possibility that stronger (i.e. more harmonized and stringent EU climate measures) may generate a backlash among member states and citizens alike if they perceive a threat to their sovereignty and freedoms, or if the process of European integration loses momentum.

Chapter 12, by Andrew Jordan and colleagues, constitutes a final reflection on the findings of the book and what they may hold for the future of EU climate policy. As such, the chapter will be warmly welcomed by the reader, because it demonstrates the coherence of the entire research project, including the strong methodological work underlying ADAM. The findings are important, and sometimes go against common perceptions. A few are highlighted here: first, the paradoxes of governance that the EU faces have not led to a sclerotic system of governance; on the contrary, the EU has emerged as an important, coherent, and active source of climate-policy innovation, both at international level and within the EU, and has put in place a highly complex (albeit not yet effective) governance framework; second, although EU climate-change policy is rich in rhetoric and enacted norms, its effectiveness has not yet been demonstrated third, the EU has yet to decide on the long-term focus of its climate policy, in particular in relation to the place of adaptation—but arguably also (although this is not mentioned at this point in the book) in the role of geoengineering (if any)—in the policy mix.

It is at the moment of finishing the book that one begins to truly appreciate the value of all the work undertaken in the preceding chapters. Indeed, producing the last chapter is only possible if all the background work has been realized. Also, the reiterated application of the same analytical framework throughout all chapters allows the reader slowly to grasp the complexity of the topic and understand the role of the governing bodies therein—and thus to enjoy more fully the end, which alas leaves one yearning for more.

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Requiem for a Species: Why We Resist the Truth About Climate Change?

By Clive Hamilton

London: Earthscan, 2010, 286 pp.,
ISBN 978-1-84971-081-7, pb £14.99.

In *Requiem for a Species* Clive Hamilton presents a stark account of an impending climate catastrophe. He does not appeal to radical scientific findings, and his aim is not to draw attention to potential catastrophic events lurking at the extreme tails of probability distributions. There is indeed no need for this. Hamilton bases his views on what mainstream climate scientists and international advisory bodies such as the Intergovernmental Panel on Climate Change consider *highly probable* scenarios. For instance, even if we engage in a massive international effort to

stabilize global cumulative emissions at 450 parts per million carbon dioxide equivalent, it is more probable than not that global average temperature will increase at least two degrees Celsius above pre-industrial levels by 2100 (p. 12). This increase may sound manageable, but Hamilton stresses that many climate scientists (including James Hanson, head of NASA's Goddard Institute for Space Studies) project that two degrees of warming would "pose a substantial risk, both because of its direct impacts on climatically sensitive Earth systems and because of the potential to trigger irreversible changes in those systems. The latter includes the disappearance of Arctic summer sea-ice and melting of much of the Greenland and West Antarctica ice-sheets" (p. 12). The human consequences of this sort of climate change are well emphasized in the book: not just significant sea-level rise, but also water scarcity, loss of agricultural land, and more frequent natural disasters, such as flooding, with attendant famine, mass migration, and conflict.

Hamilton claims the book is not a call to arms, for the time for that has passed. But his urgent tone and the ultimate message of the book—that we need to grieve for our old ways of life *in order to change appropriately*—suggests otherwise. It is true that the book does not aim to bring out the fresh-faced environmental warrior in us; it is rather a wake-up call to irresponsible citizens who have already failed on a number of fronts. Hamilton is right to pursue this dark line in an attempt to drum up action. Continuing to appeal to our ability as rational actors to respond to real threats, or to the capacity of our democratic institutions to reflect well-informed preferences, is no longer credible, given our track record. The green movement has been talking about global warming since the late eighties, and many may perceive the length of debate and lack of concerted action to be indicative of the uncertain state of the science, or the inevitable failure of collective rationality. Hamilton's approach is the effective one at this stage: to make clear that our inaction thus far has been *mere folly*, and not at all proportional to evidence of the severity of the climate change problem, nor to our capacity to do something about it.

Hamilton elaborates on our follies in the early chapters "Growth Fetishism", "The Consumer Self", and "Many Forms of Denial": we are short-sighted creatures who do not properly appreciate consequences that are removed in time and space from their causes. We blindly and selfishly track economic growth indicators such as GDP, our democratic systems are easily manipulated by big business (witness the huge backlash campaign in the 1990s against climate science and proposed emissions reductions), and we have unrealistic ideas about the abundance of Earth's resources and our ability to control natural processes. Hamilton treats these as symptoms of a more fundamental problem; he searches further for the root causes of our irrational response to the climate change problem, and why reform seems so hard. His diagnosis is the precarious sense of self that has arisen in the developed world—an individualistic self that is apart from others and Nature, and that finds expression in consumption and the acquisition of goods. Changing an old habit is one thing, but having to re-conceptualize one's very identity when it turns out to be non-viable is no easy task. This is a big change.

While Hamilton rightly recognizes that the times call for a big-picture analysis, his extended criticism of the dominant notion of self in the chapter "Disconnection from Nature" turns out to be rather eccentric. Hamilton focuses on our hubris regarding our ability to conquer Nature. He

finds the origins of this hubris in the materialist, mechanical philosophy inspired by Descartes and Newton, according to which matter obeys rigid physical laws and does not have goals or a life-force of its own. This is a favourite target for environmental ethicists. Hamilton (p. 150) is critical even of James Lovelock, originator of the Gaia hypothesis about Earth, for not going far enough with his Earth-as-organism metaphor:

> In the end, Lovelock concedes that he talks of the Earth being alive only in a metaphorical sense, arguing that we should "*imagine* it as the largest living thing in the solar system" ... Yet it is difficult to believe that we can be motivated to change the way we live just imagining Gaia to be alive rather than feeling it intuitively to be so.

Hamilton appears nostalgic for a spirituality that recognizes a life-force in all things, including rocks, mountains, and complex systems like the Earth itself. This may well be a helpful way of conceptualizing Nature for the purposes of averting climate catastrophe, but it is unlikely to resonate with the majority of people, and only serves to marginalize Hamilton's message.

Another misplaced target in the book is the "economic way of thinking". Hamilton makes some reasonable criticisms of Nicholas Stern's[3] and Ross Garnaut's[4] climate policy recommendations. In particular, he regards their common cumulative emissions target—550 ppm CO_2 eq.—to be too lenient, and their optimism regarding the prospects for clean coal to be unwarranted. This is all very well. What is objectionable is Hamilton's criticism (p. 53) that Stern participates in dangerous economic styles of thought simply for referring to greenhouse gas accumulation in the atmosphere as a "market externality". To be sure, the assumptions underlying many economic models may be questionable, and undue weight may be placed on economic indicators like GDP as a measure of a nation's well-being. Moreover, Stern himself[5] claims that economists as a group are not properly confronting climate change to the tune of the predictions made by climate scientists. This does not mean, however, that economic modelling as a whole is bankrupt. Indeed, economic models are as good as the ethical values that we plug into them—what value we give to parameters like the social discount rate for assessing consequences affecting future generations, for instance, or how we choose to measure well-being. To reject public economics as a whole, that is, models for negotiating the criteria of efficiency and equity in a global climate deal,[6] seems a prime example of the sort of passivity and blame-shifting in the face of crisis that Hamilton cautions against; it hardly amounts to confronting the problem and using our best tools to determine a way forward.

One might tell the big-picture story a little differently from Hamilton. The belief that continued economic growth and new technologies are the best way forward, whatever Nature throws up, is arguably not fundamental to our constructed self, but rather a disingenuous rationalization for failing to ensure the just distribution of resources internationally and across generations.

[3] Nicholas Stern, The Economics of Climate Change: The Stern Review (2007).
[4] Ross Garnaut, The Garnaut Climate Change Review (2008).
[5] Nicholas Stern, *The Economics of Climate Change*, 98(2) American Economic Review 1 (2008).
[6] Ibid.

We have responded appropriately to environmental problems before. Consider the hole in the ozone layer and the political process by which CFCs were banned in the late eighties. This is evidence that we do not always resort to technological fixes when it is obvious that the best course of action is to reduce our impact on the Earth's atmosphere. The sticking point with carbon dioxide emissions and climate change, however, is that abatement requires the developed world to give up much more than certain types of aerosols. Our inaction shows an underlying lack of compassion amongst people, never mind the problematic relationship between people and the rest of Nature.

Indeed, one could see discussions around climate change as drawing attention to the developed world's neglect of its ethical duties vis-à-vis the world's poor. This is something that should make us all uncomfortable—an "inconvenient truth" as Al Gore says. Many writing on who should bear the costs of climate change recommend some mix of responsibility for polluting ("polluter pays") and capacity ("ability to pay"). It is blatantly obvious that the developed world is responsible for considerable environmental damage the world over, and, in particular, has consumed vast quantities of the global carbon commons. Furthermore, many ethical positions recommend that developed nations shoulder the burden of climate change costs, simply because they are richer. To this end, Henry Shue quotes Thomas Nagel on a common-sense principle of justice:

> When some people have less than enough for a decent human life, other people have far more than enough, and the total resources available are so great that everyone could have at least enough without preventing some people from still retaining considerably more than others have, it is unfair not to guarantee everyone at least an adequate minimum.[7]

If we acknowledge this very reasonable principle, it follows that not only does the rich world have a lot to do in terms of bearing the costs of climate change mitigation and adaptation, but also that we have been acting unethically in the international arena for some considerable amount of time. Maybe this is hard to own up to.

Hamilton does build up to a message about the importance of genuine democracy towards the end of the book. My criticism is mainly one of emphasis—there is no point blaming economic science *per se* for our predicament, and it is splitting hairs to argue about whether the Earth has a life-force of its own. Moreover, optimism about science and technology is not in itself unreasonable. Hamilton himself comments that, ironically, it is environmentalists who have expressed most faith in market-driven technological innovation to deliver on renewable energies, provided carbon is priced appropriately. He claims (p. 167) that we do in fact have the technological capacity to reach respectable cumulative emissions targets; what we lack is the political will and the institutions to facilitate such rapid change. Admittedly, the quick-fix geoengineering strategies that scientists are beginning to entertain suggest a foolhardy confidence in our ability to manipulate the Earth's atmosphere. Hamilton criticises such "Plan B" proposals (for instance, the deliberate pollution

[7] Henry Shue, *Global Environment and International Inequality*, 75(3) International Affairs 531 (1999).

of the atmosphere with sulfate aerosol particles) in Chapter 6: "Is There a Way Out?". Again, however, one might argue that it is not so much faith in technology that drives these research proposals, but rather a futile wish to solve the climate change problem without having to change the status quo distribution of privilege and wealth.

Climate change is indeed a great moral challenge. Global citizens—i.e. all of us—need to assert that we care about future generations and about contemporary wealth inequalities. In this spirit, in the final chapter of the book, Hamilton calls for a strengthening of democracy at the international level. He writes (p. 223):

> And we can begin preparing for the impacts of climate disruption not by self-protection but by vigorous political engagement aimed at collectively building democracies that can ensure the best defences against a more hostile climate, ones that do not abandon the poor and vulnerable to their fate while those who are able to buy their way out of the crisis do so for as long as they can.

This is a big change in direction, of the proportions that Hamilton speaks of. That is, his message that we need to "despair, accept and act" is fitting. Hamilton advises that we grieve appropriately. That is, we should despair about the failure of humanity to prevent the climate change problem from reaching current levels, we should accept the new vision of the future that this entails and the need to transform our previous way of life, and we should act to make the best of the situation as we can. Unlike other drier reports and softly spoken analyses of climate change, this book frankly communicates the urgency of the problem, and I hope many people read it.

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Climate Change Justice

By Eric A. Posner and David Weisbach

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ISBN 978-0691137759, £19.95.

The first thing that should be said about this book is that it is poorly named. Rather than *Climate Change Justice*, a more accurate title would be *Climate Change Policy Without Justice*. The basic argument of Posner and Weisbach is that any insistence on distributive justice in climate negotiations has kept, and will continue to keep, the international community from doing what is necessary to mitigate climate change. The authors argue that, instead, climate change policy must be based in what they call "International Parentianism", which is, they argue, a straightforward conception of national self-interest where all "nations believe that they