

Cosmopolitan Climates: hybridity, foresight and meaning

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Abstract

This essay argues for the fruitfulness of Beck's idea of cosmopolitanism for understanding the changing political, sociological and psychological attributes of climate change. This argument is illustrated through brief examinations of how climate change is contributing to the dissolution of three modern dualisms: nature-culture (ontology), present-future (epistemology) and global-local (geography). Not only does the cosmopolitan perspective help to understand the ways in which science and society are mutually constructing the phenomenon of climate change, it also offers us a way of asking 'what can climate change do for us?' rather than 'what can we do for climate change?' Sociologists are needed for answering this question.

Introduction

Climate change is taking on a remarkable role in our shared lives. It has become much more than a scientific description of the changes occurring to physical climates around the world - from the thinning Arctic ice, to the warming of European winters to the melting of Himalayan glaciers. Climate change has become a resourceful idea and a versatile explanation which can be moulded and mobilised to fulfil a bewildering array of political, social and psychological functions. It is an idea as impressive, complex and slippery as democracy and an explanation as ubiquitous, alluring and inadequate as our genes.

A good example of how climate change fulfils these complex roles occurred at the 8th annual European Conference on Applied Climatology held in Amsterdam in early October 2008. One of the prizes - the European Meteorological Society's annual Television Trophy - was awarded to weather presenter Jill Peeters of VTM, a commercial Belgian TV station. As reported at the Conference, alongside her TV weather forecasting Peeters is also the

celebrity face of a water development project working with the small El Molo tribe of northern Kenyaⁱ. The project is framed in terms of remedying the adverse and advancing consequences of climate change (or global warmingⁱⁱ) which, it is claimed, has caused the level of Lake Turkana to be falling at a rate of 60cm per year. This is raising the concentration of damaging minerals in the nearby well-water used by the El Molo people. Climate change is therefore causing ‘rotting teeth, spongy bones and cancer’ among a small and impoverished traditional African community.

Climate change is here doing work of a most interesting kind. It offers a causal and moral narrative which connects a gathering of several hundred European meteorologists with a popular Belgian TV weather presenter with changing water quality around Lake Turkana with the health of the El Molo tribe. And because the idea of climate change also carries the subliminal message that we are all partly responsible for the changing weather, wherever it is located, we too are brought into this story. It matters little that water levels in Lake Turkana have in fact been rising for the past three yearsⁱⁱⁱ, nor that earlier declines in water levels were caused by natural climate variability (Görner et al., 2007). An invocation of climate change bolsters the worthiness of the water project and connects together these disparate anthropological and moral worlds. Climate change effortlessly transcends boundaries and categories and is making cosmopolitans of us all.

In this essay I use Ulrich Beck’s idea of ‘cosmopolitanism’ (Beck, 2006) to explore and make sense of some of the emerging sociological and psychological attributes of climate change, this ‘mutating hybrid entity’ (Hulme, 2008). For Beck, the interrelatedness of people and of populations around the globe can only be understood from a cosmopolitan perspective. Building this perspective implies ‘the erosion of distinct boundaries dividing markets, states, civilizations, cultures, and not least of all the lifeworlds of different peoples’ (Beck, 2007). I will suggest that the cosmopolitan perspective helps to understand not just people and populations, but also the new phenomenon of climate change and our changing experiences of the weather. And, conversely, I will also suggest that climate change, by dissolving different types of boundaries, is performing significant work in extending and deepening the cosmopolitan perspective. The ‘mundane’ or ‘bland’ cosmopolitanism that Beck identifies in, for example, cuisine, sport and television, is now also found in our weather. Rather than becoming global – or universal - our climate has in fact become cosmopolitan; it has become unlimited, without boundaries.

I suggest three polarities – three dualisms of modernity – around which we can detect this cosmopolitanism at work within climate change. (1) Natural-cultural: boundaries

between natural climate and anthropogenic (or artificial) climate are illusory; the work of ontology. (2) Present-future: the present and future are interacting in new ways as we strain at an unknowable future; the work of epistemology. (3) Global-local: global climate and local weather have become mutually embedded categories, a meteorological entanglement which has significant consequences for the re-making of identity and meaning; the work of geography. In this short essay I cannot do justice to these ideas, but I suggest them as fruitful lines of sociological enquiry which may allow us to better understand why climate change is playing the roles it does within and across our societies.

Hybridity: dissolving Nature-Culture boundaries

‘There is no longer such a thing as a purely natural weather event’^{iv}. Equally, no weather event can truly be described as artificial (i.e., human-induced). By changing so substantially the composition of the world’s atmosphere humans have not simply brought a new category of weather into being – ‘human weather’, for example, as distinct from ‘natural weather’. Rather, the planetary system which yields distinct weather at distinct times in distinct places is now a changed system; it is a hybrid system yielding hybrid weather. Whatever the weather outside my window today - whether storm or calm, whether heatwave or coldwave - it is a result of this new co-produced natural-cultural system. We may call this co-produced climate ‘post-natural’ (Hayles, 1999) or a ‘different paradigm of naturalness’ (Yearley, 2006), but whatever we call it we cannot return to living with a simply natural climate.

This infusion of the natural by the cultural in the realm of climate carries a number of implications. First, the term ‘climate change’ itself becomes problematic. The international framework for negotiating climate policies has operated on the presumption that the anthropogenic change in climate is a distinct and definable extension of, or amendment to, natural climate. In contrast to the Intergovernmental Panel on Climate Change (IPCC) which defines climate change as any change in climate irrespective of cause, the UN Framework Convention on Climate Change (UNFCCC) concerns itself only with the causes and consequences of elements of climate and weather which are of anthropogenic origin^v. For the UNFCCC it therefore matters whether hurricane Katrina was natural or anthropogenic in origin or whether, because of elevated concentrations of greenhouse gases in the atmosphere, the hurricane was 10 per cent more intense or prolonged by 24 hours. Similarly, the World Bank, in investing climate adaptation funds operating under the purview of the Convention, seeks to know which weather extremes or what proportions of weather extremes are ‘attributable’ to human actions.

Yet the weather cannot be so forensically dissected into these different causal elements. The global system delivers weather and the system is now a hybrid. The world's climate is deeply marked by humanity, in the same way that our landscapes, our ocean waters and our own bodies are also marked. Climate change as specifically defined by the UNFCCC thus becomes – using one of Beck's neologisms - a zombie concept. Its invocation as an iconic signifier of human wilfulness and extravagance and hence as a controllable moral cause for all manner of ills and abnormalities is not warranted^{vi}. Instead, the term 'climate change' properly understood carries the full entanglement of the natural and the cultural. A falling water level in Lake Turkana is a much a result of the forces of Nature as it is a result of the 'hot breath of humanity' – to use novelist Ian McEwan's memorable metaphor. The 'cause' of Hurricane Katrina will forever be ambiguous to us. We must view climate in its new clothing, a consequence of new human agency and a demonstration of the embeddedness of humanity in Nature. We have become an actor in the story of climate, alongside the personal gods of the heavens (cf. Jankovic, 2006; Donner, 2007) and the impersonal dynamics of the oceans. It is as irrelevant as it is impossible to find the invisible fault line between natural and artificial climate. On the other hand it *is* highly relevant how we respond to the changing climatic risks and opportunities yielded by such hybridity.

A second implication of this new ontological status for climate is that we will never secure a stable climate. For the greater part of the twentieth century the belief was maintained that climate was indeed stable on human time-scales, in contrast to the great climatic fluctuations of the ice ages. But as climatologist Hubert Lamb pointed out back in 1969: 'Contrary to the former idea that 30 years data were enough to secure a reliable [climatic] table, it is now appreciated that the [climatic] figures for different 30 years periods differ' (Lamb, 1969: 1209). Lamb at the time was concerned with revealing the natural instability of climates on human time-scales, a view that soon became the new orthodoxy. Yet in recent decades we have compounded this innate instability through our continuing modification of the global atmosphere.

The UNFCCC states its goal to be 'the stabilisation of greenhouse gas concentrations in the atmosphere', yet this idea of stabilisation has now been casually extended to the climate system itself: 'A stable climate is an essential public good. Delivering a stable climate is a security, prosperity and moral imperative' (UNHCHR, 2007). But a cosmopolitan perspective recognises that climate stability is an illusion; we are poorly advised if we are told that a return to some putative natural climate state is possible. As non-human agents – the sun, volcanoes, oceans, trees – share power with the agents of humanity and together

co-produce our climate, stability is one attribute of this hybrid climate system which will not be achieved. A belief in the feasibility of manufacturing a pristine stable climate is idle fancy.

Foresight: straining at an unknowable future

Future climate is beyond comprehension and beyond control and yet it manages to throw its looming shadow over the present. How does it achieve this position of dominance? Sitting at the heart of most debates about climate change is a problematic tension between the assumed predictability of the climatic future and the necessary openness and malleability of the social future. On the one hand, climate science offers plausible, maybe robust, predictions of the future evolution of climate and of its apparent consequences for future society and ecology. On the other hand, our poets, visionaries and sociologists tell us the future can only be imagined or invented, certainly not predicted. How can our climate future be so well known, and hold us to ransom, if our social future is so unknowable?

This epistemological tension in climate change discourse is revealed by Peter Halden in his interesting analysis from an international relations perspective of the geopolitics of climate change. As a political scientist he makes no attempt to envisage the social or political world of 2050 - 'a venture' he claims that 'would be flawed at best and approaching hubris at worst' (Halden, 2008: 22-23). Yet he takes as given the climate predictions from the IPCC for the year 2050. He rejects the attempt of creating a future in which natural science predictions are combined with speculative social science in favour of a presumption of the social and political status quo. The future is thereby handed over to Earth system models and their provisional claims to reveal the impacts of a changing climate dubiously unfolded on a passive and static humanity.

Yet the accuracy of climate predictions is limited by fundamental, irreducible uncertainties. For climate prediction, uncertainties arise from limitations in knowledge, from inherent physical randomness and from human intentionality, the latter related to Popper's 'Oedipus effect'^{vii}. Some of these uncertainties can in principle be quantified (even if they can't be eliminated), but many simply cannot; there is some level of irreducible ignorance in our understanding of future climate^{viii}. Rather than being seduced by the allure of climate models predicting our far future by capturing – or more commonly evading - the contingencies of social change, a new humility is needed. We must resist the lust for certainty (Jasanoff, 2007). Simon Shackley and colleagues have recognised the dangers: 'The impression that climate change can be so predicted and [hence] managed is not only

misleading, but it could also have negative repercussions should policy makers act on this assumption' (Shackley et al. 1998: 194).

A cosmopolitan perspective recognises that the future of climate is open. The nature, far less the significance, of future climate risks is not determined: 'The idea that we can predict the future is something we have to get over' (Beck & Willms, 2004: 34). Popper's attack on historicism and its deterministic roots in *The Poverty of Historicism* is also relevant here: 'Every vision of historicism expresses the feeling of being swept into the future by irresistible forces' (Popper, 1957: 160). Whilst Popper had historical materialism and the enemies of an open society in mind when he wrote this, his reasoning applies equally well to the future of climate. Our destiny does not unfold from the future climates predicted by Earth system models, any more than our destiny is determined by our geography or by our genes, or indeed that our destiny is written in the stars. We do not have 'one hundred months' to save the planet^{ix}.

Foresight then – the act of seeing ahead – cannot be limited to the over-reaching and hegemonic claims of physical prediction. Instead, a cosmopolitan view of climate change will recognise that our future foresight – and hence our future - is as conditioned by the hopes and fears emerging from the present as it is revealed inside the electronics of a computer model. The climate crisis - if indeed there is a crisis - is a crisis of today even if we would rather depict it as a crisis of tomorrow. The future and the present are interacting in new ways as we tell ourselves the story of climate change. The epistemological boundaries between knowing the present and knowing the future are not as distinct as we would make them out to be.

Meaning: entangling global climate and local weather

Our experience of weather and climate is increasingly cosmopolitan; it is losing its place-based character. We no longer experience the climate of one locality or even, if we end up living in several different places, the climate of many localities. As the world has become smaller and our mobility greater, many of us experience - because of personal, tourist or business travel - multiple climates within a single year. For example, the English public may encounter Mediterranean climates on summer holiday, South African climates supporting the England football team, and eastern European climates during a weekend stag party.

Whilst this is not a new phenomenon – although now much less the preserve of only the affluent or the migrant – our weather has become more cosmopolitan in other ways. It is now possible to experience vicariously through web-cams and new digital entertainment

and news media the many shades and varieties of weather on offer around the world. For example we encounter violent weather through our TV screens; as the storm-chasers do their work we can imagine for ourselves what it may be like to be buffeted by hurricane force winds. And at the click of a mouse all the existential climate anomalies and weather hazards of the world are available to view^x. Drought in Ethiopia, flood in India, heatwave in Mexico – and this is just today's weather. Banal cosmopolitanism now extends to the weather, as much as to our cuisine.

These cosmopolitan tendencies in our twenty-first century experiences of weather have significance for the way in which we construct identity and search for meaning through our relationships with climate. The traditional pre-Enlightenment experience of weather in Europe was intensely local and particular. It offered a context around which life experiences were interpreted and belief systems tested. As weather measurements became standardised and the new meteorological science of the nineteenth century took shape, weather became domesticated and rationalised. New national climate identities were invented and commercial climate prospecting became possible^{xi}. The globalising of climate culminated in the 1970s and 1980s with new conceptions of how climate worked and what processes were altering it.

The power of this new story of climate change lay in its global reach. It was the *global* temperature and sea-level that were rising, it was the *global* climate system that was changing, it was *global* climate models that were telling us so. It was not merely climate change; it was *global* warming. Global climate became a universalising, deculturing and, putatively, controllable entity in contrast to local weather - what humans had historically and experientially encountered – which was particularising, cultural and uncontrollable. The late-twentieth century invention of 'global climate' was therefore a culmination of a modernising tendency by which the idea of climate became detached from its local manifestations of weather and from its personal anchors of meaning.

Yet we are uneasy with this new conception of global climate. We instinctively are looking for identities and meanings to be found in the new categories and narratives of global weather thus invented – it is part of the search for a global environmental consciousness that Ursula Heise has explored recently in her book '*Sense of place and sense of planet*' (Heise, 2008) – but we are struggling to find them. We are reacting against the sterile idea of a disembodied and unsituated global climate with its universalising demands on our imaginations and behaviours (cf. Hulme 2008) and instead are seeking psychological comforts through new cosmopolitan encounters with weather. Thus new projects of climate

embodiment are created, such as the Cape Farewell Project^{xii} which locates climate change in the white wilderness of the Arctic north, an exoticisation of climate for non-Arctic dwellers with curious parallels to the exoticisation of newly encountered tropical climates by nineteenth century Europeans (Livingstone, 2002). And we are also re-discovering old projects of allowing the weather to speak through us and yield its psychological comforts. In her anthropological study of Icelandic citizens and their narrative 'reporting' of the weather, artist Roni Horn reveals the multiple stories of local weather and personal meaning which live on amidst the globalising sterilisation of climate (Horn, 2006).

The scientific narrative of global climate change – and its regional manifestations – thus becomes entangled with the irrepressible personal experiences of local weather, whether these be traditionally proximate and sensuous experiences or newly vicarious and manufactured ones. New categories of cosmopolitan climates are thereby created, categories more satisfying than those of global climate because they allow the spatial distinctions between the global and the local to be dissolved. The anonymity and remoteness of narratives of global climate change is subverted by re-inventing localised narratives of warming and change to which we have greater psychological attachment (cf. Macnaghten, 2006). Yet the consequence of such cosmopolitan tendencies – as shown in Horn's study – is that climate change takes on a multiplicity of meanings and evokes an irrepressible variety of emotions. There is an unruliness in the human experience of weather which undermines any global project for climate manipulation and control^{xiii}.

Conclusion

We have only just begun to understand what the idea of climate change is doing to us. Not just what it is doing to the ecological and physical conditions of our existence but, more importantly, to our political discourses, social relationships and imaginative worlds. This essay has used the idea of cosmopolitanism to understand the ways in which science and society are mutually constructing the phenomenon of climate change. The cosmopolitan perspective also offers us a way of asking 'what can climate change do for us?' rather than 'what can we do for climate change?' I have suggested three ways in which climate change is performing valuable work for us. Climate change is reminding us – in case we had imagined otherwise – that we are intimate co-workers with the non-human in the mutual shaping of our present and future worlds, rather than being lords of all we can see. Climate change is teaching us – in case we had hoped otherwise – that the future is irredeemably precarious and beyond all our efforts of prediction and control. And climate change is

convincing us – in case we believed otherwise – that our identities and our interpretations of the world around us can never fully escape encounters with place and materiality.

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Author bio

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ⁱ See 'Abolition of the acute drinking water problem: El Molo recent visit April 2008' www.aquaafrika.be/nieuws (accessed 3 November 2009); also the article 'Donkey power beats climate change' by Francis Wilson in *The Sunday Times* newspaper, 5 October 2008, which alerted me to this story.

ⁱⁱ These two terms are used interchangeably in the publicity of this project, although the connotation of these two terms varies according to context. See note v below.

ⁱⁱⁱ See TOPEX/Poseidon historical archive of Lake Turkana lake levels from 1993 to 2008 at : www.pecad.fas.usda.gov/cropexplorer/global_reservoir (accessed 3 November 2009)

^{iv} This was the title of an article I wrote for *The Guardian* newspaper, London, 15 March 2000.

^v The specific definitions of climate change are (IPCC): 'Any change in climate over time whether due to natural variability or as a result of human activity' and (UNFCCC) 'A change of climate that is attributed directly or indirectly to human activity, that alters the composition of the global atmosphere, and that is in addition to natural climate variability over comparable time periods.'

^{vi} And yet climate change is frequently thus invoked. Journalist John Brignell offers a sourced list of over 200 environmental, political and social ills which have been popularly attributed to 'climate change' www.spiked-online.com/index.php?site/printable/2045/ (accessed 3 November 2009)

^{vii} p.13: Popper, K.R. (1957) *The poverty of historicism* Routledge & Kegan Paul, London, 166pp. Popper argues for the logical inexactitude of all social predictions and of the vagueness of what he calls 'large-scale forecasts' in the physical sciences.

^{viii} This argument and supporting evidence is provided in: Dessai, S., Hulme, M., Lempert, R. and Pielke, R. jr. (2009) Climate prediction: a limit to adaptation? pp.64-78 in, *Adapting to climate change: thresholds, values, governance* (eds.) Adger, W.N., Lorenzoni, I. and O'Brien, K. Cambridge University Press, Cambridge, 514pp.

^{ix} The New Economics Foundation and associated partners launched a report and web-site in August 2008 in which they claimed: 'We have 100 months to save the planet. When the clock stops ticking we could be beyond climate's 'tipping point', the point of no return.' www.onehundredmonths.org/ (accessed 19 November 2008)

^x For example, the National Climate Data Centre in the USA, part of the National Oceanographic and Atmospheric Administration, operates a web-site listing monthly details of 'weather extremes and hazards' from around the world. www.ncdc.noaa.gov/oa/climate/research/hazards/index.php (accessed 19 November 2008)

^{xi} This evolution in the Western conceptualisation of 'climate' is well told in the following accounts: Jankovic, V. (2000) *Reading the skies: a cultural history of English weather, 1650-1820* Manchester University Press, Manchester, UK, 270 pp.; Rayner, S. (2003) Domesticating nature: commentary on the anthropological study of weather and climate discourse pp.277-290 in, *Weather, climate, culture* (eds.) Strauss, S. and Orlove, B., Berg, Oxford, UK, 307pp.; Golinski, J. (2007) *British weather and the climate of enlightenment* Chicago University Press, Chicago IL, 276pp.; Anderson, K. (2005) *Predicting the weather: Victorians and the science of meteorology* Chicago University Press, Chicago, 376pp. Golinski for example talks about how British identity and a sense of 'national climate' co-emerged in the eighteenth century. A synoptic summary of this evolution is offered in: Hulme, M. (2009) *Why we disagree about climate change: understanding controversy, inaction and opportunity* Cambridge University Press, Cambridge.

^{xii} See www.capefarewell.com/. The Cape Farewell Project brings together artists, writers, scientists, educators and media for a series of expeditions into 'the wild and challenging High Arctic. Together they ... have endeavoured to bring home stories and artworks that tell how a warming planet is impacting on this wilderness.'

^{xiii} There is an interesting comparison to be made here with the argument made by James Scott in his book *Seeing like the state: how certain schemes to improve the human condition have failed* 1998, Yale University Press, 445pp. Scott argues that political projects for national control and 'improvement' have always first required the standardisation of objects (e.g. trees), subjects (e.g. people) and concepts (e.g. weights). A similar case could be made with regard to climate becoming subordinate to the state.