Editorial Commentary

Climategate and the virtue of the scientific community: an editorial commentary on the Maibach et al. and Grundmann opinion articles

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The controversy dubbed 'Climategate' erupted in late 2009 exactly as diplomats around the world were preparing their positions for the negotiations at the especially high-profile 15th Conference of the Parties under the United Nations Framework Convention on Climate Change (UNFCCC). This meeting was deemed by many commentators as especially crucial for the definition of an international agreement about post-2012 measures to limit emissions of greenhouse gases. The controversy concerned the leaking or stealing of thousands of private e-mails and documents sent and received by climate researchers at the Climatic Research Unit (CRU) at the University of East Anglia in the United Kingdom. The materials' content provided a rare, uncensored glimpse into the fractious world of climate science, including frank conversations among scientific leaders of the United Nations Intergovernmental Panel on Climate Change (IPCC), the scientific body which evaluates the evidence of anthropogenic climate change to inform decision making under the UNFCCC. The e-mails discussed sensitive topics such as possible holes in key scientific evidence and expressions of the scientists' desires and strategizing to avoid granting countervailing science scientific legitimacy, weight, and public visibility.

WIREs Climate Change invited two opinion articles[1,2]—one led by E. Maibach from George Mason University and one written by R. Grundmann from Aston University in UK—to discuss the controversy and its impacts, with a focus on the question of whether Climategate served to undermine or revitalize climate science and policy. Maibach et al. note that the controversy had some, but circumscribed, effect on public opinion in countries polled. Most noticeably, it served to bolster the arguments of factions with preexisting agendas and interests which are in conflict with the goal of greenhouse gas emission reduction; the incident served them by intensifying critical questioning of the legitimacy of climate science underpinning the negotiations. However, Maibach et al. argue that the incident also had positive effects because it stimulated efforts at greater transparency and improvements in scientists' communication of climate science to society, including decision makers.

Grundmann focuses on social scientists' analyses and commentaries on the incident. He highlights problematic practices of climate science evaluated in various enquiry reports subsequent to the Climategate incident. The reports exonerated the scientists of charges of fraud and other wrong-doing, but they also identified and criticized a lack of transparency and openness with data on the part of some of the IPCC scientists whose e-mails were exposed. Grundmann argues that social scientists also are guilty of bias, in their case through under-critical renditions of the IPCC actors' attitudes and practices exposed through the Climategate e-mails.

Maibach et al.'s examples of how politicians used the incident to justify anti-environmental positions are exactly what climate-concerned social scientists do not want to fuel through their analyses, and why the IPCC may be less transparent than it claims to be or even may desire to be. After more than two decades of climate politics, many have learned that the anti-environmental coalition will use any available (appearances of) scientific authority as fodder in their efforts to combat effective climate policy, often distorting original facts and arguments in the process.[3] These social scientists are therefore reluctant to turn their deconstructive frameworks lose on IPCC-sanctioned climate science, scientists, and assessment processes. As a result, relatively little peer-reviewed literature probes critically the political dynamics of the IPCC, even in the field of science and technology studies.

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One may question: is it possible that such 'circle-the-wagons' attitudes have the unintended—and ironic—effect of increasing public receptivity to anti-environmental arguments and thus heighten the impact of events such as Climategate? That is, does the scarcity of sociological analyses of the IPCC, together with the portrayals of the IPCC from its defenders as being transparent and objective, have the effect of maintaining idealized understandings of the IPCC and of climate science as a whole? If so, it would be bolstered by already existent tendencies in contemporary societies toward 'fundamentalist' understandings of science as provider of Truth with capital T.[4] Might these idealizations and omissions have the unintended effect of making publics more, rather than less, inclined to be persuaded by charges that the IPCC is corrupt? It certainly would seem that the persuasiveness of the outrage and conspiracy charges advanced by the staunchest politically motivated critics of climate science[5] depends on propagating expectations of sound science as wholly independent of social, political, and cultural factors—the kind of purification Bruno Latour and innumerable historical and contemporary case analyses in 'science studies' have identified as illusory, however much they may serve as ideals.[6]

It is noteworthy that all the communication efforts that Maibach et al. mention as positive effects of (or as at least positively encouraged by) Climategate are oriented toward *communication* of climate science facts rather than toward *increasing publics' scientific literacy* in a more general manner. The latter kind of literacy, which may be called 'second wave scientific literacy', is not primarily concerned with deep understanding of the scientific facts (an unrealistic and outmoded notion of the kind of scientific literacy needed in increasingly vocal and plural science-infused societies). Rather, 'second wave literacy' is more about citizen understanding of why science is particularly important as a source of information about the world, while admittedly fallible and recognizably shaped by the full range of human characteristics, and not just exclusively the loftier ones. It is possible that, ultimately, reducing the likelihood that motivated actors gain public support from creating incidents such as Climategate depends on such second wave literacy. If broader segments of the public(s) learned about key insights of science studies about the nature of scientific knowledge, they might be more resistant to political manipulations through instigation of controversies such as Climategate. Second wave scientific literacy would offer publics clearer understanding of both the strengths and the limits of science, reinforcing the needed recognition that science is made by humans and that it is not always pure and pretty, but that it nevertheless is an especially important source of public knowledge. It would make it more difficult for the politicians Maibach et al. describe to capitalize on disclosures of the more human face of science that Climategate revealed.

Finally, it is worth mentioning that these two WIREs opinion articles perform the kind of self-scrutiny that is one of the strengths and nobler dimensions of science. Whether or not one agrees with the perspectives put forth, the two articles are, in effect, examples of the scientific community scrutinizing itself, a scrutiny that can serve to improve the community and the knowledge it produces. Ultimately, both articles suggest that Climategate had negative dimensions but that it served to identify problematic behavior within scientific practice, behavior that needs attention and repair. Subsequent developments in climate science should increase transparency, accountability, and otherwise seek to address the problematic practices revealed by the Climategate affair.

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