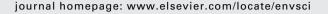


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ABSTRACT

What do we know about what goes on in the laboratories and wider institutional networks that produce the scientific facts about the state of the Earth's climate? This question was brought to the fore by the recent event, known as "climategate", which was generally taken to reveal that climate scientists manipulated their data sets to make them speak to contemporary political agendas. I shall ague that this interpretation of climategate hinges on a conception of science as "modern", i.e. as a pure pursuit of truth above and beyond worldly affairs.

Departing from my own ethnographic fieldwork among climate scientists, I shall argue that this modern conception of science – carrying the implication that climategate was a scandal – is inadequate and misguided. I hope to show that the defense mounted by the climate scientists was about illuminating context, rather than being reflective about their own epistemic practices and commitments. Thus, it is argued that the problem about climategate is not so much the ways in which climate science is conducted, but rather the ways in which scientists go about depicting their own business and ultimately the ways in which the public perceives science.

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1. Introduction

In late November 2009, a prominent laboratory of climate science named the Climatic Research Unit (CRU) at the University of East Anglia (UEA) in Norwich, a two-hour-drive northeast of London, took center stage in world politics. Allegedly, somebody accessed the CRU server and copied more than 1000 emails and some 3000 climate data documents. The UEA stated that the data could not have been released

inadvertently and that the back-up server had been "hacked" and the files "stolen". The incident was reported to the local police, which initiated a forensic investigation of the server breach. The CRU files were uploaded to a server in Tomsk, Russia and copied to numerous sites across the world-wideweb. Shortly after, the climate skeptic blogosphere began posting a suite of allegations about the implications of this cache of emails, which they took as evidence of "corrupt science" and "improper conduct by leading climatologists" severely compromising the fact of human induced global

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warming. Depending on the perspective in the various media outlets, the incident was either labeled "a theft" or "a leak", but regardless of perspective, the term "climategate" quickly caught on and became the shorthand for the entire event.

The allegations leveled against climate science were serious: Blogs and media reported that the row of emails indicated the intentional manipulation of data to make temperature graphs and statistics look more alarming; peer reviews had been biased and obstructed by removal of journal editors; dissent views on global warming were suppressed, supposedly accounting for the 96% consensus on anthropogenic climate change within climate science; the CRU had withheld temperature data and modeling codes from more skeptically inclined researchers; and more generally, a "culture of secrecy" had been practised by a prominent elite of climate scientists. In other words, the constitutional pillars of scientific integrity were in ruins. The science behind climate change was not innocent, independent and full of integrity, but intricately entangled with ideology and now apparently revealed as a "hoax" - in effect a power game played under false pretenses.

In broadcast media and the blogosphere, climate skeptics and so-called "deniers" (of human induced global warming) talked about the CRU server leak as "a miracle" and the entire science behind climate change as "fraud", whereas their opponents spoke of a clever conspiracy orchestrated by the oil industry and operated by cells in Russia and the Golf States – after all the first upload of the files was to a server in Russia, they argued. Print media followed suit with more measured assessments, such as Fred Pierce in The Guardian, who called the incident "a battle over climate data being fought in a war between scientists and skeptics." John Tierney in The New York Times wrote: "these researchers, some of the most prominent climate experts in Britain and America, seem so focused on winning the public-relations war that they exaggerate their certitude - and ultimately undermine their own cause."

The timing of climategate was not without significance; it coincided with the opening of the COP 15 climate summit in Copenhagen. As one could imagine, the political implications of the cache of emails were not lost on many. One of the first to link climategate to the COP was Saudi Arabia's lead climate negotiator Mohammad Al-Sabban, who said to BBC News that he expected the incident to derail the objective of the summit to reach a binding agreement on greenhouse gas emissions: "It appears from the details of the scandal that there is no relationship whatsoever between human activities and climate change, "he said and continued "climate is changing for thousands of years, but for natural and not human-induced reasons. So, whatever the international community does to reduce greenhouse gas emissions will have no effect on the climate's natural variability."

2. Science talks back

How did the climate scientists at UEA in Norwich respond to the public charges brought against them? In fact, most of the heat was generated by a single email from Director Phil Jones with the following wording:

(Date: Mon, Feb. 21, 2005, 16:28:32)

Dear Ray, Mike and Malcolm,

Once Tim's got a diagram here we'll send that either later today or first thing tomorrow. I've just completed Mike's¹ Nature trick of adding in the real temps to each series for the last 20 years (i.e. from 1981 onwards) and from 1961 for Keith's to hide the decline. Mike's series got the annual land and marine values while the other two got April-Sept for NH land N of 20N. The latter two are real for 1999, while the estimate for 1999 for NH combined is +0.44C wrt 61-90. The Global estimate for 1999 with data through Oct is +0.35C cf. 0.57 for 1998. Thanks for the comments, Ray.

Cheers, Phil

This email was interpreted by so-called "deniers" to imply that the science of global warming was a "hoax". Phil Jones himself responded to this critique in the following way: "The word trick was used here colloquially as in a clever thing to do. It is ludicrous to suggest that it refers to anything untoward." (Jones, 2009) One of the recipients of the email, Michael Mann, said in a telephone interview from Paris that: "the "trick" Jones referred to was placing a chart of proxy temperature records, which ended in 1980, next to a line showing the temperature record collected by instruments from that time onward. It's hardly anything you would call a trick," (Eilperin, 2009) Mann said, adding that both charts were differentiated and clearly marked. Concerning the second portion of Jones' message Mann explained that it referred to a known problem with certain temperature records gleaned from tree rings. According to Mann, up until 1960, temperature records measured by weather stations agreed with records extrapolated from tree rings. But after 1960, it was a different story. "Some of the trees no longer accurately register temperature variations. That's a problem that CRU scientist Keith Briffa identified in a journal article more than 10 years ago," (Morello, 2009) Mann said, arguing that scientists should not use the inaccurate post-1960 data.

So the "trick" was a term, which referred to a smart way to solve a problem – "that will do the trick" – and was part of an internal debate in climate science about how to calibrate two different data sets. The long-term data set represented temperature proxies on the basis of dendro-chronology; the other set represented directly measured thermometer records for the past 100 years. Through the last century, tree rings and thermometers show a consistent rise in temperature until 1960, when some tree rings, for unknown reasons, no longer show that rise, while the thermometers continue to do so until the present. So the "trick" is about calibrating proxy data with direct temperature observations in an effort to track temperature fluctuations in the course of the 20th century. Further to the issue, Mann, said to The Washington Post that the climate skeptics were: "taking these words totally out of context to make something trivial appear nefarious" (Eilperin, 2009) and continued in The New York Times: "I really think the story is this very carefully, and almost certainly high-level, orchestrated smear campaign to distract the public about the nature of the climate change problem." (Morello, 2009)

¹ Prof. Michael E. Mann, directs the Earth System Science Center at Pennsylvania State University. He is credited as being the author of the famous "hockey stick graph" representing the sheer icon of global warming.

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