SYMPOSIUM

Climate Change Justice

Introduction to Climate Change Justice

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Climate change represents one of our greatest public policy challenges. A broad, well-established and international scientific consensus exists that our planet is undergoing climate change. The question is not whether there is climate change, but how best to respond to it. Climate change is a global phenomenon that requires a global effort unlike anything previously attempted. This global challenge is complicated by related and more controversial questions about causal responsibility. Although convincing evidence shows that climate change is a result of human behavior, much less agreement exists on how this should factor into policy.

This introduction provides a general overview of the global challenge of climate change that confronts us along with the distinctive contributions presented in this symposium on climate change justice. Political science and related disciplines have much to contribute to how we understand the problems faced and policy considerations essential in best addressing climate change.

CLIMATE CHANGE: MORE QUESTIONS THAN ANSWERS?

Climate change, as a topic, appears to produce more questions than answers. An "unequivocal" global scientific consensus confirms the existence of climate change (Pachauri and Reisinger 2008, 30). Human activities are responsible for the creation of greenhouse gases that have given rise to climate change: it has been at least 420,000 years since the Earth has had so much carbon dioxide and methane in its atmosphere (Singer 2002, 16). Climate change has contributed to multiple effects including, but not limited to, increasing threats to coastal wetlands from rising sea levels, greater likelihoods of droughts threatening agricultural production, and the spread of tropical diseases to new geographical regions (Pachauri and Reisinger 2008, 33). Additional problems include the more recent phenomenon of "environmental refugees" as people are forced to move because of climate change (Byravan and Rajan 2010).

The facts of climate change and its present effects are not in dispute. Current controversies center on two related issues. The first concerns how we should best respond to climate change. One response is to argue for mitigation. This view recommends reducing human impact on the environment through efforts such as conservation. For example, we might propose that each person should live within his or her "environmental footprint" and no more (Wackernagel and Rees 1996). This footprint would be calculated to ensure that human beings taken collectively would have a much smaller footprint and, thus, more sustainable environmental impact. Another example is the polluter pays principle (Caney 2008). This principle claims that polluters should pay because they pollute and this pollution may be harmful in terms of its likely negative environmental effects. Polluters pay to deter through monetary disincentives that might help foster greater conservation; their payments could contribute to mitigation efforts.

The second response argues for greater adaptation (Kahn 2010). The idea is that climate change might have less harmful effects if we could better adapt to expected future changes. If coastal communities are under threat from rising sea levels, then one way to adapt would be to create new flood defences or perhaps floating cities. Climate change can be managed through future technology that enables successful adaptation.

There is no consensus on which response is most preferable. In fact, most scholars argue that some combination of mitigation and adaptation is recommended, in part, because we must begin to adapt to the climate change that has already taken hold (Gardiner 2004, 573). Nonetheless, where to draw the line and which side to emphasize is widely contested, including the issue of which particular proposal to endorse among environmental footprints, polluter pays principles, and much more. The debate about climate change is not about *whether* it exists, but what to do *because* it exists.

A related second issue concerns how causal responsibility figures into our analysis. The global scientific consensus confirms that human beings are largely responsible for climate change today. However, some human beings are more responsible for it than others. More affluent countries, such as the United States, have contributed more greenhouse gas emissions than much less affluent countries, such as the developing world. Although the first issue is what should we do to best address climate change, the second issue is whether some countries should do more about climate change because, collectively, they are more responsible for it.

This second issue is particularly thorny. For example, carbon emissions may remain in the atmosphere for decades. We normally hold persons responsible for what they could have foreseen. But the link between human activities and climate change is more recent. So earlier generations might

doi:10.1017/S1049096512001400
https://doi.org/10.1017/S1049096512001400 Published online by Cambridge University Press

not have known about the long-term future effects of their activities. This raises questions about whether they should be held responsible for their contributions to climate change. Furthermore, many people might have died while their carbon emissions remain in the atmosphere. If they should be held responsible, how might this be pursued? Is it wise to hold responsible the offspring of those now dead that unknowingly contributed to climate change? Note, that some will readily claim we should argue that such gross negligence is no excuse. The intent here is not to take sides, but to illustrate that there are sides to take and longstanding debates that continue.

This issue becomes murkier when we consider more radical arguments that claim that it is not yet in the interest of some countries, such as the United States, to reduce carbon emissions (Posner and Sunstein 2008). The argument is that although some countries may suffer heavy costs, such as becoming submerged, some countries may enjoy net gains in the next few decades through incremental climate change. While long-term climate change is in noone's interest, the current century is an exception. This position has faced heated criticism in the literature, in part, because of the way that costs and benefits are calculated and also for the view that it is not too late (nor perhaps even desirable) to cease climate change.

Nonetheless, where to draw the line and which side to emphasize is widely contested, including the issue of which particular proposal to endorse among environmental footprints, polluter pays principles, and much more. The debate about climate change is not about whether *it exists, but what to do* because *it exists.*

Climate change is happening, but what to do? Deep controversies about the pursuit of mitigation and/or adaptation strategies divide us. There are deeper controversies about how to incorporate some view on responsibility for climate change, especially by past generations, in light of national interest. We may appear to have a better grasp of the questions rather than a convincing set of answers. Climate change is a challenge that offers more problems than solutions.

SYMPOSIUM CONTRIBUTIONS

This symposium brings together important new perspectives on the global challenge that climate change presents and how we might best consider policy implications.

David Schlosberg (2013) opens the symposium arguing that we require a new "climate-challenged politics." Climate change is happening. Our politics need to move away from past discourses about preventing climate change arising in the first place to refocus on best addressing the pressing political challenges that confront us today. This move, from prevention policies to adaptation strategies, is not a retreat or surrender, but a realistic and necessary policy shift that preventing climate change is no longer an option.

Adaptation strategies are often ill-defined and underdeveloped especially at a political level. What is the relationship between science and electoral politics? Evidence-based policy benefiting the public interest often fails to become public policy. Schlosberg correctly highlights that good science does not always lead to good policy agreements (2013: this issue). This argument is explained, in part, by the powerful corporate interests and political supporters that attempted to discredit the global scientific consensus on climate change in the eyes of the electorate. The scientific community has responded by producing ever more reams of data to support the global consensus that climate change is a reality, but with little benefit in winning over the public.

Schlosberg argues for a more constructive and dialogic engagement between experts and advocates with the general public. It is not enough that the data is presented to the public; it is essential that the public engages with the science community and available evidence to help support their ability to contest and confirm conclusions in a communicative relationship that might better control the distortion effects posed by corporate interests.

Furthermore, climate-challenged politics must be a politics about climate justice. Adaptation should be considered within a framework of justice with commitments to clear general principles, such as equity, responsibility, and capacity. Climate change is more than about avoiding a major global catastrophe, but represents an injustice that most threatens those who are the most vulnerable. Climate change should not be a debate about the science, but about the pursuit of global justice within the context of a global scientific consensus.

Steve Vanderheiden (2013) explores this gap between theories about justice and their relation to concrete social and political issues, such as the global challenge of climate change. Too often theories about justice provide static principles for application in cases where theory and practice lack a responsive relation with the other. This has led to a stand-off. Theorists develop imaginative constructions independently of concrete practical implementation; likewise, practitioners borrow principles from theorists without greater engagement with their deeper philosophical commitments.

Vanderheiden argues that theorists and practitioners have much to learn from each other. He focuses on the particular contributions that justice theory offers to current debates on climate change. For example, look at the 1992 UN Convention on Climate Change. The Convention specifies key principles of justice such as equity and "common but differentiated responsibilities," but it fails to clarify how these principles might be applied in international climate-policy development. Different ways of conceiving justice principles may lead to different, perhaps even opposing, policy recommendations.[1]

https://doi.org/10.1017/S1049096512001400 Published online by Cambridge University Press

Vanderheiden provides a compelling litany of examples that illustrate the importance of justice theories for climate-change policy development, but also shows the pressing need for these theories to become more attenuated and responsive to the practical issues where they might be applied. The problem is not that any view of justice may support multiple conclusions per se, but that the potential applications are ill-defined and should be concretized more substantively.

In the next two essays Heyward and Gardiner examine the relation between science, justice, and climate-change public policy through the case study of geoengineering. Geoengineering is about efforts to deliberately manipulate the climate on a global scale to counteract anthropogenic climate change (Shepherd et al. 2009, 1). Geoengineering is seen as a potential "third way" that may complement adaptation and mitigation strategies.

Clare Heyward (2013) critically examines the idea of geoengineering. She considers so-called geoengineering proposals, such as carbon dioxide removal (CDR) and solar radiation management (SRM). Heyward argues that these proposals are not best understood together, but instead as separate proposals to address climate change. One reason is that these offer different kinds of approaches. For example, CDR extracts carbon dioxide from the atmosphere and so reduces concentrations of greenhouse gases. SRM, in contrast, reduces not greenhouse gas concentrations, but rather reduces the amount of energy absorbed by the atmosphere. So both CDR and SRM offer different kinds of approaches to addressing the challenges posed by climate change. These are also both different from standard adaptation efforts where the focus is on reducing harm by environmental effects—whereas CDR and SRM each aim in different ways to fundamentally change the effects themselves. Heyward argues that CRD and SRM take the "'danger' out of 'dangerous climate change'" (Brooks 2013a).

Stephen Gardiner (2013) offers a different angle. Geoengineering is often presented as the lesser evil, but without much consideration of the ethical and political issues geoengineering raises. Instead, the justification of geoengineering is often based on little more than necessity in the face of global emergency: we face an eminent catastrophe that *requires* greater resources for geoengineering research because it may ensure global climate security. Such claims from desperation are unconvincing.

Gardiner argues that we should first consider the conditions under which geoengineering might be justified and, second, the context within which any geoengineering arises and whether this makes any difference to its justification. In particular, Gardiner highlights the special case of paternalism that geoengineering might accept where global climate problems largely created by the most wealthy might be addressed through complete subjugation of the most vulnerable. This position requires a more stringent justification than is often provided. Geoengineering contributes to a perfect moral storm that demands greater critical scrutiny.

Thom Brooks (2013a) concludes the symposium by arguing that we must reassess our possible horizons. Often public policy proposals are presented as *the solution* that will solve the problems presented by climate change. For example, if only we lived within a set "ecological footprint" that set a cap on global emissions, then climate change would stop. Or that it is possible to remove the "danger" out of "dangerous climate change."

Most proposals, unfortunately, view themselves as solutions. Climate change is a global phenomenon that humans might never suspend, but only better manage. Climate change is more of a problem because of anthropocentric causes, but climate change would happen even if there were no such causes. Our goals must be more limited to reducing effects and improving adaptability, but avoid higher ambitions to "end" future change. The real challenge of climate change is not about how it might end, but rather how it might be better managed. Issues of justice remain, but these must be understood within a more realistic context.

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CONCLUSION

Climate change presents major global challenges. This introduction surveyed the general research and provided an overview of the distinctive contributions presented in this symposium. Climate change appears to raise more questions than answers rendering policy recommendations difficult or even beyond our reach. Nonetheless, this symposium illuminates new grounds for more optimism about the challenges we face and the public policy possibilities for our future. Climate change justice is one of many areas where political science, and more specifically *political theory*, provides substantive contributions and significant impact on the major social and political issues that confront us all.[2] ■

NOTES

1. For example, the idea that negative duties support conservationist or mitigation efforts alone rests on false assumptions about negative duties and climate change that require greater critical examination (Brooks 2012).
2. See Brooks (2013b) for a more general critical examination of the distinctive contributions and impact political theory has for pressing social and political issues.

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https://doi.org/10.1017/S1049096512001400 Published online by Cambridge University Press