## MORALITY AND CLIMATE CHANGE

Climate change poses many ethical issues. One important normative question concerns how we evaluate the impacts of climate change. Should we be concerned only with its impact on human beings? What about its effects on nonhuman animals and on the world itself? Do these have independent moral value? Furthermore, when we are considering its impacts on human beings there are a number of different ethical criteria one might appeal to. One might, for example, focus on its effects on utility or well-being considered more broadly, or its effects on the realization of human rights (Caney 2009), or on some other criterion. In his contribution to this issue, Avner de Shalit explores the moral importance of climate change's effects on displacement and the loss of "a sense of place." Drawing on the 'capabilities' approach pioneered by Amartya Sen (2009) and Martha Nussbaum (2000) he argues that climate change is unjust, in part, because it results in the threat of environmental displacement and in some cases actual displacement. A person's sense of place, he argues, is irreplaceable and its loss cannot be compensated for by providing money or by enhancing other "functionings." One cannot, thus, allow it to happen with a view to compensating the victims, but must instead not engage in the activity that leads to displacement (which, in this case, means reducing the emission of greenhouse gases).

Any normative appraisal of how to respond to the prospect of climate change requires more than an account of what criteria should be employed to evaluate climatic impacts. Another highly important question arises from the fact that there is considerable uncertainty about the magnitude of the likely changes to the earth's climate and their corresponding effects on people's lives. For example, the Assessment Reports of the Intergovernmental Panel on Climate Change always present a wide range of possible effects with probability assessments and confidence levels. This raises the question: how should humanity respond to the risks and uncertainties involved? Greg Bognar addresses this question in his paper "Can the

Maximin Principle Serve as a Basis for Climate Change Policy?" He considers the case for a 'precautionary' approach. In particular he evaluates Stephen Gardiner's claim that Rawls's argument for maximin in the conditions embodied in the original position provides support for adopting a precautionary response to the prospect of dangerous climate change (Gardiner 2006). Against this, he calls into question whether the conditions Rawls specifies obtain, and then argues that even if they do maximin is not the uniquely correct response, and indeed may be an incorrect response. Bognar then proceeds to criticise Cass Sunstein's defence of the anti-cat-astrophe principle (Sunstein 2005). He concludes by suggesting that 'prioritarian' reasoning can help ground a precautionary principle.

In addition to the two questions considered so far, a third important question (or rather set of questions) concerns the resulting moral responsibilities to act. One can distinguish between (at least) two questions here. First, what kinds of entities have moral responsibilities to act? It is commonly assumed that states have a responsibility to act but what about individuals? Or corporations? What role, if any, should international institutions (such as the WTO or IMF or World Bank or EU) play? A second question is: how should the burden of combating climate change be distributed? What distributive principle should be adopted?

Benjamin Hale and Avram Hiller both address the first type of question and analyse the responsibilities of individuals. Avram Hiller engages in a sustained analysis and critique of Walter Sinnott-Armstrong's influential argument that individual actions, such as taking a Sunday afternoon drive, make no difference to the causation of dangerous climate change, and are therefore not prima facie wrong (Sinnott-Armstrong 2005). Against Sinnott-Armstrong, Hiller argues that such actions by individuals are prima facie wrong. Hiller's central argument appeals to the following principle: "it is prima facie wrong to perform an act which has an expected amount of harm greater than another easily available alternative" (MP). He subsequently argues that actions such as going for a car drive do in fact have an expected amount of harm greater than other readily available options, and so are prima facie wrong. He considers a series of challenges to both MP and to his empirical claims but finds all of them wanting. He concludes by suggesting five reasons why people may fail to see that the emission of greenhouse gases by individuals is prima facie wrong.

Benjamin Hale also considers whether individuals have a duty to lower their emission of greenhouse gases. However, unlike Hiller who appeals to the consequences of individual behaviour, Hale seeks to show that consequence-based reasoning is unable to explain why individual actions that involve the emission of greenhouse gases may be prima facie wrong. Hale begins by outlining three explanations as to why combating climate change is problematic. However, he argues that these prevailing explanations are incomplete for they fail to take into account an additional deep problem. The deep problem, according to Hale, is this: even if I lower my use of fossil fuels, energy companies have an incentive to use up that nonrenewable energy source and will encourage others to do so. My actions will therefore make no difference to the causation of climate change because even if I abstain from an action that emits greenhouse gases, someone else will certainly use that fossil fuel instead of me. Hale employs this argument to criticise consequence-based arguments for reducing emissions. Instead of appealing to an outcome-based reasoning he suggests instead that there is a duty not to be complicit in a process that cannot be justified to others.

As noted above, any adequate account of the responsibilities to address climate change must address not simply what kinds of entities are the relevant duty bearers but also how duties should be distributed among duty bearers. In his paper, "Climatic Justice and the Fair Distribution of Atmospheric Burdens: A Conjunctive Account," Edward Page considers two commonly invoked principles: first the principle that those who have brought about the problem should pay, and, second, the principle that those who have the greatest ability to pay should pay. Page discusses the problems that these principles encounter and argues in favour of including a third principle, namely that those who benefit from activities that cause climate change should pay.<sup>2</sup> He then proposes what he calls a "conjunctive account" that seeks to combine and integrate all three principles and accord primacy to none of them.

As noted above, one principle invoked by Page and others is that those responsible for bringing about climate change should pay. One issue that arises here concerns what responsibilities we should ascribe in cases where people emitted greenhouse gases but were excusably ignorant of their role in bringing about dangerous climate change. Derek Bell explores

this issue in his paper, "Global Climate Justice, Historic Emissions and Excusable Ignorance." He acknowledges that there is a significant moral difference between the actions of excusably ignorant emitters and the actions of those who emit greenhouse gases knowing their causal connection to climate change. However, he argues that excusably ignorant emitters should not be exempt from liability. Instead, he proposes that excusably ignorant emitters should be held liable for the costs of climate change associated with their emissions-generating activities, as long as the costs do not exceed the benefits that they have derived from those activities.

The issue of how to distribute burdens connects to another fundamental issue— namely, what is the relationship between burden sharing and enabling the least developed countries to develop? In his paper "A Right to Sustainable Development" Darrel Moellendorf explores these issues. He outlines an ideal of sustainable development, what he terms the "institutional conception of the right to sustainable development." He then explores its implications for tackling climate change—arguing that it imposes severe constraints on developed countries. He argues, moreover, that it would be unreasonable for developed countries to disregard the commitment to sustainable development embodied in the United Nations Framework Convention on Climate Change. He concludes by responding to concerns about the concept of a right to develop.

These, then, are the questions explored by the papers in this issue. There are, of course, many other questions—including, for example, What principle of intergenerational equity should be applied? Is it appropriate, as many economists have argued, to adopt a positive social discount rate? How should the right to emit greenhouse gases be distributed? What moral issues, if any, are raised by the measures suggested to deal with climate change—measures such as emissions trading, geo-engineering, population control, and nuclear energy?

There is increasing interest in climate ethics (Gardiner, Caney, Jamieson, and Shue 2010). Our hope is that the essays included here help stimulate further reflection on the moral challenges raised by climate change.<sup>3</sup>

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## Notes

- 1. Hiller critically evaluates Hale's argument in his contribution to this issue.
- 2. For discussion of these principles see Caney (2005; 2010).
- 3. Simon Caney engaged on work on this while holding an ESRC Climate Change Leadership Fellowship on "Equity and Climate Change" and would like to thank the ESRC for its support. Both editors would like to thank the anonymous referees for their work.

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