

Editorial: Adapting to a Perilous Planet

Imagine this future. With a tremendous amount of effort we have succeeded in creating an international treaty sufficient to put us on a path to stabilising dangerous climate change to no more than an increase of 2 degrees Celsius over pre-industrial levels. But even as output of greenhouse gases continues to go down, with so much CO₂ already in the atmosphere and oceans, the temperature continues to rise. While we are plausibly on a pathway of achieving our agreed upon targets for some modicum of climate safety, we won't actually achieve that goal for some time, and in the mean time we must prepare for a possible period of 'overshoot' beyond 2°C, until we eventually stabilise at 2°C. On top of this, we must brace those parts of the world that cannot tolerate a temperature increase even that high. This future will still include rising sea levels, increased droughts and more climate driven extreme weather events, along with an unfortunate cornucopia of attendant pressures on the environment, human health, and overall flourishing of life on the planet.

What we have described is probably the best we can hope for at this point. Even with tremendous global efforts to bend down our current greenhouse gas emissions pathways, we cannot escape the necessity of adapting to a warming world. Given reasonable concerns that we will not be able to make the changes we need in the time we have to make those changes, the need for adaptation to a warmer world is even more urgent.

This new world will challenge everything. Our previous social, political, moral and even conceptual frameworks may begin to look decreasingly relevant. We may find ourselves in a state of global environmental triage, saving only what we can and leaving the rest.

To prepare for this world we need an ethics of climate adaptation at least as robust as the attempts that have been made for an ethics of mitigation, along with attendant schemes of distributive justice for emissions reductions. An ethics of climate adaptation will require that we balance practical solutions focused on political realities against imaginative solutions relying on our creativity and capacity to deal with the novel and unique. In addition to the political reality of ongoing climate change negotiations on adaptation, we need to consider how the pressure of urgent development needs, such as bringing people out of energy poverty, puts additional pressure on our approach to climate adaptation. The essays in this special issue point toward some possible paths for work in this area.

Light and Taraska (2014) argue that climate change creates a relationship between states that, in some cases, strengthens the traditional justifications for state-to-state development assistance. The same rationale used to justify reducing climate emissions can also be used to justify development assistance. Those countries most vulnerable to the consequences of climate change are also those most in need of aggressive adaptation measures (2014: 130).

Arguments for development assistance should therefore be bolstered by appeal to the predictable consequences of climate change. Doing so would align a range of international policy initiatives currently in the works, including the debate over the future of the Millennium Development Goals.

Next, Lauren Hartzell-Nichols (2014) takes up the issue of the role of the precautionary principle in debates over climate adaptation, arguing that a strong precautionary principle is required to accommodate the risks of climate change. Properly specified, Hartzell-Nichols thinks we would do well to integrate the precautionary principle into the UN climate negotiations' adaptation policies. Indeed, one could see this becoming a central feature of the loss and damage protocols developed under the guise of the Warsaw Mechanism (UNFCCC 2013) to consider those climate impacts that may be beyond adaptation. Such a precautionary principle might well provide a key ethical component for any new climate treaty.

Other academic fields will also require new work in light of the necessity for climate preparedness. Martin John Mulligan argues that the scope and scale of climate change requires a new sociology of climate change adaptation (2014: 169), a sociology that requires imaginative understanding to make sense of humankind's new environment. Citing John Urry (2000), Mulligan encourages sociology to 'adopt a critical stance toward the society that put in place the very processes and practices that have triggered human induced climate change' (2014: 168). Sociology should not be restricted to the frameworks and theories of the past, but must focus on the role of community and imagination to address our new realities. Such a new focus may require *conceptual* adaptation as much as a political or even policy adaption.

Adapting to a changing climate may require reconceiving the ethical dimensions of restoration. The novel conditions generated by climate change make it increasingly difficult to restore damaged ecosystems. As we adapt to a changing world, it may not be appropriate to respond to damage by restoring it to some state, or even in response to some value represented by that state. Hale, Lee and Hermans (2014) argue that the general reliance on substituting another set of goods to replace those compromised by climate change will not satisfy obligations incurred from contributing to climate change. They claim this form of substitution cannot be part of any ethically legitimate adaptation strategy. As we adapt to a world of 'ecosystems with no historical counterparts' (Hale, Lee and Hermans 2014: 183), we should reconceptualise harms in terms of obligations violated, rather than simply in terms of compromising the value of the thing harmed.

Shockley (2014) takes up the theme of stability, and the threats to stability posed by a changing climate. As adaptation requires balancing the need for change with a need for stability, Shockley (2014) argues that we should appeal to basic human capabilities as a way of integrating a certain form of stability into our adaptation strategies. According to Shockley, 'An account

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of well-being based on capabilities provides the basis of an ethical framework that captures the concerns appropriate to our changing environment, can be sensitive to context and place, and can be spelled out in language suitable for public policy' (2014: 206). Stability can be found in the values and ideals represented by those capabilities, and so this form of stability constitutes a constraint on acceptable adaptation strategies. In particular, focusing on this form of stability provides a means of emphasising the ethical dimensions of any future comprehensive climate treaty by providing a means of integrating the ethical dimensions of human development into policy discussion.

The essays in this special issue provide insights into environmental values in light of the need to adapt – conceptually, ethically and politically – to a changing world. We must do more than mitigate our greenhouse gas emissions in the face of the probable consequences of climate change. We also must adapt to a world inevitably changed by those emissions. As many have pointed out in *Environmental Values* and elsewhere (Gardiner 2006, 2011; Jamieson 2003, 2008; Tremmel 2013), climate change poses one of the greatest ethical challenges of our time. While there is much work yet to be done in this domain, the work presented in this special edition provides a promising start to addressing the challenges presented by climate adaptation.

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ACKNOWLEDGEMENT

The essays by Hale, et al., Hartzell-Nichols, Shockley, and Taraska and Light derive from presentations given at the Buffalo Workshop on Ethics and Adaptation, held in March of 2012. For their support for that workshop we would like to express our appreciation for the support provided by Baldy Center for Law and Social Policy, the George Hourani Fund, and the College of Arts and Sciences at the University at Buffalo.

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