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Review

Personal experience and the 'psychological distance' of climate change: An integrative review

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ABSTRACT

Studies examining personal experiences of climate change-related events highlight the potential to encourage climate action by framing it as happening now, in your neighborhood, and affecting people like you – that is, psychologically *close*. We compare this literature to studies that examine psychological distance. The review reveals a disconnect: while studies of personal experience suggest merits of reducing psychological distance, other studies present a more nuanced picture in which psychological proximity does not always lead to more concern about or action on climate change. Despite its emphasis, psychological distance has not been widely studied in experimental work in the climate change context, and there is a need for more systematic examination of its effects across a range of mitigation and adaptation actions. Further, our review identifies potential pitfalls associated with decreasing psychological distance, such as fear and avoidance. Finally, we provide preliminary recommendations for optimal ways to bring climate change "home."

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Climate scientists claim that extreme weather events around the globe are inextricably linked to anthropogenic climate change (Trenberth, 2012). Despite this, climate change still appears to be treated by many as a distant phenomenon – temporally, socially, and geographically removed from our everyday experience. Researchers have argued that perceiving climate change in this "psychologically distant" manner decreases the likelihood of coming to terms with the reality and implications of climate change, and thus has the potential to reduce support for mitigating action and even for adaptive behavior (Lorenzoni & Pidgeon, 2006; Milfont, 2010; Newell, McDonald, Brewer, & Hayes, 2014; Rayner & Malone, 1997; Swim et al., 2009; Weber, 2006, 2010).

1. Psychological distance

Psychological distance is a construct referring to the extent to which an object is removed from the self – such as in likelihood of occurrence, in time, in geographical space, or in social distance (Trope & Liberman, 2010). Research from a Construal Level Theory perspective (Trope & Liberman, 2010) has shown that psychological distance (or proximity) tends to be associated with divergent construals of objects and events. When an object is perceived to be psychologically close to the self, it tends to be perceived in more concrete, low level terms, whereas when psychologically distant from the self, objects tend to be construed more abstractly. Concrete construals focus on the details, whereas abstract construals focus more on the "big picture." These construals may have behavioral and attitudinal implications. For example, if climate change is perceived to be psychologically close (i.e., near to the self), it is possible that people may construe it more concretely, and increase their willingness to take action in line with the concrete threat it poses. In contrast, if climate change is perceived as psychologically distant from the self, people could 1) construe it in more abstract terms, potentially impeding action if the threat is perceived as less real, tangible or relevant, or 2) encourage action if it led to more global, holistic perspectives (i.e., by seeing the "big picture," realizing the need for action now).

In support of the general contention that psychological distance plays a role in accepting the reality of climate change, a growing literature on the effects of personal experience of weather and climate change-related events (e.g., experience of a drought) highlights how direct contact with events perceived to be related to climate change can increase concern and action on climate change (e.g., Akerlof, Maibach, Fitzgerald, Cedeno, & Neuman, 2013; Li, Johnson, & Zaval, 2011; Spence, Poortinga, Butler, & Pidgeon, 2011). Such findings are encouraging in one sense because they suggest that the inevitable reduction in perceived psychological distance to climate change (as climate change impacts are increasingly felt) will, in turn, lead to more 'climate-positive' attitudes and behaviors. They also suggest that the optimal strategy for communicators is to reduce perceived distance to climate change to the extent that this is possible. But in another sense these findings on psychological distance are alarming because it is essential to change attitudes and behavior *before* more serious climate impacts occur. Our review attempts to address this challenge for climate change communication.

2. The current review

In the context of this challenge, we examine the extent to which psychological distance can be used to help us understand responses to climate change, and encourage support for climate action. We examine the currently available evidence to ask whether framing climate change as a problem that is happening right now, to people like us, and in our communities – that is, as *psychologically close* - will necessarily increase people's willingness to accept the reality and implications of climate change.

The complexity of an issue like climate change means that psychological distance, and myriad other factors (e.g., ideology, values and group norms toward climate change) will likely interact to influence behavior. Our review hence explores and provides insight into this potentially complex interaction.

We begin with some preliminaries to acknowledge the scope and limitations of our review. First, we focus only on the four dimensions of psychological distance specified in the literature grounded in construal level theory: spatial, social, temporal and hypothetical (Liberman, Trope, & Stephan, 2007). These dimensions represent the ways in which an object can be distanced from the self in the here and now. Though additional dimensions have been suggested, these four dimensions are at the core of most discussions of psychological distance. Given this focus, we do not review literature on related, but distinct constructs that are not considered dimensions of psychological distance (such as place attachment and place identity[1]; cf. Devine-Wright, 2013). However, when applying any conclusions from the study of the effects of psychological distance, especially in the spatial domain, it is important to also consider these additional influences on concern about and willingness to act on climate change.

Second, we acknowledge that when considering the effects of psychological distance in the climate domain the complexity of climate change means that people's perceptions and experiences of climate change are likely to vary much more than when considering the psychological distance of more specific and well-defined events (e.g., the psychological distance of a talk one has promised to deliver next month; cf. Weber, 2006). Given this additional complexity, it is clear that the existing research examining specific instantiations of distance from specific climate change impacts or related experiences among specific populations needs to be broadened considerably. That is, we cannot assume for example, that the effects of manipulating perceptions of the temporal distance of sea level rise will be identical in the American Midwest and in the Pacific Islands (or even Florida). That said, the reactions that have been documented are informative for the populations and behaviors they target, and this review provides a summary of this emerging, and we argue critical, area of research.

Our review first examines the literature on personal experience of events that may be attributable to climate change, and how this relates to climate change belief, concern and action. In the next section we review research examining the effects of psychological distance on each of the four dimensions (temporal, hypothetical, spatial, and social). Finally, we attempt to reconcile the sometimes inconsistent conclusions of research in these areas. We provide suggestions for potentially useful ways to frame the psychological distance of climate change to promote ameliorative action, as well as identify key areas for future research.

3. Personal experience of weather and climate-change related events

In this section we briefly review research implying a link between belief, concern and willingness to act on climate change and

[1] Place attachment and place identity theories focus on "emotional bonds that arise from familiarity, a sense of belonging or ideology that play a role in motivating individuals to attend to, care for and take actions on behalf of particular places" (Devine-Wright, 2013, p.1). These bonds, at both the global and local level, are related to taking action on climate change and other environmental issues. The application of psychological distancing to climate change has been critiqued from this perspective on the basis that it implies global depictions of climate change are necessarily 'distanced' and 'un-situated' from individuals' mental worlds.