

MEETINGS

Climate Science in a Postnormal Context

Postnormal Science: The Case of Climate Research; Hamburg, Germany, 4–6 May 2011

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Climate research has left the narrow confines of pure science and has entered the public arena. At a workshop organized by Helmholtz Research Centre Geesthacht and the KlimaCampus, University of Hamburg, experts from the cultural, social, and natural sciences discussed the current state of climate science through the lens of “postnormal science” (see, e.g., S. O. Funtowicz and J. R. Ravetz, “Science for the postnormal age,” *Futures*, 25, 739–755, 1993). Science turns postnormal when facts are uncertain, stakes are high, values are disputed, and decisions are urgent. During the workshop, situations and practices in climate research were identified and discussed to provide a solid empirical basis for a more realistic definition of climate science.

In his keynote address, Jerry Ravetz reviewed the state of the art in climate science in light of recent developments. He pointed out that knowledge is more easily

accessible than ever before, and this has changed the relationship between experts and laypeople; from early on, climate science was loaded with policy implications and conditioned by cultural values. Workshop participants agreed that it is no longer possible to act as if purely scientific values are adequate to set the research agenda. Instead, public and stakeholder participation helps to define research priorities. The workshop focused on translation processes between scientists and the public, and discussions made clear that transparency and well-targeted information are indispensable for establishing such priorities and for providing efficient policy advice.

The “blogosphere” is an example of where scientific practice and public participation merge in new ways. The question of whether blogs can serve as a supplement to peer review was critically discussed, and Roger Pielke Jr. demonstrated how blogging can become a part of the daily working routine. Participants agreed that in many cases,

climate blogs help to make the scientific process public and transparent.

Another challenge for climate research is to reconcile scientific knowledge supply and user demands. Hans von Storch discussed the implementation of “regional climate services” as a mechanism to link climate research to private and public interests. He noted that knowledge transfer is a dialogic process that has to take into account cultural values and perspectives as well as alternative knowledge systems. Again, this knowledge transfer requires careful translation of information related to global climate models as well as to the localization of mitigation and adaptation processes. Participants agreed that the complexity and uncertainty management necessitates an interdisciplinary effort, including the social and cultural sciences.

There was a common agreement among the participants that climate research is increasingly challenged by postnormal situations and consequently has to broaden its research agenda toward a further inclusion of public values and stakes. Conceptualizing science as taking place in a postnormal context neither is a magic formula to solve problems nor does it mean the end of science; instead, it helps to adjust the concept of climate research to the complex realities in which it is already involved.

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