BOOK REVIEW/COMPTE RENDU

John Urry, Climate Change and Society. Oxford: Polity Press, 2011, 200 pp. \$24.95 paper (978-0-7456-5037-1), \$76.95 hardcover (978-0-7456-5036-4)

limate change has until recently received only peripheral attention from sociologists, and yet, as John Urry points out in *Climate* Change and Society, many of the systems that need to be transformed to bring about a low-carbon world are best approached from the vantage point of our discipline. Urry's timely contribution is to construct a sociological approach that is accessible to a broad audience both inside and outside our discipline.

In contrast to the dearth of social science responses to climate change, Urry points out that disciplines in the physical sciences have consolidated a kind of "normal science" on these questions. He spends some time in the opening chapters discussing the uncertainty of climate science, its disciplinary eclecticism, and the struggles over its social meaning. No climate change skeptic, he rightly acknowledges the catastrophic consequences predicted by our current understanding of how the climate is changing.

A sociological approach to the issue of climate change is important and overdue, not least because the market-based, rational actor approaches of economics have so far dominated social science responses to the issue. Thus far, political responses to the dangers of climate change focus primarily on measuring carbon footprints, instituting carbon markets, and building economic incentive structures. Urry argues that this narrow focus hampers effective political and social responses to the problem, and the specific sets of economic and social institutions that have generated carbon-intensive practices and lifestyles need closer examination. Urry critiques existing sociological approaches for being too vague as to what to do about it (Beck), or too caught up in national and international politics (Giddens). He focuses instead on how modern social patterns of action are grounded in high and low carbon systems. Sociology, he argues, has paid scant attention to the resource dependence of particular types of societies, and the role of resources in constructing social systems. And yet the viability of this resource basis is increasingly called into question, both by climate change and the depletion of accessible fossil fuel reserves. Access to cheap energy, he argues, has

been crucial to establishing the path-dependent networks within which so much of our lives play out.

The linkages to actor-network theory here are rich, and even critics of this approach will find Urry's description of a high-carbon society interesting and useful. The types of social agencies that have been brought into being are carbon intensive in nature. Our social lives are bound up with specific types of objects (air planes and Blackberries) that perform mobile social networks and at the same time are utterly dependent upon the continued extraction of relatively inexpensive oil and gas. Take carbon out of the equation, and much that we take for granted becomes impossible to reproduce, which is why acting on the dangers of carbon emissions has been such a difficult political and social proposition. Providing incentives to individuals to reduce emissions may help, but it will have a minimal impact on the system as a whole, which requires other types of innovation in order to "tip over" into low carbon systems. Drawing on some of the work in science studies, Urry notes that the innovations needed to bring about system change are more about the social than they are about individual incentives or technological fixes — they require synchronized action through a broad array of networked social agents.

Thus, while Urry does not provide a specific roadmap, he nonetheless provides useful tools for considering how institutions and organizations can stimulate broader social transformation to mitigate climate change. Low carbon system innovation, Urry argues,

involves various features: co-evolution of numerous interrelated elements; changes in both demand *and* supply sides; a large range of agents; long-term processes that stretch over decades; and the impossibility of innovation being generated by a single 'policy' or 'object' as such.

Many sites of innovation can tip systems over, as the Internet has done for communication. New technologies and practices spread through powerful connectors, which influence the actions of other actors in the network and produce new innovations. Clearly, there is not merely one site of action (intergovernmental conferences), or one set of actors (national governments) capable of confronting the issue. A low carbon system will emerge in pockets and alongside the existing society, renewing urban infrastructure and producing alternatives to long distance, carbonintensive travel. Some of these alternative agencies can already be seen developing today, and while they are not yet solutions to the problem, they have begun to transform certain practices.

Urry's book is not naive about the prospects of bringing about a transformation of society, regardless of what sociologists have to say

about the matter. He notes that innovating low carbon lives is a possibility, but acknowledges in the conclusion to the book that it is unlikely to occur before it is too late, given the scientific evidence. Many scientists now expect a 4°C rise in average temperatures by the middle of this century, an increase that has quite presciently given rise to "catastrophist literature," with which Urry identifies. As he states, "there is a strong probability that nothing can be done except to prepare for various catastrophes." This is a surprising assertion given the intent of the book. If this is the case, Urry acknowledges, the future for sociology is in the field of disaster studies or in the sociology of differential vulnerability and resilience. Or perhaps, like everyone else, we'll just go extinct.

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