

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

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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

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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

approaches, are particularly 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

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/>>.

futures and was ‘outside the box.’¹⁰ As well as academic presentations, the 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

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 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.

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 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

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 Carlarne, Kevin R Gray and Richard Tarasofsky, *Oxford Handbook on International Climate Change Law* (Oxford

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 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

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.

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.

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 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

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 Kuyper, ‘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).

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 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

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.

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 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

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

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.

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

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

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.

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.

effectiveness of these initiatives.⁴⁷ These are arguments for working hard at the national 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

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

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

conference Jan 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.

Williston, *The Anthropocene Project: Virtue in the Age of Climate Change* (Oxford University Press, 2015).

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.

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 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

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.

Simon Caney has argued that climate change infringes core human rights to life, health and subsistence.⁶⁴ Adopting a human rights framework 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

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

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 manipulative 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

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).

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 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

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).

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).

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 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

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

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 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.

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 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

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);

UNFCCC,⁹⁸ learning from indigenous perspectives 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

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).

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*

addressing the failure of governments to address climate change, explored in Danny Noonan's article in this issue 'Imagining Different Futures Through the 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

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).

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 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

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.

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

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 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.

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).

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.

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 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.

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.