



Here and now, there and then: How “departure dates” influence climate change engagement



Laura N. Rickard^{a,*}, Z. Janet Yang^b, Jonathon P. Schuldt^c

^a Department of Communication & Journalism, University of Maine, 428 Dunn Hall, Orono, ME 04401, USA

^b Department of Communication, State University of New York at Buffalo, 329 Baldy Hall, Buffalo, NY 14260, USA

^c Department of Communication, Cornell University, 465 Mann Library Building, Ithaca, NY 14853, USA

ARTICLE INFO

Article history:

Received 5 November 2015

Received in revised form 1 February 2016

Accepted 3 March 2016

Available online xxx

Keywords:

Departure dates

Psychological distance

Climate change

Policy support

Risk perception

Experimental methods

ABSTRACT

Climate change alters landscapes, challenges economic systems, and threatens human and environmental health. Yet, despite real and present impacts, climate change remains largely an abstract risk to most people in the U.S. Using a survey with an embedded experiment, we explore responses to messages about climate “departure dates” by manipulating the spatial and temporal dimensions of future climate change impacts in two exemplar cities (New York City and Singapore) among U.S. and Singapore participants. Overall, results suggest that the influence of temporal and spatial features of departure dates is moderated by participants’ political orientation and geographic location. For instance, we observed some of the largest effects of our manipulation on the reported policy support of conservatives in the U.S. as compared to U.S. liberals and their counterparts in Singapore. We draw connections to relevant theory (e.g., construal level theory) and consider implications for climate departure dates as communication devices.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

The recent releases of the U.S. National Climate Assessment and the Intergovernmental Panel on Climate Change (IPCC)’s fifth assessment report provide compelling evidence that the impacts of anthropogenic climate change are presently being felt across the world. No longer a hypothetical, future risk, climate change has already changed our landscapes and weather patterns, impacting economic systems and human and environmental health; unquestionably, climate change mitigation and adaptation represent urgent tasks for the present generation (IPCC, 2013; Melillo et al., 2014). Yet, from explicating complex feedback loops to outlining policy implications, communicating about climate change science and mitigation measures is far from straightforward (e.g., Swim et al., 2011). Moreover, despite real and present impacts, for many U.S. residents, climate change continues to represent an abstract risk—a low-salience issue surpassed by competing concerns (e.g., Gifford, 2011; Moser and Dilling, 2004).

Addressing these issues, the present study was designed to explore psychological effects of an emerging concept in climate change communication containing messaging features related to

psychological distance—the perceived relative closeness of an object or event, including its spatial, temporal, social, and/or hypothetical dimensions (Trope and Liberman, 2010). More specifically, we used a survey with an embedded experiment to explore the extent to which distance-related cues (e.g., regarding temporal and spatial distance) in contemporary messaging about climate impacts influences risk perception, affective responses to the message, and support for climate change policy. As the basis of our experimental stimuli, we utilize a recent study by Mora et al. (2013) that analyzed past climate models to produce the concept of “departure date”—the year after which the annual climate in a specific location, such as New York City, will be warmer than anything experienced in the meteorological record (i.e., the last 150 years). From a theoretical perspective, results contribute to the climate change communication literature by integrating social psychological concepts from construal level theory (McDonald et al., 2015; Pahl et al., 2014; Trope and Liberman, 2010). Moreover, our findings extend practical advice to science communicators and environmental advocates wishing to highlight projected climate impacts, occurring in different places and at different times, in order to persuade the public to adopt timely and effective policies.

* Corresponding author.

E-mail addresses: laura.rickard@maine.edu, laura.rickard@maine.edu (L.N. Rickard), zyang5@buffalo.edu (Z. J. Yang), jps56@cornell.edu (J.P. Schuldt).

2. Background

2.1. Climate “departure dates”

The recent study by [Mora et al. \(2013\)](#) provides an interesting and practical case study for exploring the effect of psychological distance on messaging about climate change mitigation and adaptation. Starting from the premise that scientists’ understanding of climate change “still lacks a precise indication of the time at which the climate of a given location will shift wholly outside the range of historical precedents” (p. 183), the researchers analyzed 39 existing global climate models. They then calculated an index of minimum and maximum temperatures from 1860 to 2005, which allowed for determining the future date (a specific year) after which the climate experienced on earth will be unlike anything experienced in the recorded past. Using this index, the researchers projected that if emissions of greenhouse gases remain high, then after the year 2047, more than half of the earth’s surface will experience an annual climate hotter than any experienced previously. Especially relevant to the present work, the technique used allowed for the specification of climate “departure dates” for individual cities across the globe. For example, under a high emissions scenario, climate “departure” for New York City is projected to occur in 2047. In contrast, in tropical regions, such as Manokwari, Indonesia, the departure date is expected to arrive as early as 2020.

According to study co-author Abby Frazier, in addition to contributing to the scientific body of evidence of climate change, the researchers hoped that the novel departure date concept would motivate action:

By giving a year of when we can start to expect these changes, it would help to connect people more closely to the issue, and hopefully get them involved and aware of how urgent it is that we start to take action now ([Living on Earth, 2013](#)).

Frazier’s comments, though speculative, help to motivate the present study. When considering the departure date concept as a persuasive communication device, its temporal and spatial features (i.e., *when* and *where* climate departure will occur) may meaningfully shape how audiences respond to information about climate change, including their level of support for mitigation and adaptation policies. While scholars have begun to explore effects of psychological distance on climate change attitudes in earnest (e.g., [Bostrom et al., 2014](#); [Brugger et al., 2015b](#); [Haden et al., 2012](#); [Milfont et al., 2014](#); [Scannell and Gifford, 2013](#); [Spence et al., 2012](#)), results to date have been somewhat mixed. Moreover, empirical research has yet to explore effects of the psychological distance features inherent within the departure date framework, specifically.

The present study was designed as an initial test of how climate departure dates, with their naturally embedded spatial and temporal locations, influence affective and cognitive responses to projected climate impacts. For purposes of enhanced ecological validity, we sampled participants at two geographical locations, namely in the U.S. state of New York and Singapore, who read a brief scenario describing how life in either location will differ once different departure dates are reached. In addition to randomly assigning participants to read about projected climate impacts occurring in New York City or Singapore (i.e., a spatially proximal or distal location, depending on the participants’ own location), we also randomly assigned the climate departure dates specified in the scenario (i.e., as 2020, 2047, or 2066). We chose these three departure dates with the intention of exploring a possible *departure date threshold* that might function as most effective in influencing climate change policy support. That is, although 2020 may seem the most intuitively compelling (and thus, motivational) date given its temporal closeness to the present, it

may also induce undesired despair and a sense of helplessness, a challenge previously identified by those studying climate change communication (see [McDonald et al., 2015](#)). In contrast, while climate impacts occurring in 2066 may reduce a sense of urgency because of its greater distance from the present, this distant date allows more time for policy proposals to take effect from a perceived efficacy perspective. Thus, exploring a gradient of climate departure dates—ranging from temporally proximal to temporally distal—would allow researchers to gauge differential impacts on risk perception and policy support related to climate change. Before offering a more detailed description of our research design, we next review literature related to psychological distance and climate change engagement to introduce the hypothesis and research questions examined in this study.

2.2. Psychological distance

Involving places and times far removed from the present, climate change challenges the scientists who study it, and is perhaps even more perplexing for the average citizen to envision. Establishing the effects of a changing climate can involve sampling ice core data (which speak to Earth’s conditions many thousands of years ago) that originate in Greenland or Antarctica, places that few people call home. Moreover, projections of climate change impacts many decades into the future characterize locations as distant and unfamiliar: places we would rather not (or perhaps cannot) imagine as our homes. Recent research supports this contention, suggesting that the psychological distance we experience when thinking about climate change includes temporal, spatial, social, and hypothetical dimensions ([McDonald et al., 2015](#); [Spence et al., 2012](#); [Trope and Liberman, 2010](#)). In the language of construal level theory, events that are experienced as “psychologically close,” such as those that are geographically and socially relevant (e.g., the flooding of a river in one’s hometown) are expected to evoke a low-level construal that is contextually rich, vivid, and detailed. Psychologically close events also likely occur closer in time to the present—for example, tomorrow as compared to next year. In contrast, events that are experienced as “psychologically distant,” such as those occurring in the distant future or outside of one’s immediate social and geographical context (e.g., rising sea level that threatens nations in the southern Indian Ocean, as opposed to one’s home in the U.S.), are expected to evoke a high-level construal that is less contextualized, less detailed, and more abstract ([Liberman and Trope, 2008](#); [Trope and Liberman, 2010](#)).

Psychological distance has been thought to matter in climate change communication because individuals who perceive related threats, such as sea level rise or ocean acidification, as psychologically distant and abstract may discount them more than those who perceive them as psychologically proximal and concrete ([Brugger et al., 2015a,b](#); [Milfont, 2010](#); [Schuldt et al., in press](#); [Spence et al., 2012](#); [van der Linden et al., 2015](#); [Weber, 2010](#); [Zwicker and Wilson, 2014](#)). Yet, the literature presents conflicting evidence as to whether this discounting exists with respect to risk perception, as we explain below (for a further review of this literature, see [McDonald et al., 2015](#)).

Past research suggests that the four dimensions of psychological distance are interrelated with a certain degree of interchangeability among them ([Bar-Anan et al., 2007](#)). For instance, [Bar-Anan et al. \(2007\)](#) found that individuals process information faster when its spatial distance is congruent with its temporal, social, and hypothetical distance. Temporal distance may also influence social distance, as reduced temporal distance of a future encounter leads individuals to perceive strangers as more familiar and similar to themselves ([Stephan et al., 2006](#)). Moreover, experiencing an initial psychological distance dimension may dampen individuals’ sensitivity to further psychological distance dimensions ([Maglio](#)

Download English Version:

<https://daneshyari.com/en/article/7469355>

Download Persian Version:

<https://daneshyari.com/article/7469355>

[Daneshyari.com](https://daneshyari.com)