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Review

Ideology, capitalism, and climate: Explaining public views about climate change in the United States

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ABSTRACT

Over the last three decades, climate change has become publicly defined as an important social problem deserving action. A substantial body of social science research examines the patterns of climate change views in the general publics of countries around the world. In this review essay, we identify the strongest and most consistent predictors of key dimensions of climate change views within many countries, and we also discuss the prevailing theoretical explanations of these specific effects. Since the US has yet to adopt comprehensive climate change mitigation policy and has historically played an obstructionist role in international climate negotiations, we further explain the political dynamics of US climate change views that help characterize the US's outlier status among industrial capitalist democracies. We then present an integrative theoretical framework—based upon an extension of the anti-reflexivity thesis—that explains why the strength and consistency of predictors relate to how closely those predictors distinguish ideological and material positions defending the industrial capitalist system from those positions accepting that it should be reformed or restructured. We end with a brief discussion of promising avenues through which future research may address key gaps in our understanding of climate change views.

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1. Introduction

The last twenty years have seen a large amount of social science research on climate change views, a term encompassing beliefs,

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attitudes, policy preferences, and behavioral intentions related to climate change. This literature, which as of early 2016 includes over 140 empirical studies primarily focused on climate change views, draws mostly from sociology and psychology but also includes work from political science, communication, anthropology, and economics. (See Section A in Supplementary information.) Most of this research utilizes some form of correlational or regression analyses of survey data, though about three dozen studies report the results of messaging or framing experiments. Further, the majority of survey studies focus specifically on a single country, while explicitly cross-national research is sparse. US-based studies account for approximately three-fourths of all published survey research, though multiple studies on other Anglo countries (i.e., United Kingdom and Australia) have been published in recent years.

Scholars have published important reviews of key areas of this literature: aggregate or mass opinion patterns and trends [1,2], predictors of climate change skepticism [3], psychologically based research [4,5], messaging or framing experiments [6], and the influence of perceived and objective climatological signals [7]. Two recent, relatively comprehensive reviews cover those survey-based studies that examine key predictors of climate change views; yet, they do not engage with theoretical explanations in much depth, and they insufficiently consider the dimensionality of climate change views [8,9]. Given the literature's maturation, the time is ripe for a theoretically focused review of those potential political, demographic, social, cultural, economic, and climatological predictors of climate change views that have been subject to rigorous empirical analyses.

We performed such a review, complementing and extending those two recent, near-comprehensive reviews. Briefly, our review systematically assesses the strength and consistency of potential predictors across key dimensions of climate change views and elucidates the prevailing theoretical arguments that explain these specific effects. Further, we also advance a novel overarching theoretical framework that helps explain the strength and consistency of key predictors of climate change views within and across countries. This framework—a broad interpretation of the anti-reflexivity thesis [3]—integrates bottom-up social psychological explanations and top-down structural and mobilization explanations to help explain several robust patterns in the literature.

In Section 2, we briefly describe our literature review procedures before summarizing and theoretically explaining the specific patterns for individual-level predictors and contextual effects. Since the United States has yet to adopt comprehensive climate change mitigation policy and has historically played an obstructionist role in international climate negotiations, in Section 3 we further explain the political dynamics of US climate change views that help characterize the US's outlier status among industrial capitalist democracies. In Section 4, we introduce our new theoretical framework mentioned above. We conclude in Section 5 with a brief discussion of promising avenues through which future research may address key gaps in our understanding of climate change views.

2. Patterns from survey research around the world

2.1. Procedures and overview

We aimed to include all English-language, peer-reviewed studies published between 1998 (the year of the first study we found) and early 2016 that examined the performance of predictors of climate change views using quantitative data from standardized surveys administered to relatively large representative samples of a known population. We began by identifying empirical studies included in the earlier reviews mentioned above, and we searched with Google Scholar for additional studies that might have been overlooked. This produced the 143 peer-reviewed studies listed in Section A in the Supplementary information. Next we excluded those studies that: (a) did not use climate change views as an outcome variable; (b) presented aggregated, and not individual-level, results; and (c) reported the results of messaging or framing experiments with small, limited convenience samples. This filtering process resulted in 87 empirical studies, which we believe constitute nearly all of the survey-based studies predicting climate change views in the English-language, peer-reviewed social science literature.

Before discussing the patterns that emerged from our review, we first briefly characterize the landscape of this peer-reviewed literature. Our review includes 62 US-based studies, 16 single-country studies outside of the US, and 9 cross-national studies that report the results of survey-based analyses predicting climate change views (see Table 1). Survey data from the late 1990s was analyzed in only five US-based studies, and survey data from 2000 to 2004 were analyzed in 15 other studies, 13 of which were US-based. The great majority of studies (84%) analyze data gathered since 2005. Approximately 80% of the studies analyze data from fairly large nationally representative samples (750–1000 + respondents). Another 14% of studies use data from representative samples of states or counties within nations, and a final 6% uses data from large nationwide convenience samples or smaller samples from specific cities.

The studies we reviewed examine four key dimensions of "pro-climate" views; about 25% (22 of 87) of the studies investigate more than one dimension. Approximately 59% of studies focus on *belief in climate change* (e.g., belief in the reality, human cause, and impacts of climate change and/or in the scientific consensus on climate change) [10], while about 51% of studies analyze *concern about climate change* (e.g., personal worry about, perceived seriousness or dangerousness of, and perceived risk of climate change) [11]. Only about 21% of studies examine *support for climate policy* (e.g., support for government action in general and/or support for specific mitigative policies) [12], and a mere 8% of studies investigate *pro-climate behavioral intentions* (e.g., willingness to change behaviors in general and/or willingness to perform specific energy conservation behaviors) [13]. Finally, the majority of studies utilizes single-item measures of climate change views (about 10% using dichotomous indicators and 53% using ordinal indicators), while 39% of studies utilize one or more composite indices or scales to measure climate change views. While we focus on larger conceptualization and measurement issues in Section 5 about future research needs, we think it appropriate here to urge scholars, where possible, to use composite measures of climate change views—which typically have greater reliability and validity than do single-item indicators.

2.2. Individual-level predictors of climate change views

Despite the substantial variation in the operationalization and measurement of climate change views, several consistent patterns have emerged (see Table 2 and Section B in the Supplementary information). Tables SI1–SI3 in the Supplementary information summarize the effects for the most frequently examined predictors of climate change views in the US, in non-US countries, and cross-nationally, respectively. Since the effects of these key variables are relatively similar across these three groups of studies, we will discuss the patterns found across all 87 studies pooled together. In our accounting we identify the overall number of models that include a given predictor (i.e., the total number of examined effects). Since many studies predict multiple dimensions and/or indicators of climate change views, this number of models varies substantially across potential predictors. Table 2 only includes those predictors whose performance was examined in at least 5% of the 87 studies. We do not intend our in-text citations to be comprehensive;