

This is an extract from my new book: Hulme, M. (2013) *Exploring climate change through science and in society: an anthology of Mike Hulme's essays, interviews and speeches* Routledge, Abingdon, UK, 330pp.

These paragraphs are taken from a previously unpublished essay 'After Climategate ... Never the Same', Chapter 50 (pp.252-264)

One of the consequences of a public science controversy is to unsettle previously held convictions and certainties, beliefs which had been assumed but perhaps unexamined for some time. In the days immediately after the emails' release I remember a professorial colleague in the School of Environmental Sciences at UEA came to see me in my office. Knowing that I used to work in the Climatic Research Unit he wanted my candid opinion about whether our colleagues working over the bridge in CRU could indeed be trusted. Had they been manipulating data? Was the empirical evidence for global warming sound? He was being challenged to re-examine his assumed certainties; and this from someone who had worked for over 15 years in the same School as the scientists under suspicion.

This unsettling extended much more widely, although significantly it seems only to have affected certain Anglophone – UK, USA, Australia – and some northern European nations. Neighbours and friends of mine in Norwich started asking me questions about the validity of the criticisms being made. Assumed truths and certainties were being questioned. The UK environmentalist columnist George Monbiot was an example of a high profile public commentator whose beliefs were clearly challenged by the emails and subsequent allegations. "No one has been as badly let down by the revelations in these emails as those of us who have championed the science", Monbiot wrote the week following: "I have seldom felt so alone."

In the weeks after Climategate evidence of the impact of the controversy on public beliefs emerged from public opinion polls on both sides of the Atlantic. For example, in the USA a poll taken six weeks after the emails' release suggested that amongst those who had followed the story – just over half those surveyed – 47 per cent said it had made them more certain that 'global warming was not happening'. (A slightly larger proportion said that they had 'less trust in climate scientists' as a result). Scaled up, this amounted to about 58 million Americans who had been influenced in this way by the controversy (Maibach et al., 2012).

Some have claimed that these effects on public beliefs about climate change would be relatively short-lived, but a large-scale survey in the UK conducted in March 2011 – 16 months after Climategate – suggests this may not be so (Shuckburgh et al., 2012). The overall levels of concern about climate change amongst the British public had decreased over five years, almost half the population felt that the 'seriousness of climate change had been exaggerated' and one-third of the public did not trust climate scientists to tell the truth about climate change.

I don't think Climategate itself can explain all of these results and trends. Other factors such as the economy have intervened and trust across many UK public institutions and professionals has

fallen, not just climate scientists. And yet what these results show is a changing and volatile public culture within which climate science is undertaken. Scientific knowledge is not created solely in the laboratory and therefore neither can it enter into public circulation simply stamped with the label 'truth'. To claim, "I am a scientist, trust me" is no longer sufficient, even if it ever once was. For scientific knowledge to earn credibility as public knowledge scientists have to work as hard outside the laboratory as they do inside, through repeated demonstrations of their integrity, accessibility and trustworthiness. Only then will they be judged as reliable witnesses and their knowledge deemed credible (Shapin, 2010). This is not easy to do, as the events surrounding Climategate showed. What may be adequate in one culture at one moment, may not count as an adequate performance in a different context. Science is made in public as much as it is made in the laboratory or in other arcane spaces of expert deliberation.

Understanding scepticism

One of the interesting responses from the academic community since Climategate has been a new interest in studying and understanding the various manifestations of climate change scepticism. One obvious reason for this interest is the evidence that voices sceptical of the standard climate change 'plan' (cf. Sarewitz, 2011) multiplied in the months following Climategate. This has been shown in the work of Painter and Ashe (2012) and Grundmann and Scott (2013) who followed media reporting of climate change around the world in the months following Climategate. Taking climate change scepticism as an object of study has engaged new scholarly communities – such as social psychologists, rhetoricians and anthropologists – and a wider range of academics than the select few sociologists who had been working in this field before. By paying attention to the political and cultural values which shape the production, circulation and reception of climate change knowledge a much richer and more helpful picture emerges. The populist notion that all climate sceptics are either in the pay of oil barons or are right-wing ideologues, as is suggested for example by studies such as Oreskes and Conway (2011), cannot be sustained.

There are many different reasons why citizens may be sceptical of aspects of climate science, certainly why they may be sceptical of knowledge claims which get exaggerated by media and lobbyists (see Chapter 38). This may be because of innate suspicion of 'big science' (which climate science has become, with powerful patrons in government and UN and international institutions) or because of a commitment to forms of data and knowledge libertarianism, as in the Wikileaks movement. Some of the individuals who pursued CRU scientists for access to data in the months leading up to Climategate may be seen in this light; they had no connections with the oil industry or conservative think-tanks. Other expressions of scepticism may result from issue fatigue, cynicism about a media who seek to sensationalise (as quoted above in the 2011 UK opinion survey quoted above) or the experience of cognitive dissonance. This latter idea captures the feeling of discomfort when someone holds two or more conflicting beliefs and Kari Marie Norgaard explores this in her ethnography of climate scepticism in a small town in Norway (Norgaard, 2011). Norgaard exposes the psychologies of climate change belief, doubt and unbelief embedded in local histories, cultures and community social practice.

But beyond these reasons for climate change scepticism, in the years following Climategate it has become more important to distinguish between at least four different aspects of the conventional climate change narrative where scepticism may emerge. Trend scepticism would be disbelieving of evidence that suggested a change in climate was occurring, whereas attribution scepticism would be doubtful that such trends were predominantly caused by human agency. Impact scepticism would question whether the melodrama of the discourse of future climate catastrophe is credible and policy scepticism would query dominant climate change policy frameworks and instruments. When this more nuanced analysis of climate change scepticism is combined with a valorisation of the scientific norm of scepticism and the democratic virtue of scrutinising and interrogating vested interests, there becomes room for more respectful arguments about what climate change signifies and what responses may be appropriate. My contention is that the events surrounding Climategate in late 2009 have opened up new spaces for such agonistic democratic virtues to be exercised.

The evolution of science

There were a number of specific circumstances and broader cultural trends which enabled the phenomenon of Climategate to erupt in November 2009 and which also shaped the competing interpretative stories in the days and weeks following. The proximate circumstances were the refusal (later deemed illegal) by CRU scientists to release climate data and the imminent COP15 climate negotiating meeting in Copenhagen. But the wider cultural trends included the growing use and visibility of social media, the Wikileaks movement, the intensification of American partisan politics and the intractability of climate change negotiations.

Scientific controversies not only reveal intellectual arguments, struggles for power and human limitations within the practices and institutions of science, they also reflect the dynamics of these exact same phenomena in the wider culture within which science takes place. And they also nearly always lead to changes in the way in which science is done as it seeks to retain its cultural authority. The nature and practice of science – how it makes authoritative knowledge about the physical world – is not defined in textbooks, least of all textbooks which are treated as timeless and universal. People have tried to define science in this way and failed. Science is like other human cultural institutions: it evolves to survive. And science controversies often become the necessary disturbances to provoke adjustment and innovation; the genetic mutations upon which processes of natural selection can operate. Whatmore observes that scientific controversies are “generative events in their potential to foster the disordering conditions in which reasoning is forced to ‘slow down’, creating opportunities to arouse ‘a different awareness of the problems and situations that mobilize us’” (Whatmore, 2009: 588).

This is certainly true of Climategate. Climate scientists, their institutions and their sponsors – i.e., climate science as an enterprise - were forced to stop and reflect on how they organised their interactions with the outside world, from data policies to language, modes of communication and forms of public engagement. The unthinking assumption that having gained broad public trust (after all the IPCC had been awarded a Nobel Prize!) this would automatically be retained, was sharply

challenged. And more widely, outside science, there have been adjustments in media reporting of climate change and in the entrainment of climate science in policy deliberations, and a greater boldness from critics to challenge scientific claims and practices.

Has Climategate been a good thing? Probably not for some of scientists caught in the conflagration. There has been some reputational damage both to individuals and institutions. The real answer though depends on one's beliefs about the nature of science and its place in public life. If one thinks of science as a pure disinterested pursuit of knowledge whose truths can then coerce social actors, whether individual or collective, into value adjustments and behavioural change, then one probably sees Climategate as a set-back. If however one understands that science only 'works' because it continually evolves norms and practices which can be rhetorically defended in public and its knowledge therefore becomes powerful through beliefs and behaviours, then Climategate should be seen as a creative episode. The lesson for scientists would then be this: "In the long run, scientists may be better served by greater openness with respect to the actual practice of science, rather than upholding the conventional image of cool, restricted display of instrumental rationality" (Ryghaug and Skjølsvold (2010: 304).