

Climate Matters: Ethics in a Warming World by John Broome

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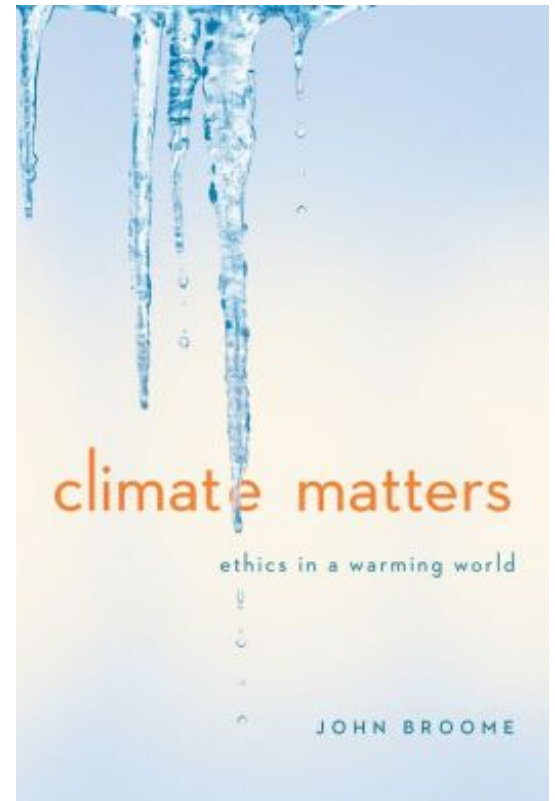
Climate Matters: Ethics in a Warming World, John Broome (New York: W. W. Norton, 2012), 210 pp., \$23.95 cloth.

This is the inaugural volume in the Amnesty International Global Ethics Series, edited by Kwame Anthony Appiah. John Broome, the author of this volume, is a trained economist, distinguished philosopher, and a lead author of the 2014 Intergovernmental Panel on Climate Change report. He is very well suited to fulfill the mandate of the series, which is to “broaden the set of issues taken up by the human rights community.” It is thus surprising that the book does not discuss human rights (or rights at all), nor locate itself in relation to much of the relevant literature. Nevertheless, this is an excellent book, displaying the author’s characteristic virtues of clarity, concision, precision, and intellectual honesty.

Climate Matters opens with an introduction and continues with an excellent overview of climate science. Chapter 3 views the climate change problem through the lens of economic theory, arguing that moral thinking, in addition to economics, is required to solve it; and chapters 4 to 6 explore that moral thinking. Broome distinguishes private from public morality, claiming that each domain is governed by its own principles. Private morality concerns our duties as individuals while public morality concerns the duties of governments. As individuals, “our moral duty . . . is determined by the duty of justice not to harm, rather than the aim of improving the world” (p. 14). The primary duty of governments, on the other hand, is to improve the world by promoting the good, though governments also have duties of justice that sometimes conflict with this primary duty. Public morality is difficult, according to Broome, because it is hard to say exactly what makes the world better. Chapters 7–10 discuss various aspects of this problem. Broome rejects the precautionary principle, which he views as a “collection of related ideas” (p. 117) that “advises against taking any risks with the climate” (pp. 10–11). Instead, he defends “expected value theory,” which requires us to “maximize the expectation of . . . well-being” (p. 126) even when substantial risks are present. Broome claims that separating harms and benefits in time makes no moral difference to their moral status, and argues that the value of human lives cannot be expressed in terms of money. He goes on to say that it matters morally that climate change will affect the absolute number of people who will exist, though he is not exactly sure how it matters; concludes that uncertainties about values can only be resolved in the democratic process; and takes himself to be contributing to this process by offering “food for thought” (p. 192).

While this is an elegantly written and well-argued book in which the author clearly articulates his own view of “why climate matters,” in the spirit of making a similar (though more modest) contribution to the democratic process, I will discuss two points at which Broome’s views can be questioned.

First, Broome’s distinction between private and public morality is suspiciously sharp. In democratic societies the authority of governments and the morality that governs them ultimately rest on the authority and morality of the individuals who are governed. It is difficult to see why individuals would build governments that have fundamentally



different aims than they do. True, there may be instrumental arguments for assigning particular duties in specific domains to governments that are distinct from duties that individuals bear, but this is quite a different view than the deeply bicameral one that Broome puts forward. If individual morality is anticonsequentialist (as Broome thinks), then why would we build an institution (government) whose aim is largely consequentialist?

A further concern is a practical one: Can these different domains be kept distinct enough to provide coherent directives to agents? As a government agent I am supposed to promote the good, but as an individual I am only required to act justly. What are my all-things-considered duties if my job requires me to neglect personal obligations (acting unjustly) so that I can work overtime writing a climate action plan (promoting the good)? Broome is careful to commit only to the bifurcation of public and private morality in the domain of climate change, but climate change-related activity permeates our lives, from picking up children at school to voting for political candidates, so it is far from clear how this domain can be effectively bounded.

My second point concerns Broome's claim that an individual's emissions unjustly cause harms, but that the harms (and presumably the injustices) can be "cancel [ed]" (p. 14) by purchasing offsets. While it is true that humanity's emissions will kill millions of people, I doubt that this so readily decomposes into facts about individual causal responsibility. If it does, then I am skeptical that the injustices can be easily avoided by purchasing offsets.

What individual emissions add to the total atmospheric load of greenhouse gases is vanishingly small. Moreover, there are various thresholds, nonlinearities, and scalar differences that intervene between individual emissions and harmful outcomes.

Consider an oversimplified story that begins with me emitting some molecules of carbon dioxide. While these molecules may stay in the atmosphere for centuries or even longer, what is most likely is that within a few years they will dissolve into the ocean or be taken up by the biosphere. When carbon dioxide molecules dissolve in the ocean, they usually are replaced in the atmosphere by other molecules that radiate from the ocean. As the oceans warm, the velocity of these emissions increases, and it is likely that the original carbon will soon be returned to the atmosphere. However, a tiny fraction sinks to the ocean's depths and is eventually stored in carbonate rocks, where it may remain for tens of millions of years. The fate of carbon molecules in the terrestrial biosphere is even more various, but they are usually returned to the atmosphere in a much shorter time.

Carbon dioxide concentrations in the atmosphere are increasing mainly because people are mining carbon that is sequestered in mineral deposits (for example, by extracting fossil fuels) and the biosphere (for example, by logging old-growth forests), transforming it into carbon dioxide and releasing it into the atmosphere where it becomes a volatile part of the carbon cycle.

This perturbation of the carbon cycle produces a generalized warming that affects the global climate system through various complex processes, which in turn affects the distribution, frequency, and intensity of various meteorological events. Depending on environment and circumstance, these events can result in anything from a heat wave in an uninhabited part of the world to an insurance claim for a BMW damaged in a hailstorm, or even to the collapse of a government. For my particular carbon emission to cause these harms it must in some way be active at all of these levels—from increasing concentrations of atmospheric carbon dioxide, to producing untoward meteorological events that result in harms. It seems implausible that this is the case.

But would offsetting really even get me off the hook if we say, along with Broome, that all individual greenhouse gas emissions cause harms that constitute injustices? Broome characterizes offsetting as subtracting the same amount of greenhouse gas from the atmosphere as you emit, and claims that it is equivalent to not emitting in the first place (p. 85). It is not easy to subtract greenhouse gas from the atmosphere, but storing carbon on the required time scales is even more difficult. Mining fossil carbon, releasing it into the atmosphere, and then storing it in the biota is still a serious perturbation of the carbon cycle, especially since carbon will not stay in the biota for anything like the amount of time that it would stay in geological formations.

The perfect offset for fossil carbon is not tree planting, but rather fossil carbon. What this comes to in practice is not burning carbon in the first place. In principle we can offset our burning of coal (for example) by paying other people not to burn coal that they would otherwise burn, but for this to be a perfect offset we would need perfect knowledge about baselines and counterfactuals, and absolute compliance. Broome acknowledges these difficulties but tends to treat them as easily surmountable, simply a matter of “judicious choice” (p. 89). But we live in the real world, not the one of philosophers’ ideal theory or economists’ perfect markets. Fly to your next conference and take your chances, but don’t think that purchasing offsets has all the advantages of staying home and having drinks with your colleagues.

I have raised some challenges of which Broome is well aware. While we may not arrive at exactly the same place, we agree that both individuals and governments have failed to live up to their responsibilities, and that climate change presents us with unprecedented moral questions to which we do not fully know how to respond. By providing us with nutritious “food for thought” in such a palatable way, Broome has greatly contributed to our attempts to meet the challenge of climate change and to answer the difficult questions that it raises.

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