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Competing Understandings of the Intersection between Society and Environment in the Climate Change Debate

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Abstract

The failure of the Copenhagen Conference to produce a legally binding agreement marks an impasse. It also poses difficulties for sociology. This paper will not attempt to directly explain why no agreement could be reached in Copenhagen. Rather, it will sketch the sociological difficulties faced by this and other such mechanisms to use politics and law to facilitate the long term stability of the interface between natural environments and modern societies. In particular, the paper will indicate the role of each of science, morality, law, politics, and economy in producing competing understandings of 'environment' and 'society', competing understandings which are drawn on by many participants in the climate change debate. Our appreciation of how and why it presents a crisis, how it might have occurred, its consequences, and the fact that it is an environmental problem is a product of a certain type of specifically 'environmental' thinking. Our project is to undertake a close exposition of how various understandings of the potential threat of climate change are generated.

Introduction

The failure of the Copenhagen Conference to produce a legally binding agreement marks an impasse. It also poses difficulties for sociology. The limits of the participants' capacity to meet the political, legal, scientific, and economic challenges presented by

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climate change are now all too visible. Without a legally binding agreement, without consensus, the impetus for political action and collaboration is unravelling, not just at the international level but also within Australia, which, Prime Minister Gillard insists, still seeks to be a world leader in climate change action. The government's emissions trading scheme is, however, more of a political liability than a political rallying point. The heat seems to be going out of what was very recently a hot issue.

This paper will not attempt to directly explain why no agreement could be reached in Copenhagen. Rather, it will sketch the sociological difficulties faced by this and other such mechanisms to use politics and law to facilitate the long term stability of the interface between natural environments and modern societies. In particular, the paper will indicate the role of each of science, morality, law, politics, and economy in producing competing understandings of 'environment' and 'society', competing understandings which are drawn on by many participants in the climate change debate, even by participants on the same 'side' of the debate.

Two themes are crucial. One is the way 'the environment' emerged as a distinct object in the eighteenth and nineteenth centuries – an object of science, morality, law, politics, science, and economics. The other theme concerns how climate change has been constructed and understood as a potential environmental and social crisis and how that understanding impacts on the capacity to find consensus and take effective action at an international and domestic level.

The paper has two sections. The first section sets out four key sets of questions and discusses them in the context of some existing academic treatments of the climate change debate. We do not seek to answer these questions here – they are too big for a paper of this size to answer. Instead we discuss them in such a way that the reader can see the direction our answers will take in the larger project we are planning. In the concluding section we outline the reasons we chose these four key sets of questions to drive our project.

Four key sets of questions

1. What understandings of the environment are operating in the current climate change debate? How do different understandings of 'nature' affect these different understandings of the environment?

2. How is science involved in any of these understandings? How have scientific accounts become so important? What role has been played by scientific expertise in seeking to reach international political and legal agreements on climate change?

3. How is morality involved in any of these understandings? Is morality involved to guide human actors towards treating the environment in a manner that is naturally just? If so, what is the role of morality in scientific, aesthetic, political, legal, and economic means of dealing with the environment?

4. What role do politics, law, and economy have in forming and maintaining societies that are stable enough to even consider taking action to manage the environment – societies, that is, which can avoid the dangers of civil war which wrecked so many pre-modern societies and continue to wreck many now (we call such societies civil-peace societies)? In what ways do politics, law, and economics influence scientific understandings of the environment within civil-peace societies? How are each of politics, law, and economy related to morality in dealing with the environment? Are politics, law, and economy more important to the governments of modern civil-peace societies (and in turn to their treatment of the environment) than are science and morality?

Other scholars in the main disciplines involved in 'environment and society' – especially sociology, but also philosophy, politics, law, and environmental science – have, in their own ways, tackled at least some of these key questions, though none have done so in the way we propose doing. It will be helpful if we deal with a small sample from the recent literature here, anticipating the detailed presentation in the following section of our own investigative direction.

Perhaps the writer who comes closest to what we have in mind is Steven Yearley (2009). Yearley uses commitment to the social sciences as the basis for an examination of the climate change debate, including consideration of the role of science in terms of the relations between science and society. This piece is useful to us, but it does not address the maintenance of civil peace, leaving its portrayal of the science-society relation without a strong political focus. Something similar can be said about Smith and Joffe's (2009) investigation into the way British media outlets have produced very emotive accounts of the risk of climate change, even personifying this risk. This piece is likely to serve us well as we link our historical investigation of the figure of 'the environment' to the current climate change debate, but we will be concerned to view media representations of the environment through a much longer time-lens than these two authors are able to do.

Also concerned with representations, Sarah Pralle (2009) goes so far as to argue that climate change is an issue being foisted onto public and governmental agendas, as if governments and publics in civil-peace countries were very easily led. Our longer-term view, linking environmental concerns to the history of society's role in maintaining civil peace, will provide an account of the environment-society intersection which will prove more useful to policy analysts and policy makers than will pieces like Pralle's, which are useful for sceptics rather than for those charged with actually governing. Even more extreme is John Lewis's (2009) sceptical argument that predictions of imminent disaster are not only premature but disastrous for the poor, likely to encourage 'socialist' proposals to subordinate property rights and to have governments take over industry. While we are not uninterested in Lewis's concern that morality is being allowed to ride roughshod over conventional politics, we think he is being far too shrill. Our project is keen to avoid the extremes of the climate change debate, to concentrate on those contributions to the debate that focus on what governments might and can do by way of dealing with potential environmental disasters – in the way they do for, say, earthquakes – rather than on dramatic claims about what they should or should not be doing.

Why these four key sets of questions are important to our larger project

As we suggested above, no other scholars, to the best of our knowledge have tackled these questions in the way we intend tackling them. We will seek to answer the questions in our four sets by using insights gained from a very particular current of recent historical research into the ways in which each of science, morality, law, politics, and economy came to intersect with each of 'environment' and 'society'. In our larger project we will take up the contextualist historiographical method (CHM) to investigate our 4 guiding questions. CHM assumes the complexity of political and social problems; historicizing the object of investigation obliges consideration of the contingency and interface of the formation of ideas, actions, values, policy and law, rather than seeking a universal or totalizing explanation (Hunter 2007a, 2007b; Pocock 1971, Skinner 2002). To illustrate this claim we finish with summaries of two arguments drawn from our already published work (Goodie 2008; 2010).

The first argument concerns the ways in which each of science and law might be said to intersect with the environment. It is commonly accepted that governance of the environment, as it is now conceived, barely existed before the mid-nineteenth century (Holder 2000). The creation of a new social entity called 'environment' marked a fundamental shift in our interaction with nature and our social perception of the significance of the natural world. The conceptualisation and application of eighteenth century scientific modes of thinking, in conjunction with economic development and increased productivity, led to the emergence of previously unconsidered connections and new problems regarding the management of what we now call the environment.

Contemporary environmental discourse has emerged through the application of technical scientific knowledge, rendered more meaningful through various interpretive frameworks of 'environmental sensibility', which treat the environment, not as a thing, but as a dynamic process of which humans are a part, which has a history, an economy, and a power to transform and be transformed (Bonyhady 2000; Glacken 1967; Taylor 2004; Thomas 1983; Worster 1994). The emergence of the life sciences and biological discipline comprised various features that impacted upon the calculation, description

and understanding applied to the environment, in terms of the explanation or problematisation of nature. Whereas the nature of the enlightenment scientist was a wholly material world of things, the ecological narrative, through which contemporary understanding of the 'environment' is constituted, emphasises the relationships and interactions between things. Since the mid-twentieth century, ecology, which synthesizes a body of ethical thinking as well as a specifically ecological science, has become the predominant means by which the environment and environmental health are interpreted and understood (Worster 1994). Initially, ecological science theorised and modelled natural systems as tending towards equilibrium, this quite mechanistic and rational understanding began shifting in the 1970s in the face of chaos theory and the emergence of alternative mathematical modelling. A 'new ecology' emerged which understands the operation of natural systems in terms of 'the possibility of instability, variability and uncertainty' (Godden and Peel 2010: 26; Worster 1994). The ecological narrative embraces two distinct rationalities, the moral agendas and discourse of ecological ethics (Dobson 1995), and the economic model of scientific ecology (Hajer 1995; Rutherford 1999).

As well as underwriting and inspiring the ethic of environmentalism, this ecological rendering of the environment has had practical and political significance in shaping and modelling scientific engagement with the natural world (Bramwell 1989: 4; Worster 1994). It has identified the 'environment' as a special focus of government, rather than a physical space that is simply the site of public health interventions or population resource dilemmas. Ecological systems-modelling have allowed the pragmatic investigation of the interconnectedness of the global environment by simulating the various functions and activities of specific ecosystems, making it possible to efficiently conduct macro-calculations of – environmental conditions, the impact of resource exploitation, or levels of degradation caused by industrial development. Such scientific knowledge in combination with other knowledges, especially from the social sciences, has led to certain problematisations of the environment, notably, the extent of human dependence upon, and the limitations of human capacity to control, the natural world or the hazards produced by human activity.

The extent and pervasiveness of anthropogenically produced environmental hazard is uncertain, while scientific investigation may have initially identified toxins accumulating in the environment, the capacity of science to readily identify the source and extent of environmental harm and toxic risk is limited and often compromised by the 'parochial methods and models' of science itself (Wynne 1992: 114-24). This uncertainty persists across dimensions, environmental risk, such as that presented by imminent climate change, is not confined by 'geographical (or jurisdictional) boundaries, temporal (or limitation) links and social (duty) relationships between those creating the harm and those who are victims of it' (Lee 2000: 82).

Environmental security and civil-peace society

Implicit in modern environmental thinking is a quest for environmental stability in order to secure social well being. Climate change presents serious and wide ranging threats to civil-peace society, including: a global loss of environmental sustainability; a challenge to the capacity for economic growth and stability; potential for political destabilisation, the undermining of territorial and political sovereignty, and undermining of human rights (Haines and Reichman 2008: 385). Civil-peace society is something we cannot take for granted, something which, if we are not careful, can be lost. The social is an achievement of the contingent, haphazard, uneven combination of politics, law, sovereignty, state, towards the goal of life-over-death individual freedom and responsibility that was born in England, France, Germany, and the Netherlands in the dreadful circumstances of the sixteenth and seventeenth centuries and that now also operates, no less contingently, haphazardly, and unevenly in nearly all other European countries, the U.S., Australia, Canada, New Zealand, and a number of Asian and African countries (Hunter 2001;Wickham 2010, 2008b).

While climate change may be increasingly recognised as an ontological fact, our appreciation of how and why it presents a crisis, how it might have occurred, its consequences, and the fact that it is an environmental problem is a product of certain type of specifically 'environmental' thinking. Our project is to undertake a close exposition of how various understandings of the potential threat of climate change are

generated. We will be discerning how the various discourses through which climate change is understood, determine what it is politically possible, scientifically legitimate, ethically justifiable and legally practical to say and do in the face of the threat of climate change. This type of understanding is essential to sustaining serious and useful debate on climate change, and we believe, to supporting the maintenance of environmental security vital to sustaining modern society as it is enjoyed in the countries in which the climate change debate is most prominent.

Since Malthus's identification of the population/resources deficit in 1798 (1985), which undermined the then commonly held view that the environment could be managed in such a way as to guarantee human progress, the limit of our capacity to fully control the environment has engendered several environmental crises. Crises of environmental security such as the hazards of nuclear power, the destruction of the ozone layer, or the unanticipated effects of the application of chemical and biotechnologies, have been characterised in a global, temporal and spatial sense as 'beyond calculation and control' (Beck 1992: 102). It has been in part through the process of identifying and attempting to govern these environmental crises that the environment, as an object of government, science, law, economy and morality, has been constituted (Hajer 1995).

While there is significant consensus that action needs to be taken to decarbonise the global economy and to abate the impact of climate change, our concern is not with which strategies might be adopted to achieve those objectives (see Prins 2010 for a fine example of a 'reframing' of policy approaches to climate change post Copenhagen). Rather, the focus of our research is on delineating the serious challenges to accepted environmental thinking presented by anthropogenic climate change. For example, the norm of sustainable development has dominated environmental governance since the Brundtland Report *Our Common Future* (Brundtland 1987, Hajer 1995). As Coyle and Morrow (2004: 203) observe environmental sustainability is 'deeply imbued with technological optimism, proceeding on the assumption that science and technology can enable us to 'enhance the carrying capacity of the resource base', but the failure of the Copenhagen Conference suggests that optimism is waning. Among other factors, the

scientific difficulty of calculating the effect of greenhouse gas emissions on climate change, together with the orthodoxy of ecological modernisation and pervasive reliance on the carbon economy to support growth, appear to be constraining political will to take definitive action on climate change (Bonyhady 2007; Christoff and Eckersley 2007; Haines and Reichman 2008; Pearse 2009; Prins 2010).

Conclusion

Aesthetic, moral and some scientific and legal discourses deliver to modern society a benign vision of the environment as a natural resource to be cherished. Political, economic and other legal and scientific discourses deliver to it an imperative to draw wealth and solidarity from the same environment. Both sets of discourses drive the current climate change debate. Both promote the environment's life affirming aspects while acknowledging its potential for mass destruction. The question at the heart of our larger project is can they be reconciled, or have they in fact inherited irreconcilably different understandings of the environment? The answer requires examination of different understandings of the environment at work in the climate change debate, in terms of the role played in each by science, morality, law, politics, science, and economy. Contextualising the current debate about the appropriate governmental responses to climate change allows analysis of how that debate simultaneously reflects and is limited by society environment relations.

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