure. Consider education, for example. More education (at least up to a point) improves people's lives – it increases the work and lifestyle opportunities available to people, and leads to better health and financial outcomes. Very often, less wealthy individuals have more limited access to education. These facts, together with a minimal concern for justice, mean that we (either as governments or as individuals) ought to improve education in poor communities.

But we shouldn't pursue this goal in an isolated fashion. We ought to bear in mind other moral goals that might intersect with the goal of improving education. For example, where low education levels in a community coincide with social inequality – along gendered or racial lines, say – we ought to consider whether we might be able to encourage social equality while improving education levels in that community. As a simplistic example, imagine we have funding sufficient for ten university scholarships for Australians from poor rural backgrounds. We ought at least to consider whether we might stipulate that some proportion of the scholarships go to eligible Indigenous Australians. We ought to consider doing this even if it would (for whatever reason) be more costly and thus mean that we can only provide nine scholarships.

Similarly, broad justice-based considerations influenced Australia's response to the global financial crisis in 2008. The response of the Australian government of the day (under Prime Minister Kevin Rudd) was to provide a ‘stimulus package’, including various forms of financial support delivered in various ways.²⁴ The primary goal of the government

²³ Distributed energy or generation is where generation is provided by smaller-scale technologies such as solar PV or wind turbines connected to the grid.

²⁴ Quoc Ngu Vu and Robert Tanton, ‘The Distributional and Regional Impact of the Australian Government's Household Stimulus Package’ (2010) 16(1) *Australasian Journal of Regional Studies* 127; Shuyun May Li and Adam Hal Spencer, ‘Effectiveness of the Australian Fiscal Stimulus Package: A DSGE Analysis’ (2016) 92(296) *Economic Record* 94.

in providing the stimulus package was to avoid or minimise economic recession.²⁵

However, the details of the package reveal concern for additional moral goals (a unified approach), and in particular concern for addressing inequality. Thus, for example, a tax bonus was paid to individuals earning less than \$100 000 in the 2007/2008 financial year. Cash bonuses were also provided to various groups of people considered to be in particular need of financial assistance: single income families, families with school-age children, carers, students, and farmers. While injecting liquid funds into the economy, these measures clearly also aimed to mitigate existing financial inequality (as well as inequality in other, fundamentally important goods or capacities such as education and health).

Likewise, a significant proportion of the package's infrastructure component was directed to building school infrastructure, social and defence housing, and local infrastructure and roads. As well as stimulating the economy, these measures seem to reveal a concern with other issues of justice: promoting good quality education throughout Australia, assisting the poor, and redressing rural infrastructure shortfalls.

3 Conflict and Agreement

Sometimes we can make progress on another moral goal (such as increasing wellbeing or reducing inequality, improving education or preventing armed conflict) without compromising our climate goals, and at no or very little extra cost. In this kind of case support for unified justice is intuitive: if we can achieve these further moral goals at no or very little extra cost and without impacting our GHG emissions reduction efficacy, then we ought to do so. For example, where a government decides to subsidise solar power it might prioritise projects that achieve these goals by providing subsidies to poorer households instead of wealthier households, or subsidise schools in needy areas instead of directing subsidies to larger businesses. In this way, wealth inequality can be reduced (or at least not exacerbated). If the overall cost and emissions reductions are the same, then there is a strong reason to fund the poorer households. The fact that there may be cases in which we can achieve other moral goals without (much) sacrifice also gives us a reason to *look* for those cases.

Of course, not all climate change mitigation policies will be this easy to repurpose. Sometimes we may have to trade values off against one another and, for example, decide whether to reduce emissions in a slower but more equitable way, or in a faster but less equitable way. These decisions will be difficult. This is too broad a topic to address here. Yet we should note that

²⁵ Kevin Rudd, 'The Global Financial Crisis' *Monthly* (online), February 2009 <<https://www.themonthly.com.au/issue/2009/february/1319602475/kevin-rudd/global-financial-crisis>>.

the weighing exercise will in part depend on the context. It is hard to argue in the abstract that justice considerations will *always* outweigh considerations not concerned with justice. However, avoiding the problem and making decisions on the basis of climate change mitigation exclusively may well lead to very unjust outcomes, and is therefore not an acceptable way to proceed.

III INEQUALITY

A Focusing on Inequality

How then are we to incorporate broader considerations of justice into the development of plans for a climate transition? One difficulty is that even when we confine ourselves to relatively uncontroversial goals, there are potentially many such goals that might be used to guide a climate transition. For now, we will focus on one particularly important goal – the reduction of inequality. We will argue that an important way of assessing the justice of climate transition schemes is by reference to the extent to which they minimise significant inequalities. By focusing on inequality we do not mean to exclude other justice-related goals. Rather, we aim to show how justice-related goals can be incorporated into the climate transition planning process, using inequality as just one example.

Inequality has become one of the most important topics in contemporary debates concerning justice. The rise of inequality, particularly of income and wealth, has been extensively discussed. French economist Thomas Piketty has detailed the rise in inequality of income and wealth in many countries over the second half of the 20th century. Others have explored the relationships between high levels of inequality and harms such as violence in society or lack of trust.²⁶ Suffice to say that reducing inequality ought to be one of the central goals of contemporary society.

Yet whether or not people agree that we ought to reduce inequality will depend on what kind of inequality is being discussed. Overwhelmingly, the inequalities that have dominated recent debate have focused on income and wealth.²⁷ But there are many kinds of inequality that ought to concern us, ranging from inequality in access to affordable housing, healthcare, and education, to important civil rights such as marriage equality or equal recognition of one's culture or sexual identity. Balancing these different kinds of inequality so as to maximise good outcomes is not a straightforward matter. However, one useful balancing approach is the capability approach developed by Amartya Sen, amongst others.²⁸

²⁶ Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Greater Equality Makes Societies Stronger* (Penguin, 2010).

²⁷ Piketty, above n 21.

²⁸ Amartya Sen, *Development as Freedom* (Oxford University Press, 1999). See also Martha Nussbaum, *Creating Capabilities: The Human Development Approach* (Harvard, 2011).

Capability theorists focus on whether people have the freedom (capability) to achieve the different valuable things or states of affairs that a person can be or do (functionings): that is, whether they can be educated, housed, access health care, have mobility, and so on.

B Human Development Index

Exactly which capabilities are relevant for assessing transition plans is not straightforward. There are all sorts of capabilities that might be considered important to people. Here, we focus on the Human Development Index (HDI) used in the 2016 Human Development Report (HDR).²⁹ Based on the capability approach, the HDI is a widely influential measure of human development that commands substantial endorsement from governments and institutions.³⁰

The HDI provides a metric for how we can measure inequality. It is not meant to be a complete index of everything that is important for inequality or for wellbeing more generally. Instead it focuses on three key measures that are essential for human development: a long and healthy life, being knowledgeable, and having a decent standard of living. Each of these three measures expresses something central to the ability to live a good life. How countries score on these measures determines their overall HDI score. We will focus here on inequalities in these three important measures or capabilities.

These three measures provide a plausible set of important inequalities to avoid and a good guide to whether a climate transition is increasing inequality or making society more equal. Measuring climate transition strategies against these criteria of inequality allows us to assess the justice implications of climate transitions. But we should also note that these are substantive measures of inequality: that is, they, in part, measure actual achievements and not just the opportunity to achieve something, important though opportunities are.

While acknowledging that these measures of inequality are not all that ought to matter when assessing the justice of a transition, we note that these inequalities are important because minimising them leads to an overall increase in important freedoms. For example, through greater investment in public transport and neighbourhoods, people could have their freedom increased *overall* because those changes would allow them to choose different jobs, neighbourhoods or ways to spend their time. Here we need to note two other important justice-related goals. Reducing the above

²⁹ Selim Jahan et al, 'Human Development Report 2016: Human Development for Everyone' (Development Report, United Nations Development Program, 2016) <http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf>.

³⁰ United Nations Development Programme, *Human Development Index (HDI)* <<http://hdr.undp.org/en/content/human-development-index-hdi>>.

inequalities could also add to the *control* that people have in respect of key goods such as energy generation. Providing the opportunity for distributed energy, for instance, might be valued because it allows control over individual energy needs, including governments or companies.

A good way to evaluate a climate transition, then, is to test whether it decreases the three important inequalities just described (in health, education and standard of living), and whether, as a consequence, it affords individuals greater control over their own lives, not just in Australia but internationally. This framework gives substance to the general claim that a climate transition ought to be just. It is important to note that increasing equality is a different goal to giving agents greater control. A transition could conceivably do one without doing the other. We will focus below primarily on increasing equality as that is the more substantive value.

IV CASE STUDY

Adding a concern for inequality to the framework that ought to guide a climate transition will allow us to achieve a fairer transition. But in what specifically will this fairness consist? To illustrate the impact of a unified framework for transition, we will consider a key ingredient of any transition: distributed energy. With the cost of solar photovoltaic (solar PV) and other renewable energy technologies rapidly decreasing and their uptake increasing, distributed energy has become a key factor in climate transitions. There is also significant scope for harnessing distributed energy to reduce, or at least prevent the increase of, existing inequalities in Australian society.

Distributed energy is of course not the only important ingredient of a successful transition. Community energy, transport more generally, removal of fossil fuel subsidies, change in building regulations, and reduction of waste are just a few of the many other important elements of a successful climate transition. But distributed energy is crucial, and provides a valuable way of illustrating the kind of difference that social justice can make to the design of a climate transition. The goal here is not to provide a comprehensive assessment of distributed energy, but rather to illustrate the kinds of consideration that should be taken into account in designing a climate transition with a concern for inequality at its core.

A Case Study: Distributed Energy

1 Renewables and Distributed Energy

Electricity generation accounted for 187MtCO₂-e, or 35 per cent, of Australia's greenhouse gas emissions in 2015.³¹ Department of the Environment and Energy projections indicate that this level of electricity-

³¹ Department of the Environment and Energy, above n 8, 6.

related emissions will remain roughly constant until 2030.³² These projections have Australia producing about 1000MtCO₂-e more between 2021 and 2030 than would be consistent with our 2030 target of 26-28% below 2005 levels.³³ Clearly, Australia needs to do more, including by changing our behaviour to consume electricity minimally and responsibly; by developing and adopting more efficient technologies; and by reducing the emissions-intensity of the electricity we use by replacing fossil fuel generation with renewable generation: wind, solar, hydro and others.

In 2016 renewables generated 17 per cent of Australia's electricity. The costs of renewables have been steadily declining with increased uptake, and according to some assessments it is already cheaper to install renewable electricity generating capacity than fossil fuel capacity in Australia.³⁴ The share of electricity generated by renewables in Australia will undoubtedly continue to increase.

Renewable electricity generation has so far tended to be implemented in a more distributed fashion than traditional fossil fuel generation. In place of one large coal electricity plant we might have dozens of medium-scale wind farms and a million small-scale residential PV solar panels, distributed over a wide area. Thus, as the share of renewable electricity generation has increased, electricity generation has tended to become more distributed.³⁵

2 Distributed Energy and Inequality

Using a unified emissions reduction approach, Australia should not only increase the use of renewable electricity technologies in whichever way will minimise greenhouse gas emissions, it should consider how its use of distributed renewable technologies will affect the distribution of important capabilities such as health, education, standard of living, and independence and control. It may be that the most emissions-effective strategy is not the strategy that maximises the distribution of these capabilities. This is

³² Ibid 9-11. The rate will decrease slightly to 176 in 2020, then rise again to 186 in 2030. Electricity use will increase over this time, due to population growth and an increase in electric vehicles.

³³ Ibid iii.

³⁴ Clean Energy Council, 'Clean Energy Australia: Report 2016' (Report, 2016) 19 <<http://gccn.org.au/wp-content/uploads/2018/01/Clean-Energy-Australia-Report-2016.pdf>>; Petra Stock, Andrew Stock and Greg Bourne, 'State of Solar 2016: Globally and in Australia' (Report, Climate Council of Australia, 2017) ii <<https://www.climatecouncil.org.au/uploads/4127a8c364c1f9fa8ab096b04cd93f78.pdf>>.

³⁵ A community microgrid is 'a self-contained and self-sufficient local electricity supply system, either standalone or connected to a centralised grid of regional or national scale, comprising residential and other electric loads, and can be supported by high penetrations of local distributed renewables, other distributed energy and demand-side resources'. Emi Minghui Gui et al, 'Distributed Energy Infrastructure Paradigm: Community Microgrids in a New Institutional Economics Context' (2017) 72 *Renewable and Sustainable Energy Reviews* 1355, 1356.

because there are possible interactions between distributed energy (in particular, distributed renewable electricity generation) and important inequalities in Australia.

First, it may be that the capacity to generate electricity in a more distributed system will allow us to reduce some of the stubborn and unjust inequalities in Australia (or internationally). Some of the possible benefits of community microgrids that we might be able to harness to this end, for example, are ‘energy autonomy and self-sufficiency; promotion of cleaner and more sustainable electricity; more reliability; retained economic benefits in the community; job creation in the community; provision of alternative competitive electricity supply’.³⁶ Clearly, many of these benefits will have an effect on those elements of the good life that are the focus of the HDI: health, education, and standard of living. Many also concern independence or autonomy. In some cases we should be able to use these effects to reduce inequalities in each dimension. Second, though, it might also be the case that some ways of implementing or encouraging distributed renewable electricity generation *exacerbate* existing inequalities. We need to be aware of both the possible opportunities and the possible pitfalls. We will examine some examples of each below.

It should also be noted that while reducing inequality is a desirable goal that should be part of a transition strategy, we are of course not suggesting that it must be the only goal. Considerations of efficiency for example will also be relevant, as will more general mitigation goals. But as we have argued, we have strong reasons to favour transition plans that incorporate egalitarian goals.

3 Remote Indigenous Communities

Australia’s greatest inequality challenges concern our Aboriginal and Torres Strait Islander peoples, and this is one area where distributed renewable electricity generation may be able to help. Gross inequalities between Indigenous and non-Indigenous Australians persist. These inequalities concern all of our target goods: health, education, wealth, and independence. One factor in some of these inequalities is remote living. For example, remoteness is associated with disadvantages in health, and while less than two per cent of non-Indigenous Australians live in remote areas, 20 per cent of Indigenous Australians live remotely.³⁷ Remoteness is also more disadvantageous for Indigenous Australians than for non-Indigenous Australians, in its impact on health and many other areas. For example, income inequalities between Indigenous and non-Indigenous Australians (which exist in all areas) are at their greatest in remote areas.

³⁶ Ibid 1365.

³⁷ Australian Institute of Health and Welfare, ‘Australia’s Health 2014’ (Australia’s Health Series No 14, 2014), 7.7.

As an aggravating element of this remote Indigenous financial inequality, remote communities sometimes pay outrageous amounts for electricity. In north-west New South Wales, for example, the average quarterly electricity bill for an Indigenous household is \$1200.³⁸ Remote Indigenous people's incomes are the lowest in the country, and so electricity bills on this scale are hardly manageable. There are several reasons for these prices, including poor housing, extreme temperatures, and reliance on diesel generators (which are expensive to run and unreliable).³⁹

A number of programs have already embraced the opportunity that distributed renewable electricity generation affords to address these inequalities. For example, the Federal and Northern Territory governments jointly funded a program to deliver solar power to more than 30 remote communities, and the First Nations Renewable Energy Alliance works to promote renewable energy installation in First Nations communities throughout the country.⁴⁰ In addition to the much-needed financial benefits that distributed renewable electricity generation affords to remote Indigenous communities, distributed energy may help to alleviate inequalities on other dimensions. This may happen independently – distributed generation may facilitate the development of better school or health clinic infrastructure, for example – or as a consequence of general wealth and wellbeing increases. One possible further advantage of distributed electricity generation in this context is that it increases the independence of the generator (in this case remote communities), and mitigates the impact of markets.

Increasing renewable electricity generation in remote Indigenous communities may not be the most efficient emissions reduction strategy, but because it is likely to help to reduce some of Australia's most unjust inequalities, it ought to be pursued. That this strategy has been embraced in some cases already is an indication that at some level it is recognised that the isolated approach to climate transition represents a goal that is

³⁸ Linda Hoang, *Backchat Discusses: Renewable Energy and Electricity Cost in Remote Communities w/ Murrawarri Elder Fred Hooper* (21 March 2017) FBi Radio <<https://fbiradio.com/backchat-discusses-renewable-energy-and-electricity-cost-in-remote-communities-w-murrawarri-elder-fred-hooper/>>.

³⁹ Ivor Frischknecht, 'Increasing Renewables in Remote, Off-Grid Areas' (Speech delivered at the Remote Area Power Supply Conference, 17 March 2014) <<https://arena.gov.au/news/remote-area-power-supply-conference-2/>>; Geoffrey Craggs, *Power to the People in Remote Communities* (17 May 2017) Future Directions International <<http://www.futuredirections.org.au/publication/power-people-remote-communities/>>.

⁴⁰ Australian Renewable Energy Agency, 'Solar Power to More than 30 Remote NT Communities' (Media Release, 12 October 2014) <<https://arena.gov.au/news/solar-to-power-more-than-30-remote-nt-communities/>>; First Nations Renewable Energy Alliance, 'Formation of First Nations Renewable Energy Alliance' (Media Release, February 2017) <<http://nationalunitygovernment.org/content/formation-first-nations-renewable-energy-alliance#renewable>>.

overly narrow, and that justice-based considerations are essential to climate transition planning.

4 Solar PV Subsidies

A major contributing factor to the uptake of solar PV in Australia has been government support in the form of various subsidies provided to households and businesses. In most states in Australia, this support has included point of sale rebates such as Renewable Energy Certificates (RECs) and Feed-in-Tariffs (FITs) – tariffs, sometimes very generous, paid to solar producers for electricity they feed into the grid. These incentives, particularly FITs, were partly responsible for a massive increase in solar PV in Australia. On an emissions reduction assessment they might therefore be considered a success (although whether they were the most cost-effective approach even there is questionable).⁴¹ They may also have increased political support for action on climate change, and spurred the growth of a durable industry with significant long-term local jobs.⁴²

The distribution of subsidies such as these is also a prime candidate for concern if we are interested in inequality. Subsidies are of course a kind of financial redistribution. When we consider subsidising something – whether it is fossil fuels, renewables, or healthcare – we need to ask: how are the benefits and burdens being distributed? Does the subsidy lessen inequality? In the history of residential solar PV subsidies in Australia, we have examples of both positive and negative effects on inequality.

First, many of the Australian residential solar subsidies have been structured in such a way as to financially favour homeowners with access to a certain amount of capital, at the expense of all grid electricity users, including renters and the very poor.⁴³ This is because it has often been the

⁴¹ Wood and Blowers claimed in 2015 that the solar boom had been subsidised by the public to the tune of almost \$10 billion. However, this report has been widely criticised as vastly overestimating the costs. Tony Wood and David Blowers ‘Sundown, Sunrise: How Australia can Finally Get Solar Power Right’ (Grattan Institute, 2015).

⁴² Australian PV Association, ‘APVA Response to PV Costs and Abatement in the Productivity Commission Research Report: Carbon Emission Policies in Key Countries, May 2011’ (June 2011) <<http://apvi.org.au/sites/default/files/documents/Releases/APVA%20-%20Response%20to%20Productivity%20Commission%20Carbon%20Emission%20Policies%20Report%20June%202011.pdf>>.

⁴³ Tim Nelson et al, ‘Australian Residential Solar Feed-In Tariffs: Industry Stimulus or Regressive Form of Taxation?’ (2011) 41(2) *Economic Analysis and Policy* 113; Andrew J Chapman et al, ‘Residential Solar PV Policy: An Analysis of Impacts, Successes and Failures in the Australian Case’ (2016) 86 *Renewable Energy* 1265; Genevieve Simpson and Julian Clifton, ‘Subsidies for Residential Solar Photovoltaic Energy Systems in Western Australia: Distributional, Procedural and Outcome Justice’ (2016) 65 *Renewable and Sustainable Energy Reviews* 262. This is the case for similar subsidy schemes in many other countries too. The home-owner/renter divide may become more significant as the proportion of Australians renting increases. See Wendy Stone et al, *Home Ownership Remains Strong in Australia but it Masks Other Problems: Census Data*, (27 June 2017) Conversation

case that in order to take advantage of the schemes, one has needed to purchase and install a solar panel at home. This requires a significant up-front outlay of cash (even taking into account point of sale rebates), as well as the stability of residence largely only available through home-ownership in Australia.

These are clearly obstacles that exclude poorer people and renters from participating and thus receiving the relevant subsidies. Further, it has often been the case that those unable to receive the subsidies partially pay for them. This is because most of the FITs have been paid for by across the board increases to the price of retail electricity. Thus the poorest Australians have partially subsidised the solar investments of wealthier Australian homeowners. For example, according to one analysis of FITs in New South Wales in 2010, ‘the implied rate of taxation is 2.6 times higher for households in the lowest income bracket (0.089%) than the higher income bracket (0.034 per cent)’.⁴⁴ This is an example of a negative effect on inequality: a regressive subsidy system that exacerbates existing financial inequalities.

We do not mean to say that residential solar PV should not have been subsidised, nor that subsidies should not be used in other ways to accelerate Australia's climate transition. On the contrary, we find it quite likely that residential solar PV subsidies *were* justified by their benefits, in terms of emissions reduction as well as industry stimulation and social outreach, and that further subsidies *will* be required. We merely wish to draw attention to some possible improvements to the ways in which subsidy schemes are planned and structured; improvements that might lead to better outcomes with respect to inequality in the future.

Some evidence for the improbability of solar subsidy programs with respect to inequality is the fact that such programs have already begun to be improved in just this respect. Schemes have been introduced to make the subsidies more accessible for renters and those in public housing. For example, solar power purchase agreements (SPPAs) are now available in some areas of Queensland.⁴⁵ These agreements overcome the up-front cost barrier to solar installation – a provider installs, owns, and operates a PV system at the participant's home, selling the participant the produced power

<<http://theconversation.com/home-ownership-remains-strong-in-australia-but-it-masks-other-problems-census-data-80068>>.

⁴⁴ Nelson et al, above n 43. This finding is controversial; see eg Warwick Johnston, *Solar Tariffs and the Merit Order Effect: A Response to AGL*, (5 April 2012) RenewEconomy 5 <<https://reneweconomy.com.au/solar-tariffs-and-the-merit-order-effect-a-response-to-agl-22812/>>. However, the general point stands: we must pay careful attention to potential financial inequality effects of climate transition mechanisms and policies.

⁴⁵ Queensland Government, *How Solar Power Purchase Agreements Work* (10 September 2018) <<https://www.qld.gov.au/housing/buying-owning-home/solar-power-purchase-agreements>>.

at a price lower than the usual retail price. In some cases home ownership is still a barrier to participation, although the Queensland government, for example, also launched a solar for public housing trial in 2017.⁴⁶ This trial will test an SPPA program for public housing, as well as a rooftop solar farm in the remote Indigenous diesel powered community of Lockhart River.

As in the example of remote Indigenous communities, subsidies for solar PV and other distributed renewable electricity generation technology can be harnessed to reduce inequalities. Subsidies might be an effective way to promote renewables while also reducing inequalities of health, education, and independence, as well as obvious financial inequalities. Funding solar PV installation in public schools is another likely way of doing this which has already been embraced around the country.⁴⁷ Installing solar panels in public schools benefits all public school system users. While reducing GHG emissions, it also relieves schools' financial burden, allowing them to use money that would otherwise be spent on electricity in the improvement of education. Having a concern for inequality at the heart of our climate transition planning process means actively *looking* for opportunities to decrease inequality, as well as evaluating our past actions with the benefit of hindsight to learn how we might do better in the future.

A final concern about distributed energy and inequality is the effects of a possible exodus from the national electricity grid. The maintenance, operation and expansion of the large grids currently needed to transmit electricity from concentrated generation sources to consumers is expensive. Having more distributed electricity generation may enable us to reduce the overall costs of electricity provision. However, the ability to generate and store electricity at the household or community level might affect different groups of people differently. Again, if only some people can afford to generate and store their own electricity (because of the home ownership and up-front costs involved), and these people then leave the communal distribution grid, electricity may become much more expensive for those still using the grid, as they will be required to bear the full costs of grid upkeep and transmission.

Though there may be advantages to distributed energy programs for the individuals who are able to generate and store their own electricity, these

⁴⁶ Queensland Government, *Solar Panel Trial* (13 December 2018) <<https://www.dews.qld.gov.au/electricity/solar/solar-future/public-housing>>. Similarly, the California Solar Initiative dedicates some funding to installations on low-income housing: Department of Energy (USA), *California Solar Initiative – Single-Family Affordable Solar Housing (SASH) Program* <<https://energy.gov/savings/california-solar-initiative-single-family-affordable-solar-housing-sash-program>>.

⁴⁷ See eg Anastacia Palaszczuk and Grace Grace, 'Solar Panels on School Roofs to Save More than \$10 million a Year' (Media Statement, 13 March 2018) <<http://statements.qld.gov.au/Statement/2018/3/13/solar-panels-on-school-roofs-to-save-more-than-10-million-a-year>>.

must be weighed against the costs that will be borne by others. Particularly where existing inequalities would be exacerbated by the implementation of such programs, we have cause to pause. The grid exodus problem may not arise, and will depend on the relative costs of grid and off-grid (or microgrid) electricity in the future, among other things. However, it is the kind of potential problem of inequality that we need to think about in advance, either to ensure that it does not occur, or to work out how to respond if it does.

This distributed energy case study shows that climate transitions need what we have been calling a unified approach that incorporates justice-based concerns from the outset. Not taking account of the likely justice-related impacts may both lessen the chance of a successful rollout and cause us to miss opportunities. The case study also shows that taking into account considerations of inequality alters the kind of decisions that might be made concerning where to allocate resources and which technologies ought to be deployed.

V CONCLUSION

We have argued that justice considerations ought to play a central role in shaping a climate transition strategy. Justice goals not only determine how quickly we ought to transition, they can also be used to guide the manner in which benefits and burdens of a climate transition are distributed. Focusing on justice in these two respects is desirable for two reasons: first, because it offers the opportunity to achieve other important moral goals (such as the reduction of inequality upon which we have focused); and second, because without a concern for justice, individuals might be less likely to endorse a robust climate transition.

Incorporating justice-based reasons for transitions does not, of course, mean that a transition will not be burdensome. Given the scale of the required climate transition and the technological, social, economic, and political restructuring entailed, it will harness a huge range of resources. It will also force us to confront the possibility of severe disruption and disadvantage in affected industries through job losses and community decline.⁴⁸ Adopting a justice-based approach to climate transitions introduces some further complexity and difficulty to the decision-making process. However, it also allows us to appreciate the *opportunities* inherent in a climate transition. Cities will be less polluted and roads less congested as a result of our transition. Eventually, our energy needs will be met renewably, avoiding the environmental damage that results from fossil fuels, such as air and water pollution. There will be many benefits of this kind.

⁴⁸ See T Spencer et al, 'The 1.5°C Target and Coal Sector Transition: at the Limits of Societal Feasibility' (2018) 18 *Climate Policy* 335–51.

But even beyond this kind of benefit, the need to significantly restructure and reshape our societies provides an opportunity to make our societies better in *further* ways, ‘while we’re at it’, as it were. We have the opportunity to make other things better while we fix the problem of looming dangerous climate change. This focus on the benefits and opportunities afforded by the necessity of implementing a climate transition means we can see transition as a great opportunity and not simply a challenge. Taking the unified approach outlined here helps to bring this latter view into focus. Rather than doing the bare minimum along a single dimension (climate mitigation) to avoid a looming threat, we should take the opportunity to create a substantially more equal society.

Ecocide and the Carbon Crimes of the Powerful

ROB WHITE*

Abstract

The missing link in discussions and debates about climate change are the carbon criminals. These are governments (the key focus for climate action) and transnational corporations (the key drivers of global warming). While state-corporate collusion in support of activities that add to and rationalise carbon emissions is widely acknowledged, rarely are such activities and denials of harm subject to the discourses of criminalisation. Recent efforts to name these as transgressions and injustices have done so under the rubric of ecocide. Despite foreknowledge of the immense harms it will cause, global warming continues apace. This article explores the dynamics of climate change criminality through discussion of the perpetrators of climate-related harm, issues of responsibility and responses to the causes of climate injustice.

Keywords

Climate Change; Climate Justice; Ecocide; State-Corporate Crime

I INTRODUCTION

Climate change criminality is a key focus of this article. Global warming is rapidly transforming the biophysical world in ways that have massive ramifications for humans, specific eco-systems, and animal and plant species. Consequential changes are already evident in disruptions stemming from record heat waves, altered precipitation patterns, sea level rise and other climate outcomes.¹ Harms associated with climate change are significant criminologically, not least because global warming itself is caused primarily by human actions.

Green criminology refers to a growing body of criminological research and scholarship, comprised of a number of distinct theoretical approaches, which focuses on the nature and dynamics of environmental crimes and harms (that may incorporate wider definitions of crime than provided in strictly legal definitions), environmental laws (including enforcement, prosecution and sentencing practices) and environmental regulation (systems of administrative, civil and criminal law that are designed to

* Professor of Criminology, School of Social Sciences, University of Tasmania.

¹ See, eg, US Global Change Research Program, *Fourth National Climate Assessment* (Report No 4, 2018).

manage, protect and preserve specified environments and species, and to manage the negative consequences of particular industrial processes).²

A fundamental premise of green criminology is that environmental crime needs to be defined and studied in relation to harm, and not solely on the basis of legal definitions. There are two reasons for this. First, much existing environmental harm is legal. Harm to the environment is, in many situations, considered to be acceptable because it is an inherent consequence of industrial activities that are seen to provide significant economic benefits (for instance, in certain circumstances, pollution is allowed under license or authorisation, and is simply treated as an externalised cost of doing business).³ This can be problematic for green criminologists, who argue that ecological criteria warrant significant weight in deciding the normative status of environmentally harmful acts or omissions as ‘good’ or ‘bad’, and that laws do not always get the calculus right.⁴ For green criminology, environmental harms, regardless of legality, need to be closely scrutinised and the activities that cause serious harm may be considered ‘criminal’ – from a criminological harm perspective – depending upon situation and specific analysis.

Second, reliance upon strictly legal definitions of crime sidesteps fundamental matters of social power and sectional interests, and the manner in which these are reflected in legal definitions. Accordingly, a more expansive definition of environmental crime within green criminology includes environment-related harms facilitated *by the state*, as well as *corporations and other powerful actors*, insofar as these institutions have the capacity to shape official definitions of environmental crime in ways that allow or condone environmentally harmful practices.⁵ Thus, issues pertaining to state crime (the state as perpetrator of environmental harm) and transnational corporate crime (including the legitimacy granted to ecologically destructive acts and omissions on the part of large firms) demand attention in their own right.

² See Piers Beirne and Nigel South (eds), *Issues in Green Criminology: Confronting Harms Against Environments, Humanity and Other Animals* (Willan Publishing, 2007); Matthew Hall, *Exploring Green Crime: Introducing the Legal, Social and Criminological Contexts of Environmental Harm* (Palgrave, 2015); Michael Lynch et al, *Green Criminology: Crime, Justice and the Environment* (University of California Press, 2017); Angus Nurse, *An Introduction to Green Criminology and Environmental Justice* (Sage, 2016); Nigel South and Avi Brisman, (eds), *The Routledge Handbook of Green Criminology* (Routledge, 2013); Rob White and Dianne Heckenberg, *Green Criminology: An Introduction to the Study of Environmental Harm* (Routledge, 2014).

³ White and Heckenberg, above n 2; see also Stuart Bell and Donald McGillivray, *Environmental Law* (Oxford University Press, 7th ed, 2008); Gerry Bates, *Environmental Law in Australia* (LexisNexis Butterworths, 9th ed, 2016).

⁴ Samantha Bricknell, Australian Institute of Criminology, *Environmental Crime in Australia* (Report, 2010).

⁵ Rob White, *Transnational Environmental Crime: Toward an Eco-Global Criminology* (Routledge, 2011).

Harm has been described as a ‘normative concept that reflects underlying social judgments about the good and the bad’, and environmental harm specifically has been defined as ‘a setback to human interests that community norms have deemed to be significant’.⁶ The ‘wrongdoing’ studied within green criminology is initially informed by legal conceptions and constructions of harm.⁷ The nature and seriousness of harm – what makes something ‘criminal’ or not – is captured in the distinction between illegality (*malum prohibitum*) and serious harm (*malum in se*).⁸ Environmental crime is typically defined on a continuum ranging from strict legal definitions through to broader harm perspectives.⁹ The matter of legality does not prevent criminologists from critiquing certain types of ecologically harmful activities that happen to be legal, such as the clearfelling of forests or, as is pertinent to this article, continuing high levels of human-caused carbon emissions. Therefore, green criminology ‘provides an umbrella under which to theorise and critique both *illegal* environmental harms (that is, environmental harms currently defined as unlawful and therefore punishable) and *legal* environmental harms (that is, environmental harms currently condoned as lawful but which are nevertheless socially and ecologically harmful)’.¹⁰

Green criminology is oriented towards *exposing* activities that cause significant damage to the environment. It is *aspirational* in the sense of arguing for the formal criminalisation of behaviour that is particularly destructive of ecology and species. Both endeavours involve attempts to shift community thinking away from active or tacit acceptance of acts (and omissions) that are environmentally harmful, to seeing these as morally wrong, as illegal and/or as criminal.

This continuum of social judgement – from acceptance to criminalisation – forms the crux of the present article. At the centre of the proposed normative shift is a crime that exposes environmental harm while posing significant challenge to the interests of the powerful: ecocide.¹¹ The main targets for action to prevent ecocide are nation-states and transnational

⁶ Albert Lin, ‘The Unifying Role of Harm in Environmental Law’ (2006) 3 *Wisconsin Law Review* 898, 901.

⁷ Yingyi Situ and David Emmons, *Environmental Crime: The Criminal Justice System’s Role in Protecting the Environment* (Sage, 2000).

⁸ Illegality (*malum prohibitum*) refers to conduct that is prohibited by law but generally considered less serious than other types of social harms (homicide, for example). For instance, cutting down trees and pulling species out of the ocean are not intrinsically criminal or ‘bad’ activities from the point of view of the law. It is the context that makes something allowable or problematic. Serious harm (*malum in se*) refers to conduct inherently wrong by nature, and considered serious. The main issue here is to ban specific substances and/or activities. The intent of the law is the prevention and abolition of harmful practices. See White and Heckenberg, above n 2.

⁹ Bricknell, above n 4.

¹⁰ White and Heckenberg, above n 2, 13.

¹¹ As discussed below, ecocide refers to preventable, human-caused damage to, and destruction of, the environment.

corporations. Importantly, responding to the actions of those who carbon pollute involves both discursive critique (that is, attempts to criminalise such activities in popular and academic discourse) and attempts to introduce legal reform such as a new criminal offence (as part of international criminal law). Dealing with the key perpetrators of global warming requires diverse and multiple social and legal interventions.¹² This, too, is an underlying theme of the article.

The article is comprised of three main sections. The first section affirms the reality of climate change, identifies the political problem of the lack of needed action on climate change, and the framing of this reluctance to act as 'criminal' by scientists and journalists. The next section discusses the concept of ecocide, particularly from a criminological perspective, and its relevance to issues of climate justice. Ecocide refers to environmental destruction on a substantial scale. Analysis of ecocide in relation to global warming demands that attention be placed on the key perpetrators of the harm. The third section explores the systemic reasons for climate change ecocide and particularly the sectoral interests of business and government. It addresses the question of responsibility for global warming, and thus ecocide on a planetary scale. The article concludes with discussion of the criminalisation process and its relevance to debates over climate change.

II NAMING THE PROBLEM: CLIMATE CHANGE AND CRIME

This section is about knowledge and science, activities that contribute to carbon emissions, and the naming of wilful ignorance about climate change as a crime. It sets the scene for later discussions of ecocide and crimes of the powerful.

Climate change is occurring, due to global warming. This is scientific fact, not a 'belief'.¹³ Global warming is happening primarily due to anthropogenic (human) causes. This is scientific fact, not a 'belief'.¹⁴ The social, environmental and economic impacts of climate change are multiple, planet-wide and in some instances catastrophic for human

¹² Rob White and Ron Kramer, 'Critical Criminology and the Struggle Against Climate Change Ecocide' (2015) 23(2) *Critical Criminology* 383.

¹³ Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis: Summary for Policymakers* (Report, 27 September 2013); Intergovernmental Panel on Climate Change, *Climate Change 2014 Synthesis Report: Approved Summary for Policymakers* (Report, 1 November 2014).

¹⁴ Intergovernmental Panel on Climate Change, *Climate Change 2013*, above n 13. Indeed, this fact has been formally acknowledged by mainstream commentators and economists for well over a decade. Witness, for example, the Stern Report's key take-home message: '[a]n overwhelming body of scientific evidence indicates that the Earth's climate is rapidly changing, predominantly as a result of increases in greenhouse gases caused by human activities'. Nicolas Stern, *Stern Review: The Economics of Climate Change* (Report, 2006) 3.

populations, flora, fauna and ecosystems.¹⁵ The problem is acute and not going to go away, no matter how vociferous the denial or obtrusive the contrarianism.¹⁶

From around the 1990s onwards, knowledge about climate change, the contribution of carbon emissions to climate change, and the consequences of climate change has been widely available and generalised; the problems are known and have featured centrally in global political forums.¹⁷ Contemporary science confirms that carbon emission (alongside that of other greenhouse gases), and (to a lesser extent) deforestation are the main causes of global warming.¹⁸

Yet, even after several decades of generalised foreknowledge and heightened forewarning, global warming continues apace. In fact, the

¹⁵ See, for example N Watts et al, 'The Lancet Countdown: Tracking Progress on Health and Climate Change' (2017) 389 *Lancet* 1151; Sutherland et al, 'A 2018 Horizon Scan of Emerging Issues for Global Conservation and Biological Diversity' (2018) 33(1) *Trends in Ecology and Evolution* 47; Stern, above n 14.

¹⁶ Denial and scepticism have long featured in debates over the status and causes of climate change. Over time, however, denial has taken on the attributes of contrarianism. As Avi Brisman notes, 'while scepticism can be both a healthy part of the scientific process and an excuse to present political or value-laden perspectives (that are masked behind a scientific façade), contrarianism suggests an ideological, rather than scientific, impetus for disagreement'. Avi Brisman, 'The Cultural Silence of Climate Change Contrarianism' in R White (ed), *Climate Change From a Criminological Perspective* (Springer, 2012) 41, 43. State-corporate collusion in fostering contrarianism has been well documented, particularly in the United States. See Avi Brisman, 'The Violence of Silence: Some Reflections on Access to Information, Public Participation in Decision-Making, and Access to Justice in Matters Concerning the Environment' (2013) 59(3) *Crime, Law and Social Change* 291; Ron Kramer, 'Carbon in the Atmosphere and Power in America: Climate Change as State-Corporate Crime' (2013) 36(2) *Journal of Crime and Justice* 153; Michael Lynch, Ronald Burns and Paul Stretesky, 'Global Warming and State-Corporate Crime: the Politicalisation of Global Warming Under the Bush Administration' (2010) 54(2) *Crime, Law and Social Change* 213. See also Naomi Oreskes and Erik Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (Bloomsbury, 2010).

¹⁷ Edward Page, 'Distributing the Burdens of Climate Change' (2008) 17(4) *Environmental Politics* 556. For example, the 1992 United Nations Conference on Environment and Development (UNCED) (the 'Earth Summit' or 'Rio Conference') explicitly acknowledged the environmental rights of humans and presented a call to action on global environmental matters. It was at this conference that the United Nations Framework Convention on Climate Change was adopted as an international environmental treaty and opened for signature. It entered force in 1994 after a sufficient number of countries had ratified it. The Convention's objective is to 'stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'. Problem and perpetrator were and are clearly identified. United Nations Framework Convention on Climate Change, opened for signature 3 June 1992, 1771 UNTS 107 (entered into force 21 March 1994) art 2.

¹⁸ Intergovernmental Panel on Climate Change, *Climate Change 2014 Synthesis Report*, above n 13; Australian Panel of Experts on Environmental Law, *Climate Law* (Technical Paper 5, April 2017); Edmund McGarrell and Carole Gibbs, *Conservation Criminology, Environmental Crime, and Risk: An Application to Climate Change* (Oxford Handbooks Online, 2014).

situation has worsened since the official recognition of global warming, as reported in a succession of IPCC reports.¹⁹ A key question, therefore, is, given knowledge of the problem and its consequences, why have things become worse rather than better?

The answer is not technical. Indeed, even if there were substantially lower emissions at present, the heating up of the planet would still continue for decades owing to the time lag between global warming cause and effect. Rather, the problem is political – key carbon emission perpetrators continue to pollute with relative impunity, supported by and in some instances including nation-states.

The missing link in discussions and debates about climate change are the ‘carbon criminals’.²⁰ These include a wide range of actors, from farmers and tourism operators through to national transportation firms and individual consumers. The largest contributors to global warming are governments (the key focus for climate action, in terms of policy debate) and transnational corporations (the key drivers of global warming). While state-corporate collusion in support of activities that add to and rationalise carbon emissions is widely acknowledged, rarely are such activities and denials of harm subject to the discourses of criminalisation. For criminologists, in particular, this is an important lacuna that is finally starting to be addressed more directly.²¹

The term ‘criminals’ is nonetheless familiar to campaigners actively speaking out on climate change issues. Consider, for example, the words of a leading scientist. Environmental scientist and climate activist David Suzuki in an interview with Bill Moyers stated that:

‘Our politicians should be thrown in the slammer for willful blindness. ...I think that we are being willfully blind to the consequences for our children and grandchildren. It’s an *intergenerational crime*.’²²

¹⁹ See eg Intergovernmental Panel on Climate Change, *Climate Change 2013*, above n 13; Intergovernmental Panel on Climate Change, *Climate Change 2014 Synthesis Report*, above n 13. It has been noted that ‘[i]n the 25 years since nations resolved to act in 1992, the level of atmospheric carbon dioxide has continued to climb ever more rapidly. It is now well clear of 400 parts per million everywhere in the world – 45 per cent higher than in pre-industrial times’. Peter Boyer, ‘El Nino Weather Event puts Gloss on Another Stinker of a Year’, *Mercury* (Tasmania, 16 January 2018) 14.

²⁰ Rob White, ‘Carbon Criminals, Climate Change and Ecocide’ in Cameron Holley and Clifford Shearing (eds), *Criminology and the Anthropocene* (Routledge, 2017) 50.

²¹ See Ron Kramer, ‘Public Criminology and the Responsibility to Speak in the Prophetic Voice Concerning Global Warming’ in Elizabeth Stanley and Jude McCulloch (eds), *State Crime and Resistance* (Routledge, 2013) 1, 41; Rob White, *Climate Change Criminology* (Bristol University Press, 2018).

²² B Baker, *Dr David Suzuki Tells Bill Moyers Why it’s Time to Get Real on Climate Change* (11 November 2014) EcoWatch <<http://ecowatch.com/2014/05/11/david-suzuki-bill-moyers-climate-change/>>. Emphasis added.

Journalists have resorted to similar choices of words. Tom Engelhardt, editor of *TomDispatch.com*, has commented that:

‘[Big Oil’s] top executives continue to plan their futures (and so ours), knowing that their extremely profitable acts are destroying the very habitat, the very temperature range that for so long made life comfortable for humanity. Their prior knowledge of the damage they are doing is what should make this a *criminal activity*. ... If the oil execs aren’t terrorists [sic], then who is? And if that doesn’t make the energy companies *criminal enterprises*, then how would you define that term? To destroy our planet with malice aforethought, with only the most immediate profits on the brain, with only your own comfort and wellbeing (and those of your shareholders) in mind: Isn’t that the *ultimate crime*? Isn’t that terricide?’²³

These powerful statements by forthright scientist and journalist pinpoint vital issues and highlight the gravity of the wrongdoing. For their part, legal commentators and criminologists have been rather more reluctant to employ this rhetoric, perhaps in part due to the ways in which ‘crime’ and ‘criminal’ are substantively defined in legal and disciplinary terms. Nonetheless, recent efforts to name these as transgressions and injustices have done so under the rubric of *ecocide*.

III THE CRIME OF ECOCIDE

The term ‘ecocide’ emerged in the late 1960s in response to the impact of war on the environment, and has since been used in reference to the negative impacts on environments under peacetime as well as wartime conditions.²⁴ With regard the latter, the concept has been used to refer to the extensive damage to, or destruction or loss of, ecosystems of a given territory, and includes both natural (for example, pest infestation of an ecosystem) and anthropogenic (that is, as a result of human activity) causes for the harm.²⁵ Recently the concept has also been applied to the global

²³ Tom Engelhardt, *Terricide and the Terrorists: Destroying the Planet for Record Profits* (21 May 2013) TomDispatch.com <<http://www.tomdispatch.com/blog/175703/>>. Emphasis added.

²⁴ Steven Freeland, ‘Addressing the Intentional Destruction of the Environment During Warfare under the Rome Statute of the International Criminal Court’, (PhD Thesis, Maastricht University, 2015); Mark Gray ‘The International Crime of Ecocide’ (1996) 26 *California Western International Law Journal* 215; David Zierler, *The Invention of Ecocide: Agent Orange, Vietnam, and the Scientists who Changed the Way We Think About the Environment* (University of Georgia Press, 2012). Ecocide, described as the causing of widespread long-term and severe damage to the natural environment, was originally included in the draft *Rome Statute of the International Criminal Court* but was later removed under circumstances that are less than clear. See Polly Higgins, Damien Short and Nigel South, ‘Protecting the Planet: A Proposal for a Law of Ecocide’ (2013) 59(3) *Crime Law and Social Change* 251.

²⁵ Polly Higgins, *Eradicating Ecocide: Laws and Governance to Prevent the Destruction of our Planet* (Shepherd-Walwyn Publishers Ltd, 2010); Polly Higgins, *Earth is our Business: Changing the Rules of the Game* (Shepherd-Walwyn Publishers Lt., 2012).

scale insofar as the consequences of climate change are planet-wide, transformative and catastrophic.²⁶ From a legal and criminological perspective, if such harms occur as a result of human agency (individuals, corporations and/or nation-states) it is argued by some that these acts or omissions should be defined, at the very least, as a crime against the peace in international law.²⁷ This does not necessarily entail a requirement that every individual person contributing to climate change be considered to be engaged in a criminal act (or that the law should be amended to criminalise such behaviour). Rather, the argument is that those who wield significant power (either governments or corporations) are particularly responsible, as they are better placed to make a difference if they change their behaviour. Responsibility is or should be proportionate to contribution to harm.²⁸

A Diverse Conceptualisations of Ecocide

The term ecocide is used to conceptualise a harm-defining process, but the causes and content of the harms vary depending upon how the concept is defined and applied; it does not always refer to a crime. For example, ecocide as an *ecological* concept can be used to describe natural processes of ecosystem decline and transformation.²⁹ This include instances where, for example, kangaroos consume the grasses and shrubs contained in a paddock to the extent that both the specific environment and its inhabitants are negatively affected. There is no grass left, and as a result the kangaroo mob may starve, due to lack of resources, or be forced to migrate. The landscape is denuded to such an extent that the existing ecological integrity is compromised.

The term ecocide has also been applied, in a *specific legal sense*, to extensive environmental damage during war, as in the case of the use of defoliants (such as Agent Orange) in the Vietnam War, and the blowing up of oil wells and subsequent pollution during the first Gulf War in Iraq and Kuwait.³⁰ These actions involved intent to actually produce environmental destruction in pursuit of military and other goals. While such actions have been formally criminalised (via international criminal law) prosecution and conviction for them has been difficult to achieve in practice.³¹

As a broad generalisation, ecocide is defined first and foremost by the destruction, degradation and demolishment of ecosystems and specific environments, with harmful consequences for the living creatures to which they are home. When this occurs due to particular types of human activity,

²⁶ White, 2018, above n 21.

²⁷ Higgins et al, above n 24.

²⁸ See Geraldine MacKenzie, Nigel Stobbs and Jodie O'Leary, *Principles of Sentencing* (Federation Press, 2010); Mirko Bagaric and Richard Edney, *Sentencing in Australia* (Lawbook Company, 2014).

²⁹ Higgins, *Eradicating Ecocide*, above n 25; Higgins, *Earth is our Business*, above n 25.

³⁰ Freeland, above n 24.

³¹ *Ibid.*

ecocide also becomes terminology that describes a particular form of *criminality*. As noted, for example, specific acts of environmental destruction, within particular wartime contexts, are presently officially considered international crimes. For some, however, this particular legal definition is too restrictive, and, especially given present environmental trends including global warming, does not address those activities that may have even greater impact than those associated with military action.³²

B Anthropocentric and Ecocentric Conceptions of Ecocide

Ecocide as a (potential and broad) criminal offence can be conceptualised in several ways. One can distinguish between a perspective that privileges humans and human wellbeing in its definitions of harm (an anthropocentric viewpoint), and a perspective that includes the non-human in its conceptualisations (an ecocentric viewpoint).

In the first instance, doing wrong and harming others is anthropocentrically framed and its basic considerations stem from and reflect a human rights paradigm.³³ Ecocide in this sense complements the existing approach of the Rome Statute that deals with genocide, crimes against humanity, and war crimes (including destruction of environments during war).³⁴ The intent of proponents of this particular conception of ecocide is to extend its reach to include peacetime destruction of environments. Protection of human rights is paramount, and extends to protections pertaining to one's living environment. Thus, the demise of environmental amenity and security is considered a derogation of this duty to protect and enhance human rights, including the right to ecosystem services upon which human populations rely.³⁵

Another conception of the crime, however, sees ecocide as premised on and linked to the idea of Earth stewardship. Ecocide in this instance is closely aligned with the concept of ecocentrism that views the environment as having value for its own sake, apart from any instrumental or utilitarian

³² Higgins Short and South, above n 24; White, above n 21. See also Martin Crook and Damien Short, 'Marx, Lemkin and the Genocide-Ecocide Nexus' (2014) 18 *International Journal of Human Rights* 298. Human rights is not the only anthropocentric framing; others include welfare and justice framings.

³³ Gwynn MacCarrick as amicus curiae, 'Prayers to the Tribunal – Terms of Reference 6' *International Monsanto Tribunal* (2016).

³⁴ *Rome Statute of the International Criminal Court*, opened for signature 17 July 1998, 2187 UNTS 3 (entered into force 1 July 2002) art (2)(b)(iv). This article describes the criminal act of '[i]ntentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated'.

³⁵ MacCarrick, above n 33.

value to humans.³⁶ Ecocentrism views non-human animals, plants and rivers as rights holders and/or as objects warranting a duty of care on the part of humans.³⁷ Ecocide, in this view, is a crime not only against humans but against non-human environmental entities. Accordingly, since it does not only affect humans, ideally a case should be able to be brought to court on behalf of non-human entities if they are affected by ecocide-related acts and omissions.³⁸

In its criminological formulation, discussions of ecocide that are informed by ecocentrism describe an attempt to criminalise human activities that destroy and diminish the wellbeing and health of ecosystems and the species within them (including humans), for which there are varying degrees of responsibility.³⁹ Climate change and the gross exploitation of natural resources are leading to our general demise, increasing the need for just such a crime.⁴⁰ Eventually everyone on the planet will be affected by processes that undermine existing ecosystems and habitats. This is the essence of ecocide.

From a criminological harm perspective, it is important to name such harms as crimes regardless of their present legal status. Certain acts (and omissions) are defined in the legal system as being criminal while others are not. However, given that powerful interests (such as business lobby groups) frequently influence what is included within legal definitions of crime, the term ‘crime’ is sometimes used by criminologists to describe social harms that have not yet been legally defined as criminal.⁴¹ This includes harms related to and stemming from global warming. Thus the employment of the term ecocide has both a rhetorical dimension (oriented toward stigmatising certain acts and omissions) and an aspirational element (oriented toward criminalisation of these acts and omissions).

³⁶ Thomas Berry, *The Great Work: Our Way into the Future* (Harmony/Bell Tower, 1999); Claire Williams, ‘Wild Law in Australia: Practice and Possibilities’ (2013) 30 *Environmental Planning and Law Journal* 259.

³⁷ Douglas Fisher, ‘Jurisprudential Challenges to the Protection of the Natural Environment’ in Michelle Maloney and Peter Burdon (eds), *Wild Law – in Practice* (Routledge, 2010); David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (Oxford University Press, 2007); Rob White, ‘Ecocentrism and Criminal Justice’ (2018) 22 *Theoretical Criminology* 342.

³⁸ Higgins, *Earth is our Business*, above n 25.

³⁹ Higgins et al, above n 24.

⁴⁰ White, 2018, above n 21.

⁴¹ See, for example, Avi Boukli and Justin Kotze (eds), *Zemiology: Reconnecting Crime and Social Harm* (Palgrave Macmillan, 2018); Paddy Hillyard and Steve Tombs, ‘From “Crime” to Social Harm?’ (2007) 48(1) *Crime, Law and Social Change* 9; Paddy Hillyard et al (eds), *Beyond Criminology? Taking Harm Seriously* (Pluto Press, 2004); Simon Pemberton, *Harmful Societies: Understanding Social Harm* (Policy Press, 2016).

C Responsibilities for Ecocide

From the point of view of criminal justice institutions, debates over ecocide could consider whether the crime should be a ‘strict liability’ offence (prosecuted regardless of the intent of the perpetrator due to the seriousness of the harm) or subject to *mens rea* assessment (the mental element of criminal law that speaks to intent, recklessness and foreknowledge).

Commentators such as Higgins argue that ecocide should be construed as a crime of strict liability.⁴² The rationale behind this is that the crime of ‘ecocide’ is inherently very serious (it would not be used to describe the harms associated with littering, for example) because it involves harms of considerable scale, and frequently it is states and corporations which are the perpetrators. It is the seriousness of the harm that ultimately counts.⁴³

For Higgins, human-caused ecocide is a responsibility of governments *and corporations*, and these entities should therefore be legally bound to ensure that any business practice that causes extensive damage or destruction of an ecosystem is put to an end.⁴⁴ It is this conception of responsibility that likewise informs discussions of ecocide and climate change.⁴⁵

Narrow sectoral interests embedded in present socioeconomic dynamics are driving global warming as well as attempts to regulate or tax the emissions that contribute to it.⁴⁶ Meanwhile, those least responsible for, and least able to remedy the effects of climate change, are the worst affected by it.⁴⁷ For example, Indigenous people reliant upon clean water and arable lands for their livelihoods suffer greatly when large industrial projects – such as the Alberta Tar Sands project in Canada – negatively affect their forests, rivers and soils.⁴⁸ In this particular example, the project

⁴² Higgins, *Earth is our Business*, above n 25.

⁴³ In this account, ecocide is not considered a crime of intent, particularly given that most heads of state or corporations do not purposefully set out to commit ecocide. However, under certain conditions the foreknowledge and intent is there – this is true, for instance, when the destruction of the environment is part of a strategic move to reach some other goal, as in the case of environmental destruction in times of war.

⁴⁴ Higgins et al, above n 24.

⁴⁵ White, above n 21.

⁴⁶ See, for example, Harriet Bulkeley and Peter Newell, *Governing Climate Change* (Routledge, 2010).

⁴⁷ Christian Baatz, ‘Responsibility for the Past? Some Thoughts on Compensating those Vulnerable to Climate Change in Developing Countries’ (2013) 16(1) *Ethics, Policy and Environment* 94; Bulkeley and Newell, above n 46; Page, above n 17; Vandana Shiva, *Soil Not Oil: Environmental Justice in an Age of Climate Crisis* (South End Press, 2008). Ecocide is not socially (or, indeed, ecologically and species) neutral. It is the poor, the marginalised, the dispossessed and the vulnerable that bear the brunt of environmental destruction. In this sense, the victims are human and non-human, living and non-living, as human rights are ignored and landscapes devastated.

⁴⁸ Damien Short, *Redefining Genocide: Settler Colonialism, Social Death and Ecocide* (Zed Books, 2016).

also happens to be the largest single contributor to the increase of global warming pollution in Canada.⁴⁹

Those who are central in causing the problem are also those most able (at least initially) to escape the consequences of their actions. For the perpetrators of the harm, justice is rarely applied; nor is the crime officially recognised as a 'crime'. From a green criminology perspective, the challenge is to criminalise those individuals, corporations, industries, and governments that, even in the light of overwhelming scientific evidence, through acts or omissions, continue to contribute to the problem. State-corporate collusion of this nature is literally and directly transforming the conditions of life on planet Earth. From the point of view of climate justice, this is wrong and needs to be described for what it is: intentional and systematic ecocide.

IV CARBON CRIMES OF THE POWERFUL

Profound social and ecological polarisation is reflected in the 'climate divide' associated with global warming. As Nigel South notes:

[c]limate change is producing a new set of global dividing lines, now between those at most risk and those at least risk. This 'climate divide' is recognised in many ways but arguably not on a widespread basis or with full appreciation of what it really means. In essence, the climate divide represents a further extension of the inequitable state of the affairs of humanity, one in which the conditions producing climate change are contributed to most overwhelmingly by rich consumer societies but which will impose the greatest costs and resultant miseries on the already poor and newly developing nations.⁵⁰

The climate divide is not only between countries but reflects profound class and other social inequalities within countries and globally.⁵¹ Fundamentally, contemporary ecocidal tendencies are intertwined with specifically capitalistic processes (such as commodification) and the financial interests of the global elite.

A Ecocide Stemming from System-Wide Processes

The systemic pressures associated with the global capitalist mode of production engender the exploitation of humans, ecosystems and species,

⁴⁹ Michael Klare, *The Race for What's Left: The Global Scramble for the World's Last Resources* (Metropolitan Books, Henry Holt and Company, 2012).

⁵⁰ Nigel South, 'Climate Change, Environmental (In)security, Conflict and Crime' in Stephen Farrell, Tawhida Ahmed and Duncan French (eds), *Criminological and Legal Consequences of Climate Change* (Hart Publishing, 2012) 109, 109.

⁵¹ Oxfam, *Reward Work, Not Wealth* (Briefing Paper, January 2018).

and the degradation of the environment via pollution and waste.⁵² The result is global warming and climate change.⁵³ The problem is the dominant political economic system.

The capitalist mode of production has its origins in Europe and first developed extensively in the form of the Industrial Revolution from the mid-1700s. It has been argued that '[c]limate change is a consequence of the transition from biodiversity based on renewable carbon economies to a fossil fuel-based non-renewable carbon economy. This was the transition called the industrial revolution'.⁵⁴ This entrenchment of a fossil fuel-based economy has created considerable economic and political inertia against change. Yet it is important to acknowledge that it is the specifically capitalist nature of industrialisation that transformed nature in degrading ways and contributed to ecological imperialism on a world scale.⁵⁵ Two hundred years of industrial revolution has been driven and underpinned by powerful forces (nation-states, companies, armies) pursuing sectional interests. This has been achieved through global imperialism, colonialism and militarism that have served to entrench a dominant worldview and the material basis for certain types of production, consumption and reproduction. In other words, it is a particular political economy, embodying specific relations of power and interest (in the form of the capitalist ownership and control over the means of production), that is fundamentally the driver of global warming (via exploitation of natural resources as commodities and for private profit).⁵⁶

Environmental harms (many of which are serious enough to warrant the label 'crimes') are committed in the pursuit of 'normal' business outcomes and that involve 'normal' business practices.⁵⁷ This can be distilled down somewhat by reference to specific industries, such as the 'dirty industries' of coal and oil and how they engage in particularly damaging practices. But the overarching imperative to expand and increase production and consumption nonetheless applies to all industries plugged into the global

⁵² Paul Stretesky, Michael Long and Michael Lynch, *The Treadmill of Crime: Political Economy and Green Criminology* (Routledge, 2014).

⁵³ White, above n 21; Peter Newell and Matthew Paterson, *Climate Capitalism: Global Warming and the Transformation of the Global Economy* (Cambridge University Press, 2010).

⁵⁴ Vandana Shiva, *Soil Not Oil: Environmental Justice in an Age of Climate Crisis* (South End Press, 2008) 130.

⁵⁵ Alistair Greig and John van der Velden (2015) 'Earth Hour Approaches' (25 March 2015) *Overland*.

⁵⁶ White, above n 21.

⁵⁷ Dawn Rothe and David Friedrichs, *Crimes of Globalisation: New Directions in Critical Criminology* (Routledge, 2015); Dawn Rothe and David Kauzlarich, *Crimes of the Powerful: An Introduction* (Routledge, 2016); Steve Tombs and David Whyte, *The Corporate Criminal: Why Corporations Must be Abolished* (Routledge, 2015).

capitalist mode of production.⁵⁸ The net effect of this is anthropocentric climate change.

The specific organisational form that global capitalism takes is that of the transnational corporation. Corporations act and operate across borders, and involve huge investments of resources, personnel and finances. They are also amalgamating (via mergers and take-overs) and expanding (via horizontal and vertical integration of business operations). Their environmental 'crimes' are occasionally explicit and legally acknowledged (as in the case of BP and the Gulf oil spill). More often than not, however, the social and ecological harms associated with transnational corporations are not criminalised.⁵⁹

It has been observed that there are several interrelated legal fictions relating to corporations that foster and sustain systemic corporate wrongdoing.⁶⁰ These include the ideas that the registered corporation is deemed to be a separate legal person, acting in its own right; that a corporation cannot be guilty of a criminal offence, because the corporation needs others to think and act; and that corporate wrongdoing pays, because the structured criminogenic nature of the corporation is almost always avoided in cases where real people are actually prosecuted.⁶¹ There are complexities here that need to be teased out, pertaining for example to the specific criminal status of the corporation as a distinct legal personality, the responsibility (designated or otherwise) of individual corporate managers, and the place of investors (that is, shareholders) with respect to corporate criminality. Who or what is criminally responsible is less than straightforward, particularly in the context of the doctrine of limited liability in corporate law.⁶²

These intersecting interests tend to congeal around one central fact. That is, the first duty of the corporation is to make money for shareholders, placing executives and managers under a duty to put their corporation's best interests first. This makes them ruthless and predatory, and willing to externalise costs and harms, regardless of the lives destroyed, the communities damaged and the environments and

⁵⁸ John Foster, *Ecology Against Capitalism* (Monthly Review Press, 2002); David Harvey, *A Brief History of Neoliberalism* (Oxford University Press, 2005).

⁵⁹ See Joel Bakan, *The Corporation: The Pathological Pursuit of Profit and Power* (Constable, 2004); Harry Glasbeek, *Wealth by Stealth: Corporate Crime, Corporate Law, and the Perversion of Democracy* (Between the Lines, 2004); Tombs and Whyte, above n 57.

⁶⁰ Glasbeek, above n 59.

⁶¹ *Ibid.* See also Jonathon Clough and Carmel Mulhern, *The Prosecution of Corporations* (Oxford University Press, 2002); Tombs and Whyte, above no 57.

⁶² Bakan, above no 59.

species endangered.⁶³ Morality, in this context, is contingent upon local social, economic and regulatory conditions. Where corporations can get away with immoral cost cutting, profitable activities that are nonetheless harmful to others, and unfair market advantage, they will.⁶⁴ This impulse to place profit before anything else is an integral part of global capitalist competition. There is an identifiable nexus between capitalism as a system, and environmental degradation and transformation. Corporations commit an enormous number of offences, and they reoffend regularly. This is not exceptional behaviour, but the norm.⁶⁵

B *Business and Government*

In the context of social and political struggles over power and resources, it is not surprising that there has been considerable resistance to adoption of ecocide as an international crime. This is, in part, because nation-states are implicated in perpetuating activities that contribute to this crime. For example, state-corporate crime relates to both acts (such as reliance upon dirty energy sources) and omissions (such as failure to regulate carbon emissions).⁶⁶ Failure to act now to prevent global warming – and climate change denial or contrarianism itself – has been described as criminal.⁶⁷ Nation-states such as the United States (especially under Donald Trump) have demonstrated little interest in passing laws that will bring them and their private sector partners to book.

A key feature of this crime is that it occurs in the context of foreknowledge and intent. That is, ecocide arising from global warming, while marked by uncertainty in regard to specific rates and types of ecological change, is nonetheless founded upon generalised scientific knowledge that profound

⁶³ Ibid.

⁶⁴ Such tendencies are evident in recent disclosures about tax havens, fraud and misappropriation pertaining to many of the world's rich and powerful in the so-called *Paradise* and *Panama Papers*. International Consortium of Investigative Journalists, *An ICIJ Investigation: Paradise Papers: Secrets of the Global Elite* <<https://www.icij.org/investigations/paradise-papers/>>; International Consortium of Investigative Journalists, *An ICIJ Investigation: The Panama Papers: Exposing the Rogue Offshore Finance Industry* <<https://www.icij.org/investigations/panama-papers/>>.

⁶⁵ For detailed support of this claim, see Glasbeek, above n 59; Bakan, above n 56; Tombs and Whyte, above n 57.

⁶⁶ State-corporate crime has been defined as 'illegal or socially injurious actions that result from a mutually reinforcing interaction between (1) policies and/or practices in pursuit of the goals of one or more institutions of political governance and (2) policies and/or practices in pursuit of the goals of one or more institutions of economic production and distribution'. Ray Michalowski and Ron Kramer, *State-Corporate Crime: Wrongdoing at the Intersection of Business and Government* (Rutgers University Press, 2006) 15.

⁶⁷ Donald Brown, 'Is Climate Science Disinformation a Crime Against Humanity?', *Guardian* (online) 2 November 2010 <<https://www.theguardian.com/environment/cif-green/2010/nov/01/climate-science-disinformation-crime>>; William Tucker, 'Deceitful Tongues: Is Climate Change Denial a Crime?' (2012) 39 *Ecology Law Quarterly* 831.

change is unavoidable unless carbon emissions and deforestation are not radically reduced.⁶⁸ If carbon emissions are at the forefront of the causes of global warming, then the obvious question is why continue to emit such dangerous planet-altering substances into the atmosphere? Climate change and the gross exploitation of natural resources are leading to the general demise of the ecological status quo – increasing the need for the crime of ecocide.⁶⁹

Ecocide associated with global warming does not occur in a social and political vacuum. Rather, it stems directly from the nexus between business and government. Ecocide is substantially driven by systemic imperatives within which the nation-state has a central role. Put simply, at a structural level, the ‘everyday practices’ that sustain environmental degradation and global warming are ingrained in Western advantage and lifestyle.⁷⁰ Decisions are justified on the basis that ameliorative action could jeopardise corporate profits or even survival, as well as the economic prosperity and/or economic development of particular nation-states.

Activities are promoted and protected under the guise of arguments about the ‘national interest’ and the importance of ‘free trade’, and reflect specific sectoral business interests. Accompanying support for oil, coal and other ‘dirty’ industries, for example, there is resistance to global agreements on carbon emissions and use of carbon taxes. Simultaneously, there is agreement between nation-states and transnational corporations about desired (and profitable) changes in land use, such as deforestation associated with cash crops, biofuels, mining, and intensive pastoral industries. Indeed, tropical deforestation is now responsible for some 20 per cent of global greenhouse emissions.⁷¹ States have given permission and financial backing to those companies that are engaged in precisely what will radically alter the world’s climate the most in the coming years: greenhouse gas emissions.

Resource extraction companies tend to receive privileged support from governments regardless of the damage they cause to specific environments or the contributions they make to environmental destruction and global

⁶⁸ McGarrell and Gibbs, above n 18.

⁶⁹ Jacqueline Hellman, ‘The Fifth Crime Under International Criminal Law: Ecocide?’ in Dominik Brodowski et al (eds), *Regulating Corporate Criminal Liability* (Springer, 2014) 273; Deniz Tekayak, ‘From “Polluter Pays” to “Polluter Does Not Pollute”’ (2016) 71 *Geoforum* 62.

⁷⁰ Robert Agnew, ‘The Ordinary Acts that Contribute to Ecocide: A Criminological Analysis’, in Nigel South and Avi Brisman (eds), *Routledge International Handbook of Green Criminology* (Routledge, 2013) 58.

⁷¹ Tim Boekhout van Solinge, ‘Equatorial Deforestation as a Harmful Practice and a Criminological Issue’ in Rob White (ed), *Global Environmental Harm: Criminological Perspectives* (Willan Publishing, 2010) 20.

warming.⁷² Public policy is framed in terms of supporting big business (through tax breaks and via policies that allow continued carbon emissions to occur), and corporations in their turn are generous contributors to the coffers of mainstream political parties. Both states and companies regularly engage in techniques of neutralisation whereby they decry their critics, deny the extent and nature of environmental harm, and excuse themselves from accountability for environmental destruction accompanying economic enterprise.⁷³

Moreover, in pursuit of ownership of and control over natural resources, and to exploit these for particular purposes, governments and companies have singularly and in conjunction with each other worked to break laws, bend rules and undermine participatory decision-making processes. Sometimes this takes the form of direct state-corporate collusion (state-corporate crime); in other instances, it involves manoeuvring by government officials or company executives to evade the ordinarily operating rules of planning, development, and environmental impact assessment.⁷⁴

Climate change criminals thus pervade existing global systems of finance and production. They are at the heart of the present-day economic engine. Insofar as this is the case, responding to the generators of climate change will require systemic change at the ground level.

C Responsibilities for Climate Change Ecocide

This debate over responsibility, however, is not only about ‘systems’. It also incorporates specific actors and agencies. In this regard, most individuals living in Westernised societies are, at some level and to some degree, complicit in climate change insofar as they participate in activities that contribute to global warming. For example, everyday consumption is accomplished through the embedded experiences and habits of daily life that include high meat consumption and reliance upon private petroleum-

⁷² Ron Kramer, ‘Carbon in the Atmosphere and Power in America: Climate Change as State-Corporate Crime’ (2013) 36(2) *Journal of Crime and Justice* 153; Ron Kramer and Ray Michalowski, ‘Is Global Warming a State-Corporate Crime?’ in Rob White (ed), *Climate Change from a Criminological Perspective* (Springer, 2012) 71; Vincenzo Ruggiero and Nigel South, ‘Toxic State-Corporate Crimes, Neo-liberalism and Green Criminology: The Hazards and Legacies of the Oil, Chemical and Mineral Industries’ (2013) 2(2) *International Journal for Crime, Justice and Social Democracy* 12.

⁷³ Brisman, ‘The Cultural Science of Climate Change Contrarianism’, above n 16. While beyond the scope of the present article, mention has to at least be made of the proposed Carmichael Mine project in Queensland – a classic case of multi-level government collusion with private corporation Adani for a project that has profound environmental implications. See Justin Bell-James and Sean Ryan, ‘Climate Change Litigation in Queensland: A Case Study in Incrementalism’ (2016) 33 *Environmental and Planning Law Journal* 515.

⁷⁴ Rob White, ‘Corruption and the Securitisation of Nature’ (2017) 6(4) *International Journal of Crime, Justice and Social Democracy* 55.

based automobiles.⁷⁵ But the origins of these activities lie in structures over which the participants have little or no direct control, such as agribusiness domination of food production, and inadequate provision of public transportation services. In a similar vein, the carbon footprint of countries such as the United States is often cited as evidence of the privileges and advantages of people living in these countries, and therefore their collective responsibility for the lion's share of carbon emissions.⁷⁶ Yet there is massive disparity in wealth and consumption within highly unequal societies such as the US and, just as importantly, the system as a whole is precisely structured and designed to enhance commodity production, consumption and the realisation of value through the cash nexus. The system functions in accordance with the dictates of those who effectively plan and control social production, and this control lies predominantly in the hands of large corporations (and their backers in government).⁷⁷

The three key questions typically asked about climate change responsibilities relate to contribution to the problem, foreknowledge and precaution, and ability and responsibility to pay.⁷⁸ In response to these questions, sophisticated metrics and matrices have been designed in order to calculate potential payments in the light of many diverse factors pertaining to responsibility and capacity.⁷⁹ A limitation of this kind of work, however, is the over-riding focus on nation-states.⁸⁰ Such accounting seems largely to ignore the nuances of political economy and the dominance of the capitalist mode of production. Instead, class politics is refracted through the lens of nation-state responsibilities. Moreover, the discussion tends to be pitched around compensation rather than regulation and control.

Countries are comprised of citizens and residents who have differential access to the levers of power, and who command uneven access to and mobilisation of resources. It is governments of nation-states that bear responsibility for climate change policy, but they do so in the context of the interpenetration of corporate and state power. Critical discussion of responsibility, accountability and prosecution must privilege these factors and relationships. Most importantly, there is a need to shift the primary

⁷⁵ Agnew, above n 70.

⁷⁶ Mark Levene and Daniele Conversi, 'Subsistence Societies, Globalisation, Climate Change and Genocide: Discourses of Vulnerability and Resistance' (2014) 18 *International Journal of Human Rights* 281.

⁷⁷ Commercial media is also big business, and this too is reflected in reporting of environmental issues and events, including climate change. See Katrina Clifford and Rob White, *Media and Crime: Content, Context and Consequence* (Oxford University Press, 2017).

⁷⁸ White, above n 20.

⁷⁹ See Baatz, above n 47; Stockholm Environment Institute, *Climate Equity Reference Calculator* <<https://www.sei.org/projects-and-tools/tools/climate-equity-reference-calculator/>>.

⁸⁰ Page, above n 17.

focus from states (countries) to incorporated entities (that include both private and state corporations).⁸¹ A certain level of specificity is possible insofar as the extent of harm and foreknowledge of the harm can be pinpointed to particular states and companies, at particular times.

For instance, quantitative analysis of historical fossil fuel and cement production records of the 50 leading investment-owned, 31 state-owned, and nine nation-state producers of oil, natural gas and cement from 1854 to 2010 showed that they produced 63 per cent of cumulative worldwide emissions of industrial carbon dioxide and methane.⁸² The largest investor-owned and state-owned companies produced the highest amount of carbon emissions. It is also known that more than half of all industrial emissions of carbon dioxide have occurred since 1986, when the risks of global warming were becoming better known. These same major entities possess fossil fuel reserves that will, if processed and emitted, intensify anthropogenic climate change. We also know that the largest 500 companies account for over 10 per cent of total greenhouse gas emissions produced each year, and 31 per cent of the emissions emitted globally each year is attributed to the 32 energy companies amongst the top 500 companies.⁸³ We know who the climate change criminals are.

V CONCLUSION

Responding to climate change demands focus on the role of contemporary political economic systems and of the powerful in creating the conditions for further global warming while abrogating their responsibilities to deal with the substantive changes and suffering arising from climate change. Systems can be distinguished from specific actors:

Systems may be deemed to be blameworthy, but not to be responsible. As such, they may well attract social and moral condemnation, can be analysed in terms of their social, economic and cultural dynamics, and be challenged through social transformation and revolutionary change. But they are not able to be prosecuted for their crimes. Here, it is *perpetrators*, specific individuals and companies who can and should be deemed responsible in the eyes of the law.⁸⁴

From a criminological perspective, it is necessary to shift focus from structures, such as the global capitalist mode of production, to agency, which in this instance refers to corporate managers, corporations themselves and state officials. It is the latter which can be specifically

⁸¹ White, above n 20.

⁸² Richard Heede, 'Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010' (2014) 122 *Climate Change* 229.

⁸³ Sharon Mascher, 'Climate change justice and corporate responsibility: Commentary on the International Bar Association recommendations' (2016) 34(1) *Journal of Energy and Natural Resources Law* 57.

⁸⁴ White, above n 21, 112.

assessed in terms of conduct, intent and liability. Importantly, ‘what happens to agents within a system also ultimately has an impact on the structure of the system as a whole and so is important in its own right’.⁸⁵

A key defining feature of ecocide perpetrated by the powerful is that such crimes involve actions (or omissions and failures to act) that are socially harmful and carried out by elites and/or those who wield significant political and social authority in the particular sectors or domains of their influence. Such harms are inseparable from the ultimate beneficiaries of the actions of the powerful. Powerful social interests not only perpetuate great harms, they also obscure and mask the nature of harm production. They are also best placed to resist the criminalisation process generally.⁸⁶ Given these realities, criminological understandings of crimes of the powerful also refer to harm-based criteria (in addition to existing legal definitions) in describing certain activities as crimes. As well as expressing moral condemnation, the use of such language is to some degree aspirational – describing acts that *ought* to be criminalised because of the nature and extent of the harms they incur.

The strategies that nation-states use to deal with environmental concerns are contingent upon the social and class interests associated with political power. The power of transnational corporations finds purchase in the interface between the interests and preferred activities of the corporation and the specific protections and supports proffered by the nation-state. The latter can be reliant upon or intimidated by particular industries and companies. Tax revenue and job creation, as well as media support and political donations, hinge upon particular state-corporate synergies. This undermines the basic tenets of democracy and collective deliberation over how best to interpret the public or national interest.

The fight for climate justice must fundamentally involve assertion of democratic control over land, air, water and energy. This means, for example, changing how companies operate, including the flow of their investments, and how their activities are regulated by the nation-state.⁸⁷ In some instances, it also means divesting present corporate owners of their private property. In all cases, it means re-asserting the public interest. Corporations and nation-states must be held to account.

⁸⁵ Ibid.

⁸⁶ Rothe and Kauzlarich, above n 57; Tombs and Whyte, above n 57.

⁸⁷ For example, the ‘divest movement’ involves efforts by activists to get mainstream institutions to stop investing in fossil fuels – in other words, to divest from putting funds into the dirty industries of late capitalism and to leave what remains of the fossil fuels in the ground. See Jack Redpath, ‘UTAS Must Lead by Example and Drop Fossil Fuels’, *Mercury* (online) 17 October 2015 <<https://www.themercury.com.au/news/opinion/talking-point-utas-must-lead-by-example-and-drop-fossil-fuels/news-story/ed9eb34d5930862c3df2366c00605962>>.

The essence of law reform is politics. The pursuit of climate justice will necessarily involve pushing the boundaries of the *status quo*. As this article has demonstrated, new categories of criminalisation are also required to address the most destructive and transforming of harms of this era. Climate change is having an indelible impact on Planet Earth, now and into the future. To counter global warming demands that we re-conceptualise the nature of the problem, tackle it at the source, and call it what it is – ecocide on a grand scale.

Individual Moral Duties Amidst Climate Injustice: Imagining a Sustainable Future

STEVE VANDERHEIDEN*

Abstract

What should ordinary persons do about climate change, amidst circumstances in which climate injustice is widespread and state policies fail to require individuals to do their part to remedy this? Against Armstrong and Kingston, I argue that mitigation duties remain in force even under such conditions, and despite the negligible effect that any personal mitigation actions can have on global climate. Relying on an analysis of the enabling conditions necessary for challenging and ultimately transforming permissive pollution norms, and characterising personal mitigation actions as a form of resistance against such norms, I argue for an alternative foundation of individual mitigation duties beyond what is legally required and is typically found in consequentialist or deontological approaches to climate ethics.

Keywords

Climate Ethics; Injustice; Moral Duties; Permissive Pollution Norms; Sustainability

I INTRODUCTION

Despite the remarkable energies of those working towards the development of a fair and effective cooperative scheme by which the injustice of climate change might be mitigated, the prospect of averting the serious climate injustice that would result from 2°C of warming now appears grim. Caused by the anthropogenic emission of greenhouse gases and degradation of carbon sinks through land use changes like deforestation, climate change and climate-related harm has emerged as the foremost externality of affluence that now and into the future threatens the global poor, who are among the most vulnerable to its impacts.

Climate injustice manifests in two ways or at two nodes of anthropogenic climate change: in its causes and in its effects. Since climate change is primarily caused by the world's affluent persons and peoples, through their relatively high levels of energy use and other consumption footprints, the harm that it visits upon the vulnerable can be considered to involve injustice as a result of its inequality of causation, and is accordingly unjust to those suffering its ill effects even if all are equally vulnerable to them.

* Associate Professor of Political Science and Environmental Studies, University of Colorado.

Following egalitarian justice theories, which tend to focus on the allocation of goods rather than bads, unequally shared benefits are justly distributed only if this distribution benefits the least advantaged.¹ By the same logic, equally shared burdens would be unjust if disproportionately caused by the advantaged, as they make all people worse off and widen inequality insofar as the activity associated with their generation benefitted those generating them. Insofar as vulnerability to climate change is also unequal, with the poor and disadvantaged typically being the least resilient to the climatic changes that it is expected to bring about and therefore most vulnerable to harm, we may view it as unjust on both ends: the global affluent are disproportionately responsible for causing the phenomenon, and the global poor are disproportionately vulnerable to its insidious effects.²

Amidst this existing and now unavoidable climate injustice, the field of climate ethics has developed to ask: what should we do in response? Perhaps surprisingly, within a scholarly field devoted to exploring what ethical obligations arise among individual persons in their roles as contributors to climate change, the prescriptions for such responses vary widely and include the claim that no ethical obligation exists to do anything about climate change or the injustice that it involves.³ This prescriptive question is not merely one of academic interest, as many concerned citizens of various polities suspect that they have some kind of ethical obligations to do their part to mitigate climate change, with many acting upon this presumption. The challenge to show through theoretical analysis and argument whether they have obligations, and if so what they ought to do, might therefore perform the public service of articulating or clarifying what is a widespread (if not universal) popular assumption.

In this article, I shall attempt to answer that challenge of climate ethics, first by identifying a few key obstacles or issues in affirmatively positing individual mitigation duties, then through a brief engagement with a position that is provocatively sceptical of the existence of any individual ethical duties to mitigate our causal role in climate change, and finally by articulating a set of ethical responses that persons can and should take, given unavoidable climate injustice but in light also of these theoretical difficulties. In doing so, I assume that while some of our ethical duties with respect to climate change could and should be codified into law and enforced through policy, others operate beyond the domain of law, interacting with and shaping societal norms, informing our sense of the good life and good society, and being informed by our manifold (if unseen) connections with others.

¹ John Rawls, *A Theory of Justice* (Belknap Press, 1971).

² For example, in Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford University Press, 2008).

³ For one collection that exhibits this prescriptive diversity, see S M Gardiner et al (eds), *Climate Ethics: Essential Readings* (Oxford University Press, 2010).

II CHALLENGES: AGENCY AND CAUSALITY

Over the approximately two decades in which climate ethics scholars have engaged with the question of individual mitigation obligations, several key challenges have arisen to the claim that individual persons have any obligations with respect to mitigating climate change or the harm that is associated with it. First among these is the difficulty in establishing the direct causal role of individual persons in climate related harm, which is sometimes taken to be a condition for attributing moral responsibility and is central to consequentialist ethical justification.⁴ In the case of many individual actions which result in greenhouse gases being emitted, the agency behind those actions is fragmented in such a way that individual culpability and even complicity remains in question.⁵ My decision to drive an internally-combusted automobile rather than walking or taking mass transit, for example, is partly a function of my transportation needs, which are a function of urban planning, housing prices and availability, my destination and needs in transport, and the availability and relative costs and convenient of my various options. It is a function also of the state of transportation technology and development of transit systems, policy choices on carbon taxes and congestion pricing for use of roadways, and the cost and availability of parking at my destination. In short, a great many other factors affect my decision on whether or not to drive, with my agency forming a relatively small and highly conditional fragment of the causal chain.

In sources of carbon emissions that result from collective rather than individual choices, such as those related to the manner in which electricity is generated, agency is far more fragmented, such that the direct causal role of the individual person cannot be sufficiently well established for what Young has termed the 'liability model' of responsibility.⁶ Insofar as my obligation to contribute some sort of remedy to climate-related harm is premised upon my being morally responsible for that harm, which in turn requires at least some causal responsibility for it along with some demonstration of fault in failure to avoid that causation, this fragmentation of moral agency has served as a major conceptual obstacle in climate ethics, to which scholars have over the past decade or so developed several innovative solutions.⁷ Whether through reformed conceptions of moral responsibility that admit less direct forms of agency or via ethical grounds

⁴ See, for example, Avram Hiller, 'Climate Change and Individual Responsibility' (2011) 94(3) *Monist* 349.

⁵ By 'complicity' I follow Kutz in identifying cases of accomplice liability without causal contribution, in order to capture the wide senses in which individual persons may be responsible for anthropogenic climate change. See Christopher Kutz, *Complicity: Ethics and Law for a Collective Age* (Cambridge University Press, 2007).

⁶ Iris Marion Young, 'Responsibility and Global Labor Justice,' (2004) 12(4) *Journal of Political Philosophy*, 365.

⁷ See eg Robert Goodin and Christian Barry 'Benefitting from the Wrongdoing of Others' (2014) 31(4) *Journal of Applied Philosophy* 363.

other than consequentialism or moral responsibility for harm, many in the field have identified some remedial obligations (a notable exception to which shall be discussed below) despite this conceptual difficulty in ethical theory.

A second and related conceptual challenge has involved the diffuse causality associated with climate-related harm, where direct links between offending action and resulting harm are not present as effects result from large sets of similar actions. Since the impacts upon ecological and social systems associated with climate change result from the increase in atmospheric concentrations of greenhouse gases, and then manifest only as increased probabilities of severe weather events like droughts or floods occurring, the role of any individual person's polluting actions in causing any identifiable harm is vanishingly small and impossible to establish with any certainty. While a deadly hurricane may have caused very serious harm, we can only say that anthropogenic climate change may have increased its probability or severity, not that it caused it in the manner usually associated with moral responsibility, meaning that no individual human actions (even the actions of any single person over the course of a lifetime) could be causally linked as necessary or sufficient conditions to any instance of harm. Together with the fragmentation of agency, this diffusion of causality has frustrated efforts within climate ethics to establish the kind of moral responsibility that is often viewed as a necessary condition for establishing individual mitigation obligations, prompting Gardiner to decry these theoretical shortcomings as the 'perfect moral storm' within the ethics of climate change that he blames for the moral corruption of our norms and institutions.⁸

These theoretical obstacles to establishing individual moral responsibility for mitigating climate-related harm, as through duties to reduce personal carbon footprints, have perhaps most forcefully been claimed by Armstrong in 2005,⁹ and then defended against more than a decade's worth of efforts by other climate ethicists to circumvent his objections or find some other way of establishing such obligations in a recent paper by Armstrong and Kingston.¹⁰ As they conclude:

Approaches that try to show an adequate connection between single acts of emitting and the bad effects of climate change must deal with the fiendish complexity of the causal pathways connecting emissions with extreme weather events and gradual harms. Approaches that stress new green virtues will find it hard to justify genuine moral requirements to refrain from emitting rather than pro tanto moral reasons to do so.

⁸ Stephen Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford University Press, 2011).

⁹ Walter Sinnott-Armstrong, 'It's Not My Fault' in David Morrow (ed), *Moral Reasoning* (Oxford University Press, 2005), 293.

¹⁰ Ewan Kingston and Walter Sinnott-Armstrong, 'What's Wrong with Joyguzzling?' (2018) 21 *Ethical Theory and Moral Practice* 169.

Approaches that focus on the political solutions needed have to show why there is a necessary connection between our political goals, and individually mimicking the behaviour that if normalised, would meet the goals. Such approaches also need to guard against the encroachment on personal freedom that a full integration of lifestyle and politics would require. These hurdles are not obviously impossible to jump, but current work has failed to clear them.¹¹

While the authors are careful to claim only that existing attempts to show that there is a moral duty to refrain from joyguzzling (the gratuitous consumption of petroleum while driving for pleasure rather than necessity) have failed, and not to make the broader claim that the excessive use of fossil fuels or generation of greenhouse gases could not be wrong under any plausible moral theory, their paper's inverted triumphalism in declaring all rivals to be mistaken has nonetheless been interpreted as such. Despite their misgivings surrounding such a conclusion, Armstrong and Kingston claim that theoretical shortcomings in the way that persons are connected to environmental phenomena like climate change have prevented climate ethics from establishing this basic moral judgment about mitigation duties within the confines of the ethical theories that it employs.

One strategy, which is noted by Armstrong and Kingston but dismissed for failing to ground sufficiently strong prohibitions against joyguzzling, has been to rely upon a virtue ethics approach in treating an excessive personal carbon footprint as incompatible with an ethically virtuous life.¹² Such an approach would regard the unilateral individual effort to reduce one's carbon emissions as praiseworthy but the failure to do so as not in violation of any ethical principles or precepts. By focusing upon the good life of the individual rather than the legal or institutional structures of the state or society, a virtue ethics approach like this one could be viewed as apolitical and ultimately uninterested in effectively addressing climate change through the policy measures necessary for reducing its causes or mitigating its effects. We can live virtuously within a society that fails in its collective ethical obligations, it insists, but we do not act wrongly if we fail to do so and our solitary dissent would achieve little benefit for the global climate or for those now vulnerable to expected anthropocentric disruptions to its stability.

Another strategy for disentangling individual moral obligations from those assigned to collectives like states asks what persons should do as individuals given the failure of their resident states from enacting applicable policies or otherwise having taken adequate steps to address climate change at the collective level. Cripps refers to these as 'mimicking duties' and endorses them as fulfilling an obligation to satisfy a kind of

¹¹ Ibid 185-6.

¹² Allen Thompson and Jeremy Bendik-Keymer (eds), *Ethical Adaptation to Climate Change: Human Virtues of the Future* (MIT Press, 2012).

categorical imperative that applies whether or not others behave in the same way.¹³ Unlike a virtue ethics approach, these mimicking duties would assign to persons the responsibility to limit their carbon consumption to that level which would be assigned to them under a just social allocation of individual carbon budgets or assignment of individual mitigation duties, regardless of whether any such collective mitigation response has been enacted, and would (unlike the virtue ethics approach) have the status of a moral obligation that it would be wrong to disobey and not merely praiseworthy to follow. One might, for example, identify the sustainable individual carbon footprint in terms of an equitable share of humanity's allowable annual footprint, itself calculated in terms of the declining share of carbon that can be annually released without imperilling mitigation targets like those set under the Paris Agreement.¹⁴ Here, one's obligation would be to adhere to an equitable annual individual carbon budget – say, for example, two metric tons per capita – regardless of what others do.

Here, we can act ethically in an unethical society, but our action is not linked to what would be necessary for *bringing about* that ethical response on a collective scale, and in that sense maintains the solipsism of the virtue ethics approach, seeking mainly personal redemption in the face of social failure of acting from Kantian duty rather than through the motive of preventing harm or redressing injustice. While Cripps also argues that we have promotional duties to do our part in establishing just institutions, to which I shall return below, suffice for now to observe that what we do to reduce our carbon emissions and what we might do to bring about state policies through which others are required to do the same are for Cripps two different questions and involve two distinctive kinds of required actions. The former relies primarily upon individual agency, whereas the latter aims to construct a kind of collective agency through which persons transcend some of the limitations noted above and begin to act cooperatively in pursuit of collective aims, even if as part of a collectivity that is not intentional and one that no member recognises as such. As I shall argue further below, my view shares with Cripps the judgment that we ought to take personal mitigation actions even if not required by law or policy to do so and even if those around us do not, and that we also ought to work toward the establishment of institutions capable of preventing or redressing climate injustice. However, our views diverge in the reasons why we ought to do so, and in the dynamics by which our actions are connected to the kind of collective remedies that are mostly likely to be effective on a wide scale.

¹³ Elizabeth Cripps, *Climate Change and the Moral Agent* (Oxford University Press, 2013) 116.

¹⁴ Jörg Tremmel and Katherine Robinson, *Climate Ethics: The Climate Change Conundrum* (Palgrave Macmillan, 2014).

III ENABLING CONDITIONS AND INITIATING COOPERATION

Individual ethical responses to climate change need not be limited to voluntary and uncoordinated personal mitigation actions undertaken in isolation from others, however. One may view the individual's duty as one of catalysing the actions of others rather than acting only individually, as Goodin defends in the context of the shallow pond case, in which bystander obligations to rescue (originally conceived as a metaphor for the delivery of famine aid) are cast in terms of their respective costs and benefits for an imperilled victim and a single would-be rescuer.¹⁵

Suppose that we cannot rescue the drowning child on our own,¹⁶ Goodin suggests, requiring instead the assistance of at least one other rescuer to act in coordination with our efforts, without which our individual action would be futile. Assuming further that we cannot be obligated to engage in futile solitary but unsuccessful rescue efforts, he argues that it would appear that each of us could by this converse of 'ought implies can' be excused by the reluctance of others to participate in a joint rescue effort. With two potential rescuers on the scene, each would be morally obligated to join the joint rescue action once the other initiated it, at which point the second rescuer's failure to act would be responsible for the death, but each would also paradoxically be excused so long as the other refused to act. In such a case, Goodin argues, it would not be enough simply to wait for others to initiate joint action, as both would-be rescuers deferring to each other would fail to initiate the necessary cooperation. Instead, each has the obligation to offer it under conditions of reciprocity: to offer 'I will if you will'.

This offer of reciprocity initiates the joint action that allows for a rescue which would not be possible for any of us as an individual, providing an analogue to the role of the individual in responding to climate change. None of our personal mitigation actions, undertaken in isolation from others, can make any palpable difference in reducing the probability or severity of climate-related harm,¹⁷ and as noted above ethical theory is bereft of conceptual resources for finding us complicit in harm that would have taken place even without our participation in the causal chains that produce it. As Goodin suggests, sometimes the most important effect of our individual action is produced on other would-be rescuers, through the initiation of potentially effective cooperation, and we err in our moral reasoning if we expect the only relevant effect to be directly upon those in

¹⁵ Robert Goodin, 'Excused by the Unwillingness of Others?' (2012) 72(1) *Analysis* 18.

¹⁶ The reference to a moral dilemma involving a child drowning in a shallow pond, with a single would-be rescuer, owes to Peter Singer, 'Famine, Affluence, and Morality' (1972) 1(3) *Philosophy and Public Affairs* 229.

¹⁷ Against the effort to resolve individual contribution toward climate-related harm to an act utilitarian calculus, see Bernward Gesang (2017), 'Climate Change – Do I Make a Difference?' (2017) 39(1) *Environmental Ethics* 3.

need of rescue. It is therefore through our relationships with others and the solidarity that reciprocal joint action involves that we might reconsider individual ethical responses to climate change, and ultimately for how collective action gets initiated.

While his analysis helpfully broadens the focus of climate ethics by considering how one person's actions may change another's obligations, as well as how the objective of ethical action can be further action by others rather than a more direct consequence or impact, the specific case that Goodin discusses is in several key ways disanalogous to the role of the individual in climate change. In his stylised case, the coordinated actions of two rescuers is necessary and jointly sufficient, so we would be obligated to join in a rescue only under the condition that one other rescuer was present and had initiated or offered their cooperation. The case becomes considerably more complicated if many other would-be rescuers are equally well placed to join. In the event that two persons had already initiated the rescue, a third would just get in the way and contribute little toward the outcome. Only until a sufficient number of rescuers is reached, no matter what that number is, would we be obligated to offer our contributions and join in the effort so long as it appeared that enough volunteers could be organised among those available. We would have no obligations after that sufficient threshold was reached. As the number needed for a successful rescue grows larger, our ability to readily ascertain that enough would-be rescuers are available to join in a cooperative effort but that the sufficiency threshold has not yet been exceeded becomes progressively more difficult, reducing the moral clarity of Goodin's two-person rescue.

Since the drowning victim either drowns without a successful rescue or is fully saved with one – there is no middle position by which half of the necessary rescuers reduces the drowning to a serious injury, or additive benefit through which double the number of needed rescuers not only prevents the drowning but also gives the spared victim some new super powers – the binary nature of the two shallow pond outcomes contrast with the more linear nature of climate-related harm, in which more rescuers would be expected to mitigate the climatic events that cause harm but not eliminate them. A further relevant contrast is thus that in the context of climate change, our individual mitigation actions can never be either necessary or sufficient from the perspective of their consequences. For any given desirable outcome, such as the prevention of warming beyond 2°C or of ocean acidification at a level capable of bleaching the Great Barrier Reef, our participation in a collective mitigation effort on a planet of seven billion other humans is unlikely to affect that outcome's achievement. Most likely the joint rescue will be insufficient, as others will not have undertaken enough mitigation actions before we begin our own to attain the objective, so our contribution will have been futile, which in Goodin's case would excuse our refusal to join. Similarly, if sufficient others had

already done enough without our joining the rescue, as our additional contribution would again fail to make any difference in bringing about the desired outcome. While one might reply that the linear nature of climate-related harm entails that our additional contribution could result in marginally less climate change in either case, recall that a single individual's carbon emissions are highly unlikely to make any difference in climate outcomes, undermining the force of consequentialist analyses such as these, whereas the moral force of Goodin's obligation to rescue was based upon the respective consequences of initiating the joint rescue and failing to do so.

But this lack of a direct causal relationship between individual mitigation actions and the experience or avoidance of particular climate-related harm also frees our analysis of the constraints posed by necessity and sufficiency in conventional ethical analysis. We are all bound up in a collectively-caused disturbance to the climate system that manifests in many harmful impacts but which does not reduce to any necessary or sufficient contributions by any members of that collectivity: our agency is fragmented and the causality diffuse. It would be to commit what Parfit terms a 'mistake in moral mathematics' – that of conflating miniscule and imperceptible effects with no effect¹⁸ – to maintain that climate change is caused by a set of like acts but that none of those actions taken in isolation played any causal role in the outcome, but we cannot from our collective responsibility precisely determine exact remedial duties from which either necessary or sufficient individual contributions could be assigned. It therefore cannot be a matter of direct causal avoidance of any specific harm resulting from our individual mitigation actions that we have some role in contributing toward collective remedies, if we do. We must look elsewhere than this kind of consequentialist logic for the basis of such mitigation obligations. In so doing we can also avoid the inadequacies of those ethical theories that are noted above, and which play so prominent a role in the scepticism of Armstrong and Kingston.

IV RESISTANCE TO INACTION

As Armstrong had earlier argued, while we may not have ethical obligations to refrain from joyguzzling in the absence of laws preventing us from doing so, we may have some duty to help change the laws, which if acted upon would make our further gratuitous emission of carbon wrong.¹⁹ Insofar as our duties of justice require us to support and comply with just institutions where those exist and to assist in establishing them

¹⁸ Derek Parfit, *Reasons and Persons* (Oxford University Press, 1984) 75.

¹⁹ Kingston and Sinnott-Armstrong, above n 9.

where they do not,²⁰ we could, as Armstrong implies, be obligated to work towards bringing about a regulatory prohibition of joyguzzling, even if as he claims the practice remains morally permissible in the meantime. Cripps also argues for promotional duties to establish just institutions alongside the mimicking duties of mitigation discussed above, as policy change is widely viewed as necessary for states to successfully reach their decarbonisation goals.²¹ But as most individual persons are as powerless in altering the institutional or policy landscape of their resident states as they are unable to unilaterally prevent climate-related harm, it remains unclear how this change in focus provides much clarity for directing individual action in the context of climate change or climate policy.

The key mediating role between individual action on climate change and the adoption of state policies to more effectively address it is played by social norms, which persons reinforce through their adherence but can challenge and disrupt through their public violation. With 28 years having elapsed since the publication of the first Intergovernmental Panel on Climate Change assessment report linking human activities to dangerous climate change, the received view within climate ethics is that it is no longer reasonable for states to claim ignorance of the causes and effects of climate change as an excuse for their further inaction.²² Since 1990, norms allowing for excessive individual emissions like those resulting from joyguzzling have been both cause and effect of inadequate state mitigation actions: they enable state failure to take climate change seriously because public attitudes and beliefs supporting wasteful polluting activities have provided no disincentive to this ongoing failure, and they result from what is taken to be a tacit public permission to emit these pollutants signalled through the absence of effective state regulatory actions. Norms exist in a symbiotic relationship with applicable laws and policies (or lack thereof), providing mutual support and together reinforcing the status quo. Transition to a low-carbon society therefore faces twin obstacles in policies and norms that are each permissive of excessive carbon pollution, with little prospect of effective policy change while norms remain.

Where individual persons may lack the ability to successfully resist the absence of effective laws or policies – it is, after all, more difficult to resist permissions than prohibitions, as refusing to do what the law allows makes for ineffective civil disobedience – those same persons might more successfully resist the norms that continue to support this state inaction. By seeking to reduce our personal carbon footprints through reformed consumption patterns, we do nothing to challenge state policies that owe to the well-financed and organised interests of fossil fuel industries, against which our personal withdrawal from participation in that fossil fuel

²⁰ Rawls, above n 1.

²¹ Cripps, above n 13.

²² See, for example, Derek Bell, 'Global Climate Justice, Historic Emissions, and Excusable Ignorance,' (2011) 94(3) *Monist* 391.

economy would register no alarm in the halls of government power. But norms are built upon a different kind of foundation than are laws and policies. Social norms governing rates of carbon pollution are often more vulnerable to small acts of resistance than are policies permitting that pollution, since those acts of resistance also call into question the norm itself, and since the audience for acts of resistance against social norms is one's peer group in society that looks for social cues on how to respond to climate change, rather than the politician stockpiling an election war chest.

Like Goodin's offer of 'I will if you will', each act of defiance against permissive polluting norms makes further defiance easier for others. A commute in which each student or worker drives separately in their own private automobile is most difficult for the first walker or cyclist, whose different mode of transport stands out from the norm and is least likely to be accommodated with safe paths or facilities, not to mention the suspicious glances of those peers unaccustomed to such abnormal behaviour. However, this commute becomes easier for each subsequent defection from the driving norm. Those first seeking to power their homes with zero carbon sources of electricity like wind or solar likewise make this option easier for others to follow, not only from the economies of scale that they help to establish but by also challenging received norms and in so doing providing examples for those that might wish to challenge them later. In both cases, those seeking to reduce their personal carbon footprints while challenging the social obstacles to broader and collective action need not challenge a particular law or policy, but instead challenge norms regarding avoidable activities that yield significant carbon emissions, and in the process herald the way for others to join them in doing so.

At issue are enabling conditions for effective mitigation actions to be taken on a wider scale, which include senses of personal efficacy and moral necessity. For many persons, the ability to cooperate in collective efforts that yield benefits for group members is a function of enabling attitudes and beliefs about what is possible. In some cases, these attitudes and beliefs are part of a more generalised sense of social and political efficacy, and therefore dependent upon the possession of key power resources and positive former experiences with social change.²³ Elsewhere they are specific to the nature of a challenge like climate change, which can strike many as uniquely impenetrable and thus beyond the ability of any person to meaningfully affect, especially given its massive scale and the entrenched nature of its causal forces. Overarching both is a sense of collective efficacy – or, as it manifests in its absence, a sense of powerlessness – that can either assist in or hinder the formation of collective and cooperative efforts that rely in their initiation upon a shared set of beliefs about what the collectivity aims to accomplish and the means

²³ Mary R. Anderson, 'Community Psychology, Political Efficacy, and Trust,' (2010) 31(1) *Political Psychology* 59.

by which its objectives might be brought to fruition. In simpler terms, we cannot bring about a better future unless we can compellingly imagine ourselves doing so.

With such enabling conditions in place, and with the enhanced prospects for cooperative action that they allow, our individual mitigation actions need not be ethically vindicated by their effects upon global climate, which as previously noted are negligible, but rather in terms of their effects upon others, and especially through the construction of a low-carbon public imaginary.²⁴ In this way, sustainable consumption norms can be diffused and unsustainable ones can erode through a process of contagion and through the occurrence of norm cascades, in which new norms emerge, come to be accepted on a wider scale, and begin to challenge entrenched ideas about how to live and to offer what is viewed as a valid and attractive alternative.²⁵

Originally identified as a dynamic within international relations, where 'norm entrepreneurs' could introduce new norms for international politics and the cascade effect results in new norms being instantiated by their link to the identity of relevant actors and the formation of collective interests around them,²⁶ a similar dynamic can be observed within societies. Just as unsustainable consumption norms spread by contagion, as our desire to emulate the consumption behaviors of our peers has us 'keeping up with the Joneses' by matching their purchasing habits, so also can sustainable consumption choices spread by a kind of demonstration and witnessing sequence, and opinion leaders or influencers show that low-carbon alternatives to mainstream consumption choices are available, not overly difficult or costly to adopt, and thus an attractive option. By this process those options become socially acceptable.²⁷ Consumption behaviours in particular are often shaped by norms rather than strictly material interests, and these can include sustainable consumption norms with explicitly ethical content rather than the primarily hedonistic values more commonly associated with consumption norms promulgated by advertisers.

²⁴ See, for example, C Cherry, C Hopfe, B MacGillivray, and N Pidgeon, 'Homes as Machines: Exploring Expert and Public Imaginaries of Low Carbon Housing Futures in the United Kingdom,' (2017) 23 *Energy Research and Social Science* 36.

²⁵ I borrow this terminology from Martha Finnemore and Kathryn Sikkink, 'International Norm Dynamics and Political Change,' (1998) 52(4) *International Organisations* 887. My usage refers to consumption norms operating within society, whereas they describe the life cycle of norms within international relations, but both view the norm as an idea that begins to exercise independent force to condition the behavior of actors within institutions upon a sufficient number of relevant actors subscribing to or upholding the norm, which is what I intend to argue for here.

²⁶ Alexander Wendt (2001), 'Driving with a Rearview Mirror: On the Rational Science of Institutional Design' (2001) 55(4) *International Organisation* 1019.

²⁷ On this contagion effect in norm transmission, see Francesca Gino, Shahar Ayal and Dan Ariely, 'Contagion and Differentiation in Unethical Behavior: The Effect of One Bad Apple on the Barrel' (2009) 20(3) *Psychological Science* 393.

Gradually, this form of resistance becomes so easy to practise that it is no longer stigmatised and becomes more widely available.

At the present time, decarbonisation actions may contribute towards norm resistance and transformation, but only when done as a public act of defiance against insidious contrary norms, rather than as a private act of disavowal of those dominant norms or withdrawal from public life.²⁸ Consider again the mimicking duties of someone who pledges to perform what would have been required of them had their government pledged a national carbon footprint that was compatible with the demands of climate justice and had followed through with that pledge. Living in the contemporary United States, where governments at all levels have failed to place sufficient controls on carbon emissions and the state itself has defected from the Paris Agreement in an apparent confrontation with climate science and international cooperation, I may opt into some personal commitments by which I reduce my own carbon footprint by the 60 per cent that scientists call for as necessary for avoiding 2°C of warming (or alternatively adopt a sustainable carbon footprint that is compatible with all other humans having the same footprint while avoiding that global temperature increase). In this way, I do what I believe I ought to be compelled to do as a matter of public policy, but without the benefits of reciprocity from my fellow members of the polity or the low-carbon infrastructure that would be available if made the object of public investment.

If I was to do this in a manner that is largely private – invisible to my peers and neighbours, and through actions undertaken without any kind of public justification in terms of obligations to personally do my part in mitigating climate change – the effects on climate change, as well as upon social norms of a sense of personal efficacy for the next person attempting this costly form of atonement or absolution, would both be negligible. Nobody that I could potentially influence would know what I was doing or why I was doing it. But if my actions and their justification were made more public, so that others could view my decarbonisation efforts and understand why I was undertaking them, they could be performative and exemplary, and potentially also become contagious. While I may be mocked for refusing to conform to consumption norms that others follow, regarded as an odd and potentially dangerous social outlier, or viewed as a threat to the dominant construction of prosperity and public morals, this public act could potentially have a non-negligible effect upon the enabling conditions for others taking their own form of personal mitigation actions, even if it still had the same negligible effects on global climate. In addition to the Kantian foundation for mimicking duties of mitigation, where the duty to perform such personal mitigation duties arises from obedience to a

²⁸ Kimberly Brownlee, *Conscience and Conviction: The Case for Civil Disobedience* (Oxford University Press, 2012).

categorical imperative and regardless of whether or not social laws or policies require it, one might also ground such duties in their effects upon others, and specifically in disrupting and challenging pro-pollution norms.

Of course, voluntary and solitary mitigation actions won't stop climate change, so the point of engaging in them cannot be merely to allow others to follow suit with their own solitary and voluntary actions. Rather, such actions could be construed as a sincere offer to cooperate in an endeavour that could have been compelled through public policy, but wasn't. It is an offer of 'I will' that precedes the 'but only if you also will' condition of Goodin's reciprocity, a public demonstration of the need for and power of cooperative action. This demonstration may be able to resist the form of powerlessness that accompanies the inertia associated with an opportunity to cooperate for the greater good that no one has yet initiated, and where the costs associated with trying to break that inertia appear unattainably high to many others.

V CONCLUSIONS: IMAGINING A SUSTAINABLE FUTURE

So what should we as individual persons do in the face of anthropogenic climate change amidst the unwillingness of our public officials to respond adequately to it? First, we must resist both the pollution-enabling social norms that contribute to unsustainable consumption patterns and the carbon pollution that results from them, and resist also the sense of powerlessness that often accompanies large scale and diffuse social-ecological problems that governments are ill-equipped to remedy. We must resist, that is to say, the belief that injustice exists, but we cannot do anything about it, which can be more insidious and erosive to meaningful collective action than is climate denial, which rejects the antecedent and so avoids the ethical quandary. Beyond resisting, which is negative and deconstructive by its nature, we have positive and constructive duties that are only made possible by virtue of what has been resisted and displaced.

We have, that is to say, promotional duties to contribute towards foundational norms by which the transition to a sustainable society becomes feasible, and through which a sense of collective efficacy might arise, as our primary responsibility. It is only secondarily, through the just and sustainable future that we imagine and enact by way of these primary responsibilities, that we contribute toward the establishment of just institutions, or those necessary for implementing the imperatives of climate justice. Here, institutions follow the establishment of a set of attitudes and beliefs that will ultimately support them, rather than leading them. Whether through public construction of a low-carbon imaginary that results from our conspicuously committed acts of personal mitigation, in resistance to dominant consumption norms that would reject such acts as unnecessary or abnormal, or through social organisation and communication of alternative forms of low-carbon flourishing, we can contribute to the

institutions that are necessary for bringing about a different future, by demonstrating their practical and ethical necessity.

These are ambitious duties, in some ways far more so that those concerned primarily with avoiding causal contributions to climate change. Arguing for personal carbon neutrality, to be achieved through the substitution of low-carbon activities and technologies for their high-carbon alternatives and supplemented by the carbon offsets, Broome details an approach to individual mitigation efforts motivated by the 'duty of justice not to harm, rather than the aim of improving the world'.²⁹ As suggested here, this relegates personal mitigation to a private action, and represents a form of withdrawal from politics rather than in an engagement with it. Avoiding complicity with climate injustice by ceasing our own personal contributions may be a salutary start, and for many constitutes a difficult and admirable task, but insofar as such actions remain our own and we forego the opportunity to challenge prevailing norms and to influence others, they constitute a missed opportunity. Amidst climate injustice, we must not abandon 'the aim of improving the world', no matter how impossible such a task might seem, for in doing so we contribute toward the paralysing sense of powerless that keeps many others from being able to imagine a different future, much less work toward helping to create it. Rather, we should see those acts as constructing and living an alternative future that comes about because we can imagine it and appreciate what is required to make it a reality.

²⁹ John Broome, *Climate Matters: Ethics in a Warming World* (WW Norton and Co, 2012).

Lawfare, Standing and Environmental Discourse: A Phronetic Analysis

BRENDON MURPHY* AND JEFFREY MCGEE**

Abstract

The Adani Carmichael Coal Mine in the Galilee Basin of Queensland is one of the largest open cut coalmine proposals in the world. The development approval process for the mine has been deeply contentious, with opposition raised by environmental, farming and indigenous groups. Federal government approval of the mine has been successfully challenged in the Federal Court through judicial review. This led to a reconsideration and subsequent re-approval of the project, combined with the Federal Government proposing statutory changes to standing rules to restrict the capacity of civil society groups to bring judicial review actions. Given the broad standing provisions for judicial review that have been present in the Environment Protection and Biodiversity Conservation Act (Cth) ('EPBC Act') since its inception in 1999, what are the reasons behind this proposal for significant change in Australian environmental law? Drawing on phronetic legal enquiry methodology, this article provides a case study of the ways in which societal discourses intersect with law and political economy in shaping the ability of civil society to challenge the approval processes for major resource projects. This case study shows that the Federal Government's agenda to reduce standing under the EPBC Act represents a decisive attempt to assert power and control by reducing the capacity of dissentients to oppose economic development. In doing so, this case study highlights the value of phronetic legal inquiry as methodology for analysing processes of change, and attempted change, in law.

*'Whichever way you look at it, this little black rock provides many benefits to our economy, wages, infrastructure and everyday lifestyle. And it can now reduce its emissions by up to 40 per cent.'*¹

* Senior Lecturer, Newcastle Law School, University of Newcastle. Special thanks to Professor Pam O'Connor for her critique and thoughtful observations in writing this paper.

** Senior Lecturer in Climate Change, Marine and Antarctic Law, Faculty of Law and Institute for Marine and Antarctic Studies, Centre for Marine Socioecology, University of Tasmania. The authors are thankful for the detailed and insightful feedback from colleagues and the anonymous reviewers of this paper

¹ *Coal. It's an Amazing Thing.* <littleblackrock.com.au>.

*'Coal fired power plants are the biggest source of man-made CO2 emissions. This makes coal energy the single greatest threat facing our climate.'*²

*'I may live nowhere near the Liverpool Plains or the Great Barrier Reef. But I sure as hell am concerned they are protected. ... The latest move by the Abbott government puts at risk not just our environment but our very democracy.'*³

Keywords

Environmental Discourse; Environmental Law; Judicial Review; Phronetic Analysis; Standing

I INTRODUCTION

Biographies are not infrequently the genesis of scholarship, for the personal, as Carol Hanisch famously wrote, is political.⁴ In this paper, the authors – both of whom are legal scholars, who have lived most of their lives in Newcastle – were drawn to the problem arising out of the recent (failed) attempt by the present Liberal Coalition government to pass law abolishing the right of third party standing to challenge development approvals in the context of large-scale coal mining. The intersection of coal, law and our identities as ‘Novocastrians’, inspired a curiosity to inquire as to why third party standing rules, legislated nearly twenty year earlier by a previous Liberal Coalition government, had now been problematised to such an extent that the executive had recently sought their repeal. What has happened that the liberal principle of ‘accountability of government’ has shifted into a discourse of ‘lawfare’? In the context of the relationship between the law and politics of climate change, these are critical questions.

Our initial thoughts on this were necessarily personal and experiential. We were more than familiar with the common sights of coal ships and coal trains moving in and out of the city.⁵ We had lived in a region where a significant local economy relied on mining, in both open cut and

² Greenpeace International, *#Coal*

<<http://www.greenpeace.org/international/en/campaigns/climate-change/coal/>>.

³ Lisa Cox, “‘Quite Simply Unbelievable’: Alan Jones Fronts Ad Campaign Opposing Abbott Government Plan”, *Sydney Morning Herald* (online) 7 September 2015 <<https://www.smh.com.au/politics/federal/quite-simply-unbelievable-alan-jones-fronts-ad-campaign-opposing-abbott-government-plan-20150907-gjgkph.html>>.

⁴ Carol Hanisch, ‘The Personal is Political’ in Shulie Firestone and Anne Koedt (eds), *Notes from the Second Year: Women’s Liberation* (Radical Feminism, 1970).

⁵ Newcastle, New South Wales, is one of the largest coal exporting ports in the world. In any given year hundreds of ships move in and out of the port. The rail infrastructure of the Hunter Valley is crisscrossed with links to mine sites, with coal trains exceeding 100 carriages not uncommon. For an overview, see Port Authority of New South Wales, *Newcastle Harbour*, <<https://www.portauthoritynsw.com.au/newcastle-harbour/>>.

underground forms. We knew the towns around the Hunter Valley that were totally dependent on mining, and we had relatives and friends directly employed in mining, or one of its attendant industries. But we also knew that opinions on coal mining had changed over time,⁶ and that the open conflict over working conditions that used to characterise mining protest⁷ had now shifted to more complex issues, including environmental concerns, greenhouse gas emissions,⁸ conflicts over land use between mining, farming, horse breeding and the wine industries,⁹ and the problem of high-profile corruption allegations involving corporate executives and state politicians.¹⁰

As legal scholars, our initial focus of research came to a rapid conclusion. A ‘pure’, doctrinal (‘black letter’) analysis of the law could not answer wider questions as to why third party standing law needed to be repealed, or what the forces were that were shaping the debate. These were necessarily discursive rather than legal questions. From the position of doctrinal legal analysis, there was no apparent issue, as the rule structures governing standing are operative and well developed. It was clear that doctrinal analysis was not able to capture the range of issues existing outside of the rule structures, but necessarily shaping them. What was needed was an interdisciplinary approach, sensitive to the linkages between societal discourse, law and power. Drawing upon our recent work on

⁶ See eg Nick Higginbotham et al, ‘Environmental Injustice and Air Pollution in Coal Affected Communities, Hunter Valley, Australia’ (2010) 16(2) *Health and Place* 259; Editorial, ‘Land Use Conflicts on the Rise’, *Newcastle Herald* (online) 21 October 2014 <<http://www.theherald.com.au/story/2640012/editorial-land-use-conflicts-on-the-rise/>>.

⁷ Industrial action in the Hunter coalfields was common, particularly in the 1920s. The Rothbury Riot is still a part of local legend, with a memorial devoted to the riot and to Norman Brown – a striking coal miner killed by police in 1929 – located close to the scene of the Rothbury lockout. See Miriam Dixon, ‘Rothbury’ (1969) 17 *Labour History* 14; Richard Evans, ‘Murderous Coppers’ (2012) 9(1) *History Australia* 176; James Bennett, Nancy Cushing and Erik Eklund (eds), *Radical Newcastle* (NewSouth Books, 2015).

⁸ Greenpeace and community activist group ‘Rising Tide’ have taken direct and legal action against the coal industry in Newcastle on several occasions. See *Haughton v New South Wales* [2011] NSWLEC 217; *DPP v Fraser* [2008] NSWSC 244; Alison Branley, ‘Rising Tide Activists Win’, *Newcastle Herald* (online) 3 March 2011 <<http://www.theherald.com.au/story/467306/rising-tide-activists-win/>>; ABC News, *Police Trying to Block Newcastle’s Oldest Port* (28 March 2010) <<http://www.abc.net.au/news/2010-03-28/protesters-trying-to-block-newcastles-coal-port/383074>>.

⁹ Michelle Harris, ‘Mining Hits Back at Thoroughbred Horse Breeding Industry’, *Newcastle Herald* (online) 9 April 2015 <<http://www.theherald.com.au/story/3001540/mining-hits-back-at-thoroughbred-horse-breeding-industry/>>; Sophie Frazer, *Maintaining Diversity in the Hunter Valley Landscape* (24 October 2014) ABC Open <<https://open.abc.net.au/explore/80774>>.

¹⁰ Operation Jasper, for example, saw adverse corruption findings made by the Independent Commission Against Corruption in NSW against a number of politicians in that state, including Mr Edward Obeid, and a number of business associates, including Mr Travers Duncan. See, eg, *Duncan v Ipp* [2013] NSWSC 314; *Duncan v Ipp* [2013] NSWCA 189; *Duncan v New South Wales*; *NuCoal Resources Limited v New South Wales*; *Cascade Coal Pty Limited v New South Wales* [2015] HCA 13; *Obeid v Ipp* [2016] NSWSC 1376.

sociological methodology, and our own doctoral work on the various ways in which discourse shapes law,¹¹ we began by selecting a rich case study that would allow us to explore both the standing provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ('EPBC Act'), and the complex array of discourses intersecting with the law. Here we selected the proposed Adani Carmichael Coal Mine in Queensland as the exemplar, and decided to apply the phronetic approach to this case study.

The proposed Adani Carmichael Coal Mine provides a recent and very sharp example of the kind of conflicts that now arise over coal mining in Australia. The proposed mine, located in the coal-rich Galilee Basin of Central Queensland, will be situated 160 km north-west of Clermont. When initially proposed, the Environmental Impact Statement (EIS) for the project estimated the mine would involve a minimum AUD16.5 billion investment, with a lifespan of 60 years, and a capacity to produce more than AUD2 billion worth of coal annually, with production estimated at an average 60 million tonnes per annum.¹² The area of the proposed mine is enormous, estimated at 44 000 hectares of land, including open-cut and underground mines, large waste dumps and tailing dams. The infrastructure requirements for the mine are extensive, including 189 kilometres of rail, most of which would be publicly financed.¹³ Following widespread public protest about the links between coal and climate change, and the cost to the public, in late 2018 Adani announced a major reduction in the intended scale of the operation to an AUD2 billion investment, wholly self-funded. The stated intention was to downsize the opening scale of the project, but then expand production over time.¹⁴

The number of jobs the project will create is not clear. Initial estimates of the proponent suggested 10 000, but this was revised after complaints were

¹¹ Brendon Murphy, *Zone of Impeachment: A Post-Foucauldian Analysis of Controlled Operations Law and Policy* (PhD Thesis, University of Newcastle, 2015); Jeffrey McGee, *The Asia-Pacific Partnership and Contestation for the Future of the International Climate Regime* (PhD thesis, Macquarie University, 2010).

¹² Department of State Development, Manufacturing, Infrastructure and Planning, Queensland Government, *Environmental Impact Statement: Carmichael Coal Mine and Rail Project* <<https://www.statedevelopment.qld.gov.au/assessments-and-approvals/carmichael-coal-environmental-impact-statement.html>>.

¹³ Full disclosure and commentary available at Adani Mining, *Executive Summary* (Report) <<http://eisdocs.dsdp.qld.gov.au/Carmichael%20Coal%20Mine%20and%20Rail/EIS/EIS/Project%20Wide/executive-summary-project-wide.pdf>>.

¹⁴ Michael Slezak, *Adani Says a Scaled-Down Version of its Carmichael Coal Mine Will Go Ahead; Environmentalists Express Scepticism* (29 November 2018) ABC News <<https://www.abc.net.au/news/2018-11-29/adani-carmichael-coal-mine-go-ahead-plans-to-self-fund/10567848>>; Mark Ludlow, 'Adani Moves to Slash Costs to Get Carmichael Mine Across the Line', *Financial Review* (online), 13 September 2018 <<https://www.afr.com/news/politics/adani-moves-to-slash-costs-to-get-carmichael-mine-across-the-line-20180913-h15b2l>>; EDO Queensland, *Latest Adani Carmichael Mine and Rail Project News* (27 September 2018) <https://www.edoqlld.org.au/update_adani_mine_project>.

made to the Australian Securities Exchange that the figure was inflated.¹⁵ The current EIS estimates 2 475 jobs during the construction phase and 3 800 jobs during operation.¹⁶ It is estimated that by 2021, the mine will generate over AUD900 million in economic activity for the Mackay regional economy, and in excess of AUD2.9 billion for the wider Queensland economy.¹⁷ Despite the potential economic benefits, the mine proposal has been strongly opposed by a number of civil society groups, largely on environmental grounds. This opposition has taken several forms, including direct action, political lobbying and legal challenges. Consequently, the Adani project is a rich field for exploring the intersections between societal discourses and power.

In this article, we examine some of the intersections between legal doctrine and policy in the field of environmental law, using the societal discourses surrounding the Adani Carmichael mine proposal as the exemplar. From the outset, it is important to emphasise that this article is not so much concerned with the Adani project, as with the complex ways in which discourses shape law and public policy and the deployment of a methodology adapted to that application. We begin by setting out components of the methodology employed in this case. Our methodology draws on the work of the founder of phronetic research in the social sciences, Bent Flyvbjerg¹⁸, and our own extension of this approach to legal research.¹⁹ In doing so, we explain some of the core aspects of phronetic legal research and its application in this example. We then turn to the doctrinal law operating in this case, namely the standing provisions in s 487 of the EPBC Act, and its associated relationship with the

¹⁵ Jorge Branco, 'Adani Carmichael Mine to Create 1464 Jobs not 10 000', *Brisbane Times* (online), 28 April 2015 <<http://www.brisbanetimes.com.au/queensland/adani-carmichael-mine-to-create-1464-jobs-not-10000-20150428-1mumbg.html>>; Lucy Cormack and Lisa Cox, 'Complaint Lodged with ASX Over Adani Job Claims for Carmichael Mine', *Sydney Morning Herald* (online), 13 May 2015 <<http://www.smh.com.au/business/mining-and-resources/complaint-lodged-with-asx-over-adani-job-claims-for-carmichael-mine-20150513-gh0tbl.html>>; Rod Campbell, 'Fact Check: Will Adani's Coal Mine Really Boost Employment by 10 000 Jobs?', *Business Spectator* (online), 31 August 2015 <<http://www.businessspectator.com.au/article/2015/8/31/policy-politics/fact-check-will-adanis-coal-mine-really-boost-employment-10000>>.

¹⁶ Coordinator General, Department of State Development, Infrastructure and Planning, *Carmichael Coal Mine and Rail project: Coordinator-General's Evaluation Report on the Environmental Impact Statement* (Report, May 2014) 205.

¹⁷ *Ibid* x.

¹⁸ Bent Flyvbjerg, *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again*, tr Steven Sampson (Cambridge University Press, 2001); Bent Flyvbjerg, Nils Bruzelius and Werner Rothengatter, *Megaprojects and Risk: An Anatomy of Ambition* (Cambridge University Press, 2003); Bent Flyvbjerg, 'Five Misunderstandings About Case-Study Research' (2006) 12(2) *Qualitative Inquiry* 219; Bent Flyvbjerg, 'Case Study' in Norman Denzin and Yvonna Lincoln (eds), *The Sage Handbook of Qualitative Research* (SAGE, 4th ed, 2011) 301; Bent Flyvbjerg, Todd Landman and Sanford Schram (eds), *Real Social Science: Applied Phronesis* (Cambridge University Press, 2012).

¹⁹ Brendon Murphy and Jeffrey McGee, 'Phronetic Legal Inquiry: An Effective Design for Law and Society Research?' (2015) 24(2) *Griffith Law Review* 288.

Administrative Decisions (Judicial Review) Act 1977 (Cth). In part three, we then analyse the discourses linked to the Adani Carmichael mine proposal and how this is manifest in wider law and policy debates over reform of the law on standing under s 487 of the EPBC Act. Drawing on discourse theory,²⁰ we identify the main features of the contesting policy discourses surrounding efforts to repeal the extended standing provision of s 487. Finally, in part four, in drawing on the rich empirics of the s 487 reform debate, we discuss how phronetic legal enquiry offers a methodology that extends our understanding of the relationship between legalities and their underlying policy and political economy in ways that traditional doctrinal legal analysis cannot.

A The Adani Carmichael Coal Mine Exemplar

In Australian law, approvals for new coal mining projects are primarily in the hands of the relevant state government under state environmental, planning and pollution legislation.²¹ This is the case even when land is privately owned. However, if a proposed mine will likely have an impact upon a matter of ‘national environmental significance’,²² it will also trigger operation of the EPBC Act and must receive approval from the Commonwealth Minister for the Environment.²³ Because the Adani Carmichael mine project will likely have an impact on several matters of national environmental significance, it required approvals from both the Commonwealth and Queensland governments. In addition to the significant infrastructure investment outlined above, the Adani Carmichael mine proposal included an application for a Queensland water licence to draw 12.5 gigalitres of water per year from the Belyando River, together with stated intent to also draw on subterranean water.²⁴ The impact on water is likely to be very significant. Adani’s own estimate indicated a reduction in the water table at the open cut mine site ‘in excess of 300 [metres]’, with groundwater reduction in surrounding areas ranging between one and four metres.²⁵ Water resources impacted by large coal mining developments are listed as a ‘matter of national environmental significance’.²⁶ The proposed mine site was also identified as straddling koala and echidna habitat, as well as being the location of several

²⁰ John Dryzek, *Politics of the Earth: Environmental Discourses* (Oxford University Press, 2005).

²¹ In Queensland, this is determined pursuant to the *Environmental Protection Act 1994* (Qld).

²² EPBC Act ch 2 pt 3.

²³ EPBC Act ch 2.

²⁴ Adani Mining, *Carmichael Coal Mine and Rail Project: Supplementary Environmental Impact Statement Volume 4, Appendix C4e – Application to Take Water from the Belyando River* (Environmental Impact Statement).

²⁵ Adani Mining, *Carmichael Coal Mine and Rail Project: Report for Mine Hydrogeology* (Report, 13 November 2013) 102.

²⁶ EPBC Act s 24D.

endangered animal and plant species. Federally listed protected species are also matters of national environmental significance under the EPBC Act.²⁷

In addition to these issues, concerns were raised about the contribution that coal from the mine will make (when used) to anthropogenic climate change over the 60-year life of the mine.²⁸ Carbon dioxide from coal combustion will remain in the atmosphere for hundreds of years, so will contribute to global warming for a period well beyond the mine's production life. Finally, concerns were raised by the Wangan and Jagalingou indigenous peoples that the mine would 'devastate their ancestral lands and waters, totemic animals and plants, and cultural heritage'.²⁹

It is therefore no surprise that the Adani Carmichael mine proposal has been the subject of several legal challenges. The mine proposal has been before the Native Title Tribunal on multiple occasions.³⁰ Those applications have so far been unsuccessful, but have escalated to the Federal Court,³¹ and may proceed to the High Court in due course. The mine proposal was subject to a judicial review application in the Federal Court by the Queensland Environmental Defenders Office (QEDO) in 2015. In the end, consent orders were made on 4 August 2015 that EPBC Act approval for the Adani Carmichael coal mine had been made in error, due to a failure on the part of the then Minister for Environment (The Hon Gregory Hunt) to properly consider material relating to the impact of the proposed mine on endangered species.³² It was accepted by the Commonwealth that in making a decision to approve the mine, Minister Hunt had failed to consider information in possession of the Commonwealth relating to likely impacts upon two species of fauna, the

²⁷ EPBA Act ch 2 pt 3 sub-div C.

²⁸ Figures vary, depending on the intensity of the burn and the concentration of carbon in coal deposits. The Energy Information Administration (US) estimates that 1 tonne of coal will produce, on average, 2.8 tonnes of CO₂. If the expected volume of coal from the mine is two billion tonnes, this when burnt would equate to at least 5.6 billion tonnes (i.e. six gigatonnes) of carbon dioxide equivalent. See B D Hong and E R Slatick, *Carbon Dioxide Emission Factors for Coal* (1994) US Energy Information Administration <https://www.eia.gov/coal/production/quarterly/co2_article/co2.html>.

²⁹ Lisa Cox, 'Native Title Battle Shaping Up Over Adani Coal Mine' *Sydney Morning Herald* (online) 26 March 2015 <<http://www.smh.com.au/federal-politics/political-news/native-title-battle-shaping-up-over-adani-coal-mine-20150326-1m8esn.html>>.

³⁰ *Adani Mining Pty Ltd v Burragubba* [2015] NNTTA 16; *Adani Mining Pty Ltd and Diver and Queensland* [2013] NNTTA 52; *Adani Mining Pty Ltd and Diver and Queensland* [2013] NNTTA 30; *Burragubba v Queensland* [2016] FCA 984.

³¹ *Kempii v Queensland* [2017] FCA 902; *Kempii v Adani Mining Pty Ltd* [2018] FCA 105; *Kempii v Adani Mining Pty Ltd (No 2)* [2017] FCA 1086; *Kempii v Adani Mining Pty Ltd (No 3)* [2018] FCA 40; *Kempii v Adani Mining Pty Ltd (No 4)* [2018] FCA 1245; *Miller v Queensland* [2016] FCA 271; *Lampton v Queensland* [2014] FCA 736; *Burragubba v Queensland* [2016] FCA 1525; *Juru Enterprises Ltd v Adani Australia Company Pty Ltd* [2018] FCA 870; *Burragubba v Queensland* [2017] FCA 373.

³² *Mackay Conservation Group v Commonwealth* (Federal Court of Australia, NSD33/2015).

yakka skink and the ornamental snake.³³ The result was the EPBC Act approval was overturned. The result of these Federal Court judicial review proceedings was publicly criticised by Northern Queensland conservative Federal MP, the Hon George Christensen, who called for the Federal Environment Minister to expedite a reconsideration of the Adani Carmichael mine proposal.³⁴ On 15 October 2015, Federal Ministerial approval for the mine was provided addressing these concerns.³⁵ This decision was also the subject of a further judicial review application in the Federal Court by the Australian Conservation Foundation ('ACF'), for an alleged failure by the Minister to consider the impact of the mine on driving climate change and thereby causing damage (such as coral bleaching) to the world heritage listed Great Barrier Reef.³⁶ A key aspect of this case was the 'water trigger' impact provisions arising under s 527E of the EPBC Act. The case itself is significant, because of the detailed way in which the court was asked to consider evidence of climate change as part of the proceedings. In the end, the application for judicial review was dismissed³⁷ and the ACF was required to pay a substantial costs order.³⁸

B *An Agenda to Restrict Third Party Standing*

In the wake of these proceedings, the federal government publicly criticised the capacity of 'green groups' to oppose large-scale developments in the courts, describing the 'tactic' of legal opposition by 'radical green groups' as 'vigilante litigation'³⁹ and 'lawfare'.⁴⁰ The federal government also proposed legislative change to restrict the standing of members of the public to bring similar judicial review proceedings in

³³ *Approval of Adani's \$16 Billion Carmichael Mine in Queensland's Galilee Basin Set Aside by Federal Court* (6 August 2015) ABC News <<http://www.abc.net.au/news/2015-08-05/federal-court-overturns-approval-of-adani's-carmichael-coal-mine/6673734>>; Primrose Riordan, 'Federal Court Intervenes Over Adani "Lawfare"' *Financial Review* (online) 9 August 2015 <<http://www.afr.com/news/federal-court-intervenes-over-adani-lawfare-20150819-gj2w2q>>.

³⁴ 'Adani Mine Decision: Federal Court Ruling Shifts Environmental Approval Goal Post, MP Says' (7 August 2015) ABC News <<http://www.abc.net.au/news/2015-08-06/adani-decision-court-shifted-goal-posts-christensen/6676450>>.

³⁵ Minister for the Environment, Greg Hunt MP, 'Carmichael Coal Mine and Rail Infrastructure Project' (Media Release, 15 October 2015) <<http://www.environment.gov.au/minister/hunt/2015/pubs/mr20151015.pdf>>.

³⁶ Jessica von Vonderen, 'Australian Conservation Foundation challenges Adani Carmichael Coal Mine in Federal Court' (9 November 2015) ABC News <<http://www.abc.net.au/news/2015-11-09/adani-mine-australian-conservation-foundation-court-challenge/6923598>>.

³⁷ *Australian Conservation Foundation v Minister for the Environment* [2016] FCA 1042. It is worth noting that standing was not an issue in this case.

³⁸ *Australian Conservation Foundation v Minister for the Environment (No 2)* [2016] FCA 1095.

³⁹ Attorney-General, George Brandis MP, 'Government Acts to Protect Jobs from Vigilante Litigants' (Media Release, 18 August 2015) <<https://www.attorneygeneral.gov.au/MediaReleases/Pages/2015/ThirdQuarter/18-August-2015-Government-acts-to-protect-jobs-from-vigilante-litigants.aspx>>.

⁴⁰ Riordan, above n 33.

federal courts. Then Attorney-General, the Hon George Brandis, released a press statement on 18 August 2015, stating:

The government has decided to protect Australian jobs by removing from the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) the provision that allows *radical green activists* to engage in *vigilante litigation* to stop important economic projects. ...Section 487 of the EPBC Act provides a *red carpet for radical activists* who have a *political, but not a legal interest*, in a development to use aggressive litigation tactics to *disrupt and sabotage* important projects. ... The activists themselves have declared that that is their objective – to *use the courts not for the proper purpose* of resolving a dispute between citizens, but for a *collateral political purpose* of bringing developments to a standstill, and sacrificing the jobs of tens of thousands of Australians in the process... (emphasis added).⁴¹

The government wasted no time in introducing to Parliament the *Environment Protection and Biodiversity Conservation Amendment (Standing) Bill* ('the repeal Bill'), which had the sole purpose of repealing s 487 of the EPBC Act.⁴² The repeal Bill was referred to the federal Senate for consideration and approval on 14 September 2015.⁴³ It was subsequently referred to the Senate Environment and Communications Legislation Committee and public submissions invited on its merits and substance. The repeal Bill remained in Committee through the remainder of 2015, but eventually lapsed in April 2016, when Parliament was prorogued.⁴⁴

However, the agenda motivating the repeal Bill's introduction has not disappeared in the wake of this prorogation of Parliament. In October 2016, the then Prime Minister, the Hon Malcolm Turnbull, indicated that the proposed changes to the EPBC remained government policy. However, the policies linked to it have expanded and transformed to include a review of the funding mechanisms which civil society groups use for legal challenges. Changes to the EPBC Act have therefore morphed to include notions of amendments to taxation and charity laws that would remove or restrict the tax-exempt status of some NGOs involved in climate litigation.⁴⁵ The result is a distinction the federal government wishes to

⁴¹ Brandis, above n 39.

⁴² Commonwealth, *Parliamentary Debates*, House of Representatives, 20 August 2015, 8987 (Hunt).

⁴³ Commonwealth of Australia, *Parliamentary Debates*, Senate, 14 September 2015, 65 (Ryan).

⁴⁴ Sophie Power and Juli Tomaras, *Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, No 37 of 2015-16, 3 November 2015; Parliament of Australia, *Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*
<http://www.aph.gov.au/Parliamentary_Business/Bills_LEGislation/Bills_Search_Results/Result?bId=r5522>.

⁴⁵ Dennis Shanahan, 'Turnbull Moves to Shut Court Doors on Anti-Coal Activists', *The Australian*, 25 October 2016, 6; Dennis Shanahan, 'Activists Must Come Clean on Foreign

make between ‘legitimate conservation’ work and the ‘political activism’ of NGOs.⁴⁶ It appears that the repeal of s 487 forms part of a larger federal government agenda aimed at limiting, or preventing, the capacity of environmental groups problematised as ‘vigilante’ to challenge major resource development projects by removing their statutory standing and the financial resources needed for large-scale litigation.

By proposing to repeal s 487, the federal government is seeking to make a major alteration in the character of Australian environmental and administrative law to seriously restrict the capacity of the public and civil society to challenge the legality of decisions made about developments. This represents a significant retreat from the widening of standing that had been characteristic of Australian administrative and environmental law since the late 1970s. In an attempt to understand the political economy of this example, and its associated legal character, we deployed phronetic legal research as our methodology.

II PHRONETIC LEGAL RESEARCH

Recently, the authors articulated a methodology for socio-legal research we termed *legal phronesis*.⁴⁷ This method is an adaptation of Flyvbjerg’s case-study model, published in *Making Social Science Matter*.⁴⁸ Legal phronesis is an adaptation of this methodology, in that we advocate for the retention of the core doctrinal analytic which is the essential component of legal research method, but extend that research focus beyond the boundaries of legal rules (as contained in legislation, cases and treaties) to interrogate empirical elements relating to the formation, change in, and effects of law that are external to its doctrinal aspects. This approach to law and society research deploys a constructionist epistemology to inform a legal phronetic methodology. This methodology informs a doctrinal and discourse analysis technique, ultimately based on a case study and documentary analysis as its core research and analytical practice.⁴⁹ The result is a theoretical framework sensitive to the technical, epistemic and normative components of law, as well as its sociological dimensions, and particularly the power dynamics present in the phenomena being examined.

This is a research design necessarily interested in case study, particularly of unusual or significant events. The current push to repeal third party standing provisions is unusual, as there is no significant evidence in the

Funds’, *The Australian*, 26 October 2016, 5; Kerri-Anne Mesner, ‘PM Says ‘Lawfare’ Legislation Back on the Agenda’, *The Morning Bulletin* (Rockhampton, Australia), 28 October 2016, 7.

⁴⁶ ‘Donation Rethink for Green Activist Groups’, *Courier Mail* (Brisbane), 12 April 2017, 14.

⁴⁷ Murphy and McGee, above n 19.

⁴⁸ Flyvbjerg, *Making Social Science Matter*, above n 18.

⁴⁹ Michael Crotty, *The Foundations of Social Research* (Allen and Unwin, 1998) 2-5.

doctrinal legal literature that justifies repeal of s 487. This approach offers a deeper understanding of the subject than traditional legal scholarship, because it sensitises the analysis to the driving power dynamics outside the rule structures. The federal government reform agenda to repeal s 487 is an unusual event, given the substantial public support for government accountability and expanded standing rules, and (as discussed later) the undoubted economic bias of the public submissions in favour of its repeal. To understand this case study, legal scholarship must go beyond the doctrinal logics of the legislation and previous court decisions⁵⁰ and engage with the wider societal processes driving the reform agenda, hence our use of Flyvbjerg.

There are, of course, many ways of tackling a subject of this kind. The very word ‘discourse’ invites a multitude of problems and methods. At the very least, the central problem is there are different theories as to what ‘discourse’ means: in effect, there is now something of a ‘discourse of discourse’. These theories often overlap and/or draw from one another. For example, Foucault certainly popularised the term, but his approach to discourse analysis is complex and totalising in the sense that knowledge systems, discourse and power are inseparable and largely governed by an overarching ‘episteme’ that shapes social understanding of an issue in a given historical period.⁵¹ Habermas also uses the concept of discourse in his writing, but his focus draws on the linguistic philosophy of Searle and Austin to propose a normative model for the public sphere based on the rational exchange of ideas.⁵² More recently, Dryzek also uses discourse analysis, although his work is more concerned with charting the argumentative process of contestation between discourses which shapes social understanding of policy fields.⁵³

Why, then, did we deploy something else? The answer lies in the distinction between technique and framework for interpretation. Our purpose was to adopt a model that simply allowed us to identify, systematically, the core themes of contestation relevant to a discussion on law and policy. Our purpose was not to engage in detailed structural analysis of the rationalities themselves. That potential remains, but it is properly beyond the scope of this paper.

⁵⁰ For a scholarly, but otherwise traditional, legal analysis of s 487 and judicial review, see Matthew Groves, ‘The Evolution and Reform of Standing in Australian Administrative Law’ (2016) 44 *Federal Law Review* 167.

⁵¹ See, eg, Michel Foucault, *The Archaeology of Knowledge* (Alan Sheridan Smith trans, Routledge, 2003) [trans of: *L'Archeologie Du Savoir* (first published 1972)]; Michel Foucault, ‘Questions of Method’ in Graham Burchell, Colin Gordon and Peter Miller (eds), *The Foucault Effect: Studies in Governmentality* (Harvester Wheatsheaf, 1991) 73-86.

⁵² Jurgen Habermas, *Between Facts and Norms* (Polity Press, 1996). For a general overview, see Stephen White (ed), *The Cambridge Companion to Habermas* (Cambridge University Press, 1995).

⁵³ Dryzek, above n 20.

Phronetic methodology⁵⁴ is guided by four key questions directed at descriptive, analytical and normative concerns:

- 1) Where are we going within the field of enquiry?
- 2) Who gains, and who loses, by which mechanisms of power?
- 3) Is it desirable?
- 4) What should be done?⁵⁵

There is a merger in this methodology between techniques, assumptions, and underlying theoretical foundations, notably of Habermas and Foucault.⁵⁶ Central to this methodology is the sensitive place of values and power in the research. These are regarded as critical aspects of phronetic inquiry because they are often overlooked in social science and legal research, but are fundamental components of social life and institutional relations.⁵⁷

Both of these concepts require further elaboration. Broadly, the idea of values is located within ethical philosophy, psychology and sociology, and is essentially concerned with desire, the perception of right, and an associated willingness to act to promote or defend the subject of the value.⁵⁸ In some instances, value-laden decisions direct action, even when those actions defy logic, norms or the interests of the actor. Weber suggests that human social action is often ‘determined by a conscious belief in the value for its own sake of some ethical, aesthetic, religious, or other form of behaviour, independent on its prospects of success’.⁵⁹ However, Weber also argues that value-based decisions can be not only intellectually driven by the promotion of certain values, but *affective* and emotionally driven, as well as habitual. In this way, values may impact on decision-making in ways that service the intellectual, unconscious and social position of the actor. And because values can be so strong on some topics, they can result in an *affective* rather than purely *rational* decision. The semantic meaning of ‘value’ attests to a social and psychological attachment of the desirability and qualitative evaluation of the object. A focus on values is necessarily connected to what an actor regards as worthwhile, desirable

⁵⁴ Broadly, Flyvbjerg articulated nine principles in phronetic analysis: (1) Pay attention to values; (2) Locate power at the heart of the research; (3) Immersion in reality and primary sources; (4) Pay attention to local detail through thick description; (5) Movement between practice and discourse; (6) Isolation of cases in context; (7) Mobilise ‘how’ and ‘why’ questions; (8) Identifying specific actors and institutions; (9) Identify and engage with the polyphony of voices. See Flyvbjerg, *Making Social Science Matter*, above n 18, 129.

⁵⁵ Flyvbjerg, *Making Social Science Matter*, above n 18.

⁵⁶ Bent Flyvbjerg, ‘Habermas and Foucault: Thinkers for Civil Society?’ (1998) 49(2) *British Journal of Sociology* 210; Flyvbjerg, *Making Social Science Matter*, above n 18.

⁵⁷ Flyvbjerg, *Making Social Science Matter*, above n 18.

⁵⁸ Shalom H Schwartz, ‘Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries’ (1992) 25 *Advances in Experimental Social Psychology* 1.

⁵⁹ Max Weber, *Economy and Society*, tr Gunther Roth and Claus Wittich (University of California Press, 1978) vol 1, 24-5.

and, fundamentally, necessary to protect and promote. Kant would argue that this combination of intellectual, affective and social value forms the foundation of a moral ‘imperative’ that must not only be protected, but promoted, if not insisted upon.⁶⁰ Values are complicated by personal, social and contextual factors, and although they are fundamentally concerned with what we feel and believe is important, it has been recognised that values tend to be conceptually ordered in a hierarchy, further complicated by the fact that some values are concrete, while others are ephemeral, and others change over time.⁶¹ Ultimately, Flyvbjerg suggests that values can be identified based on what the actor is promoting or defending as an ‘ought’, normative claim of right, or correction action.

Flyvbjerg also emphasises the role of power in analysis. The centralisation of power offers a major focus of enquiry in both the ‘realist’ tradition in the social sciences⁶² and in the critical tradition of legal research and the practice of law itself.⁶³ Lawyers tend to think about power in terms of the coercive power of the state. However, drawing on Habermas and Foucault, Flyvbjerg advocates a broader and more nuanced understanding of power. This conceptualises power beyond the law and state, inviting attention to the operation and circulation of power through and within organisations, individuals, institutions, and knowledge systems. Given the importance of power to the current analysis, it is worth setting out Flyvbjerg’s synthesis of power in detail:

- (1) Power is...productive and positive and not only...restrictive and negative.
- (2) Power is viewed as a dense net of omnipresent relations and not only as localised in ‘centres’ and institutions, or as an entity one can ‘possess’.
- (3) [P]ower is...ultradynamic; [it] is not only something one appropriates, but also something one reappropriates and exercises in a constant back-and-forth movement in relations of strength, tactics and strategies.
- (4) Knowledge and power, truth and power, rationality and power are analytically inseparable from each other; power produces knowledge, and knowledge produces power.
- (5) The central question is how power is exercised, and not only who has power, and why they have it; the focus is on process in addition to structure.
- (6) Power is studied with a point of departure in small questions, ‘flat and empirical’, not only...in ‘big questions’.⁶⁴

⁶⁰ Immanuel Kant, *Groundwork of the Metaphysic of Morals*, tr Mary Gregor (first published 1785, 2013 ed, Cambridge University Press).

⁶¹ Milton Rokeach, *The Nature of Human Values* (Free Press, 1973); Edward Bond, *Reason and Value* (Cambridge University Press, 1983).

⁶² Duncan Bell (ed), *Political Thought and International Relations: Variations on a Realist Theme* (Oxford University Press, 2009).

⁶³ Ian Ward, *Introduction to Critical Legal Theory* (Routledge/Cavendish, 2004).

⁶⁴ Flyvbjerg, *Making Social Science Matter*, above n 18.

This sensitisation of the research to the central role of values and power in the empirical case being examined are major components and strengths of Flyvbjerg's phronetic approach.

Indeed, we suggest that *legal phronesis* locates the primary focus of the study on the legalities within the case, rather than being part of the general context of phronetic social inquiry. Our position is to begin with legal doctrinal analysis, before moving into the social context of the doctrine (i.e. its formation, change and effects) giving emphasis to values, power and discourse. Fundamentally, we believe this approach has the potential to situate research of this kind at the intersection between law and social inquiry,⁶⁵ opening insights in both directions that may otherwise not have been apparent. With this in mind, we now turn to doctrinal history of s 487.

III STANDING AND JUDICIAL REVIEW IN ENVIRONMENTAL LAW

'Standing' is the legal recognition of a person to bring action in a court of law. It is a concept derived from the Latin *locus standi*, which literally refers to a place to stand on, or in, but it has come to refer to the recognition of the rights of a person to lawfully bring an action before a court to enforce the law.⁶⁶ The legal test for standing at common law relates to the nexus between the person and the cause of action, with standing arising only where the person has some direct interest in law affected by the respondent. Such rules generally exclude others from bringing an action to enforce the law, in the absence of some exception, such as reliance on a prerogative writ (such as habeas corpus), a 'special interest', or statutory right.⁶⁷

The common law legal rules relating to standing are complex, and tend to be shaped by the field of law that they occupy. While almost exclusively limited to the specific affected party in the context of private law (especially tort and contract), there are signs that the scope of standing is generally widening, a trend which has been the subject of explicit academic commentary,⁶⁸ as well as Law Reform recommendation.⁶⁹ The High Court

⁶⁵ There is a distinction to be made between 'social science' and 'social inquiry'. Social science implies the research is rooted in a 'scientific' empiricism as a key technique or paradigm that is interested in identifying specific and general principles or laws able to describe causal connections of existing phenomena, with a view to predicting future social phenomena. 'Social inquiry', on the other hand, is more closely aligned with the interpretation and meaning, and less with empiricism.

⁶⁶ This is reflected in standard definitions of 'standing' and 'locus standi' in legal dictionaries.

⁶⁷ For commentary, see Australian Law Reform Commission, *Standing in Public Interest Litigation* (Report No 27, 1985).

⁶⁸ Elizabeth Fisher and Jeremy Kirk, 'Still Standing: An Argument for Open Standing in Australia and England' (1997) 71(4) *Australian Law Journal* 370; Groves, above n 50.

⁶⁹ Australian Law Reform Commission, above n 68; Australian Law Reform Commission, *Beyond the Door-Keeper – Standing to Sue for Public Remedies* (Report No 78, February 1996).

has also signalled a more general willingness to extend the categories of special interest standing in appropriate cases.⁷⁰ This expansion is, however, conservative, and necessarily enmeshed with questions of public policy, the available remedy, and the capacities of the plaintiff in the particular context. It is fair to say that while the law of standing is primarily a limiting provision, and does have the effect of causing delay, it is not a ‘loophole’ that invites litigation by any party. Indeed, the outcome in most cases is closer scrutiny of government decision making, accountability of the executive, and tighter controls over the project. Arguably, even where the challenge to development ‘fails’, the result is a better outcome because of the scrutiny involved.

Standing in the context of environmental law has always presented something of a quandary. The general principle is that standing is narrowly construed to restrict the class of plaintiffs. For environmental cases, this essentially means that only those actors with a special interest, in the sense of being directly linked to the particular dispute, have standing at common law. The potential difficulty for environmental cases is that the class of affected individuals is extending in the face of large-scale developments, and particularly in the face of global scale environmental concerns, such as climate change.

This dilemma is illustrated by Gibbs J in *Australian Conservation Foundation v Commonwealth*,⁷¹ when he comments:

I would not deny that a person might have a special interest in the preservation of a particular environment. However, an interest, for present purposes, does not mean a mere intellectual or emotional concern. A person is not interested within the meaning of the rule, unless he is likely to gain some advantage, other than the satisfaction of righting a wrong, upholding a principle or winning a contest, if his action succeeds or to suffer some disadvantage, other than a sense of grievance or a debt for costs, if his action fails. A belief, however strongly felt, that the law generally, or a particular law, should be observed, or that conduct of a particular kind should be prevented, does not suffice to give its possessor locus standi. If that were not so, the rule requiring special interest would

⁷⁰ *Australian Conservation Foundation v Commonwealth* (1980) 146 CLR 493; *Onus v Alcoa* (1981) 36 ALR 425; *Truth About Motorways v Macquarie* (2000) 200 CLR 591.

⁷¹ This case concerned an independent body, the Australian Conservation Foundation, challenging the grant of a development application by the Iwasaki Company to purchase and develop land as a tourist resort in central Queensland in 1978. The ACF took action against the Commonwealth, seeking injunction and declaratory orders against the Ministers involved in the decision making on the grounds there had been inaccurate information provided in Environmental Impact Statements. Iwasaki and the Commonwealth sought orders the matter be struck out as the ACF had no standing in the present case, having no ‘special interest in the subject matter’. The High Court ruled against ACF, finding the ACF had no standing in this case. Here the nexus between the ACF and the project was insufficient, and accordingly the threshold standing issue had not been met.

be meaningless. Any plaintiff who felt strongly enough to bring an action could maintain it.⁷²

The result of this general principle is that standing is generally restricted to those whose rights, interests or legitimate expectations have been compromised, typically in the form of loss, although there is recognition that in some cases this category may be broad if falling within the ‘zone of interests’.⁷³ This is a recognition that standing can arise in ‘special’ cases where the plaintiff has a personal interest in the case, but is not otherwise directly affected by the factual matrix. Characterising what ‘special interests’ are in this context is difficult. Since the ACF case was decided, the Federal Court has considered a range of factors that may constitute the ‘special interests’ necessary to provide standing, including the size of the organisation, the cause, governmental recognition of the organisation in question, and the capacity in and integrity with which the organisation represents the public interest.⁷⁴ The High Court in *Argos v Corbell* held that the ‘special interest’ necessary to extend standing was to be determined, on a case by case basis, and not interpreted narrowly:

The focus of the inquiry required by the words is upon the connection between the decision and interests of the person who claims to be aggrieved. The interests that may be adversely affected by a decision may take any of a variety of forms. They include, but are not confined to, legal rights, privileges, permissions or interests. And the central notion conveyed by the words is that the person claiming to be aggrieved can show that the decision will have an effect on his or her interests which is different from (‘beyond’) its effect on the public at large.⁷⁵

Simply stated, the common law establishes two categories of standing: (i) those with a *direct interest*, and (ii) those purporting to act in the *public interest*. Similarly, leading commentators on legal standing, such as Cane⁷⁶

⁷² (1980) 146 CLR 493, 531 (‘ACF’).

⁷³ *Australian Conservation Foundation v Commonwealth* (1980) 146 CLR 493, 509.

⁷⁴ *Onus v Alcoa* (1981) 36 ALR 425; *Australian Conservation Foundation v South Australia* (1990) 53 SASR 349, 360 (Cox J); *Australian Conservation Foundation v Minister for Resources* (1989) 76 LGRA 200; *Tasmanian Conservation Trust Inc v Minister for Resources* (1995) 85 LGERA 296; *North Coast Environment Council v Minister for Resources* (1994) 85 LGERA 270; *Animals’ Angels v Secretary, Department of Agriculture* [2014] FCAFC 173.

⁷⁵ *Argos Pty Ltd v Minister for the Environment and Sustainable Development* (2014) 254 CLR 384 [61] (Hayne and Bell JJ). In this case approval had been given for the development of a supermarket in Canberra, proximate to two existing supermarkets. The operators of these supermarkets, and their landlord, sought judicial review of the Minister’s decision. Standing was challenged in both cases. Here the High Court held that supermarkets had standing, due to the likely loss of profit, while the landlord did not have standing, as their interests were not dependent on the profitability of the tenants, but on the lease agreement.

⁷⁶ Peter Cane and Leighton McDonald, *Principles of Administration Law* (Oxford University Press, 2nd ed, 2012) 177-8.

and Edgar,⁷⁷ describe the first approach as a ‘private interest model’ of standing, which responds to protect private interests in property and person. Cane and Edgar describe the second category as an ‘enforcement model’ of standing which, consistent with rule of law concerns, seeks to empower citizens and other societal actors to ensure that the executive acts only in accordance with legitimate power under public law.⁷⁸ It is the latter category of ‘enforcement model’ of standing where much of the contention over the limits of standing lies. This creates problems for some environmental disputes, where the key issue is one of large-scale or public concern, with the result that a good deal of legal argument and energy can be directed to arguments over standing. The simplest solution, recognised in the *ACF* decision, is that the common law position on standing be extended by legislation.⁷⁹

The Australian Law Reform Commission (‘ALRC’) has previously recommended a regime of circumscribed open standing heavily influenced by the enforcement model of standing. In 1996, the ALRC considered reform to the rules relating to standing to initiate proceedings in public law cases.⁸⁰ The Commission recommended that the ‘special interest’ approach to standing from *ACF* be replaced by legislated open standing for public law cases, unless there was contrary legislative intent present, or such standing would provide unreasonable interference with private interests.⁸¹ This open standing approach dispensed with the need for a plaintiff in judicial review proceedings to prove a private interest adversely affected by the decision under challenge. The Howard (Coalition) government failed to act on these recommendations, however.⁸² Whilst the ALRC recommended a path of open standing, there was significant concern that the exception to guard against unreasonable interference with private interests might unwittingly make it more difficult for environmental groups to bring public interest actions than under the common law standing rules of *ACF*.

However, three years later a significant reform of the common law standing rules did occur with the Howard government’s passing of s 487 in the 1999 EPBC Act. This section extended the meaning of the words ‘person aggrieved’ for the purposes of standing in respect of applications for judicial review brought under ss 5-7 of the *Administrative Decisions (Judicial Review) Act 1977* (Cth) (‘AD(JR) Act’). Broadly, this combination of legislative provisions permits applications for judicial

⁷⁷ Andrew Edgar, ‘Extended Standing-Enhanced Accountability: Judicial Review of Commonwealth Environmental Decisions’ (2011) 39(3) *Federal Law Review* 433.

⁷⁸ Cane and McDonald, above n 76; Edgar, above n 77.

⁷⁹ *Australian Conservation Foundation v Commonwealth* (1980) 146 CLR 493, 526.

⁸⁰ Australian Law Reform Commission, *Beyond the Door-keeper: Standing to Sue for Public Remedies* (Report No 78, 1996).

⁸¹ *Ibid* 57.

⁸² Cane and McDonald, above n 76.

review of decisions affecting persons and organisations who are Australian citizens, ordinarily resident in Australia, either directly impacted by an administrative decision, and who:

...at any time in the [two] years immediately before the decision, failure or conduct, [has] engaged in a series of activities in Australia or an external Territory for protection or conservation of, or research into, the environment (emphasis added).⁸³

The inclusion of s 487 extends standing beyond the common law position to individuals or civil society organisations who have an interest in the environment, whether from a research, environmental protection or conservation perspective. Section 487 thereby provides standing to third parties who might otherwise have no direct or private interest in the proceedings. This approach favours the enforcement model of standing, in that rights to commence proceedings are determined not by the applicant's private interest in the decision in question, but rather by their scientific expertise and/or background in environmental protection, which are status-based prerequisites to protect the public interest by seeking enforcement of the law.⁸⁴

The third party standing provision of s 487 also supported Australia's increasing involvement in international action on environmental protection and responding to climate change. For example, Principle 10 of the *Rio Declaration on Environment and Development* (1992) requires, inter alia, '[e]ffective access to judicial and administrative proceedings, including redress and remedy...'.⁸⁵ Australia agreed to the *Rio Declaration on Environment and Development* and has implemented a national strategy on ecological sustainable development.⁸⁶

One of the misconceptions about third party standing is that it provides a licence for anyone to interfere with, or block, development applications. This is not the case. The EPBC Act imposes internal limitations on the nature of the matters that the Environment Minister may consider in providing approval to a project.⁸⁷ The EPBC Act is directed towards protecting 'matters of national significance', by requiring ministerial approval of specific kinds of projects. Projects which do not trigger the EPBC Act are governed by relevant state development control and various other legislation. Consequently, the extension of standing under s 487

⁸³ EPBC Act s 487(2)(b), s 487(3)(b).

⁸⁴ Cane and McDonald, above n 76.

⁸⁵ *Rio Declaration on Environment and Development*, UN GAOR, UN Doc A/CONF.151/26 (vol 1) (12 August 1992). It is important to note that the *Rio Declaration* is not binding, and is best understood as a statement of principles or 'soft law'.

⁸⁶ Richard Marlin, 'The External Affairs Power and Environmental Protection in Australia' (1996) 24(1) *Federal Law Review* 71.

⁸⁷ EPBC Act ch 2 pt 3.

relates to the limited range of usually large-scale development projects that are specifically governed by Commonwealth law.

The standing question in this context is further limited by the restriction on the cause of action. Section 487 relates specifically to an extension of standing for *judicial review*, not a blanket extension of any cause of action arising at law. While s 487 makes it easier for scientists and environmental groups to bring actions for judicial review, that review relates only to those matters governed by the EPBC Act, and also confines the parties to the remedies available under the AD(JR) Act.⁸⁸ Broadly, the most common order made in these cases is to quash the original decision and order the decision be re-made, by the Minister or their delegate, according to law. The result in most judicial review cases is that the project is delayed, but ultimately goes ahead, after receiving Ministerial approval.

The fact that the standing provisions are relatively limited to certain kinds of projects, and that the ultimate result is usually approval, may well explain why the actual use of s 487 is, in fact, relatively low. In the 15 years since inception of s 487 there have been over 5500 projects approved under the EPBC Act, but only 22 were formally challenged by third parties pursuant to s 487.⁸⁹ Further, of the 33 actions for judicial review of the EPBC Act under the AD(JR) Act in that time, only six have required formal reconsideration by the Minister.⁹⁰ A 10-year review of the EPBC Act carried out for the Commonwealth by Dr Allan Hawke indicated that s 487 had only been used conservatively.⁹¹ The Hawke Review made no recommendations for significant change to s 487.

Fundamentally, s 487 of the EPBC Act provides a statutory extension of the common law standing rules consistent with a wider international movement towards the enforcement model which pursues a public interest of enhanced executive accountability. Section 487 was introduced into Australian law during the late 1990s, a time in which a Coalition government had sufficient political leverage to weaken the private interest

⁸⁸ AD(JR) Act s 16.

⁸⁹ Chris McGrath's submission observed that '[t]he number of judicial review challenges based on s 487 of the EPBC Act is very, very low in comparison to the number of referrals, which indicates that the widened standing has not resulted in a flood of litigation. Based on the figures presented in the Appendix, only 25 judicial review cases have been brought by third parties under the EPBC Act in the 15 years since it commenced. This means that only 0.46% of the 5399 referrals made under the Act (as at 27 August 2015) have been the subject to judicial review challenges and the average rate of such challenges is less than two per year.' See Chris McGrath, Submission No 96 to Senate Standing Committee on Environment and Communications, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 11 September 2015, [3].

⁹⁰ The Australia Institute, *Key Administration Statistics – 3rd Party Appeals and the EPBC Act*, Statistical Review Briefing, August 2015.

⁹¹ Allan Hawke, *The Australian Environment Act: Report of the Independent Review of the Environment Protection and Biodiversity Conservation Act 1999* (Final Report, October 2009) ch 15 [15.78]–[15.85], recommendation 50 260–1.

foundations of standing law and pursue an enforcement model of standing, without significantly alienating key supporters in the business sector. This was not, however, a blanket extension, and actually restricts the kinds of remedies available to parties. By any measure, the operation of s 487 has been modest and minimal – at least in terms of the litigated matters that have relied upon it. Doctrinal analysis of standing and s 487 therefore suggests there is no significant problem with the operation of the enforcement model of standing embodied in s 487 that requires its repeal, or even substantial amendment. The recommendations of Dr Hawke’s review and academic analysis have also not raised significant reasons for repeal of s 487. Whilst doctrinal analysis is a useful starting point for legal research into the agenda for repeal of s 487, it clearly misses the wider social forces at play that are agitating for its repeal. In the next section, we show how the theoretical framework of phronetic legal research, by providing a bridge between legal doctrinal and the social context behind its formation and change, can illuminate the reasons why s 487 has come under threat.

III PHRONESIS IN ACTION: DISCOURSE, POWER AND THE POLITICS OF ACCESS TO THE COURTS

If the extended standing provided by s 487 is limited from a doctrinal standpoint, and the available evidence suggests that actual use of s 487 is minimal, why has standing been problematised as requiring repeal? This is a question that might only be answered outside the methods of doctrinal research. Doctrinal method, confined to its core, would focus on the mechanisms for repeal, any controversies in the common law standing rule and mechanics of judicial review, and the hitherto unspoken constitutional limitations on the Commonwealth to make laws governing the environment. This approach is admirably demonstrated by Groves in his recent analysis of the role of the external affairs power, standing and the EPBC Act.⁹² After engaging in a scholarly analysis of largely judicial considerations of the standing rule, with reference to s 487, Groves concludes that an expanded standing rule is desirable. The article is an excellent piece of doctrinal scholarship, and although it recognises, and to some extent is critical of the Liberal Government repeal agenda for s 487, it does not closely engage with the competing voices driving policy and the architecture of law. Similarly, a recent academic debate on the issue involving then Attorney-General Brandis and a prominent Australian environmental lawyer is largely limited to doctrinal and legal policy arguments.⁹³ This analysis does not carefully consider the wider social

⁹² Groves, above n 50.

⁹³ George Brandis, “Green Lawfare” and Standing: the View from Within Government’ (2017) 90 *Australian Institute of Administrative Law Forum* 12; Andrew Macintosh, ‘Lawfare, Liberal Standing Rules and Environmental Citizen Suits: A Reply to the Attorney-General’ (2017) 90 *Australian Institute of Administrative Law Forum* 19.

context which has seen the public interest, enforcement model of standing come under significant pressure.⁹⁴ It is here that the phronetic interdisciplinary methodology offers a way forward.

On 20 August 2015, the Commonwealth Senate referred the *Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015* (Cth), containing the s 487 repeal provisions, for inquiry and report. The original reporting date for the committee was 12 October 2015, however, this was extended to the second last sitting day in February 2016.⁹⁵ However, this reporting period was shortened and the committee delivered its report on 18 November 2015,⁹⁶ with the government majority on the committee supporting repeal of s 487.⁹⁷

The following analysis of the policy discourses surrounding efforts to repeal s 487 draws on analysis of (i) media statements from the Attorney General's office, (ii) the second reading speech for the repeal Bill for repeal of s 487;⁹⁸ (iii) submissions made by key stakeholders to the Senate inquiry, and (iv) the Senate inquiry report. The purpose of our analysis of this secondary material is to bring to light the discourses used by key stakeholders in public debate over the proposed repeal of s 487. Analysis of these discourses provides important insights on the key social drivers of the proposed repeal of s 487, including the apparent pressure for retreat from the enforcement model of standing to the earlier private interest approach of the common law.

A Second Reading Speech

The *Environment Protection and Biodiversity Conservation Act (Standing) Bill 2015* (Cth) was introduced to Parliament on 20 August 2015 by the then Minister for the Environment, the Hon Greg Hunt MP. The associated second reading speech set out the government's formal reasons for the repeal of s 487.⁹⁹ The EPBC Act is portrayed in this speech as a model piece of environmental legislation, providing certainty for investment and environmental management through a rational and efficient system of ministerial approval of large development projects. The speech claims that since inception, the EPBC Act has seen approval of more than \$1 trillion

⁹⁴ Ibid.

⁹⁵ Parliament of Australia, *Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015* <http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/EPBC_Standing_Bill>.

⁹⁶ Ibid.

⁹⁷ Senate Environment and Communications Legislation Committee, Parliament of Australia, *Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015 [Provisions]* (2015).

⁹⁸ Commonwealth, *Parliamentary Debates*, House of Representatives, 20 August 2015, 8987 (Hunt).

⁹⁹ Ibid.

in investment in Australia, reduced transaction costs, and consolidation of approvals of major projects at the federal level; described as ‘world-class environmental standards’ combined with ‘world-class administration’.¹⁰⁰

However, the speech also claims this system of ‘world class administration’ is under threat from the ‘Americanisation’ of administrative law. This transformation in administrative law is alleged to represent ‘the worst features of the American litigation industry’: mounting legal challenges to Ministerial approvals for the primary purpose of ‘disrupting’ and ‘delaying’ infrastructure projects. ‘Green activists’ are acting for political purposes, intentionally increasing ‘investor risk’, for the purpose of frustrating and preventing private infrastructure projects.¹⁰¹ The speech claims this transformation is part of an orchestrated campaign, promoted by a range of local and international activist groups, notably Greenpeace, NSW and QLD Environmental Defenders Offices, and the Australia Institute.¹⁰² The extended standing provisions in s 487 are described as a ‘legal loophole’¹⁰³ that permits instability. The Minister’s speech claims the intention behind repealing s 487 is to ‘normalise’ the standing provisions of the EPBC Act by reducing the class of persons with standing to only those ‘with a genuine and direct interest in a matter’.¹⁰⁴ It states:

The EPBC Act standing provisions were never intended to be extended and distorted for political purposes as is now occurring with the US style litigation campaign to ‘disrupt and delay key projects and infrastructure’ and ‘increase investor risk’.¹⁰⁵

The major themes within the second reading speech relate to the importance of economic development and capital investment; the importance of certainty and security for investors, economic growth and public policy; the primacy of reason and rational decision-making; and notably an insider/outsider dichotomy of legitimate and illegitimate persons and conduct in using s 487, and even the threat presented by a ‘foreign’ set of litigation practices that have been ‘imported’ from the United States with perverse affect. The explicit purpose of the amendment to repeal s 487 was the removal of a device from the EPBC Act that permitted ‘outsiders’, being activist litigants, from using the courts as a vehicle to challenge private economic interests.

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

¹⁰² Ibid 8988.

¹⁰³ Ibid 8989.

¹⁰⁴ Ibid 8988.

¹⁰⁵ Ibid 8989.

B Environment and Communications Legislation Committee Report

As part of the inquiry into the repeal Bill, conducted by the Environment and Communications Legislation Committee, public submissions were invited. There were 292 written submissions made, and over 21 000 form letters.¹⁰⁶ Public hearings were initially tabled, but later cancelled. The Committee instead decided to report based on the written submissions.¹⁰⁷ The report set out the arguments in favour and against the repeal. The report split 3:3 down party lines,¹⁰⁸ and therefore cannot be characterised as a unanimous position. The case for repeal of s 487 involved five elements: (i) the detrimental effect to business certainty; (ii) the extensive involvement of community groups in consultation; (iii) the availability of alternative review processes through administrative review; (iv) the absence of measurable outcomes through the use of s 487; and (v) the continuity of environmental protections under the EPBC Act.¹⁰⁹ The case for retention of s 487 involved seven elements: (i) limited evidence of vexatious or frivolous litigation; (ii) the fact that repeal would actually complicate litigation, as it would instead require interlocutory judicial determination of standing; (iii) that fact that repeal would reduce access to justice as a public good; (iv) the fact that repeal would challenge the rule of law by reducing scrutiny of administrative decisions; (v) consensus views on standing which favoured the expansion, rather than reduction, of standing provisions; (vi) the fact that the repeal purported to have retrospective application; and (vii) the fact that the repeal challenged Australia's international obligations.¹¹⁰

The 'committee view' (i.e. that of the three government Senators), recommended the Bill repealing s 487 be passed. The opposition Australian Labor Party and the Greens opposed the repeal Bill. Notably, Senator Larissa Waters (Greens) made nine recommendations intended to expand the protections for standing on environmental grounds, noting that 'of the 5500 projects referred for assessment under the EPBC... only 22 projects were subject to legal challenge, and only two projects have ever been stopped by legal challenges.'¹¹¹

It is also worth noting that the repeal Bill was the subject of two concurrent Senate Committee evaluations, first by the Scrutiny of Bills Committee,

¹⁰⁶ Ibid.

¹⁰⁷ These submissions are available in PDF form at Parliament of Australia, *Submissions* <http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/EPBC_Standing_Bill/Submissions>.

¹⁰⁸ The Standing Committee at the time was made up of six senators: three Liberals (the Hon Senators Linda Reynolds (Western Australia), Chris Back (Western Australia) and Michael Ronaldson (Victoria); two Labor (the Hon Senators Anne Urquhart (Tasmania) and Lisa Singh (Tasmania); and one Green (the Hon Larissa Waters (Queensland)).

¹⁰⁹ Senate Environment and Communications Legislation Committee, above n 97, 9-15.

¹¹⁰ Ibid 17-26.

¹¹¹ Ibid 4.

and then by the Parliamentary Joint Committee on Human Rights. Both Committees raised objections with the Bill, and asked for comment from the Minister for the Environment. The Scrutiny of Bills Committee observed that standing in environmental cases was an area of particular public importance, because it raises ‘matters of general rather than individual concern’.¹¹² In addition, ‘restrictive standing rules may mean that decisions relating to environmental regulation are, in practice, beyond effective judicial review’.¹¹³ This combination of issues had, in the Scrutiny of Bills Committee’s view, constitutional implications, as reduced standing rules have the capacity to prevent judicial scrutiny of administrative decisions (thereby preventing the courts from ensuring the legality of decisions made by Commonwealth ministers), and for increasing the complexity of litigation as courts would be required to assess standing on common law grounds as a threshold issue. Accordingly, the Scrutiny of Bills Committee sought advice from the Minister on the justification for the repeal. Reasons were not provided, other than a statement that the purpose of the repeal was to bring the standing rules ‘into line with the standard arrangements’, and reference to an ‘emerging risk of the extended standing provisions being used to deliberately disrupt and delay key projects’.¹¹⁴

In addition, the Parliamentary Joint Committee on Human Rights identified the proposed repeal as being at odds with art 12 of the International Covenant on Economic, Social and Cultural Rights, which declares a right to health and a healthy environment.¹¹⁵ This Committee was also critical

¹¹² Ibid 6.

¹¹³ Ibid.

¹¹⁴ Ibid 7.

¹¹⁵ Parliamentary Joint Committee on Human Rights, Parliament of Australia, *Human Rights Scrutiny Report: 35th Report of the 44th Parliament* (2016) 8, 9, 11. It is worth noting, however, that the concept of a ‘right to a healthy environment’ is a contested and nuanced concept. Article 12 provides that ‘[t]he States Parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health ... [that t]he steps to be taken by the States Parties to the present Covenant to achieve the full realisation of this right shall include those necessary for ... [t]he improvement of all aspects of environmental and industrial hygiene’. *International Covenant on Economic, Social and Cultural Rights*, opened for signature 16 December 1966, 993 UNTS 3 (entered into force 3 January 1976). Some caution is needed here in interpreting this provision as declaring a ‘right to a healthy environment’. The Parliamentary Committee reported: ‘The statement of compatibility does not explore whether the right to health and a healthy environment is engaged by this measure. While the text of the ICESCR does not explicitly recognise a human right to a healthy environment, the UN Committee on Economic, Social and Cultural Rights has recognised that the enjoyment of a broad range of economic, social and cultural rights depends on a healthy environment. The UN Committee has recognised that environmental degradation and resource depletion can impede the full enjoyment of the right to health. The UN Committee has also drawn a direct connection between the pollution of the environment and the resulting negative effects on the right to health, explaining that the right to health is violated by ‘the failure to enact or enforce laws to prevent the pollution of water, air and soil by extractive and manufacturing industries’. As such, the removal of a right of a person or bodies who are committed to environmental protection from seeking to

of the ‘statement of human rights compatibility’ annexed to the Bill,¹¹⁶ noting that the annexure failed to properly address international and domestic human rights implications. The Committee subsequently requested and received particulars from the Minister. The letter presented the Minister’s opinion that ‘the removal of the extended standing provisions [did] not engage the right to health in art 12 of the International Covenant of Economic, Social and Cultural Rights’, because the Bill did not prevent those with a ‘legitimate objective’ from bringing judicial review action¹¹⁷. Nor did the Bill affect the environmental protections available under the Act, which preserved the environment.¹¹⁸ In other words, the Minister’s response was to reinforce the distinction between legitimate and illegitimate persons who might challenge executive decisions on environmental matters.

C Themes in Public Submissions

The submissions to the Senate Committee were sharply divided between those parties in favour of repeal, and those against it. The voices in favour of repeal that had the greatest impact were the Business Council of Australia,¹¹⁹ the Minerals Council of Australia,¹²⁰ and Ports Australia.¹²¹ The impact of these three submissions on the Senate committee findings appears considerable and disproportionate, given the overwhelming majority of submissions favoured retaining s 487. This is demonstrable in the repeated use of material from those submissions in the inquiry’s report, and the essential endorsement of the views within these submissions by the Senate Committee. The voices in favour of retaining extended standing were drawn from a diverse array of actors, but are principally identifiable

enforce the protections in the Environment Act, may engage and limit the right to a healthy environment. This was not addressed in the statement of compatibility. The committee therefore sought the advice of the Minister for the Environment as to whether the bill limits the right to a healthy environment and, if so, the legitimate objective, rational connection and proportionality of the measures. ... The committee agrees that there is no standalone right to a healthy environment. The committee also agrees with the minister’s statement that the right to health embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life including access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions and access to health-related education and information, including on sexual and reproductive health.’

¹¹⁶ Required by the *Human Rights (Parliamentary Scrutiny) Act 2011* (Cth).

¹¹⁷ Parliamentary Joint Committee on Human Rights, above n 115, 9-11.

¹¹⁸ *Ibid* 9-10.

¹¹⁹ Business Council of Australia, Submission No 111 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, September 2015.

¹²⁰ Minerals Council of Australia, Submission No 97 to Senate Environment and Communications Legislation Committee, *Inquiry into Environment Protection and Biodiversity Conservation (Standing) Bill 2015*, 14 September 2015.

¹²¹ Ports Australia, Submission No 52 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 9 September 2015.

as environmentalists, legal professionals/academics, and concerned citizens. These submissions were influential in the dissenting reports. In analysing the values and the unspoken or implied themes within the submissions, a series of themes emerge, as identified in the following table:

Interest group	Basic position	Reasons
Environmental	Opposes repeal	<p>Individuals and communities have a right to a healthy environment, and the right to challenge government decisions affecting them.</p> <p>Repeal will increase litigation costs and complexity, and erode confidence in government decision making.</p> <p>Repeal reduces the capacity of the public to scrutinise development applications and government decision making.</p> <p>There is no evidence that third party standing rules have been abused or out of control.</p> <p>The potential environmental problems are devastating.</p>
Farming	Opposes repeal	<p>Repeal restricts the ability of farmers and the farming industry to oppose developments that affect collective or community farming interests.</p> <p>Large scale open-cut mining in certain areas affects water quality, availability and fertility.</p>
Indigenous	Opposes repeal	<p>Section 487 facilitates capacity of the public to protect matters of national significance.</p> <p>Connection with land is cultural. Section 487 allows for challenge in cases where there is no direct physical link to the development, but otherwise a historical and cultural connection.</p>
Legal	Opposes repeal	<p>Section 487 enables public accountability and scrutiny of the actions of the executive arm of government.</p> <p>Repeal of s 487 will not eliminate third party challenge. It will complicate</p>

		standing proceedings in courts as parties litigate standing, even before concentrating on the core issue. The courts possess a range of powers to prevent vexatious or abuse of process.
Mining	Supports repeal	Section 487 is a ‘loophole’ that allows activists to launch vexatious litigation for the purpose of creating investment risk. Delayed decisions have negative economic consequences.

Table 1: Summary of submissions to overview of the submissions of interest groups prepared as a part of the Parliamentary Bills Digest for the repeal Bill.¹²²

Like most areas of public policy, the arguments that emerge out of a multitude of voices are complex and interwoven. However, what is clear is that the majority of submissions were opposed to repeal of s 487. We suggest that the complexity of these submissions might be usefully viewed as crystallising around three key discourses of ‘economic primacy’, ‘environmental harm’ and ‘government accountability’.

1 The ‘Economic Primacy’ Discourse

The case for repeal is dominated by economic and capital investment values and interests. Given the nature of the projects governed by the EPBC Act, the economic weight of these interests is substantial. The Business Council of Australia, for example, claims that the value of ‘committed projects’ in Australia in 2015 exceeded \$220 billion.¹²³ It claims that delays to major projects from ‘legal obstruction’ present a direct threat to future investment and profits. The Business Council, relying on Productivity Commission analysis, suggests that a one-year delay in a natural gas project, for example, could involve costs to investors of up to \$2 billion.¹²⁴ Similarly, the Minerals Council of Australia claims (again, relying on the Productivity Commission) that ‘unnecessary delays can add costs of \$46 million per month to a major green fields mining project.’¹²⁵ These costs, it is argued, constitute an unacceptable risk to investment and ‘sovereignty’, with consequences for employment and infrastructure investment. When the total number of approvals and the number of judicial review actions arising under s 487 are considered, the number of projects actually affected seems insignificant. However, for any single major project, the reality of delay becomes substantial to those involved, and their associated investors. Actual and potential losses caused by delay (direct

¹²² See Power and Tomaras, above n 44, 17-22.

¹²³ Business Council of Australia, above n 119, 5.

¹²⁴ *Ibid.*

¹²⁵ Minerals Council of Australia, above n 120, 2.

and indirect) thus become far more important than an aggregate figure would otherwise suggest.

Delays of this kind, and the uncertainty they create, give rise to a climate where a *single* episode of legal challenge imports significant financial risk, essentially tied to investment decisions. But of equal importance to the financial aspect of economic reasoning is the challenge that s 487 provides to the ability of economic actors to make investment decisions and assert economic autonomy. The notion of ‘sovereign risk’, or risk to the profits of overseas investors from government decision making, is an explicit element of this discourse. This position is curious, given that the empirical evidence on approvals demonstrates that most proposals that trigger application of the EPBC Act are ultimately approved.

The economic primacy discourse clearly is consistent with a return to a private interest model of standing, which it considers more amenable to restricting the class of potential challengers. This private interest model is thought to better facilitate development projects and the protection of economic growth, corporate profits and future investment. Whilst the alignment of business lobbyists (such as the Business Council of Australia and the Minerals Council of Australia) with private interests and protecting corporate profits is unsurprising, the blind spot in this discourse appears to be that a return of standing to the private interest position (i.e. the position in *ACF*) may reduce the costs and delay of standing disputes.

2 The ‘Environmental Harm’ Discourse

As one would expect in cases involving environmental dissent, the case for retention of s 487 is firmly linked to an overarching concern for protection of the environment. Indeed, concern regarding the environmental impact of the Carmichael mine is an overwhelming frequently-held position, not only in the detailed submissions presented to the Senate inquiry, but particularly in the large number of letters sent to the inquiry.¹²⁶ It would be an error, however, to assume that the ‘environmental harm’ discourse has a single dimension. Indeed, there are multiple aspects of this discourse. Indigenous groups, for example, locate environmental issues to local conceptions of land, place and culture – as well as wider concerns for the longevity of species of flora and fauna.¹²⁷ Many submissions are narrower in focus, but necessarily linked to environmental issues under the umbrella

¹²⁶ Parliament of Australia, *Additional Documents*, <http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/EPBC_Standing_Bill/Additional_Documents>.

¹²⁷ Kimberly Land Council, Submission No 118 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*.

of matters of ‘national significance’.¹²⁸ In addition to what might be classified as traditional concerns about the protection of local biodiversity, however, numerous complex submissions focus on the global issue of the impact of fossil fuel extraction from the mine and its eventual consumption as a major contributor to anthropogenic climate change.¹²⁹ These submissions are rarely singular in their composition, articulating a mixture of local, regional and global environmental concerns. They overlap with an equally forceful claim for the right to challenge government decisions to protect the public interest in these matters.

The environmental harm discourse clearly seeks to maintain the status quo of the enforcement model of standing embodied in s 487 of the EPBC Act. The various environmental and indigenous interests articulating this discourse are concerned to maintain expertise-based status (i.e. expertise in environmental research or advocacy) as the key indicia of the right to bring a judicial review action under the EPBC Act. The environmental harm discourse articulates the importance of ‘the public’ in that specific expertise-based plaintiffs are tasked with the capacity to pursue the public interest of protecting and conserving the natural environment for all citizens. It is also unsurprising that the environmental harm discourse is emanating from an alignment of social actors less concerned with capital accumulation and more embodied in place-based environmental and/or heritage protection.

3 The ‘Government Accountability’ Discourse

These submissions primarily emphasise the importance of judicial review as a major public law device for ensuring the accountability of executive decisions and action. The ability of actors (citizens and NGOs) to hold the executive to account through judicial review is described as a fundamental ‘democratic right’ and a clear manifestation of the rule of law in a contemporary liberal democracy. Indeed, some submissions assert that this ‘democratic right’ performs an important anti-corruption function,¹³⁰ plays a key role in building and maintaining confidence in planning decisions,¹³¹ and allows public organisations to properly scrutinise and protect matters

¹²⁸ Wide Bay Burnett Environment Council, Submission No 20 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 3 September 2015.

¹²⁹ Environment Victoria, Submission No 14 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 1 September 2015.

¹³⁰ Friends of the Earth (Australia), Submission No 46 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 8 September 2015.

¹³¹ The Wilderness Society, Submission No 44 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 11 September 2015.

of public interest.¹³² These discourses contain an important, but essentially implied, power dynamic. That dynamic is that in the absence of direct action against government and corporations (which is routinely unlawful), standing provisions provide a vehicle through which powerful interest groups can be held to account. This accountability is not just about ensuring the integrity of decision-making. It is also the modern expression of liberal dissent transformed into a legal form. The ability for individuals and communities to change and shape the past, present and future, is a major and important underlying theme of the accountability discourse. Not only does the law play a major role in political economy, it also plays a major role in the ability of individuals to assert control over their futures.

Interestingly, this public accountability argument is not openly challenged in the submissions of those voices sympathetic to repeal. This is not surprising, since the ability of corporate interests to challenge government decisions is an equally, if not vociferously, defended right, and central to liberal political ideology. However, there is a clear bifurcation of views from the ‘repealers’. Those views distinguish between a broad democratic right to challenge executive decisions, where standing is offered to parties with a link to the issue being decided, and a narrow view that only those with a ‘legitimate’ (i.e. a ‘direct’ interest in the decision) have a right to bring a judicial review challenge. This position necessarily rejects the claim that a ‘third party’ has any right to intervene. This argument relies on a rhetorical position that ‘third party’ intervention is not only costly, but part of an orchestrated strategy of economic ‘disruption’ or ‘lawfare’. Here we find submissions that often present evidence that directly challenges the argument that s 487 is being abused. Indeed, the empirical evidence clearly establishes that judicial review actions under s 487 are, on the whole, unsuccessful.¹³³ However, the argument in favour of repeal also suggests that standing provisions do not actually result in positive environmental outcomes, tend to escalate costs, and fundamentally succeed in delaying projects in such a way as to discourage capital investment.¹³⁴ Ports Australia supports repeal, but also concludes that it is likely that standing is well entrenched in Australian common law. Repeal of s 487 is therefore likely to result in an *increase* in more complex and costly litigation, and be counterproductive.¹³⁵ While the ‘right’ to challenge government decisions

¹³² Environment Victoria, Submission 14 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 1 September 2015.

¹³³ The Australia Institute, Submission No 39 to Senate Environment and Communications Legislation Committee, *Inquiry into the Environment Protection and Biodiversity Conservation Amendment (Standing) Bill 2015*, 10 September 2015; The Wilderness Society, above n 131.

¹³⁴ Business Council of Australia, above n 119.

¹³⁵ Ports Australia, above n 121.

is commonly asserted or recognised by all parties, what differs is the scope of who should possess that right.

The government accountability discourse represents an alignment of public lawyers, environmental groups and state government regulators concerned with protection and expansion of the enforcement model of standing as a bulwark against unlawful executive decision making. The key concern is not with the substantive value of environmental protection per se, but rather protection of rule of law in holding executive government to account. Interestingly, some of submissions to the Senate inquiry also display elements of a third model of standing identified by Edgar as one of ‘public participation’.¹³⁶ Edgar explains this model of standing, which has its roots in United States jurisprudence, is designed ‘to ensure fair representation of a wide range of interested persons and groups in administrative decision-making processes’¹³⁷. This is a significantly wider ambit for standing that has not yet been supported in Australian case law, yet still represents an important further articulation of the possibility of standing as means for expansion of democratic political process. The business lobby groups are clearly on uneasy ground in responding to the government accountability discourse. On the one hand, business lobby groups are usually strong supporters of vigilant checks upon government power. On the other hand, business lobby groups are here supporting a winding back of the rights of citizens to challenge government power. This unease is sought to be navigated by the distinction these groups make between ‘legitimate’ and ‘illegitimate’ purposes for which checks on government power might be exercised. However, the difficult tension between upholding and eroding liberal values still remains in these submissions.

IV DISCUSSION

The repeal Bill remains lapsed and has not yet been tabled in this term of Parliament. However, as observed above,¹³⁸ it played an important role in anchoring economic primacy in Australian public discourse and its use of the pejorative term of ‘lawfare’. The overall aim of the repeal Bill appeared to be one concerned with restricting the capacities of environmental groups to challenge large-scale development projects through controlling the threshold standing issue. It is hard not to conclude that the repeal agenda for s 487 forms part of a larger agenda aimed at limiting, or preventing, the capacity of environmental groups to challenge development by removing statutory standing and the financial resources needed for litigation. The ‘economic primary’ discourse supporting repeal of s 487 has been met by well-organised and powerfully articulated ‘environmental protection’ and ‘accountability of government’ discourses. Even the corporate and

¹³⁶ Edgar, above n 77.

¹³⁷ *Ibid.*

¹³⁸ See discussion in Section I(B).

government interests in favour of repeal have found it difficult to counter the weight of legal and public articulation of the ‘government accountability’ discourse. It is decidedly awkward for a purportedly liberal government to be advocating discourses that have the rather illiberal character of potentially reducing accountability of government decision making.

To be fair, it is important to recognise that in the context of major projects, even a single challenge in the courts can result in substantial costs, not only in terms of the costs associated with legal proceedings, but also opportunity costs and investment uncertainty. In this context it is easy to understand why some business interests advocate for removal of the mechanism that allows for legal challenge in that forum. The kind of capital necessary for projects of this kind is significant; it is capital that can easily be reallocated to alternative options. It is no surprise advocates are sensitive to third party standing. In that context, the statistics associated with the restrained use of s 487 means little, when individual cases threaten, or seem to threaten, multi-billion-dollar investments that have the potential to generate significant regional economic benefits. However, legal policy decisions, made through a process of contestation between the three discourses described above, will often involve both ‘winners’ and ‘losers’. Individual actors can often point to the ‘unfairness’ of being a ‘loser’ from a particular legal policy decision. However, the more interesting aspect of the discursive approach to analysis is to demonstrate how this contestation between discourses provides an ongoing process of trade-offs and accommodations between competing legal policy positions.

On the assumption that both Habermas¹³⁹ and Haines¹⁴⁰ are correct, it seems that the debate concerning s 487 represents an enduring problem in contemporary democratic governance: the effect of risk consciousness. Habermas and Haines both argue that democratic governments are particularly vulnerable to risk as a conceptual and pragmatic aspect of government. The financial and social pressures associated with creating ‘jobs and growth’ are directly linked with an associated political economy. Not only does financial investment play a role in the creation of employment, it also widens the tax-base. In areas of low employment, large-scale capital investment tends to increase local economic activity. This not only tends to improve local living standards, it also has a direct link to the re-election prospects of politicians. The overarching political interest in that context is the retention of government, achieved by improving constituents’ standard of living. Political parties of whatever denomination are faced with a major dilemma in the context of fossil fuels. On the one hand, they have a vested interest in the retention of government

¹³⁹ Jürgen Habermas, *Legitimation Crisis* (Heinemann, 1979).

¹⁴⁰ Fiona Haines, *The Paradox of Regulation: What Regulation Can Achieve and What it Cannot* (Edward Elgar Publishing, 2011).

and are naturally interested in the improved standard of living of their electorates. On the other hand, they are under increasing pressure to facilitate investment in modes of lower carbon energy production due to the problem of climate change.

To return to the core questions of phronetic method, let us consider the following. *Where are we going with third party standing?* The basic answer is the agenda to repeal third party standing is part of federal government policy, but is currently stalled. Legally, the repeal amendment would need to be tabled again within the life of the current Parliament, and be passed by both houses of Parliament, to become valid law. In this respect, the politics of the repeal Bill keep the repeal agenda alive as ‘nascent’ law; that is, as a statement of potentiality, rather than a matter of legal doctrine. Pragmatically, there would need to be the numbers in both houses. As the present government does not have the numbers in the Senate needed to pass the law, it would need to rely on support from unaligned Senators to pass the repeal Bill. Given the popularity of the perceived right to standing, it seems unlikely the law would pass given the political backlash likely to emerge in the various electorates. In this respect, the repeal forms a part of the contested ground of discourse and power between the various actors.

Who gains, and who loses, by which mechanisms of power? Our analysis shows that the business lobbies, despite a weak doctrinal position and lacking strong empirical evidence of lost development, were able to marshal enough discursive power through a supportive federal government and the Senate committee process to significantly influence the majority report which found in favour of repeal of s 487. However, this discursive power is limited, and has not (yet) overcome the opposing ‘environmental protection’ and ‘government accountability’ discourses sufficiently to allow passage of the repeal Bill. The discursive coalition built around the economic primacy discourse (comprising the Business Council of Australia, the Mining Council of Australia, Ports Australia and the federal government) has been unable to overcome the discursive coalition of actors (environmental groups, public lawyers, academic lawyers) that have coalesced around environmental protection and government accountability discourses. This case study illustrates the importance of viewing highly contested legal reform through the lens of competing discursive coalitions of social actors. Power here is not primarily material or financial, but discursive, in the sense of arguing and contesting ideas within the public sphere.¹⁴¹

Third party standing continues to operate as a vehicle of dissent. Arguably, the current ‘loser’ in this scenario is anyone frustrated by litigation seeking judicial review. The power manifested in this context is mobilised through the courts; it is the complex reification of dissent, protest and values

¹⁴¹ Habermas, above n 52.

enlivened through the text of law to become the orchestrated conflict within the process of litigation and courtroom drama. But loss has to be understood as more than one party not achieving a goal; loss can also be understood as the potential economic and financial benefits that can flow from large-scale projects. The ‘gain’ is similarly complex. Gain can be linked to the person or community that succeeds in their course of action; in the prevention of the losses flowing from destruction of the environment and species, and even from preventing catastrophic climate change. Equally, the ‘gain’ is the recognition of the right, in law, for concerned citizens to take their case before a court for judicial review. Even in cases where parties are not successful in the action itself, success may come from the scrutiny and controls placed over developments. A dialectic operates in conflict, such that there can be a reconciliation of opposites, with something new emerging from it. A development may still proceed, but with sufficient controls in place that immediate environmental losses are minimised, or rectification undertaken.

Is repeal desirable? Ultimately, answering this question inevitably entails a value judgment. Like the discourses around repeal, there will be a variety of answers. When we consider the values at play around repeal, it is tempting to polarise the repeal debate as a contest between greed and altruism. But to do so would be simplistic. A great deal of public benefit can arise out of capital investment, even when there are (private) profits being made. Conversely, the absence of economic development can ensure the impoverishment of communities, even when the environment is otherwise pristine. There appears to be an emerging set of legal principles in international law concerned with ‘non-regression’ and ‘progression’. The former is the principle that once a human right has been recognised, it should not be eroded. The latter is the principle that state actors work towards developing and supporting the various articles agreed to by parties to the agreement.¹⁴² Accordingly, repeal of standing provisions is notably regressive, and likely an emergent contravention of international human rights norms. What is desirable, in our view, is a retention of the ability of communities and individuals to challenge decisions affecting rights,

¹⁴² *Gaps in International Environmental Law and Environment-Related Instruments: Towards a Global Pact for the Environment: Report of the Secretary-General*, UN GAOR, 73rd sess, Agenda Item 14, UN Doc A/73/419 (30 November 2018) [22]. ‘The principle of non-regression is relatively new to the field of environmental law, while its underlying idea of disallowing backtracking is well understood in systems that protect human rights and in labour law. The idea that once a human right is recognised, it cannot be restrained, destroyed or repealed is shared by all major international instruments on human rights. The corollary to the principle of non-regression is the principle of progression. Non-regression aims at ensuring that environmental protection is not weakened, while progression aims at the improvement of environmental legislation, including by increasing the level of protection, on the basis of the most recent scientific knowledge. The Paris Agreement is explicit in this regard and provides, in article 4, paragraph 3, that each successive nationally determined contribution “will represent a progression beyond the Party’s then current nationally determined contribution and reflect its highest possible ambition”.’

liberties and interests in the courts. People must have the capacity to shape and mobilise a dignified future. In that respect, we do not consider it desirable to repeal s 487. To do so would likely result, in our opinion, in one of two things. Either it would mean that litigation becomes more complex, or it would create a climate where even more direct action is contemplated or certain. There are, in effect, consequences for the stability of government and the accountability of decision makers evident in the absence of third party standing provisions. It is a net public good for individuals, groups and communities beyond the immediate nexus of development to have the capacity to challenge decisions. We agree with the concluding comments of Power and Tomaras:

There is a risk that, if s 487 is repealed, the resulting uncertainty could have the perverse consequence of causing more delays and costs to projects as third parties will first need to establish standing before the substantive issue can be considered by the court...[and] s 487 serves as a mechanism to help ensure decision-makers lawfully comply with legislative procedures. As such, its proposed repeal raises questions about accountable and responsible government.¹⁴³

What, then, should be done? This is another value-laden question, that requires vision. At one level, simply leaving s 487 in place will be regarded as problematic by those most interested in capital investment. For capital accumulation, there is nothing quite like being able to make decisions and executing them uninhibited; but that kind of sovereign power has rarely existed, and where it has the results have always been problematic. The rule of law has evolved out of the very real experiences of conflict that tends to arise out of state attempts to do whatever is desired, and the perverse (i.e. unequal) distribution of wealth and power that tend to go with this.

Ultimately, this is a complex political question, but its resolution will undoubtedly involve ensuring that the interests of those affected by development control decisions are genuinely considered. And in the context of climate change, it will also require a shift in energy systems away from reliance on combustion of fossil fuels. There is no reason why capital investment cannot be shifted into new economies, technologies and projects that may, in the end, provide a point of consensus for most concerned, and ensure that anthropogenic climate change does not, in the end, make those decisions for all of us. Those decisions would of course be without repeal or review.

¹⁴³ Power and Tomaras, above n 44, 26.

V CONCLUSION

Simply stated, doctrinal legal scholarship cannot adequately explain the reform agenda for removing third party standing rules under the EPBC Act. The reason for this is twofold. The first relates to the epistemological foundations of law as a discipline. The second is because the topic itself exists at the intersection of law and political economy. With the repeal agenda, we see an example of the reform of law being mobilised as an instrument of power. Indeed, we contend that the ultimate explanation for the push for repeal of s 487 is a highly complex one, resting at the junctions of local, regional, national and international politics. In that context, there will be competing versions of truth. For some, the repeal of s 487 simply represents an attempt by the fossil fuel industry and its associated allies to decisively deal with a threat to economic interests. For others, the repeal represents an attempt to balance competing social, political and economic interests in ways that seek to address all concerns.

By using phronetic legal inquiry, we conclude that the reason the agenda for repeal of s 487 defies doctrinal legal logics is because the debate exists outside of doctrinal law. It is a discursive contest between competing coalitions of societal actors, operating at the intersection of political economy. Business, environmental, public law and indigenous groups seek to exercise discursive power, through membership of these discourse coalitions, to shape understanding of the need (or not) for law reform. We have seen this discursive contestation in this case centring on the model (i.e. private interest or enforcement) which should shape public law on standing. Legal rules here are simply the instrument of this discursive contestation. But this is not to say that legal analysis makes little contribution to the debate. The fact that the standing rules, public insistence and legal systems are willing to hold government decision making to account, regardless of the presence of s 487, is of fundamental importance. Consistent with Flyvbjerg's hypothesis that values are fundamentally ingrained in power contests, we agree that the discursive contestation over repeal of s 487 is very much alive with the contestation of values. These discourses are nascent expressions of a struggle for power, as much as law. And because values are at the heart of the debate, it is almost certain that even in the absence of s 487, this kind of environmental debate will be the inevitable trigger of alternative forms of struggle – both inside and outside the courtroom.

Understanding this link between law and power is, we suggest, of fundamental importance, and justification for the retention of s 487. The political economy of s 487, we suggest, raises questions of fundamental importance as to the role and function of law in democracies. And those questions are linked not only to the use of law as an instrument to provide economic benefits and security, but also to provide a vehicle whereby

conflict can be properly channelled, adjudicated and managed. In so doing, s 487 actually plays a significant role in maintaining confidence in our system of law and government. That, we suggest, is grounds alone for retaining it. As observed by the Australian Panel of Experts on Environmental Law, the capacity for legal challenge plays a central role in finding the balance between economic, social, Indigenous and environmental needs and interests, and in so doing functions to give practical effect to being trustees for the environment for future generations. Accountability, integrity and explicit concern for the proper management of the environment are fundamental to a healthy democracy.¹⁴⁴

In this case study we have demonstrated how the phronetic methodology can expand our understanding of law, in multiple ways. First, the analysis identifies the natural limits of purely doctrinal approaches to legal analysis. Second, the case study opens a window into the complex intersections that shape and determine the substance of law, including both its operative and principled core. Third, we suggest the case study operates as an example of the ways in which a phronetic approach can be utilised as a methodology in socio-legal analysis. In other words, this technique is not only useful in terms of expanding the pragmatic and theoretical aspects of its topic; it is also useful in identifying important intersections between law and other disciplines and practices. For example, in this case there is a rich field identified as operating at the junction between law and politics. We would suggest that further study can be undertaken exploring the discursive and political aspects of major resource projects and public dissent. In addition, we would suggest legal phronesis provides a useful model for articulating a methodology offering assistance to scholars contemplating multi-disciplinary research on legal reform.

There are, of course, limitations in this work. The phronetic model merges the boundaries between a number of disciplines, notably law and politics. It also makes a series of assumptions about the nature of legal epistemology that is open to debate. On the one hand a narrow view can be taken, similar to the European/Kelsen tradition that sees law sharply linked to the interpretation and characterisation of legislation and cases.¹⁴⁵ On the other hand, legal scholarship, particularly in the sociolegal/realist tradition, is much broader in perspective, situating law firmly within a complex web of

¹⁴⁴ Australian Panel of Law Experts on Environmental Law, *Blueprint for the Next Generation of Australian Environmental Law* (Report, August 2017).

¹⁴⁵ Hans Kelsen, 'The Pure Theory of Law: Its Methods and Fundamental Concepts' (1934) 50(4) *Law Quarterly Review* 474; Hans Kelsen, 'The Pure Theory of Law' (1935) 51(3) *Law Quarterly Review* 517; Hans Kelsen, 'The Pure Theory of Law and Analytical Jurisprudence' (1941) 55(1) *Harvard Law Review* 44; Geoffrey Samuel, 'Interdisciplinarity and the Authority Paradigm: Should Law be Taken Seriously by Scientists and Social Scientists?' (2009) 36(4) *Journal of Law and Society* 431; Mark van Hoecke (ed), *Methodologies of Legal Research: Which Kind of Method for What Kind of Discipline?* (Hart Publishing, 2011).

social, economic and political themes.¹⁴⁶ It is important, therefore, to assume either (i) that doctrinal legal scholarship is somehow defective (which clearly it is not), or (ii) that phronetic method promises answers that are not otherwise open to traditional legal research. This is a valid and important debate that is a defining feature of the sociology of law, that we cannot address here. We are mindful of the danger in treating law too narrowly. The approach presented here aims to isolate the rule structures at the outset, with a view of re-immersion in context.

In the end, while we have used the Adani Carmichael coal mine as an entry point into the agenda for repeal of s 487, we suggest that the issues, discourses, power and political economies that example has generated are likely to be present in many, if not all, large-scale mining projects. To be clear, we are not ‘anti-mining’ as such. As scholars, we necessarily have our own views on this, which we feel are appropriately kept personal in this forum. We recognise the social and economic benefits that might be had from mining, but equally, there are voices in this debate that need to be heard – and those voices rightly include third party challengers, as well as those who advocate for investment in new forms of energy in ways that will not contribute to catastrophic climate change.

¹⁴⁶ Eugen Ehrlich, ‘The Sociology of Law’ (1922) 36(2) *Harvard Law Review* 130; Eugen Ehrlich, *Fundamental Principles of the Sociology of Law*, tr Walter Moll (Transaction Publishers, 2009); Neil Littlefield, ‘Eugen Ehrlich’s Fundamental Principles of the Sociology of Law’ (1967) 19(1) *Maine Law Journal* 1; David Nelken, ‘Law In Action Or Living Law? Back to the Beginning in Sociology of Law’ (1984) 4(2) *Legal Studies* 157; Alex Ziegert, ‘A Note on Eugen Ehrlich and the Production of Legal Knowledge’ (1998) 20(1) *Sydney Law Review* 108.

Climate, Culture and Music: Coping in the Anthropocene

SIMON KERR*

I INTRODUCTION

I wrote my first climate change song, 'Final Warning', in early 2004. It was the only climate change song that I knew of at the time and was prompted by growing concern about the breakup of the Antarctic ice shelves and the implications of this breakup for sea level rise. The opening lines reflect the sound of shattering ice: '[a] crack fills the earth like a single rifle shot / But no one's there to hear the beginning of the end of the world'.

That was fourteen years ago and while a little melodramatic, global emissions have continued to rise,¹ so my song clearly had no obvious impact. I did enter it into a song writing competition at the time. It did not win, but one judge helpfully commented that I ought not write so directly on such themes. It was not clear to me that he had even heard of climate change!²

In 2016, my colleagues and I launched a new climate change project called 'Music for a Warming World' (MWW).³ This was a much more substantial attempt to explore the use of music to address the climate challenge. MWW is a multimedia concert that uses large scale immersive visuals, live music (broadly drawing on folk, reggae and world-music), and a narrative arc that takes audiences on a guided journey through the climate challenge. To date the show has been performed 55 times from Tasmania to Queensland in a diverse range of venues and institutions: universities, conferences, music festivals, house concerts, community halls, faith communities, schools and art galleries.

This brief background provides the context for why I accepted an invitation to write this article. Performing MWW to such a wide audience has prompted careful reflection on the relationship between music and climate change. What can music offer the vexing and urgent issue of climate change? Can a song, an opera, an electronic soundscape or a symphony make any material difference to our capacity to live in light of the Anthropocene? These are not straightforward questions, even if the instinct

* Producer, Music for a Warming World, and Honorary Research Fellow, Centre for the Study of the Inland, La Trobe University.

¹ Zeke Hausfather, *Analysis: Global CO₂ Emissions Set To Rise 2% in 2017 After Three-Year 'Plateau'* (13 November 2017) Carbon Brief <<https://www.carbonbrief.org/analysis-global-co2-emissions-set-to-rise-2-percent-in-2017-following-three-year-plateau>>.

² This is only speculation on my part.

³ Simon Kerr, *Music for a Warming World* <<https://www.musicforawarmingworld.org>>.

of most people is to answer in the affirmative. After all, despite an absence of sufficient funding for artistic endeavours, the arts in general have very large support in Australian society, or at least feature in the lives of most Australians. Museums and art galleries are found in even the smallest regional centres and musical performances are alive and well. For many people, music provides a soundtrack to their lives.⁴ Music provides entertainment, it can move our emotions, and, in a communal setting, it can create solidarity. It can also be used to communicate ideas, whether the political ideals of folk singers in the 1960s, rap-music of the 1980s or the nationalism of the Nazi party in the 1930s.

But what can it do with climate change? In 2005 environmental writer and activist Bill McKibben called for a huge outpouring of ‘art, sweet art’ in response to climate change.⁵ He urged artists to take up the climate story and create new visions of our future. In his 2010 book, *Eaarth: Making Life on a Tough New Planet*, McKibben claimed human activity is making a new, tougher world, where the timeline and outcome are uncertain, and the world we are creating is novel and unpredictable. We may not be able to *solve* climate change so will have to figure out how to live on a very different planet. This requires creative resources, something that artists specialise in. Artists, including musicians, accordingly have a role to play in our response to life on ‘eaarth’ (in the Anthropocene). The question I explore here is the nature of that role.

What is the relationship between music and this phenomenon of climate change? My purpose is not to outline a musical theory and its relationship to science, to explore the anthropology or politics of music or to document current trends in musical responses to climate. Rather, I posit three ‘stories’ or ‘reflections’ that shape my thinking about the intersection of music/art and climate. I use the term stories to refer to the fundamental need of our species to explain the world and create a collective or shared understanding of human experience. This ability to simplify the world around us through stories is an inescapable part of being human. These stories can be big, as in the reframing of the creation story through the Big History project of David Christian⁶ or the story of our species by Yuval Noah Harari,⁷ or they can be local and deeply personal.⁸ Stories may be framed in different ways;

⁴ Jane Davidson and Sandra Garrido, *Music is the Soundtrack to Your Life – What’s on Your Playlist?* (19 May 2014) Conversation <<https://theconversation.com/music-is-the-soundtrack-to-your-life-whats-on-your-playlist-26893>>.

⁵ Bill McKibben, *What the Warming World Needs Now is Art, Sweet Art* (22 April 2005) Grist <<https://grist.org/article/mckibben-imagine/>>.

⁶ David Christian, *Origin Story: A Big History of Everything* (Penguin, 2018).

⁷ Yuval Noah Harari, *Sapiens: A Brief History of Our Species* (Random House, 2014).

⁸ See eg K Holmes, ‘It’s the Devil You Know’: Environmental Stories from the Victorian Mallee’ in K Holmes and H Goodall (eds), *Telling Environmental Histories: Intersections of Memory, Narrative and Environment* (Palgrave Macmillan, 2017) 295.

in scientific language, legal theory, shared history or religious or secular values. But we all tell stories.

I start with the story of climate change itself, reflecting on the powerful idea of climate as an object of science. Treating the climate system as a scientific story leads to important reflections on the limits of this narrative. This leads to the second story: climate as culture; the idea of climate as a human creation, mediated through our experiences, histories and culture. On this view, we gain a rather expanded vision of how climate change interacts with human societies and particularly in our expectations and views of the future. The need to deal with our future, then, becomes a third story in this reflection. It is here I turn to a role for music, and explore some important contributions that music can, and indeed does, make to our life in the Anthropocene.

II THE FIRST STORY: CLIMATE AS AN OBJECT OF SCIENCE

The human community faces a climate crisis. This is the clear signal coming from many of the world's leading climate scientists and reflected in activist narratives.⁹ The 2015 Paris Climate Agreement committed the world's nations to limiting global warming to 'well under 2°C', with the aspirational target of 1.5°C. The Agreement called for an urgent investigation by the Intergovernmental Panel on Climate Change (IPCC) on how to stay under the 1.5°C aim. This report, released on 8 October 2018, puts it starkly. To limit global average warming to 1.5°C requires the world's economies to reach net zero emissions by 2050.¹⁰ On the current projections, based on the Nationally Determined Contributions, the planet will warm by 3.1 to 3.7°C (with the uncertainty range between 2.4 and 4.7°C).¹¹ Some commentators argue that the world's carbon emissions must begin to fall by 2020 or 'the temperature goals set in Paris become almost unattainable'.¹² Princeton University climate scientist Michael Oppenheimer argues that even a warming of 2°C would produce a 'totally different world ... It would be indescribable, it would turn the world upside down in terms of its climate. There would be nothing like it in the history of civilisation.'¹³

⁹ See eg *Call to Declare a Climate Emergency*, Climate Emergency Declaration <<https://climateemergencydeclaration.org/>>.

¹⁰ V Masson-Delmotte et al, 'Global Warming of 1.5°C' (Special Report, Intergovernmental Panel on Climate Change, 2018) <<https://www.ipcc.ch/sr15/>>.

¹¹ See eg *2100 Warming Projections: Emissions and Expected Warming Based on Pledges and Current Policies* (11 December 2018) Climate Action Tracker <<https://climateactiontracker.org/global/temperatures/>>.

¹² Christiana Figueres et al, 'Three Years to Safeguard our Climate' (2017) 546 *Nature* 593.

¹³ Oliver Milman, 'Climate Change 'Will Inflict Substantial Damage on US Lives'', *Guardian*, (online) 24 November 2018, <<https://www.theguardian.com/environment/2018/nov/23/climate-change-america-us-government-report>>.

The scale of this challenge has sparked the call for a climate emergency mobilisation, taking inspiration from similar mass mobilisation during the Second World War. It has already had some success. The Victorian City of Darebin has committed to a climate emergency plan¹⁴ and active campaigns are underway in other Australian cities. A number of American cities have also taken a Climate Emergency Declaration,¹⁵ with the city of Oakland, for example, ‘... [R]equesting Regional Collaboration on an Immediate Just Transition and Emergency Mobilisation Effort to Restore a Safe Climate’.¹⁶

In late November 2018 the United State Government released its Fourth National Climate Assessment.¹⁷ As with the examples above, it lays out the significant risks and costs to the US economy and its people from unmitigated emissions. It is clear that:

The impacts of climate change are already being felt in communities across the country. More frequent and intense extreme weather and climate-related events, as well as changes in average climate conditions, are expected to continue to damage infrastructure, ecosystems, and social systems ... Future climate change is expected to further disrupt many areas of life, exacerbating existing challenges to prosperity posed by aging and deteriorating infrastructure, stressed ecosystems, and economic inequality.¹⁸

This brief depiction of some of the key narratives around the climate challenge suggests we do not have the luxury of time in our collective response. Drawing down carbon from the atmosphere is one of the most urgent tasks we face.¹⁹ This suggests that attention to ways and means to achieve this aim is paramount. These responses can take a variety of forms, including the rapid development of clean energy and other smart technologies. Creating an enabling policy environment is also critical to providing clear signals to the market, and the development of new

¹⁴City of Darebin, *Energy and Climate* <<http://www.darebin.vic.gov.au/Darebin-Living/Caring-for-the-environment/EnergyClimate>>.

¹⁵See eg Paul Gilding, ‘It’s Not Too Late to Act on Climate Change’, *Age* (online), 11 September 2018, <<https://www.theage.com.au/national/victoria/it-s-not-too-late-to-act-on-climate-change-20180911-p50318.html>>.

¹⁶USA: *City of Oakland Declares a Climate Emergency* 2 November 2018, Climate Emergency Declaration <<https://climateemergencydeclaration.org/usa-city-of-oakland-declares-a-climate-emergency/>>. The climate emergency strategy is not without its critics. See for example Cambridge geographer Mike Hulme’s comments at *Against Climate Emergency*, 17 November 2018, Professor Mike Hulme’s Site <<https://mikehulme.org/against-climate-emergency/>>.

¹⁷David Reidmiller et al, ‘Fourth National Climate Assessment’ (Report, US Global Change Research Program, 2018) <<https://nca2018.globalchange.gov/>>.

¹⁸Ibid 25.

¹⁹See Paul Hawken (ed), *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming* (Penguin, 2017).

regulatory tools will be essential to help guide and drive change, as will appropriate legal reform.

The science story is powerful and compelling. But as a way of understanding human experience it is a very recent innovation, emerging in current form largely from the European enlightenment. One outcome of this is the idea of nature to be conquered.²⁰ Nature was always a threat to human wellbeing because it was largely uncontrollable, subject to the vicissitudes of the gods. With the rise of the scientific method and new technology, mastery over nature was placed within human reach. This narrative was not uncontested, but for the most part, the rise of science greatly increased societies' food production, health, economic development and exploitation of natural resources. And, in more recent decades, the climate has become a major object of scientific interest.

The scientific evidence is compelling that humans are impacting our environment in unprecedented and dangerous ways. While the environmental impact of humans is not unique to the last 200 years, the planetary scale of it certainly is.²¹ But I wish to argue there is another compelling and, I think, equally interesting but underrated story taking place in parallel to this scientific, techno-regulatory narrative.

III THE SECOND STORY: CLIMATE AS CULTURE

It is useful to reflect on why the overwhelming body of evidence generated by science has not yet triggered a major cultural shift away from a fossil-fuel intensive consumption culture. The reality and seriousness of global warming has been on the international political agenda since at least the establishment of the IPCC in 1988, and there has been widespread public interest for many years. Even with the rise of scepticism over global warming, largely attributed to the 'merchants of doubt' in the early twenty first century,²² there was nevertheless significant public concern about the impacts of fossil fuel emissions and rising temperatures. There was no shortage of reputable scientific reports and analysis. Yet this immense body of scientific output did not translate into widespread action. The idea that 'facts' would lead to change began to be questioned. Human responses to climate change have proven much more complex than a linear rational

²⁰ See A Elliott and J Cullis, 'The Importance of the Humanities to the Climate Change Debate' in A Elliott, J Cullis and V Damodaran (eds), *Climate Change and the Humanities: Historical, Philosophical and Interdisciplinary Approaches to the Contemporary Environmental Crisis* (Palgrave Macmillan, 2017) 15.

²¹ See eg Stockholm Resilience Centre, *The Nine Planetary Boundaries* <<https://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html>>.

²² Naomi Oreskes and Eric Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (Bloomsbury, 2012).

model would suggest.²³ Facts are important but they are not the only thing that shapes human beliefs. Even though the great majority of Australians believe the scientific reality of climate change,²⁴ this belief has not led, in any significant way, to a change of lifestyle. Messages of fear also do not work and may even drive people into avoidance lifestyles through greater consumption.²⁵ This story of ‘rational change’ is clearly inadequate.

In recent years, the environmental humanities have taken up the challenge, arguing that climate change can no longer be viewed as just a scientific issue.²⁶ It is a deeply neglected cultural challenge. Climate disruption arises, ultimately, from human behaviour. To limit dangerous or problematic disruption requires behaviour change. But, as Amel and colleagues point out,²⁷ individual change is not enough. Individuals face all sorts of structural, institutional and cultural barriers in seeking to respond to climate change. Transforming institutions requires collective action:

Psychological research suggests that humans can move toward a sustainable society by creating conditions that motivate environmentally responsible collective action – conditions that help people surmount cognitive limits, create new situational drivers, foster need fulfillment, and support communities of social change.²⁸

This discussion is particularly useful because the authors offer a nuanced and multi-layered approach to increasing climate and environmental engagement and action. They present a model that focuses on the ‘spheres of influence’ that individuals have available, beginning with personal responses (such as donating money and walking more), through social networks, organisational influence, the public sphere (run for public office, create laws, organise) and finally the cultural sphere (change norms, stories and symbols). Climate change therefore can no longer be treated as just a science issue or an individual responsibility. Individual *and* collective behaviour is grounded in culture. As previously discussed, central to the notion of culture are those shared stories (or narratives) that give shape to individual and collective behaviour. To adequately respond to the climate challenge we require new stories, and new stories mean cultural change. If we take culture seriously, then, as I hope to show, new possibilities for our future beyond the scientific narratives open up.

²³ See George Marshall, *Don't Even Think About It: Why our Brains are Wired to Ignore Climate Change* (Bloomsbury, 2014).

²⁴ Lowy Institute, *2018 Lowy Institute Poll*, (20 June 2018) <<https://www.lowyinstitute.org/publications/2018-lowy-institute-poll>>.

²⁵ Elise Amel et al, ‘Beyond the Roots of Human Inaction: Fostering Collective Effort Toward Ecosystem Conservation’ (2017) 356 *Science* 275.

²⁶ Elliott and Cullis, above n 20.

²⁷ Amel, above n 25.

²⁸ *Ibid* 279.

Instead of framing climate only by its biophysical characteristics, there is a much more interesting and powerful story to be told by understanding the cultural origins of climate and the way that these diverse cultural frames shape the climate story.²⁹

Cambridge Geographer Mike Hulme has argued that the idea of climate needs to be understood as a cultural phenomenon rather than limiting it to the science story. Hulme researches and writes broadly in the environmental humanities. However, he began his career in the environmental sciences, publishing widely as a climate scientist. He worked for many years on constructing climate scenarios, the ‘compilation and analysis of large-scale observational climate datasets ... and ... the evaluation and manipulation of climate model simulations’.³⁰ In 2000, he became the founding director of the Tyndall Centre for Climate Change Research, at the University of East Anglia. Much of his thinking involved how to deal with uncertainties in data and models, and how we can and should understand climate change. Hulme, however, was on a journey of understanding, and, as he acknowledges, ‘it would take [him] several more years to be able to adopt a more reflexive stance to [his] own work’.³¹ In the mid-2000s he undertook a course in memoir writing and a post-graduate diploma in history. As he puts it, they had ‘... a significant influence ... on [his] subsequent thinking and writing about climate change’.³²

This background is important because Hulme’s more recent work is increasingly critical of the way climate science and climate change has been framed. Hulme argues that the idea of climate is a cultural relationship between humans and our weather. Climate may be the averaging of the weather over time, but climate also exists as a cultural story. We cannot experience the *climate* directly through our senses but only through a culturally framed narrative. These narratives are varied over time because they embody cultural elements specific to that context. For instance, the early Greeks believed that climate reflected moral virtue. The hospitable climate of the Mediterranean allowed for superior cultural development than the hotter regions to the south or the colder regions to the north.³³ A similar narrative emerged when the early Europeans first encountered the tropical climate of the Caribbean which they considered ‘morally degrading, disease ridden and deadly’.³⁴ Yet by the twentieth century, that

²⁹ For what follows I mainly draw on two of Hulme’s works: Mike Hulme, *Weathered: Cultures of Climate Change* (Sage, 2016); Mike Hulme, *Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity* (Cambridge, 2009).

³⁰ Mike Hulme, *Mike Hulme 1978 to 2012: A Research Narrative* (22 December 2011) <<https://www.mikehulme.org/wp-content/uploads/2011/09/Hulme-Research-narrative.pdf>>.

³¹ *Ibid* 8.

³² *Ibid* 10.

³³ Mike Hulme, *Weathered: Cultures of Climate* (Sage, 2017) 17.

³⁴ *Ibid* 25.

climate was considered highly desirable, a place of robust health and attractive to visit. The meaning of climate, then, is not a culturally stable notion. It reflects its cultural context, from the personal experiences people have of climate in their own lives to the global narratives constructed from scientific modelling.

Yet even the scientific framing is not as stable as we might think. All science is a collective enterprise, subject to actors who create narratives about what they believe their data (and the data of their peers) is telling them. These narratives are the grand stories that compete for political attention. One collection of influential grand stories is provided by Hulme in his 2009 book, *Why We Disagree About Climate Change*. He argues there are many stories through which contemporary climate is expressed.³⁵

Specifically, Hulme identifies six 'frames' through which climate change may be viewed. First, climate change can be understood as a failure of markets to adequately price the atmosphere and the future. Market reform, through carbon taxes or other market mechanisms, should therefore be prioritised in a response to the climate challenge. Another way of interpreting climate change is through lens of technology and risk. Technology is both the *source* of our climate troubles through our capacity to extract fossil fuels from increasingly challenging environments, and the *solution* to the climate issue. Solutions include renewable energy technology such as wind and solar, but also geoengineering solutions to cool the planet. These narratives frame technology as the solution to global warming. For many people, however, this misses the key point that climate change is a deeply moral issue. Framing climate in terms of global and local justice provides an overarching narrative for experiencing, understanding and acting on climate. Alternatively, climate change can be viewed through the story of overconsumption. The pursuit of economic growth and continued consumption of limited natural resources gives rise to any number of alternative ways of experiencing and thinking about the climate future. From the degrowth movement to smart algorithms and the virtual economy, these views shape how different people think about the climate. Hulme also notes the narrative around planetary 'tipping points', a narrative that has been expressed in terms of planetary boundaries.³⁶ This work identifies a range of global systems, such as atmospheric CO₂, ocean acidification, global freshwater use and biodiversity loss to determine what constitutes a safe operating space for humans and where the zone of uncertainty and serious risk begins. Beyond these zones lies danger territory for that system. Finally, Hulme notes that climate change is on some accounts framed as a mostly natural phenomenon relatively

³⁵ See Mike Hulme, *You've Been Framed: Six New Ways to Understand Climate Change* (5 July 2011) Conversation <<https://theconversation.com/youve-been-framed-six-new-ways-to-understand-climate-change-2119>>.

³⁶ J Rockstrom et al, 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity' (2009) 14(2) *Ecology and Society* 32.

uninfluenced by human action. Thus, the focus ought to be less on reducing fossil fuel use and more in adapting to what are natural changes.

What can we take from all this? These framings reflect the complex and *mediated* ways humans engage with the climate and the way climate science is appropriated and represented. They are also not mutually exclusive and they express varied climate cultures and multiple stories that are held in different ways by different individuals and groups. My key argument here is that no one can come to the climate issue in a neutral way. Stories help us make sense of science, but also of our economic, social and environmental contexts. They shape what we notice and focus on, but also how we *experience* climate.

I offer one more set of examples of how this can work. The stories we tell today shape our tomorrow because they constrain or empower human action. As Christophe Bonneuil observes, ‘stories matter for the earth’.³⁷ Bonneuil outlines four ‘earth’ stories that speak to the new and novel geological era humanity has now entered: the Anthropocene. Like Hulme, Bonneuil seeks to interrogate the diversity of narratives that inform different people and different communities’ views on what it all means.

The ‘naturalist narrative’ represents the journey of human beings from hunter-gatherers to a global geological force in the Anthropocene. This narrative tells the story of our planet, culminating in the domination of our species and the human fingerprint now clearly seen in the geological record. Due to the development of modern science, humans now have a planet-level awareness that our forebears did not or could not have had. This collapses the nature/human dichotomy of modernism where humans were largely exempt from nature’s wrath, placing humanity in a brand new role. As Clive Hamilton puts it, ‘[h]umans are more powerful; nature is more powerful. Taken together, there is more power on earth’.³⁸ This story does, however, mask the particular histories of humans and erase the local experiences of climate. While it is a powerful new story, it tends to focus on the leadership of the scientific community and the global solutions they devise. But, in an important twist that we will return to, it also advocates for a new humility in the face of the resurgent power of nature (or in Clive Hamilton’s phrase, in the face of a ‘defiant earth’).³⁹

A second story is the ‘post-nature grand narrative’, provocatively referred to by Bonneuil as ‘repairing Frankenstein’s monster’.⁴⁰ This story is a more

³⁷ Christophe Bonneuil, ‘The Geological Turn; Narratives of the Anthropocene’, in Clive Hamilton, François Gemenne, Christophe Bonneuil, (eds), *The Anthropocene and the Global Environmental Crisis: Rethinking Modernity in a New Epoch* (Routledge, 2015) 15.

³⁸ Clive Hamilton, *Defiant Earth: The Fate of Humans in the Anthropocene*, (Allen and Unwin, 2017) 45.

³⁹ See eg Oran R Young, *Governing Complex Systems: Social Capital for the Anthropocene* (MIT Press, 2017).

⁴⁰ Bonneuil, above n 37, 23.

radical extension of naturalist narrative. In the Anthropocene, humanity and earth systems are now inescapably bound together. The distinction between humans and the nature that modernism sought to conquer is now thoroughly blurred, with each acting on and influencing the other. Nature no longer exists in an ideal state separate from human beings. There is no part of this planet unaffected by the human induced increase in atmospheric CO₂, for example. But this story does not embrace the humility of the naturalist narrative. Rather, this eco-modernist vision seeks to artificially intervene in recreating nature. Bonneuil draws on Latour's reading of the Frankenstein story⁴¹ where the monster's creator failed not by creating the monster, but failing to repair and improve him. As Latour himself notes, 'Dr. Frankenstein's crime was...that he *abandoned the creature to itself*'.⁴² Thus, this story is one of intervention in and improvement of the earth. We are now thoroughly entangled with nature and cannot retreat to a mythical past of pure nature. This story is partially reflected in geoengineering ambitions which hold we will soon have no choice but to intervene to lower the earth's temperature or to take carbon out of the atmosphere. Another example is the speculative employment of artificial photosynthesis to build future resources artificially,⁴³ thus bypassing 'nature'.

A less optimistic story is the 'eco-catastrophic' narrative which sees a future of resource depletion, ecological collapse and a new wave of vulnerabilities facing human communities. Transgression of planetary boundaries and warnings of societal collapse has led to a more dynamic systems approach, recognising the 'growth, collapse and reorganisation' in resilient ecosystems. Systems can undergo shocks; if they are resilient they can survive. But to do so requires new ways of doing things, and the other narratives (so this story goes) are not up to the task. Current social systems are not robust enough to deal with the shocks that are coming. Building resilient social systems and communities becomes an important response to this story, shaping how one sees the climate and other challenges. Bonneuil provides the examples of permaculture, transition towns and the de-growth movement as a response to this story.⁴⁴ In other words, while science can demonstrate that the planet is heating up, eco-catastrophists have little faith in science alone to find solutions and instead advocate for a radical overhaul of how we live.

This leads to the final story, the Capitalocene. This eco-Marxist story interprets the Anthropocene as the outcome of the inherent contradictions

⁴¹ Bruno Latour, 'Love Your Monsters' in M Shellenberg and T Nordhaus (eds), *Love Your Monsters: Post-environmentalism and the Anthropocene*, (Breakthrough Institute, 2011) 17.

⁴² Bruno Latour, *Love Your Monsters: Why We Must Care for Our Technologies as We Do Our Children* The Breakthrough Institute <<https://thebreakthrough.org/index.php/journal/past-issues/issue-2/love-your-monsters>>.

⁴³ Australian National University Energy Change Institute, *Artificial Photosynthesis* <<http://energy.anu.edu.au/research/artificial-photosynthesis>>.

⁴⁴ On the de-growth movement, a useful entrée is the work of Samuel Alexander, *Samuel Alexander* <<http://samuelalexander.info/>>.

in capitalism: it has an inability to maintain labour as well an inability to maintain nature. Capital, not the human species, drives the Anthropocene and any meaningful analysis of our current crisis needs to take account of this. As Moore puts it:

The Anthropocene sounds the alarm—and what an alarm it is! But it cannot explain how these alarming changes came about. Questions of capitalism, power and class, anthropocentrism, dualist framings of ‘nature’ and ‘society,’ and the role of states – and empires – all are frequently bracketed by the dominant Anthropocene perspective.⁴⁵

This age of capital is not just about the economic system in isolation, but rather seeing our current age in world system terms, implicating globalisation, labour and ‘nature’.⁴⁶ This includes the recent focus by many scholars on deepening mal-distribution of capital,⁴⁷ income (the ‘precariate’)⁴⁸ and the destruction of nature. Yet, as Moore shows, the idea of the Capitalocene is still a conversation in progress as scholars work to make sense of the Anthropocene through critical and historical analysis of capitalism.

In summary, there are many stories in circulation that provide important ways of thinking and understanding this moment in the history of our species and planet. These stories share many common points, and emphasise others. As they are debated by scholars, some will take on greater prominence and influence than others in the competition over ideas. Beyond the particulars of these stories is an important function of social narrative: to stabilise social life and to reduce complexity. As George Monbiot puts it, ‘[s]tories are the means by which we navigate the world’.⁴⁹ In doing so, they help us ‘see’ parts of the climate issue as well as ‘obscure’ other parts.

But stories also do something else. They shape our feelings and emotions as well as our beliefs. In the face of the climate issue, the types of stories we have available and are drawn to will also have a corollary in our emotional response. For example, a vision of a post-nature world with a high level of technical innovation and positive human intervention shapes our expectations and *how we experience* the climate crisis (Crisis? I only see opportunity!). Conversely, immersion in climate collapse-porn or even just a daily dose of new science reports on climate change may well lead

⁴⁵ Jason W Moore, ‘Introduction: Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism’, in Jason W Moore (ed), *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism* (PM Press, 2016) 1.

⁴⁶ On world systems, see Immanuel Wallerstein, *After Liberalism*, (New Press, 1995).

⁴⁷ Thomas Piketty, *Capital in the Twenty First Century* (Harvard University Press, 2014).

⁴⁸ See Guy Standing, *The Corruption of Capitalism: Why Rentiers Thrive and Work Does Not Pay* (Biteback Publishing, 2017).

⁴⁹ George Monbiot, *Out of the Wreckage: A New Politics for an Age of Crisis* (Verso, 2017) 1.

to bouts of anxiety about the future. A 2018 Lancet report for Canadian policy makers recognises mental health risks, eco-grief and eco-anxiety arising from rapidly changing climates:

Climate-related weather events and environmental change have been linked to elevated rates of depression, anxiety, and pre-and-post-traumatic stress; increased drug and alcohol usage; and increased suicidal ideation, suicide attempts and death by suicide.⁵⁰

Stories do not make the weather, but they do shape our experience of it.⁵¹ It is not that the ‘story’ of climate change is wrong but rather it is always shaped and mediated by culture. The extraordinary climate science being produced today does not lead automatically to seeking to control or govern the climate system. That step is political and, as we have seen above, it could be framed in different ways. As Foucault eloquently puts it:

There are times in life when the question of knowing if one can think differently than one thinks, and can perceive differently than one sees is absolutely necessary if one is to go on looking and reflecting at all.⁵²

We are therefore confronted by complex, unstable and culturally laden notions of climate. It doesn’t sit nice and still but keeps asking new questions of us. Climate change reminds us of our humanity and our vulnerability, that we must seek justice for all the world’s peoples, and that we’d do well to exercise our interventions in the climate system and environmental with some humility. The future will be challenging but it is far from clear how it will actually play out. In this contested story-world, I find some solace in Mike Hulme’s big question: ‘the question is not so much how we can stop climate change but what can climate change teach us about ourselves’.⁵³

IV THE THIRD STORY: THE MUSIC OF COPING WITH AN UNKNOWABLE FUTURE

This final section will be more reflective than the analysis above. It is also more speculative, and I will write as a musician on what music might contribute to the Anthropocene. The future is in principle unknowable and will inevitably be different than we project. This is not to dismiss what climate evidence and modelling tell us. But as Hulme is at pains to point

⁵⁰ ‘Lancet Countdown 2018 Report: Briefing for Canadian Policy Makers’, (Report, November 2018) <<http://www.lancetcountdown.org/media/1418/2018-lancet-countdown-policy-brief-canada.pdf>>.

⁵¹ Stories matter. For example, the policy and community response to ‘child prostitution’ changed dramatically when the narrative changed to the ‘sexual exploitation of children’.

⁵² Cited in James Miller, *The Passion of Michel Foucault* (Simon and Schuster, 1993) 36.

⁵³ Hulme, above n 30, 362.

out, there is always uncertainty present in our projections because the future is also a cultural project.

Consider Latour's bold pronouncement on the situation we find ourselves in:

Talking about a 'crisis' ... [is] just another way of reassuring ourselves, saying that "this too will pass", the crisis "will soon be behind us". If only it were just a crisis!⁵⁴

If only it were just a crisis indeed! A crisis can be faced and worked through until a new stability arrives. But if there is no new stability, or *sustainability*,⁵⁵ we must face an uncertainty as the new normal. Art can offer a means of facing the unknown. Art creates space for reflection and a way to look afresh. Ideally, art surprises us, disrupts our settled understandings and opens us to new ideas. It can help us to ask new questions, to look at things differently. This unbounded exploration by art generally offers an important contribution to rethinking or reimagining the future. Artists, unlike scientists, are less bound by 'what is' and therefore can ask the otherwise unaskable questions. Artists' imagination is a resource which can create new stories that reflect who we are or what we may become in the Anthropocene.⁵⁶

What can music offer humans in the Anthropocene as they face Gaia? I suggest four possibilities. It can tell stories, cultivate empathy, increase solidarity and provide emotional release. This is not an exhaustive list but these dimensions are particularly relevant to the question of music and climate change.

Storytelling is an important part of many, though not all, musical forms. An obvious example is traditional folk music that tells culturally specific stories, reflecting memory and identity. There is a rich heritage within all cultures where music holds the stories of the past. Having spent a couple of decades in the folk club scene in New Zealand and Australia I am struck by the way cultural heritage, that is, stories of identity and memory, get reproduced in these communities. The folk singers of the 1960s told political stories, but they are not alone in storytelling. Rap artists in the 1980s reflected the alienation and self-empowerment of their communities (among other things). Reggae, recently inscribed as an 'intangible cultural heritage of humanity' by UNESCO, speaks to 'issues of injustice, resistance, love and humanity ... [and is] cerebral, socio-political, sensual

⁵⁴ Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime* (Policy Press, 2017) 9.

⁵⁵ For a useful critique of sustaining *sustainability*, see Melinda Harm Benson and Robin Kundis Craig, *The End of Sustainability: Resilience and the Future of Environmental Governance in the Anthropocene*, (University Press of Kansas, 2017).

⁵⁶ I hasten to add that scientists and policy makers also use their imaginations, but they are subject to an entirely different set of disciplines.

and spiritual'.⁵⁷ Opera is also a mode of storytelling, as is musical theatre. All these forms employ a narrative approach using semantic structure to storytelling – not necessarily a literal story, but they seek to bring the listener on a journey of ideas.

Telling stories rooted in people and climate however is an underutilised opportunity. Having attended many folk music festivals full of songwriters, I am struck by how few songs there are on the climate challenge. I know that many of these musicians are aware and often active in climate issues, but we have not yet generated the 'art sweet art' momentum called for by Bill McKibben.⁵⁸ While there have been some songs written and performed by influential artists, such as the Pathway To Paris concert in 2015 that brought together a number of high profile artists, musicians, politicians and activists,⁵⁹ climate has yet to challenge 'love' as the dominant theme of songwriters. Grammy award winning Australian musician Goyte has addressed the climate theme with his 2010 release 'Eyes Wide Open': '[a]nd we walk the plank with our eyes wide open'.⁶⁰ But it is commercially and reputationally risky to sing too much about the environment. One high profile Australian contemporary roots musician told me that people come to his gigs to be entertained, so he has to be careful not to overplay the activist environmentalist hand.⁶¹

Our own show, *Music for a Warming World*,⁶² is an example of the use of narrative structure to tell a discursive story. We use a combination of metaphoric and literal lyrics to create a narrative arc. We begin with the storm (science), move into loss (eco-grief), then to change (action) and finish with hope (living with impermanence). But we do not just rely on music; we use large screen high quality visuals (images, video and minimal text) to provide an immersive experience for audiences. There are risks with this approach, such as being overly didactic (music audiences do not like to be preached to). But because our show is advertised as a 'climate change' concert (climate change never sounded so good!), it sets up audiences' expectations to be more open to learning as well as experiencing something new.

What else does music provide beyond storytelling and narrative? This is where things get more interesting in relation to the climate. In his book,

⁵⁷ United Nations Educational, Scientific and Cultural Organisation, *Reggae Music of Jamaica* Intangible Cultural Heritage <<https://ich.unesco.org/en/RL/reggae-music-of-jamaica-01398>>.

⁵⁸ McKibben, above n 6.

⁵⁹ *Pathway to Paris* <<http://pathwaytoparis.com/>>.

⁶⁰ Goyte – *Eyes Wide Open* – Official Video <<https://www.youtube.com/watch?v=oyVJsg0XIIIk>>.

⁶¹ Celebrated Indian novelist Amitav Ghosh makes a similar observation in *The Great Derangement: Climate Change and the Unthinkable* (The University of Chicago Press, 2016). He argues that serious novelists have yet to grapple with the climate issue.

⁶² Kerr, above n 3.

Music, Evolution and the Harmony of Souls, Alan Harvey elevates the significance of music in the evolution human life.⁶³ Drawing on a wealth of research including neuroscience, anthropology, psychology, philosophy and education theory he seeks to answer this question: ‘Why are we the all-speaking, all-singing, all-dancing creatures of our planet?’⁶⁴ Whatever the etiology of the behaviour, our species’ musical ability has generated one of the key features of shared musical experience – solidarity with others:

[E]arly in our history, our sense of self and knowledge of our impermanence was intensified and focused through the lens of spoken language. Music’s communal, socialising power acted as an essential counterweight to the individualisation experienced by increasingly intelligent and articulate members of ‘Homo sapientior’. Music was able to maintain—as the title of this book suggests—a harmony of souls during the emergence of a ‘society of selves’.⁶⁵

Solidarity – this harmony of souls – becomes deeply significant as we face the Anthropocene. If we are to find a pathway (or pathways, more likely) into this future, then we will not be able to do it alone. The power of music to play a role in community solidarity is one of the common reflections our audiences made when experiencing Music for a Warming World. While we haven’t carried out any ‘scientific’ research on the impact of our show, anecdotally a feeling of not being alone in the climate challenge was one of the most common forms of feedback we received.⁶⁶

It is important to note that solidarity does not always solidify around noble or virtuous beliefs. The Third Reich is evidence enough that music can support commitment to dangerous ideas. Nevertheless, solidarity is clearly enhanced by shared emotional experiences such as listening to a musical performance. It is also enhanced by participation:

Music is a force that binds us together with others, in dance, in joy, in mourning, in war, in love; momentarily we forget our isolation, our mortality, and we step beyond the confines of our own individuality.⁶⁷

Music has much to offer but is still a relatively unexplored opportunity to help provide communities with the resources needed to face the Anthropocene.

Another important outcome of the communal shared experience of music is the development of empathy. Sometimes considered as a theory of mind,

⁶³ Alan R Harvey, *Music, Evolution, and the Harmony of Souls* (Oxford University Press, 2017).

⁶⁴ Ibid 7.

⁶⁵ Ibid 205.

⁶⁶ Many of the show reviews or comments reflect this experience. See Simon Kerr, *People Have Said Some Nice Things About Our Show. Here is a Selection of Them*, Music for a Warming World <<https://www.musicforawarmingworld.org/reviews>>.

⁶⁷ Harvey, above n 63, 206.

empathy most commonly refers to the capacity to adopt the perspective of another.⁶⁸ Although individuals can vary in their capacity to experience empathy, recent research suggests this is not just a personal trait but is also impacted by environmental factors.⁶⁹ As a social animal we are born dependent on others and our development and wellbeing requires a high degree of interdependency. Empathy for others is a cornerstone for the functioning of social cooperation. That music can foster empathy has important implications for considering music's role in living in a future defined by the Anthropocene. It is worth noting that music's role here does not appear to require 'accessible semantic content', such as lyrics to guide the listener's feelings, in order to evoke empathy for others.⁷⁰

There are a number of practical examples of music producing empathy in listeners. Examples include the West-East Divan Orchestra that brings together Palestinian and Israeli musicians, UNICEF's engagement of classical musicians as goodwill ambassadors⁷¹ and the NGO Musicians without Borders.⁷² But it is not just empathy for people that music can enhance. As noted earlier, eco-grief from the loss of heritage, nature and particular futures is on the increase and is now of concern to the medical and psychological community. Music offers an opportunity to increase the empathetic resources communities have available to counter this 'alienation'.⁷³

Music also does something else, perhaps even, as Harvey suggests, beyond that of all other arts. It can't solve the 'framing' issue of climate change, it cannot analytically investigate in the same way that scholarship, science and quiet reflection can because it does not address conceptual thinking. In the words of scholar and musician Ian Cross, 'it neither ploughs, sows, weaves or feeds'.⁷⁴ But it does have an 'extraordinary capacity to stimulate our emotions'.⁷⁵

Music affects emotions. It provides an emotional release, allowing us to feel the full gamut of our emotions. Let me offer an anecdote to illustrate. Composer Mathew Dewey was commissioned to work with PhD students from the Institute of Marine and Antarctic Studies, University of Tasmania, and write a symphony reflecting this collaboration. The resulting work was recorded by the Czech National Symphony Orchestra in Prague, 2013.

⁶⁸ Eric Clarke, Tia DeNorab and Jonna Vuoskoskia, 'Music, Empathy and Cultural Understanding' (2015) 15 *Physics of Life Reviews* 61, 65.

⁶⁹ *Ibid* 68.

⁷⁰ *Ibid* 76.

⁷¹ *Ibid* 62.

⁷² Musicians Without Borders <<https://www.musicianswithoutborders.org/>>.

⁷³ Sophie Lamond, *A Paler Shade of Green: Artists in the Cryosphere in the New Millennium* (BA (Honours) Thesis, Australian National University, 2011) 99.

⁷⁴ Cited in Lamond, above n 73, 35.

⁷⁵ Harvey, above n 63, 35.

Titled ‘ex Oceano’,⁷⁶ it offered a musical interpretation of the impact of global warming on the powerful southern ocean. One of the project’s sponsors told us that not all the oceanographers initially thought there was value in the project; how could music add to an understanding of this mighty ocean system? One of these scientists had spent a lifetime in painstaking research, documenting the devastating impacts of warming ocean currents. However, we were told that this scientist wept upon hearing ‘ex Oceano’ for the first time. The power of the music unlocked a lifetime of grief about what they were seeing and *experiencing* in their work on a daily basis.

Aldous Huxley once wrote that for humans, all the things ‘profoundly significant can only be experienced, not expressed. The rest is...silence. After silence that which comes closest to expressing the inexpressible is music’.⁷⁷ At its best, music does what no other art form can do. Harvey, citing Herbert Spencer, was unambiguous in his praise: ‘[m]usic must rank as the highest of the fine arts—as the one which, more than any other, ministers to human welfare.’⁷⁸ To argue that emotions have no place in how we respond to such issues as climate is to strip humans of one of our key characteristics, and strengths. Emotions are central to how we experience the world, and are ‘a permanent part of our mental furniture’.⁷⁹

In my experience as an active ‘climate-focused’ musician,⁸⁰ I am conscious that ‘music’ is generally viewed as entertainment (which it of course is), but not really a serious contributor to our grappling with climate. There are some wonderful exceptions, such as the Seattle based ‘ClimateMusic Project’⁸¹ and an increasing range of creative collaborations between scientists, scholars, activists and artists. It seems to me that music is the lesser cousin to the visual arts, partly I suspect because ‘art’ is more cerebral, resonating with the semantic orientation of our intellectual culture. Yet, if music is perhaps:

the most important thing our species ever did... [then is] the relatively recent separation of art from science in modern human life, so often the source of philosophical discussion and rationale for guileful political decisions, one of the most unfortunate things our species has ever done?⁸²

⁷⁶ Lynchpin, *The Making of a Symphony – ‘a Love Letter to the Ocean’* <<http://www.lynchpin.org.au/our-projects/ex-oceano/>>.

⁷⁷ Aldous Huxley, *Music at Night and other Essays* (Doubleday Doran and Company, 1931) 17.

⁷⁸ Harvey, above n 63, 2.

⁷⁹ *Ibid* 6.

⁸⁰ Kerr, above n 3. For the record, only my most recent output has been ‘climate focused’. Other themes in my work include love, psychology, travel and a zombie trilogy.

⁸¹ The ClimateMusic Project, *About the ClimateMusic Project* <<http://www.theclimatemusicproject.org/>>.

⁸² Harvey, above n 63, 207.

V FINAL REFLECTIONS: MUSIC AND THE FUTURE OF THE BRAVE

Climate change changes not just the climate system, but the humans who live in, experience and believe things about their climate and weather. It can shine a mirror on who we are as a species. It reminds us of our humanity and vulnerability, that we must seek justice for all the world's peoples, and we need humility in exercising our power intervening in the climate system and environment. The future will be challenging and it is far from clear how it will actually play out. We will need new stories, new cultural metaphors, that will help us navigate this future. As George Monbiot puts it, we can't take a story away from a community without providing a new one.⁸³ To do so requires a full range of the extraordinary capacities to know the world around us. Science, in all its evolving forms and disciplines, is currently the most powerful voice speaking to our future and many of the necessary changes, such as the urgent need to reach zero carbon emissions, are material in nature. But as this article has attempted to argue, material circumstances are profoundly shaped by the immaterial. It is important that the cultures of climate be taken seriously by scholars and explored by artists, for this throws open the dynamic creativity of humans.

Cultural transformation is inevitable, as Giddens, among others, has shown us,⁸⁴ and the Anthropocene is adding another layer of disruptions to an already crowded marketplace of disruptions.⁸⁵ One way or another, our world will change, taking us with it, voluntarily or kicking and screaming. The more important question is what sort of future we desire and how we cultivate the social reflection, emotional resources and creative action and intervention to not be passive victims of change. How can we move beyond the experiential limits of scientific discourse to support new storytelling, solidarity in response to the climate challenge and sufficient empathy to support each other and, indeed, other species and the biosphere itself? Science cannot achieve this by itself. We need the humanities to unearth the stories of living with climate and we need visual and performance artists to challenge what we see and feel.

Unfortunately, music has been siloed from a serious contribution to our climate challenge, marginalised as a luxury, a 'gloss on the surface of life ... of no great importance to our species'.⁸⁶ Part of this is a legacy of the great divide between the arts and science, a divide some are working hard to bridge.⁸⁷ We prioritise the discursive power of logical argument. We are

⁸³ Monbiot, above n 49, 3.

⁸⁴ Anthony Giddens, *The Consequences of Modernity* (Policy Press 1990).

⁸⁵ It is perhaps sufficient to simply note some of the other phenomena that are shaping the future: artificial intelligence, globalisation, robotics, cybernetics, globalization and terrorism. Yuval Noah Harari gives a useful summary in *21 Lessons for the 21st Century* (Jonathon Cape, 2018).

⁸⁶ Harvey, above n 63, 204.

⁸⁷ See eg Kat Austen, *How I Made Musical Instruments from Lab Equipment to Help Create Empathy With the Arctic* (30 October 2018) Conversation

unsure how to deal with artistic or musical contributions to the climate story.

The challenge is to reclaim the power of music as we face the Anthropocene. I am not just thinking of mass-commercial music, but rather working closer to home for many of us by bringing music into the very places where climate thinking and talking takes place: seminars, conferences, symposiums, public talks and community events. It is here the community of the concerned gather and it is one location to learn how to include music, to experiment and to become more comfortable at the intersection of ideas and emotion.

I will finish with another anecdote. About two years ago my partner and I attended a high-profile climate talk in a local school. There were about 500 people present. The speakers were diverse, and the headliner was a high profile and well-respected scientist, writer and communicator. The news from the panel was not great. The political stalemate of climate policy was entrenched, and emissions were again rising. The main speaker sounded discouraged, even with a valiant attempt to optimism. The session finished and as we all lingered in the foyer there was a palpable sense of depression in the atmosphere. The few strangers I talked to were discouraged. I was feeling discouraged. It was a truly flat note to finish on.

Most religions employ music as part of their liturgy or rituals. As Alain de Botton noted in his 'Religion for Atheists',⁸⁸ religions, for all their faults, understood the power of ritual and music. In the words of Martin Luther, 'music is the art of the prophets, the only art that can calm the agitations of the soul; it is one of the most magnificent and delightful presents God has given us'.⁸⁹

As we left the auditorium, I recalled this, thinking how we have inadvertently reduced our humanity in becoming secular, replacing religion with science. And then I thought, as a musician, how different our collective brain chemistry could have been had we ended with some collective singing, some musical and emotional release.

Nietzsche once said that 'we possess art lest we perish of the truth'.⁹⁰ Facing the Anthropocene with only the hard facts of climate models for comfort is only for the bravest. The rest of us must cultivate a climate culture that is as immersed in profound and moving music and art as it is with science. Then, together, we can perhaps find the bravery we need.

<<https://theconversation.com/how-i-made-musical-instruments-from-lab-equipment-to-create-empathy-with-the-arctic-105685>>.

⁸⁸ Alain de Botton, *Religion for Atheists* (Penguin, 2012).

⁸⁹ Cited in Harvey, above n 63, 2.

⁹⁰ Friedrich Nietzsche, *The Will to Power*, tr Walter Kaufmann and R J Hollingdale, (Penguin, first published 1901, 1968 edition) 435.