Climate Change Activism Among Latino and White Americans

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Research indicates that Latinos have particularly strong pro-environmental attitudes and support for policies to reduce climate change. This study explores differences in climate change activism (i.e., contacting government officials) between Latino and non-Latino White citizens in the United States, and the individual and social factors that predict engagement. Two parallel, nationally representative surveys find that Latinos (n = 1,433) are more likely than Whites (n = 861) to report having contacted a government official in the past and are more willing to contact officials in the future. Key predictors of Latinos' significantly higher levels of political engagement include greater risk perceptions, egalitarian worldviews, pro-environment injunctive norms, collective political efficacy, and greater social network effects. Competitive mediation analyses find that stronger risk perceptions best predict differences in climate change activism between Latinos and Whites. Climate change communicators might particularly seek to amplify Latinos' pro-climate tendencies (e.g., heightened risk perceptions) and social norms to encourage greater climate action by this vital and growing segment of the U.S. population.

Keywords: climate change activism, political action, public will, Latinos, risk perceptions

INTRODUCTION

Climate change is one of the greatest threats—and opportunities—of the twenty-first century. While research consistently shows that unchecked climate change will have "severe, pervasive and irreversible impacts for people and ecosystems" (IPCC, 2014, p. 8), climate solutions, including clean energy, energy efficiency, and community resilience can greatly improve public health, security, and economic growth, among other benefits (e.g., APA, 2009; Edenhofer et al., 2011; Environmental Protection Agency, 2018).

Addressing climate change, however, represents a "massive collective action problem" [(Roser-Renouf et al., 2016, p. 4760; see also IPCC, 2014)]. While changes in individual behavior (e.g., recycling, energy conservation) can benefit the environment, increased political action—across diverse publics and scales—is necessary to pressure elected officials to enact policies to limit the carbon pollution causing global warming. Activism can be an important influence on the policy-making process, because without public pressure, it is unlikely that governments will prioritize climate change (Ockwell et al., 2009).

In other words, the expression of public will through activism is necessary, although not sufficient, to address climate change. Public will refers to a "social system's shared recognition of a particular problem and resolve to address the situation in a particular way through sustained

collective action" (Raile et al., 2014, p. 105). Indicators of public will and collective action on climate change include contacting government officials, public support for mitigation policy, and pro-climate consumer behavior like purchasing energy efficient vehicles. According to Raile et al. (2014), the term "public" does not simply refer to a majority group or a collective mass—many diverse "publics" exist and can be activated at any given time. In the United States, Latinos may represent a particularly important issue public (Krosnick, 1990).

Latinos comprise 17.4% of the U.S. population (55 million people), are the second-largest racial/ethnic group in the nation, and are projected to reach 24% of the population by 2065. Politically, 27.3 million Latinos are currently eligible to vote, and represent a critical group of voters in local, state, and national elections, especially in swing states such as Colorado, Florida, and Nevada (Pew Research Center, 2012). Latinos express stronger positive environmental attitudes and pro-environmental views than other Americans (Leiserowitz and Akerlof, 2010; Speiser and Krygsman, 2014; Pew Research Center, 2015; Krygsman et al., 2016; Macias, 2016a,b; Pearson et al., 2017, 2018). In a recent nationally representative survey of the U.S. population, Latinos were more likely than non-Latinos to be convinced that global warming is happening, think that it is human-caused, worry about it, and support climate policy (Leiserowitz et al., 2017). Latinos were also consistently higher than non-Latinos on other responses to climate change including issue involvement, personal importance, and collective political efficacy (i.e., believing that working together people can affect the government). Other studies have found that Latinos have heightened perceptions of vulnerability to climate change: for instance, they are more likely to perceive climate change as a health threat, relative to Whites (Akerlof et al., 2015).

Relatively less work, however, has examined whether Latinos are also more likely to *act* on climate change. In fact, some research suggests the opposite—that there may be a gap between heightened concern and taking action on climate issues among Latinos. In one study, Latinos were more likely to self-identify as "active supporters" of environmental movements than Whites (Greenberg, 2005); yet in another study, Latinos were less likely to join environmental groups (Johnson et al., 2004). Other research, though limited, has suggested that Latinos may be less politically engaged in climate change (Gibson-Wood and Wakefield, 2013) and other important issues than are other demographic groups (e.g., Arvizu and Garcia, 1996; Cassel, 2002; see also Jones-Correa et al., 2018). For example, in the 2016 Presidential Election, only 48% of eligible Latino voters voted compared to 60% of Blacks and 65% of Whites (U.S. Census Bureau, 2017).

Understanding the potential gap between Latinos' concern on the one hand, and their political behavior on the other, represents an opportunity to advance the national conversation and response to climate change, in addition to facilitating climate change activism among a fast-growing demographic.

The present study takes an exploratory approach to investigate differences in climate change activism between Latino U.S. citizens and non-Latino White U.S. citizens[1]. We focus specifically on the act of contacting government officials in the past 12 months and intentions to contact government officials in the future. We investigate the individual and social factors that predict Latinos' differential levels of political engagement, which can also inform climate change communicators (e.g., elected officials, advocacy organizations, national media) to more effectively engage this growing segment of the U.S. population. We follow two approaches as described in Slater and Gleason (2012). Specifically, we test known predictors of engagement in a specific population, Latino Americans (Strategy 2c), and the factors that *explain* differences in engagement between Latinos and Whites (Strategy 3.1 and 3.7 on mediation). Specific research questions include:

1. To what extent do Latinos and Whites differ in climate change activism (i.e., contacting government officials) to address global warming?
2. What are the key predictors of activism among Latinos and Whites?
3. To the extent that there are differences in activism between Latinos and Whites, what are the key factors that explain these differences?

The following review summarizes key individual, social, and cultural factors that have been shown to predict pro-climate behavior and activism in previous research. Although our research is generally exploratory, we make specific predictions, based on previous research, about the factors that are likely to predict climate change activism.

PREDICTORS OF CLIMATE CHANGE ACTIVISM

Ideology and Belief Systems
Party Affiliation and Political Ideology
In the United States, political views are consistently among the strongest predictors of public climate change opinions and engagement (e.g., McCright and Dunlap, 2011; Brulle et al., 2012; Hornsey et al., 2016). For instance, Republicans and conservatives are less likely to think climate change is happening and support climate policy than are Democrats and liberals, respectively (McCright et al., 2013). Given that partisanship and political ideology represent key correlates of environmental views, we expect that individuals affiliating more with the Republican party (compared to the Democratic party) and individuals with stronger conservative (as opposed to liberal) ideologies will be more likely to engage in climate change activism.

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[1]Because, the present research focuses on the predictors of *political* engagement in the U.S., we conducted analyses using only respondents who are U.S. citizens. Latinos in the U.S. who are not citizens are less likely than Latino citizens to engage in the political behaviors we focus on. Future research might examine the factors that explain differences in engagement between Latino citizens and non-citizens as this was not the focus of our study.

Worldviews

Social, political, and cultural attitudes toward the world (i.e., worldviews) orient people's actions (Dake and Wildavsky, 1990, 1991; Dake, 1991, 1992). Individualism, egalitarianism, and fatalism are worldviews that each predict climate change risk perceptions and engagement. People with individualistic worldviews value freedom and fear constraints on their autonomy (e.g., regulations), and thus tend to oppose climate policies (Leiserowitz, 2006) and have low engagement in climate change activism (Roser-Renouf et al., 2014). Conversely, those with egalitarian worldviews (i.e., valuing fairness, equal opportunity, and social justice) tend to support climate policies (Leiserowitz, 2006) and engage in activism more (Roser-Renouf et al., 2014). Fatalists tend to believe that events are predetermined and lack motivation to act on climate issues; thus, they tend to be less supportive of climate policy (Leiserowitz, 2006) and less engaged in activism (Stern et al., 1999). We expect similar relationships in the present study: egalitarianism will be positively associated with climate change activism and individualism will be negatively associated. Similarly, we expect that political fatalism—the belief that political action is ineffective—will be negatively associated with activism.

Prior research also indicates that Latinos may have stronger egalitarian values than other racial/ethnic groups (Johnson et al., 2005; Carter et al., 2013). Egalitarianism may thus be a key predictor of activism among Latinos and may help explain differences in political engagement between Latinos and non-Latino Whites.

Collective Political Efficacy

People are more likely to act on climate change when they have a sense that they can help address the problem. Conversely, low efficacy poses barriers to climate action, including issue avoidance, and feelings of helplessness (e.g., Lorenzoni et al., 2007). There are several forms of efficacy including response efficacy (the belief that actions to reduce a threat will be effective), self-efficacy (the belief that one can make a difference), and collective efficacy (the belief that a group of people working together can make a difference) (e.g., Bandura, 2000; Witte and Allen, 2000). Efficacy beliefs are found to strongly motivate climate change activism (Roser-Renouf et al., 2014) and collective action more broadly (van Zomeren et al., 2008). Similarly, in this study, we expect that collective *political* efficacy (i.e., beliefs that people working together can affect what the government does) will be associated with climate change activism for both Whites and Latinos.

Barriers to Activism

Many individuals are unsure which actions to take to help address climate change, and barriers—including psychological, social, and structural—make it especially difficult to perform effortful actions like contacting a government official (e.g., Lorenzoni et al., 2007; Gifford, 2011; Roser-Renouf et al., 2014, 2016). A barrier refers to "an impediment to specified adaptations [or actions] for specified actors in their given context that arise from a condition or set of conditions" (Eisenack et al., 2014, p. 868). For contacting a government official—as the focal action of interest—we consider multiple barriers including factors related to identity (e.g., "I am not an 'activist'"), knowledge (e.g., not knowing who to contact), and social influence (e.g., being criticized by others). Together, we expect that the more barriers to contacting a government official Latinos and Whites perceive, the less likely they are to have done so in the past or to plan to do so in the future.

Risk Perceptions

Prior research has found that perceiving global warming as a personal and global threat motivates action to address it (e.g., O'Connor et al., 1999; Leiserowitz, 2006; Zahran et al., 2006; Roser-Renouf et al., 2014). Latinos have higher risk perceptions about global warming than other demographic groups (e.g., Leiserowitz et al., 2017). In a recent nationally representative survey, Latinos were more likely than non-Latinos to think global warming will cause "a great deal" of harm to nature and people (e.g., the world's poor, people in the U.S., their family), including themselves (Leiserowitz et al., 2017). Latinos were also more likely to say that they have personally experienced the impacts of global warming (53 vs. 39% of non-Latinos). We expect that perceiving global warming as a risk will be positively associated with climate change activism and may explain differences in engagement between Latinos and Whites.

Social Influence
Social Norms

Social norms about other people's behavior can be powerful sources of social influence (e.g., Cialdini et al., 1990; Schultz et al., 2007). Norms can be categorized as being descriptive or injunctive. Descriptive norms refer to what other people are doing, whereas injunctive norms refer to what people ought to be doing. Substantial research indicates that when these social norms are aligned—that many people are doing it and it is socially approved—they can strongly facilitate pro-environmental behavior (e.g., Goldstein et al., 2008; Nolan et al., 2008; Karlin et al., 2015). Previous research also finds that beliefs about injunctive norms (e.g., thinking that the government should be doing more to address global warming), in particular, predict climate change activism (Roser-Renouf et al., 2014). In this study, we focus on the norms of people close to the self: family and friends. We hypothesize that beliefs about descriptive norms (i.e., how much of an effort family and friends make to reduce global warming) and injunctive norms (i.e., how important it is to family and friends that you take action) are both predictors of activism.

Additionally, normative influence may also help explain differential levels of engagement between Latinos and Whites. From a cultural perspective, collectivism, or valuing the needs and goals of the group as a whole over the individuals within the group, tends to be stronger among Latinos in comparison to Whites (Oyserman et al., 2002). Families, in particular, play an important role in Latino culture (e.g., Keefe, 1979; Gaines Jr et al., 1997). Previous research indicates that Latinos tend to value familialism (a sense of solidarity, loyalty, and attachment to nuclear and extended family members) more than do Whites

and maintain more frequent contact with family members (Comeau, 2012). We expect that these cultural factors may affect the relationship between normative influence (from family and friends) and political activism for Latinos; that is, differences in social norms may explain why Latinos are more or less engaged than Whites.

Social Network Effects

The extent to which people hear others, including family and friends, talk about global warming, can signal how important the issue is and influence action. Interpersonal communication is theorized to be instrumental to public engagement and collective action on climate change (Swim et al., 2014; Clayton et al., 2015). When people become aware of others' concern about the threat of climate change, they become more willing to discuss the issues with others (Geiger and Swim, 2016) and perform individual and collective actions to address the problem (Swim et al., 2017). More generally, political discussion has been positively linked to several forms of political participation (e.g., voting likelihood, contacting political candidates; La Due Lake and Huckfeldt, 1998; Wyatt et al., 2000). Thus, we expect that hearing others (e.g., family, friends, coworkers) talk about climate change will be positively associated with activism.

Received Media Coverage

Generally speaking, the mass media determines whether and how issues are covered, thus influencing public perceptions, and opinions on the issue (e.g., Weingart et al., 2000; Slater, 2007; Feldman et al., 2014). The influence of the mass media on public perception can be both direct and indirect. For instance, information from elite media sources can get filtered through "opinion leaders" who then play a key role in disseminating information to the broad public (e.g., Katz and Lazarsfeld, 1995/2017). Thus, people's understanding and opinions on issues can be affected by how often they hear about them in the media. On the issue of climate change, people who pay attention to it in the media are also likely to be strongly involved and engaged in the issue (Nisbet and Kotcher, 2009). Further, because media coverage of political issues can facilitate political participation (e.g., Rojas, 2010; Ho et al., 2011), we expect that hearing about climate change in the media will predict taking political action on climate change.

Contact From Environmental Organizations

Contact from environmental organizations (e.g., emails, social media posts) is a common practice to promote actions including making donations, joining campaigns, and reaching out to government officials; however, more work is needed to understand the effectiveness of these outreach efforts (Roser-Renouf et al., 2014). In the present study, we test the extent to which being contacted by an environmental organization positively predicts climate change activism.

MATERIALS AND METHODS

Data come from two nationally representative surveys conducted simultaneously within the United States. A survey of Latinos was fielded from May 18 to June 8, 2017 and the other survey, which included non-Latino White respondents, was fielded from May 18 to June 6, 2017. The surveys were conducted using GfK's KnowledgePanel Latino® and KnowledgePanel®, respectively, which consist of online panels of members drawn from the U.S. population using probability sampling methods. Potential panel members were recruited using random digit dial and address-based sampling techniques to cover essentially all (non-institutional) residencies. Those who chose to join the panel but did not have Internet access were loaned computers and provided Internet access. Key demographics (age, gender, race, education, income) were weighted, post survey, to match U.S. Census Bureau norms for Latinos in the Latino survey and for the U.S. population as a whole in the survey that included non-Latino Whites. Forty-six percent of invited participants completed the survey of Latinos, and 51% of the invited participants completed the general U.S. population survey.

Participants

The initial sample of Latinos included 2,054 adults 18+ living in the U.S., 1,571 of whom were U.S. citizens and were, thus, considered for these analyses. The representative U.S. population sample included 1,266 adults 18+, 932 of whom were non-Latino Whites. Additional cases were excluded from both samples due to excessive missing data (see Missing Data).

The resulting Latino citizen sample ($N = 1,433$) was, on average, slightly younger ($M = 42.9$ years old, $SD = 16.4$) than the resulting White sample ($N = 861$, $M = 49.5$ years old, $SD = 17.6$). The the gender distributions of the samples were similar: 52.5% of Latinos were male in comparison to 49.6% of Whites. Annual household income was slightly greater in the White sample, but the distributions were similar: most respondents earned <$75,000 per year (59% of Latinos, 50.6% of Whites) and the modal group was those with household incomes of $100,000 or more (25.1% of Latinos, 36.5% of Whites). The majority of Latinos had a high school degree (32.5%), followed by some college (30.2%), and a Bachelor's degree or higher (19.2%), whereas the majority of Whites had a Bachelor's degree or higher (33.9%), followed by some college (29%), and a high school degree (28.7%).

There were also some geographic differences between the Latino and White samples. A greater proportion of White respondents lived in the Northeast (19.1% of Whites) and Midwest (27.2%) compared to Latinos (15.4% and 9% of Latinos, respectively). Conversely, a greater proportion of Latinos lived in the South (38.5% of Latinos) and West (37.1%) relative to Whites (33% and 20.7%, respectively). However, regional differences between samples had little or no effect in explaining differences in activism between Latinos and Whites (see **Supplementary Material**).

Measures
Party Affiliation and Political Ideology

Respondents completed several questions about partisanship and political views. To indicate party affiliation, respondents were asked "Generally speaking, do you think of yourself as..." with the following choices: "Republican," "Democrat," "Independent,"

"Other," and "No party/not interested in politics." As a follow-up, respondents who identified as a Democrat or Republican were asked if they consider themselves a strong Democrat or Republican (respectively), or not a very strong Democrat or Republican. Independents were asked if they consider themselves closer to the Democratic or Republican party, or neither. Together, responses to these questions formed an ordinal composite consisting of seven groups (e.g., strong Democrats, not strong Democrats, leaning Democrats, Independents, and so on).

Political ideology was measured with a single question, "In general, do you think of yourself as..." with five response options: "Very liberal," "Somewhat liberal," "Moderate, middle of the road," "Somewhat conservative," and "Very conservative."

Worldviews

Egalitarianism, individualism, and political fatalism were measured with items rated on 4-point scales ranging from 1 ("Strongly disagree") to 4 ("Strongly agree"). Respondents were asked to rate how much they agree or disagree with three egalitarian statements (e.g., "The world would be a more peaceful place if its wealth were divided more equally among nations," $\alpha_{Latino} = 0.75$, $\alpha_{White} = 0.77$), three individualism statements (e.g., "The government interferes too much in our everyday lives," $\alpha_{Latino} = 0.75$, $\alpha_{White} = 0.85$), and two political fatalism statements (e.g., "It's no use worrying about public affairs; I can't do anything about them anyway," $\alpha_{Latino} = 0.75$, $\alpha_{White} = 0.71$).

Collective Political Efficacy

Beliefs that people can collectively influence political outcomes were assessed with a 3-item index, where the question: "How much can people like you, working together..." was combined with statements such as: "affect what the government does about global warming" and "affect what corporations and industry do about global warming" on a 5-point scale ranging from 1 ("Not at all") to 5 ("A great deal") ($\alpha_{Latino} = 0.95$, $\alpha_{White} = 0.93$).

Risk Perceptions

Respondents completed an 8-item measure of the extent to which they think global warming will cause personal harm and harm to others such as "people in the United States," "future generations of people," "plant and animal species," and "the world's poor" on a 4-point scale ranging from 1 ("Not at all") to 4 ("A great deal"). Items were averaged to capture overall risk perceptions ($\alpha_{Latino} = 0.96$, $\alpha_{White} = 0.97$).

Barriers to Activism

To identify barriers to contacting elected officials about global warming, respondents reported how much they agree or disagree with 12 statements such as "I don't contact elected officials about global warming because I am not an activist," "I don't know which elected officials to contact about global warming," and "I'm too busy to contact elected officials about global warming" on a 4-point scale from 1 ("Strongly disagree") to 4 ("Strongly agree"). The 12 items were subjected to a principal components analysis to explore their structure. Although a different number of components emerged and loadings varied between groups, reliability analyses suggested that all 12 items were strongly internally consistent for both Latinos ($\alpha_{Latino} = 0.86$) and Whites

($\alpha_{White} = 0.82$); in fact, dropping items lowered reliability indices. Thus, mean composites were formed such that higher scores indicated greater perceptions of barriers to activism.

Social Norms

Respondents answered two questions to indicate perceptions of descriptive and injunctive norms on acting to reduce global warming. Descriptive norms were measured with the question "How much of an effort do your family and friends make to reduce global warming" on a 5-point scale from 1 ("No effort") to 5 ("A great deal of effort") and injunctive norms were measured with the question "How important is it to your family and friends that *you* take action to reduce global warming?" on a 5-point scale from 1 ("Not at all important") to 5 ("Extremely important").

Social Network Effects

Social network effects were measured with an item that asked respondents how often they hear other people they know ("family, friends, and coworkers") talk about global warming with response options ranging from "Never" to "At least once a week."

Received Media Coverage

To measure received media coverage of global warming, respondents answered the question "About how often do you hear about global warming in the media (TV, movies, radio, newspapers/news websites, magazines, etc.)?" with five response options ranging from "Never" to "At least once a week."

Contact From Environmental Organizations

Respondents were asked about how many times, if ever, they have been "contacted (by mail, phone, or in person) by an organization working to reduce global warming" with following response options: "Never," "Once," "Two or three times," or "Four or more times."

Climate Change Activism

As an indicator of past behavior, respondents were asked how many times over the past 12 months they had "written letters, emailed, or phoned government officials about global warming" with five response options ranging from "Never" to "Many times (6+)" as well as a "don't know" response category. Because responses to this item were strongly skewed (74% of Latinos and 83% of Whites reported "Never"), the item was dichotomized for analytic purposes (i.e., reported contacting an official vs. did not report contacting an official). As a follow-up to this question, respondents reported whether they urged the official to take action to reduce global warming (vs. not to take action or some other reason). Respondents who (a) contacted officials one or more times and (b) urged officials to take action to reduce global warming, were coded as having contacted an official.

To measure intentions to contact government officials, respondents answered two questions about how likely they would be to "write letters, email, or phone government officials about global warming" and "meet with an elected official or their staff about global warming" on a 4-point scale from 1 ("Definitely would not") to 4 ("Definitely would"). Responses to the two questions were averaged so that higher scores indicate stronger

intentions to engage in climate change activism ($\alpha_{\text{Latino}} = 0.85$, $\alpha_{\text{White}} = 0.87$).

Demographics and Religious Affiliation

Respondents also completed questions about basic demographics (e.g., age, gender, education, income) as well as any religious affiliation (e.g., Catholic, Protestant, "born again" or evangelical, etc.)[2]. Respondents who reported that they are agnostic or atheist or responded "none of the above" to the religion question were coded as having no religion.

Missing Data

Respondents who refused ten or more items from the Barriers to Activism index and/or refused or responded "don't know" to six or more items from the Risk Perceptions index and/or refused or responded "don't know" to five or more of the other predictors, were excluded from the analysis (a total of 138 Latino cases and 71 White cases, about 9 and 8% of cases, respectively). There were differences between the respondents who were excluded and those who were retained. Across Latinos and Whites, the excluded sample consisted of more females, evangelicals, and political moderates, and excluded respondents were less likely to identify as a Democrat. Specific to Latinos, excluded respondents were more likely to complete the survey in Spanish and be between the ages of 30 and 44 years. Further, across both Latino and White samples, retained cases reported greater egalitarian values, collective political efficacy, descriptive, and injunctive norms, frequency of contact from environmental organizations, frequency of hearing others talk about global warming and hearing about it in the media, and levels of climate change activism—both intentions and past behavior (see **Supplementary Material** for details). Although differences were minimal, these analyses indicate that the excluded respondents were less politically engaged than the retained respondents, indicating some selection bias. Accordingly, results should be considered with some caution.

For the remaining cases, missing data were imputed using hot deck imputation (Myers, 2011) to replace refusals or responses of "don't know." To impute values, we used demographic variables known from previous research to be related to beliefs and attitudes about global warming (e.g., education, income, political party). Missing data for a number of indices (egalitarianism, individualism, political fatalism, collective political efficacy, and intentions to contact government officials) were imputed at the index level (i.e., after the means for respondents who provided data were calculated), whereas missing data for other indices (risk perceptions and barriers to action) were imputed at the item level. For index level imputations, because within-index item means were similar, if a respondent answered any of the items, we used the mean of those responses as the index score. For respondents who did not provide a response to any item from the index, we imputed values at the index level. For risk perceptions and

barriers, because within-index item means differed, we imputed at the item level before creating the index scores rather than averaging scores for the items responded to. We first determined that there should be at least a minimum subset of items in each index for which respondents provided actual data. Based on the distribution of the number of missing items by case, we determined that respondents who answered two or fewer items in either of the indices (risk perceptions and barriers to action) should be regarded as outliers in relation to the distribution of the number of items responded to by other (retained) respondents. Then, for the retained respondents, we proceeded with item-level imputations, and created indices from the averages of all of the answered and imputed items. In the Latino sample, the maximum percentage of imputed values for one variable was 13.5% (range 0.2–13.5%; $M = 3.48$, $SD = 3.89$, $Median = 1.55$). In the White sample, the maximum percentage of imputed values for one variable was 19% (range 0–19%; $M = 3.18$, $SD = 4.18$, $Median = 1.45$). No variable in the analyses had 20% or more values imputed.

RESULTS

The following analyses apply sampling weights to adjust for key demographics (e.g., age, gender, education, income) to match norms of the U.S. Census Bureau. The exception to this procedure is the mediation analyses using Hayes' PROCESS where sampling weights cannot be used. Results were essentially the same when testing predictive models with or without sampling weights. For greater detail of the predictive models (e.g., 95% confidence intervals), see the **Supplementary Material.**

Differences in Climate Change Activism Between Latinos and Whites

The goal of the current set of analyses is to examine (1) Latino versus White differences in self-reported behavior of having contacted an elected official to urge them to take action on global warming, and (2) Latino versus White differences in intentions to contact an elected official to take action on global warming.

First, we tested if Latinos and Whites differ on the two dependent measures of interest. A chi-square test of independence finds that Latinos are significantly more likely than Whites to report having contacted an elected official to urge them to take action on global warming, $\chi^2_{(df=1)} = 10.60$, $p = 0.001$. For Latinos, 17.7% reported having contacted an elected official whereas 12.3% of Whites did. Likewise, an independent samples t-test shows that Latinos also had significantly higher intentions to contact government officials in the future than did Whites ($M = 2.57$, $SD = 0.91$ vs. $M = 2.12$, $SD = 0.91$, respectively), $t_{(2081)} = 10.83$, $p < 0.001$, 95% CI [0.37, 0.53], $d = 0.49$.

Predictors of Climate Change Activism
Contacting Government Officials in the Past

Binary logistic regression models assessed the relative strength of predictors of odds of having contacted an official in the past for Latinos and Whites. Predictors were entered into regression models through separate blocks: Demographics

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[2]Respondents, were also asked the extent to which they attend religious services ranging from 1 ("Never") to 6 ("More than once a week"). Service attendance was initially considered as a predictor of past behavior and intentions; however, zero-order correlations suggested no consistent relationship across Latinos and Whites (rs ranged from -0.01 to -0.08) and was removed from predictor sets.

(Model 1), Ideology and Belief System (Model 2), Barriers to Activism (Model 3), Risk Perceptions (Model 4), and Social Influence (Model 5). Because a small proportion of respondents reported having contacted government officials, the full model of predictors was not tested. According to Tabachnick and Fidell (2013) on binary logistic regression models, "a number of problems may occur when there are too few cases relative to the number of predictor variables" resulting in "too many cells with no cases," thus "the analysis may have little power if expected frequencies are too small" (p. 488). In short, testing all predictors in one model would lead to unstable estimates and unreliable results. However, given that political views are strong determinants of engagement with climate change (e.g., Hornsey et al., 2016), we performed additional analyses to test the robustness of effects by controlling for political ideology in Models 1, 3, 4, and 5 (see **Supplementary Material**). Relationships between the predictors and odds of contacting a government official were the same when adjusting for political ideology across models for both Latinos and Whites.

As shown in **Table 1**, key positive predictors of past activism among Latinos include risk perceptions, contact from environmental organizations, social network effects (i.e., hearing others talk about global warming), collective political efficacy, education, descriptive and injunctive norms of family and friends, and egalitarianism; conversely, negative predictors include perceived barriers, political fatalism, and conservative ideology.

Among Whites, positive predictors are largely similar, including risk perceptions, contact from environmental organizations, egalitarianism, collective political efficacy, descriptive, and injunctive norms, and education. Perceptions of barriers also strongly negatively predict past activism among Whites.

Intentions to Contact Government Officials in the Future

Multiple regression analyses on intentions to contact government officials in the future followed the same procedure as the binary logistic regressions. As a further exploratory analysis, all predictors were entered into the model simultaneously given that sample sizes were large enough to test the full model.

As shown in **Table 2**, among Latinos, the positive predictors of activism intentions include risk perceptions, egalitarianism, social network effects, descriptive norms, and contact from environmental organizations. Negative predictors of activism include Republican party affiliation, perceptions of barriers, income, and political fatalism.

Among Whites, risk perceptions, egalitarianism, and contact from environmental organizations are positive predictors of intentions; negative predictors include perceptions of barriers and Republican party affiliation.

Taken together, across Latinos and Whites for both dependent variables, perceiving that global warming is a serious risk consistently emerges as one of the strongest predictors of contacting a government official in the past and willingness to do so in the future. Additionally, egalitarianism and contact by an environmental organization consistently predicted past activism

and behavioral intentions. Conversely, perceived barriers to activism represents one of the strongest negative predictors of engagement.

Explaining Differences in Climate Change Activism: A Competitive Mediation Analysis

One goal of the current research is to investigate which factors explain differences between Latinos and Whites on the dependent measures. We used the PROCESS macro (Hayes, 2013) in SPSS to test mediation models to determine the variables that best predict why Latinos exhibit stronger climate change activism and intentions than Whites. Our analytic approach was to first run mediation models in blocks that contained conceptually related variables. For example, the Social Influence block contained social network effects, how much respondents hear about global warming in the media, descriptive norms, injunctive norms, and whether the respondent has been contacted by an environmental organization. Running the mediation models in blocks enabled the identification of significant explanatory variables within blocks while controlling for demographics and other related variables.

According to Slater and Gleason (2012), one of the more interesting and meaningful approaches to explore mediation is to compare models. Thus, significant mediators were entered into a combined mediation model to (1) investigate whether they remained significant while controlling for significant mediators from other blocks and (2) to test whether some mediators were significantly stronger than others in explaining variation in the dependent variables. We used this same approach for both dependent measures of activism (see **Table 3** for differences in the predictors of climate change activism between Latinos and Whites, and **Tables 4–7** for mediation results).

As shown in **Table 4**, mediation analyses suggest that Latinos are more likely than Whites to have contacted government officials in the past, at least in part, because Latinos appear to be more egalitarian, and less individualistic, perceive greater collective political efficacy, perceive global warming as a greater risk, have stronger pro-climate descriptive, and injunctive norms, and more often hear people they know talking about global warming.

Why do Latinos also have stronger intentions than Whites to contact government officials? Mediation analyses indicate that Latinos have stronger intentions, at least in part, because they have a stronger identification with the Democratic party, are more egalitarian, perceive global warming as a greater risk, have stronger descriptive and injunctive norms, perceive greater collective political efficacy, and more often hear people they know talking about global warming (see **Table 5**)

Finally, we conducted a competitive mediation analysis using Hayes' PROCESS to determine which of the significant mediators were strongest in explaining differences between Latinos and Whites in the dependent measures of activism. Significance tests comparing each mediator to the other mediators in the model are listed in **Tables 6**, **7**. Standardized indirect effects are listed in order of magnitude. Consistent with the models reported above, we aimed to predict respondents' past behavior

TABLE 1 | Predictors of odds of having contacted a government official in the past 12 months.

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Latinos	Whites	Latinos	Whites	Latinos	Whites	Latinos	Whites	Latinos	Whites
DEMOGRAPHICS										
Gender	0.74	1.37								
Education	1.52***	1.48**								
Age	1.00	1.02**								
Income	1.02	0.91								
Catholic	0.78	0.87								
Born again	0.78	0.57								
Protestant	0.89	0.77								
No religion	1.60	1.83								
IDEOLOGY/BELIEF SYSTEM										
Party affiliation			0.97	0.87						
Political ideology			0.83*	1.09						
Egalitarianism			1.68***	2.68***						
Individualism			0.87	0.58*						
Political fatalism			0.53***	0.79						
Collective political efficacy			1.41***	1.47**						
Barriers to Activism					0.25***	0.14***				
Risk Perceptions							2.37***	5.71***		
SOCIAL INFLUENCE										
Social network									1.56***	1.49**
Contacted by organization									1.90***	2.51***
Descriptive norm									1.53***	1.88**
Injunctive norm									1.56***	1.49*
Hear in media									0.87	0.89

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$. Odds ratios are presented (0 = Did not contact, 1 = Contacted). Odds ratios above one mean greater likelihood to contact and those below one mean lesser likelihood. Gender coded as 1 = Male and 2 = Female. Catholic, Born Again, Protestant, and No Religion were dummy-coded as 0 = No and 1 = Yes. See section Measures for the coding of other measures. Results were the same when controlling political ideology across models (see **Supplemental Material** for analyses).

of having contacted a government official as well as intentions to do so in the future. For the measure of past behavior, risk perceptions were significantly stronger than all other mediators in the model. Although not significantly different from each other, the strongest mediators after risk perceptions, in order of magnitude, were descriptive norms, egalitarianism, injunctive norms, social network effects, and collective political efficacy.

With few exceptions, the results were similar for predicting activism intentions. Risk perceptions were significantly stronger than all other mediators in the model. That is, perceived risk best predicts why Latinos have stronger intentions to contact a government official to act on global warming compared to Whites. Although not significantly different from each other, the strongest mediators after risk perceptions, in order of magnitude, were party identification, injunctive norms, egalitarianism, and social network effects. In other words, stronger identification with the Democratic party, higher injunctive norms, higher egalitarianism, and more frequently hearing others talk about global warming may equally explain why Latinos have greater activism intentions than Whites. Further, collective political efficacy and descriptive norms also explained differences between Latinos' and Whites' intentions at a similar magnitude to egalitarianism.

DISCUSSION

Overall, we find that, in the United States, Latino citizens are more politically active on climate issues than Whites. Latinos are more likely to have contacted a government official and have stronger intentions to urge them to act on climate change in the future. These results contrast with previous research on voting behavior and other forms of political action which indicate less engagement by Latinos than Whites (e.g., Johnson et al., 2004; Gibson-Wood and Wakefield, 2013), suggesting that climate change activism is a different form of political behavior for Latinos.

In addition, across both Whites and Latinos, we find that global warming risk perceptions most strongly predict climate change activism (past behavior and intentions) relative to the other predictors examined. Aligned with previous research findings (e.g., Roser-Renouf et al., 2014), other predictors of greater activism across both groups include egalitarianism (valuing fairness and social justice), collective political efficacy (beliefs that people working together can influence the government), and social influence factors such as social network effects (hearing other people talk about global warming), and perceptions of social norms (that friends and family are taking

TABLE 2 | Predictors of intentions to contact government officials.

	Model 1		Model 2		Model 3		Model 4		Model 5		Full model	
	Latinos	Whites	Latinos	Whites	Latinos	Whites	Latinos	Whites	Latinos	Whites	Latinos	Whites
DEMOGRAPHICS												
Gender	−0.03	0.03									−0.04	−0.03
Education	0.10**	0.04									0.05	−0.06
Age	0.05	0.05									0.04	0.01
Income	−0.18***	−0.05									−0.14***	−0.04
Catholic	−0.01	0.03									−0.05	0.004
Born again	−0.08*	−0.08									0.01	0.02
Protestant	−0.01	−0.01									−0.02	−0.01
No religion	0.01	0.11									−0.03	−0.05
IDEOLOGY/BELIEF SYSTEM												
Party affiliation			−0.22***	−0.19***							−0.17***	−0.11**
Political ideology			0.04	−0.09							0.05	−0.06
Egalitarianism			0.25***	0.20***							0.13***	0.13**
Individualism			0.01	−0.07							0.08**[a]	0.02
Political fatalism			−0.14***	−0.09*							−0.07*	−0.01
Collective political efficacy			0.13***	0.20***							0.04	0.10**
Barriers to activism					−0.22***	−0.37***					−0.14***	−0.19***
Risk perceptions							0.42***	0.53***			0.22***	0.21***
SOCIAL INFLUENCE												
Social network									0.16***	0.14**	0.11***	0.07
Contacted by organization									0.06*	0.14***	0.06*	0.06*
Descriptive norm									0.15***	0.16***	0.11***	0.07
Injunctive norm									0.21***	0.29***	0.05	0.08
Hear in media									−0.01	0.04	−0.05	0.02
F	5.56	2.73	55.07	55.19	68.93	119.10	286.86	295.48	60.09	62.82	30.51	27.46
Adjusted R^2	0.03	0.02	0.20	0.30	0.05	0.14	0.18	0.28	0.18	0.29	0.32	0.43

***p < 0.001; **p < 0.01; *p < 0.05. Values refer to standardized beta weights. Intentions to contact ranged from 1 ("Definitely would not") to 4 ("Definitely would"). Gender coded as 1 = Male and 2 = Female. Catholic, Born Again, Protestant, and No Religion were dummy-coded variables coded as 0 = No and 1 = Yes. See section Measures for the coding of other measures.
[a]*Individualism strengthened from Model 2 indicating that this estimate is likely unreliable.*

action and that friends and family think action is important). We also found a consistent positive relationship between having been contacted by an environmental organization and activism, providing evidence that organizations' efforts are influential in promoting political action.

Conversely, perceiving barriers to contacting government officials (e.g., being too busy, not identifying as an activist, not knowing what to say or who to contact, feeling uncomfortable) is a relatively strong negative predictor of contacting government officials and willingness to contact them in the future. Future work should examine how barriers to activism can be effectively reduced, given that relatively little work has offered significant insight according to Eisenack et al. (2014). Making contacting government officials easier and more popular (capitalizing on social norms), in addition to providing information on who and how to contact and what to say, may help to address barriers and promote this type of climate change activism.

Although the strength of predictors of climate change activism were similar across Latinos and Whites, there were notable differences in some individual and social factors that we examined further through mediation tests to explain Latinos'

greater political action on climate change. These analyses suggest that Latinos, on average, may be more likely than Whites to be engaged because they see global warming as a greater risk, have stronger egalitarian values, perceive greater political efficacy, more strongly identify with the Democratic party, perceive stronger injunctive norms, and are more likely to hear people they know talking about global warming.

Consistent with previous research (e.g., Leiserowitz, 2006), risk perceptions play a critical role in explaining engagement with climate change. In the current study, perceiving climate change to be a serious threat was the strongest predictor in explaining why Latinos have contacted government officials more than Whites and report greater intentions to do so in the future. Because personal and subjective experiences with environmental changes (e.g., personally experiencing natural disasters like hurricanes) play an important role in risk perceptions (Howe and Leiserowitz, 2013; Demuth et al., 2016; Marlon et al., 2018) and previous research finds that Latinos are more likely than non-Latinos to report having personally experienced the impacts of global warming (Leiserowitz et al., 2017), perceived or actual personal experience with climate change may be partly

TABLE 3 | Means and standard deviations of predictors by Latinos and Whites.

	Latinos	Whites	Cohen's *d*
Political ideology	2.87 (1.01)	3.18 (1.17)	0.28***
Party affiliation	3.09 (1.87)	4.20 (2.02)	0.57***
Egalitarianism	2.80 (0.79)	2.44 (0.81)	0.45***
Individualism	2.48 (0.75)	2.69 (0.83)	0.27***
Political fatalism	2.37 (0.83)	2.34 (0.75)	0.04
Collective political efficacy	2.87 (1.16)	2.64 (1.03)	0.21***
Perceived barriers	2.38 (0.58)	2.35 (0.52)	0.05
Risk perceptions	3.25 (0.81)	2.69 (0.94)	0.64***
Social network	2.58 (1.28)	2.43 (1.23)	0.12**
Hear in media	3.51 (1.22)	3.50 (1.26)	0.01
Descriptive norm	2.64 (1.04)	2.35 (0.98)	0.29***
Injunctive norm	3.02 (1.14)	2.42 (1.13)	0.53***
Contacted by organization	1.37 (0.80)	1.37 (0.85)	0.00

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$.

driving Latinos' heightened risk perceptions. While personal and subjective experiences can play a strong role, this raises questions about what other individual, social, and cultural factors predict risk perceptions among Latinos. Specifically, future research could investigate which factors most strongly (or weakly) explain differential risk perceptions between Latinos and Whites. For example, given that injunctive norms played a relatively strong role in explaining why Latinos are more politically engaged than Whites, the perceived norms of family and friends may likewise be a key predictor of risk perceptions among Latinos.

Interestingly, party identification, egalitarianism, injunctive norms, and social network effects play similar mediating roles in partially explaining group differences in intended climate change activism. It is plausible that these variables have similar antecedents. For example, egalitarian worldviews include a strong emphasis on fairness and social justice, values that are endorsed by the Democratic party (Democratic Platform Committee, 2016). Additionally, because people tend to adopt similar views to the people in their social networks (Huckfeldt and Sprague, 1991), it would be no surprise that people higher in egalitarianism and Democratic identification also affiliate with other people who find it important to act on global warming.

There are several limitations to this study. First, because we used correlational data, it is not possible to make causal claims. Additionally, we examined only one kind of climate change activism (i.e., contacting a government official). It is possible that the predictors of this form of activism do not broadly apply to other forms of activism such as signing petitions, joining a campaign, or consumer actions like rewarding or punishing businesses for their environmental impacts. Further research is needed to develop causal models, measure other forms of activism (also beyond self-report), and determine the generalizability of these findings. Further, our measure of contact by an environmental organization was limited to contact via mail, phone, or in-person. Environmental organizations offer other ways of becoming politically involved via email or social media. Thus, the predictive strength of contact by an environmental organization in the present work might be different if we were to include other methods of contact. Future research might investigate a broader range of methods by which environmental organizations contact the public.

In addition, although our data are nationally representative, there is some selection bias due to missing data. Roughly 8–9% of cases were excluded and there was indication that Latino and White respondents in the retained sample were more politically engaged than those who were excluded. Importantly, however, these differences were small and Latinos who were excluded still seemed to be more politically engaged on climate change than Whites who were excluded. Still, the present analyses might be overestimating relationships than would be found in the overall U.S. population. Future research should also examine how political action compares across other racial/ethnic minority groups in the United States. The present analysis was part of a larger research project focusing on Latinos and sample sizes of other racial/ethnic minority groups were not large enough to conduct in-depth analyses.

Further, although we found that regional differences between Latinos and Whites in the U.S. did not explain differences in political engagement between the two groups, Latinos in the Northeast tended to have higher levels of activism compared to those in the South and West (see **Supplementary Material**). Future research might integrate geographic-based data on structural and environmental factors (e.g., exposure to air pollution, sea-level rise) with survey data to investigate place-specific experiential and vulnerability factors that could influence Latinos' attitudes and behaviors related to climate change.

PROMOTING PUBLIC WILL AMONG LATINOS: IMPLICATIONS FOR CAMPAIGNS AND COMMUNICATIONS

The findings have implications for initiatives to promote climate change activism among Latinos. Consistent with research suggesting that Latinos have particularly strong pro-environmental attitudes and tendencies (e.g., Leiserowitz and Akerlof, 2010; Macias, 2016a,b; Pearson et al., 2017, 2018), our analyses find that Latino citizens tend to be more politically active on climate change than Whites. In other words, Latinos may represent a community with relatively strong public will (Raile et al., 2014) to address climate change.

Public will is conceptualized as a group of people (or a social system) with a shared recognition of a specific problem and a common drive to solve the problem in specific ways

TABLE 4 | Significant mediators of odds of having contacted a government official in the past 12 months.

Mediator	Conditional direct effects [95% CI]	Indirect effects [95% CI]
X → M		
Egalitarianism	−0.29 [−0.36, −0.21]	
Individualism	0.15 [.07,0.22]	
Collective political efficacy	−0.21 [−0.31, −0.10]	
Risk perceptions	−0.46 [−0.54, −0.38]	
Social network effects	−0.25 [−0.37, −0.14]	
Descriptive norm	−0.23 [−0.33, −0.14]	
Injunctive norm	−0.44 [−0.55, −0.33]	
M → Y		
Egalitarianism	0.31 [0.11,0.50]	
Individualism	−0.27 [−0.45, −0.09]	
Collective political efficacy	0.23 [0.11,0.35]	
Risk perceptions	0.57 [0.31,0.83]	
Social network effects	0.35 [0.24,0.47]	
Descriptive norm	0.40 [0.23,0.57]	
Injunctive norm	0.20 [0.05,0.36]	
X → M → Y		
Egalitarianism		−0.09 [−0.16, −0.03]
Individualism		−0.04 [−0.08, −0.01]
Collective political efficacy		−0.05 [−0.09, −0.02]
Risk perceptions		−0.26 [−0.41, −0.14]
Social network effects		−0.09 [−0.14, −0.05]
Descriptive norm		−0.09 [−0.16, −0.05]
Injunctive norm		−0.09 [−0.17, −0.02]

X = Group (0 = Latino, 1 = White); Y = Contacted an elected official (0 = No, 1 = Yes). Values refer to unstandardized direct and indirect effects. Covariates = Gender, Age, Education, Income, and four dummy-coded variables for each religious affiliation (Catholic, Born Again, No Religion, and Protestant). Significance was tested using bias-corrected bootstrap confidence intervals with 5,000 resamples. All indirect effects are significant (95% confidence intervals do not contain zero).

TABLE 5 | Significant mediators of intentions to contact government officials.

Mediator	Conditional direct effects [95% CI]	Indirect effects [95% CI]
X → M		
Party affiliation	0.78 [0.60,0.96]	
Egalitarianism	−0.29 [−0.36, −0.21]	
Collective political efficacy	−0.21 [−0.31, −0.10]	
Risk perceptions	−0.46 [−0.54, −0.38]	
Social network effects	−0.25 [−0.37, −0.14]	
Descriptive norm	−0.23 [−0.33, −0.14]	
Injunctive norm	−0.44 [−0.55, −0.33]	
M → Y		
Party affiliation	−0.06 [−0.08, −0.04]	
Egalitarianism	0.12 [0.07, 0.17]	
Collective political efficacy	0.10 [0.07, 0.13]	
Risk perceptions	0.23 [0.18, 0.28]	
Social network effects	0.09 [0.07, 0.12]	
Descriptive norm	0.06 [0.02, 0.10]	
Injunctive norm	0.09 [0.05, 0.13]	
X → M → Y		
Party affiliation		−0.05 [−0.07, −0.03]
Egalitarianism		−0.04 [−0.05, −0.02]
Collective political efficacy		−0.02 [−0.03, −0.01]
Risk perceptions		−0.11 [−0.14, −0.08]
Social network effects		−0.02 [−0.04, −0.01]
Descriptive norm		−0.01 [−0.03, −0.001]
Injunctive norm		−0.04 [−0.06, −0.02]

X = Group (0 = Latino, 1 = White); Y = Intentions to contact an elected official. Values refer to unstandardized direct and indirect effects. Covariates = Gender, Age, Education, Income, and four dummy-coded variables for each religious affiliation (Catholic, Born Again, No Religion, and Protestant). Significance was tested using bias-corrected bootstrap confidence intervals with 5,000 resamples. All indirect effects are significant (95% confidence intervals do not contain zero).

via sustained collective action (Raile et al., 2014). According to Raile et al. (2014), public will "emphasizes communicative processes that shape understanding, motivation, and intention" (p. 111). In other words, awareness and communication between members are critical steps in forming an engaged issue public. On the issue of climate change, Latinos in the United States are already personally aware of and concerned about global warming (Leiserowitz et al., 2017), and we find that Latinos have a propensity to take political action on the issue. Latinos—as well as the general U.S. public—also tend to underestimate the environmental concerns of the Latino community, despite the fact that Latinos top the list of groups most concerned about the environment (Pearson et al., 2018).

Thus, communication campaigns for the Latino community might focus on building accurate perceptions of *shared* awareness (i.e., promoting social norms and consensus) that other Latinos are concerned and acting on the issue to further facilitate collective action (see Raile et al., 2017 for methods and tools to build public will). For instance, correcting misperceptions via social consensus information that the majority of other people do in fact support pro-climate policy has been shown to increase personal support for policy (Mildenberger and Tingley, 2017). Among racial/ethnic minorities in the United States, even brief exposure to a racially diverse environmental organization

can reduce misperceptions that Whites are more concerned about the environment and more representative of the term "environmentalist" than are non-Whites (Pearson et al., 2018).

Normative feedback interventions are also shown to be effective strategies to encourage pro-environmental behavior, such as saving energy at home (Karlin et al., 2015). For example, communicating to people how much energy they use relative to others in their neighborhood (i.e., a descriptive norm) and that high (low) energy use is socially disapproved (approved) of (i.e., an injunctive norm) can decrease high energy use and reinforce low energy use, which together can foster conservation norms in the community (e.g., Schultz et al., 2007). In other domains, social norm interventions can promote healthy dietary behavior (Robinson et al., 2014), support anti-bullying and pro-intervention attitudes (Perkins et al., 2011), and reduce alcohol consumption in college students (see Miller and Prentice, 2016 for a review). Because we find that social norms are among the strongest factors explaining climate change activism among Latinos, communication strategies that emphasize the social norms and consensus among Latinos (e.g., that a strong majority care about the environment) may be particularly effective in strengthening this potential issue public.

Moreover, our findings indicate that capitalizing on global warming risk perceptions may be an especially effective strategy in promoting a Latino issue public. According to a

TABLE 6 | Competitive mediation analysis of having contacted a government official in the past 12 months between Latinos and Whites.

Comparison variable	Variable	Contrast of indirect effects [95% CI]
Risk perceptions	Descriptive norm	−0.17 [−0.32, −0.03]*
	Egalitarianism	−0.17 [−0.34, −0.02]*
	Injunctive norm	−0.17 [−0.35, −0.01]*
	Social network effects	−0.17 [−0.32, −0.04]*
	Collective political efficacy	−0.22 [−0.36, −0.09]*
	Individualism	−0.22 [−0.38, −0.09]*
Descriptive norm	Egalitarianism	0.00 [−0.09, 0.08]
	Injunctive norm	0.00 [−0.11, 0.09]
	Social network effects	0.00 [−0.07, 0.07]
	Collective political efficacy	−0.04 [−0.11, 0.02]
	Individualism	−0.05 [−0.12, 0.01]
Egalitarianism	Injunctive norm	0.00 [−0.10, 0.10]
	Social network effects	0.00 [−0.08, 0.08]
	Collective political efficacy	−0.04 [−0.12, 0.02]
	Individualism	−0.05 [−0.13, 0.02]
Injunctive norm	Social network effects	0.00 [−0.09, 0.09]
	Collective political efficacy	0.04 [−0.13, 0.04]
	Individualism	−0.05 [−0.13, 0.03]
Social network effects	Collective political efficacy	−0.04 [−0.10, 0.01]
	Individualism	−0.05 [−0.11, 0.01]
Collective political efficacy	Individualism	−0.01 [−0.06, 0.04]

Significant difference for (comparison variable–variable). Y = Contacted an elected official (0 = No, 1 = Yes). Variables listed in order of mediation strength. Covariates = Gender, Age, Education, Income, and four dummy-coded variables for each religious affiliation (Catholic, Born Again, No Religion, and Protestant). Significance was tested using bias-corrected bootstrap confidence intervals with 5,000 resamples. Individualism was reverse-scored to have the same sign as other variables in the model to enable significance tests for differences between specific indirect effects (Hayes, 2013).

TABLE 7 | Competitive mediation analysis of intentions to contact a government official between Latinos and Whites.

Comparison variable	Variable	Contrast of indirect effects [95% CI]
Risk perceptions	Party affiliation	−0.06 [−0.10, −0.02]*
	Injunctive norm	−0.07 [−0.11, −0.03]*
	Egalitarianism	−0.07 [−0.11, −0.04]*
	Social network effects	−0.08 [−0.12, −0.05]*
	Collective political efficacy	−0.09 [−0.12, −0.06]*
	Descriptive norm	−0.09 [−0.13, −0.06]*
Party affiliation	Injunctive norm	−0.01 [−0.04, 0.02]
	Egalitarianism	−0.01 [−0.04, 0.01]
	Social network effects	−0.02 [−0.05, 0.00]
	Collective political efficacy	−0.03 [−0.05, −0.01]*
	Descriptive norm	−0.03 [−0.06, −0.01]*
Injunctive norm	Egalitarianism	0.00 [−0.03, 0.02]
	Social network effects	−0.01 [−0.04, 0.01]
	Collective political efficacy	−0.02 [−0.04, 0.00]
	Descriptive norm	−0.02 [−0.05, −0.001]*
Egalitarianism	Social network effects	−0.01 [−0.03, 0.01]
	Collective political efficacy	−0.01 [−0.04, 0.01]
	Descriptive norm	−0.02 [−0.04, 0.00]
Social network effects	Collective political efficacy	0.00 [−0.02, 0.01]
	Descriptive norm	−0.01 [−0.03, 0.01]
Collective political efficacy	Descriptive norm	−0.01 [−0.02, 0.01]

Significant difference for (comparison variable–variable). Y = Intentions to contact an elected official. Variables listed in order of mediation strength. Covariates = Gender, Age, Education, Income, and four dummy-coded variables for each religious affiliation (Catholic, Born Again, No Religion, and Protestant). Significance was tested using bias-corrected bootstrap confidence intervals with 5,000 resamples. Party affiliation was reverse-scored to have the same sign as other variables in the model to enable significance tests for differences between specific indirect effects (Hayes, 2013).

recent study, Latinos are among the groups most exposed to air pollution (i.e., NO_2 concentration) (Clark et al., 2014). Providing information about these environmental injustices to Latino communities, for instance, may indirectly spur more collective political action. Importantly, however, there are clear ethical implications that such informational campaigns should carefully consider, such as ensuring that communities have the resources to support their members (e.g., involvement from local organizations). Emphasis on environmental inequities may also draw on egalitarian worldviews (e.g., valuing fairness and social justice), which play a central role in explaining climate change activism among Latinos. With the appropriate community resources to support action, communication campaigns such as these may also activate other groups, including other racial/ethnic minorities and the poor, who are disproportionately affected by climate problems (e.g., National Research Council, 2010).

Taken together, future work should focus on further engaging Latinos in climate action and understanding which strategies are most effective in promoting a climate change issue public among this growing segment of the U.S. population.

ETHICS STATEMENT

The Human Subjects Committee of Yale University deemed this study as exempt under 45 CFR 46.101(b) (2): Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, unless the information is obtained and recorded in such a manner that the human subjects can be identified, directly or through identifiers linked to the subjects; and any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. All subjects gave electronic informed consent to complete the online survey.

AUTHOR CONTRIBUTIONS

FUNDING

ACKNOWLEDGMENTS

SUPPLEMENTARY MATERIAL

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