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Climate and narrative: Environmental knowledge in everyday life

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ABSTRACT

The literature on traditional ecological knowledge has established the importance of community narratives for storing, communicating, and activating complex environmental information. In our work, we begin to investigate how investigating narrative forms of knowing is useful to understanding urbanized, cosmopolitan societies as well. We use narrative analysis to examine how ''moderns'' make sense of complex issues by crafting coherent narratives about them. These narratives richly integrate multiple ways of knowing – including scientific, normative, and cultural dimensions. By comparison, discourse emerging from institutions such as the IPCC (Intergovernmental Panel on Climate Change) displays different narrative properties and is less conducive to narration by others outside the organization. While researchers have investigated the salience of climate change communication in the past, we have yet, till now, to systematically utilize narratological approaches. To spur people to action, issues like climate change need to be integrated into the everyday narratives that people tell about themselves and their world. Talk of climate, and of weather, needs to become more commonplace and not isolated from other issues, such as jobs and recession, that occupy people's everyday lives. The main point of the article is not to critique any organization's mode of discourse but, rather, to point out the crucial insights we gain through the use of narrative analysis.

1. Introduction

1.1. Thesis

It is customary to think of modernity as an evolution from traditional to scientific ways of knowing. Classically, traditional knowledge is depicted as that which is passed on within a community as part of its cultural heritage. In contrast, science is understood to be not so much about received knowledge but a continuous testing, refutation or confirmation, and improvement of knowledge. The contrast is also made with regard to form, from the traditional narratives and folk stories (Preston, 2002) versus the specialized, positivist language of the scientific establishment (Toulmin, 1990). Lyotard (1979), in his unique way, characterized the contrast instead as a difference between narrative, which is shared by all and spoken by everyone in a community, and science, which is spoken only by experts and transmitted to the public.

Weber depicted it as a turn from integrated knowledge, where tradition bound everything from fact to morality to religion into one coherent whole, to specialized knowledge – a process he called rationalization (1904–1905). Rationalization leads to disassembling a complex reality into parts and analyzing each according to their individual logics. For example, in the area of climate change, authorities such as the IPCC (Intergovernmental Panel on Climate Change) are privileged as experts in a field of knowledge that is distinct and separate from other spheres of knowledge, such as the esthetic or cultural.

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If modernity is understood as progressing beyond the ''fallible'' wisdom of narrative tradition to objective, scientific knowing, we take a different tack and argue that ''moderns'' (i.e., cosmopolitan communities) also understand complex phenomena by translating them into narrative knowledge. Unless experts and policymakers are able to craft or engender stories about things like climate change that integrate this issue coherently with other aspects of people's everyday lives, such as our identities, beliefs, and experiences, these issues do not become salient enough to the public. When knowledge exists only in technical form, separate from our narrative ways of knowing, issues may not compel us to personal commitment and action. To wit: narrative knowledge can be as modern and relevant to cosmopolitan society as it has been to traditional communities.

We follow Lyotard's argument that traditional and modern knowledge are both legitimate ways of knowing. Unlike Lyotard, we do not see them as competing and mutually exclusive (Lyotard, 1979) but, rather, as complementary (Berkes, 2008). We are also influenced by sociologists of knowledge who argue that ''moderns'' are, in fact, not so categorically different from ''traditional'' people (Latour, 1993) and that science itself is a cultural practice (Latour, 1987; Woolgar, 1988).

There is, by now, a long established literature on the differences between scientific and everyday ways of knowing and, more specifically, between the type of talk that occurs in each. Popper points out the foundation of scientific knowing in logical deduction – the search for general/causal explanation, though always falsifiable (Popper, 1959). Or, in Hempel's terms, science searches for the 'covering law', and this finds expression as general laws and universal patterns (Hempel, 1965; also see Sloman, 1996). Bruner distinguishes the logical/universal necessity and empirical verification characteristic of scientific knowing with the particularity and verisimilitude of narrative knowing (Bruner, 1991). Leon and Penalba (2002) describe it as the difference between universal truth conditions and causal structures of science and the broader esthetic meanings and goal structures of narrative (159). Instead of logical postivism, narrative knowledge involves searching for plausibility and coherence (Polkinghorne, 1988). As Sandelowski put it, the goal being not so much the definitive establishment of truth but the search for meaning in experience (Sandelowski, 1991). This is why, in contrast to the universalism of scientific communication (''If x, then y''), narrative is about the experience of the narrator (''I experienced x, then I say y''), and it cannot be voiceless (Bruner, 1991, p. 3). In contrast, scientific communication, even with the public, is largely characterized as framed in terms of neutrality and objectivity (Tanona et al., 2012; Turney, 1998).

But there is always some apprehension, on the part of the scientific community, of the psychologism of narrative (Bruner, 1987). This is quite evident in the arena of climate science, where there is a continuing fear on the part of scientists about public misunderstanding of climate (Kempton, 1991; Bostrom et al., 1994; Bulkeley, 2000; Etkin and Ho, 2007; Reynolds, 2010). The misperception of attributing one weather event (whether a cooling or warming) as evidence of climate change is an example of what Helgeson et al. (2012) refer to as flawed pattern matching heuristics of public knowledge. This has resulted in a gap between scientific and public discourse about climate (Lesher, 2012).

This article talks about the need for the public to begin talking about climate change and integrating it into their everyday lives. It also talks about the need for additional and more effective forums for the public to engage in climate talk. This is not to say that we do not recognize the substantial efforts by the IPCC and other scientific communities to engage the public in discussions around climate. The IPCC has established a variety of public outreach mechanisms, including periodic Regional Outreach Events in different countries, special Side Events at the Doha and other conventions, brochures and powerpoints, and special prediction visualization tools for policymakers and the general public to avail of (http://www.ipcc.ch/news_and_events/outreach.shtml). But, as we will discuss, the scientific community not only needs to conduct more of these laudable activities, but perhaps engage the public in new and different ways, following suggestions to transition from fostering ''public understanding of science'' to ''public engagement with science'' (Wynne, 1995; Pitrelli, 2003).

But the fact is, is that climate is still not a pre-eminent issue with the U.S. public. At this point, we note that our discussion is mainly framed in the U.S. and its public. It is beyond doubt that different levels of public awareness and political dynamics are found elsewhere around the world, but our focus is on the U.S. Surveys have shown that in most of the world, including the US, the public is overwhelmingly aware of the climate change issue (e.g., Kim, 2011; Semenza et al., 2008; Lorenzoni and Pidgeon, 2006) yet most in the U.S. do not judge climate change to be personally worrisome or posing significant harm to themselves (Ratter et al., 2012; Leiserowitz et al., 2010; Newport, 2008). Again, from a U.S. perspective, it is imperative that climate rise to the top of the public consciousness. There is a long history of environmental action in the U.S. ostensibly driven by public demand. Much of the initial wave of environmental legislation in the U.S. (beginning with the Clean Air Act, Clean Water Act, and National Environmental Protection Act) resulted from public outcry over events such as the Santa Barbara oil spill, Love Canal, and kepone in the James River. For an account of the link between public outrage and state environmental action, the reader can refer to Dunlap (1995) and Plater (2010), for a more general treatment of public awareness and state action, we point to much work on issue-attention cycles (Downs, 1972) and policy windows (Kingdon, 1995).

In the current political milieu, both of the major political parties in the U.S. point to the recent economic downturn as reason to go more slowly on climate action. As President Obama said:

> ''There's no doubt that for us to take on climate change in a serious way would involve making some tough political choices, and you know, understandably, I think the American people right now have been so focused and will continue to be focused on our economy and jobs and growth that, you know, if the message is somehow we're going to ignore jobs and growth simply to address climate change, I don't think anybody's going to go for that. I won't go for that.''
> (Barack Obama, Nov. 14, 2012).