Review of Michael Brüggemann and Simone Rödder (eds.). 2020. *Global warming in local discourses: how communities around the world make sense of climate change*. Cambridge: Open Book Publishers. xi, 270 pp. Digital ISBN <u>978-1-80064-125-9</u>. Paper £20.95, <u>Free PDF</u>

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What are local understandings of climate change and how do they vary, from each other and from transnational and scientific understandings? This edited volume addresses this important area of study with contributors drawn from across the disciplines of media and communication studies, journalism, and science and technology studies. The topic is an urgent one, exploring how a diversity of communities respond to and frame anthropogenic climate change, with an eye to how to increase awareness of this existential threat. The volume focuses on some of the regions most vulnerable to climate change, which are also those known internationally for being threatened: Greenland, the Sundarbans in Bangladesh, the Maasai in Tanzania, and the Philippines. As such, several of the contributions take on the popular stereotypes of certain areas that are associated with climate change vulnerability. The volume shows that local discourses are multiple, and that science communication practices do not necessarily line up with those local particularities.

The introduction from editors Michael Brüggemann and Simone Rödder is programmatic, describing each chapter in turn without attempting to connect to theory beyond science communication goals, signaling a practical rather than theoretical approach. They highlight the issue of differentiating *weather* from *climate*. Scientists have long insisted that people experience the weather, not the climate, which can only be measured and modelled by experts. This presents a challenge to climate communication: how to communicate the realities and dangers of climate change if people cannot directly experience it? Two of the contributors address this issue directly. A chapter by Imke Hoppe *et al.* compares reactions to the COP21 conference among Germans living in both flood-prone areas and a city further inland, indicating the salience of first-hand experience of extreme weather events. Those with first-hand experience were more alert to the dangers of anthropogenic climate change presented at that conference. The final chapter by Friederike Otto addresses the promise of attribution science, which studies the links between specific extreme weather events and climate change, as a way to connect the perception of weather with climate change science. What people see empirically in local environments, and what scientists know through their observations and models, no longer seem irrevocably separate.

Another significant theme is the disjuncture between representations of climate change transnationally and the local realities of those representations. A standout chapter on this theme concerns Greenland, whose melting ice sheet and stranded polar bears have become international symbols of the impacts of climate change. Yet, we learn from Freja Eriksen, some residents of Nuuk, Greenland's capital, can see benefits. Focus group respondents provide both positive and negative valuations, including such "possibilities" of climate change as the creation of a "Costa del Nuuk" due to increased global temperatures. Increased opportunities for economic development are described as the plus side of global warming. This points to a major failing of climate communication: widespread ecological damage is not also seen as economically disastrous. Interestingly, in the chapter from Sara de Wit, we learn that the Maasai of Northern Tanzania deny climate change in a way, by viewing perceived changes as normal climate change. Climate science is treated suspiciously because it seems to be trying to take the place of God. There is a similar logic behind the rejection of climate change by American conservative Christians (Veldman, 2019). These particularities indicate the importance of different epistemologies held in parallel and that people switch between them, complicating any easy bifurcations of local/global discourse on climate change.

The coastal Sundarbans in Bangladesh are prone to flooding from typhoons and melting glaciers in the Himalayas, forming another transnational symbol of the compounding impacts of climate change. Shameem Mahmud's chapter shows how the impacts of climate change are localized and personalized in this extremely vulnerable area of one of the world's poorest nations. Local geohazards are an everyday factor exacerbated by climate change. Thomas Friedrich's chapter on Palawan in the Philippines continues to problematize the distinction between local and global knowledge. Residents of Palawan do not generally understand climate change scientifically, but their actions are very climate friendly, with very low carbon footprints and regular tree planting events. Climate change remains a local, relativized concept. Friedrich raises the issue of who climate communication is for and why, with a moving vignette of how the author performs a play to explain the science of climate change and then uncomfortably

fields questions about what the audience can do to help stop it. Do Palawans and the Maasai really need NGO plays explaining climate change to them when they are the least responsible for it and the least able to effect any change in global carbon emissions? The chapters in this volume raise the unpleasant insight that those most informed about climate change and most able to do something to mitigate it are those least inclined to do so.

Overall, this is an excellent volume that makes an important contribution to the social scientific study of climate change and to science communication as communication strategy more broadly. As with all Open Book Publishers publications, it is open access and available to <u>download for free</u> from the publisher's website. It has a good diversity of coverage of regional areas, which raise the different facets of climate change impacts from increased intensity of hurricanes to prolonged drought, and to melting sea ice and rising sea levels. The main issue with the volume is that the authors and editors often take an uncritical stance towards science, assuming a transnational discourse of science, rather than exploring how science is also a localized discourse. The overall thrust of the argument is salient, that there is an urgent need to make instrumental political and economic change to address climate change. But will that come from trying to communicate the principles of climate science to those most vulnerable to its impacts? The inequities of global capitalism wrought through the political ecology of climate change mean that those with the most power to effect change are likely the last to listen to science communication.

References

Veldman, R.G. (2019). *The gospel of climate skepticism: why evangelical Christians oppose action on climate change*. Berkeley, CA: University of California Press.

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