ORIGINAL ARTICLE

Interaction effects on support for climate-change mitigation

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Abstract

Background: Research on the social bases of environmental concern has established robust findings across various sociodemographic characteristics. This includes interaction effects between education and political identity, as well as particularly low concern among supporters of President Trump.

Objectives: Using 2016 survey data, we extend such research to examine U.S. public support for four climate-change mitigation strategies: investment in renewable energy, lifestyle changes, a revenue-neutral carbon tax, and cap-and-trade.

Methods: We perform ordered logit regression of belief in anthropogenic climate change and support for these strategies on several key independent variables.

Results: Support follows some of the patterns expected for environmental concern generally but with new details. Trump support is a dominant predictor, and education ✕ party interactions show significant variations in levels of support.

Conclusion: This provides important insights for public policy decision making related to climate change by considering which characteristics are most predictive of support for specific strategies.

KEYWORDS
climate change, environmental sociology, policy

The U.S. public lags far behind scientists in recognizing the seriousness of human-caused climate change (e.g., Cook et al. 2016; USGCRP 2017). Even so, public recognition has been rising, and with that comes increasing awareness that mitigation efforts are needed (Hamilton et al. 2018). Although science offers much guidance regarding mitigation, public support for meaningful efforts remains problematic, being undercut by intense political opposition. Some potential mitigation steps, such as renewable energy development, nevertheless attract broad popular support. Others such as a carbon tax remain less understood or supported. Given the urgent necessity and common goals of climate-change mitigation strategies, focused research is warranted on their wide variations in public support.

One obvious hypothesis for such research is that support for climate-change mitigation activities will generally conform to patterns seen with many other environmental topics, collectively termed "the social bases of environmental concern" (Van Liere and Dunlap 1980). In particular, support for mitigation will be lowest among people who identify as conservatives. Beyond this easy guess, however, the details are unresolved. Other common propositions about the social bases of environmental concern have proven

somewhat issue-dependent, so their relevance for different climate mitigation steps remains an open question. For example, concern about some environmental problems, including climate change itself, tends to be higher among women, younger adults, and people with more education. Race and income effects are intermittently detected. Among these background factors, only education has shown consistency similar to political effects, but that consistency is complicated by education × politics-type interactions, which have been replicated for a number of environmental opinions. These interactions have the general character that environmental concern rises with education (also with objectively tested science literacy, quantitative literacy, or knowledge) among liberals and moderates but declines with education/literacy among the most conservative.

Here, we explore attitudes toward mitigation using data from a 2016 nationwide survey that asked people for their general opinions on climate change and then about four possible steps that might reduce climate-change risks: renewable energy investment, changes in lifestyle and consumer behavior, a revenue-neutral carbon tax, or cap-and-trade policies. Support for these steps varied widely; we look at similarities and differences in the effects of a set of common predictors. Across the board, education and partisan identity show the expected effects, but these include interactions not previously demonstrated with such issues. In addition, even controlling for the party, Trump voters stand apart for their lower support for mitigation. Variations in the strength of political effects, and in the influence of other factors, highlight potentially important differences in how mitigation strategies appeal to and are opposed by factions of the public.

BACKGROUND

The social bases of environmental concern have been topics of sustained research interest over the decades since Van Liere and Dunlap (1980) published their seminal article. Basic results were well-replicated even then and have since been widely confirmed and elaborated (e.g., Dietz et al. 2007; Stoutenborough et al. 2014; Xiao and McCright 2007). Van Liere and Dunlap reviewed many studies showing that environmental concern is higher among younger, better educated, and more liberal individuals. The political party at that time exhibited relatively weak effects, although more recent studies have seen ideology and party both as dominant predictors while converging as virtually interchangeable indicators for sociopolitical identity—reflecting decades of "party sorting" through which parties, and especially Republicans, became ideologically more homogeneous (Brulle 2013; Fiorina and Abrams 2008; Guber and Miller 2013; McCright et al. 2014). Articles applying a "social bases" framework to climate change, and finding broadly consistent results, are far too numerous to list (Shwom et al. 2015; multi-survey U.S. examples include Hamilton et al. 2015; McCright and Dunlap 2011).

Gender exhibited inconsistent effects in early studies, and to some degree, this continues to be the case. For many environmental problems, however, women express higher levels of concern than men do. Effects from income have been more intermittent and often weak or absent in studies that control for education and politics. Political indicators tend to dominate other predictors, with ideology and the party having roughly merged so they are now about equally important, perhaps not for their original content but as indicators for sociopolitical identity. Elaborating on traditional three-party coding of Democrats, Independents, and Republicans, several articles have shown the value of distinguishing a very conservative fourth group—Tea Party supporters—who express still lower levels of concern about environmental problems, and especially climate change (Hamilton and Saito 2015; Leiserowitz et al. 2011; Shao 2016). Along similar lines, several studies report that support for President Trump predicts lower levels of environmental concern than either ideology or party do (Hamilton 2017, 2019; Shao and Hao 2019).

Education is almost always a significant predictor of environmental concern, but this venerable finding now comes with a caveat: Education frequently interacts with political identity, such that environmental concern rises with education among liberals or moderates but declines with education among the most conservative. This interaction was first modeled by Hamilton (2008) and has been replicated in many different data sets including those described by Hamilton and Keim (2009), Hamilton et al. (2010, 2015, 2018), McCright and Dunlap (2011), and Shao et al. (2014). Variations on the theme include interactions

with objectively tested quantitative reasoning, science literacy, or knowledge in place of education (Drummond and Fischhoff 2017; Hamilton et al. 2012; Kahan et al. 2012; Tranter 2019; Zummo et al. 2020).

Education × politics interactions are pronounced for climate-change views and have been reported on other environmental topics as well (e.g., Hamilton and Safford 2014; Hamilton et al. 2010). These patterns are not universal, but multiple replications suggest that interaction hypotheses should be more widely tested. Because education (or science literacy) can have opposite-sign effects among people with liberal and conservative identities, analyses that consider only the additive effects of education or politics, without testing for interactions, risk underestimating the effects of both. This could also explain some of the inconsistencies reported in education effects. Where such interactions exist but are not tested, the analysis might effectively be averaging a positive effect from education (among liberals and moderates) with a negative effect (among conservatives), yielding a misleadingly weak result.

Education × politics and similar interactions are commonly explained with reference to information-filtering processes, in which better-educated (or more scientifically literate, etc.) individuals are more efficacious in acquiring information that fits with their prejudices and sociopolitical identity. They might learn about identity-appropriate positions by attending to political or media leaders (*elite cues*; Brulle et al. 2012; Carmichael and Brulle 2017; Darmofal 2005), by reasoning from their own general assumptions (*motivated reasoning*; Druckman and McGrath 2019; Kraft et al. 2015; Kunda 1990; Taber and Lodge 2006), by selectively absorbing information that agrees with what they already believe (*biased assimilation*; Corner et al. 2012; Ehret et al. 2016; McCright and Dunlap 2011), or through feedback from social groups they identify with (*cultural cognition*; Kahan et al. 2011). Each of these processes has empirical support. Conceptually they have elements in common, and plausibly all contribute to education × politics–type interactions.

While environmental concern is fairly straightforward and established along party lines, pragmatic solutions to climate change are more complicated. Carmines and Stimson (1980) originally distinguished between easy and hard issues, where the former refers to issues resolved with a symbolic "gut feeling," and the latter refers to more technical policy problems. Put another way, easy issues focus on the ends, while hard issues pay more attention to the means. While it may be that belief in anthropogenic climate change has become more of an easy issue for voters in recent years, economic and policy solutions remain mostly technical. Attitudes toward mitigation strategies require some voter sophistication; where voters are ill-informed, they may have to rely more heavily on elite cues from party leaders (Johnston and Wronski 2015). These leaders may influence attitudes toward complex issues by associating them with core values that are more comprehensible to the everyday voter (Pollock et al. 1993).

Support for climate change mitigation, then, represents a special case of more general environmental concern (Klineberg et al. 1998). Overall, voters are most likely to support mitigation strategies that impose costs on industry rather than individuals. Climate-change mitigation tends to receive broad support, but this decreases when actual costs of implementation are provided (Bord et al. 1998; Dietz et al. 2007; Shwom et al. 2010). Socio-demographic characteristics predicting support for environmental policies and behaviors include education and political identity. Conservatives are consistently less likely to support mitigation strategies, particularly those that impose greater governmental intervention (Dietz et al. 2007; Klineberg et al. 1998; Xiaoquan et al. 2011). Household income is also strongly correlated with support for some strategies, as financial security and access to resources make some more willing and able to shoulder the cost (Klineberg et al. 1998; Shwom et al. 2010). Eom et al. (2018) found evidence that the relationship with income may also be the result of differences in perceived control and autonomy, as low-income people are less likely to believe in the efficacy of their actions.

Risk perceptions are central to climate-change mitigation efforts because those who perceive significant threats to themselves and others are more likely to support environmental policies. Notably, perceived risk is not associated with actual risk, and most people perceive environmental threats to be global, not local (Leiserowitz 2006; Mayer et al. 2017). Media exposure—a factor itself tied to political ideology and education—has a strong influence on people's risk perception and policy preferences (Bolin and Hamilton 2018; Feldman et al. 2012; Krosnick and MacInnis 2010; Mayer et al. 2017; Xiaoquan et al. 2011). Risk perception and policy preferences are also driven by value systems, such as egalitarianism or individualism, as well as discrete emotions like worry and hope (Leiserowitz 2006; Smith and Leiserowitz 2014).

It is clear that many of these factors are tied to both education and political identity, but these factors (and possible interactions) could affect support for different climate mitigation strategies in different ways. Although education × politics interactions are widely observed regarding a general environmental and climate-change concern, they have not been established for specific mitigation strategies. Do such interactions occur? If so, how do they vary from one strategy to the next? Answers to these questions should reflect on the alternative theoretical explanations for interactions mentioned above. In this article, we test for education × politics interactions, alongside the effects from other political and background characteristics, as predictors for a general climate-change question and four potential mitigation steps, using data from a 2016 nationwide U.S. survey.

Synthesizing findings from previous research on climate change and other environmental topics suggests the following general hypotheses:

H1a–e: Support for climate-change mitigation strategies will be (a) negatively related to conservative identity, (b) positively related to education, and higher among (c) women, and (d) minorities. (e) Income effects will depend on the specific strategy in question.

H2: Support for President Trump will be linked to lower support for climate mitigation strategies, beyond the effects of partisan identity alone.

H3: Education × party interaction effects, analogous to those observed with other environmental issues, will impact support for climate mitigation strategies as well.

H4: As hypotheses H1–H3 are tested with each of four mitigation strategies, we expect to see interpretable variations related to their content, such as stronger partisan gradients regarding carbon taxes or gender differences regarding shifts in lifestyle and consumer behavior.

DATA AND METHODS

The nationally representative Polar, Environment, and Science survey (POLES, $n = 1411$) supplies data for our analysis. Random-sample cell and landline telephone interviews, conducted by trained interviewers at the University of New Hampshire Survey Center, occurred in August and November/December 2016, bracketing the presidential election. The questions asked in both waves include opinions about science and climate change, along with knowledge tests and sources of information. Responses from the August wave are summarized in Hamilton (2016); a more detailed analysis of the knowledge questions from both waves appears in Hamilton (2018). Hamilton et al. (2019) compare POLES climate change and renewable energy responses with those of many other surveys, showing similar results.

Definitions and response summaries for the questions analyzed in this article are listed in Table 1. The basic climate-change question (*climate*) has been asked in tens of thousands of interviews on many regional and nationwide surveys since 2011, with well-validated and replicable results (Hamilton et al. 2015, 2018). One response to the *climate* question, "Climate change is happening now, caused mainly by human activities," corresponds to the consensus statements of major studies and science organizations (e.g., AGU 2019). Four other climate-related items, analyzed here for the first time, ask about different climate-change mitigation strategies: public investments in renewable energy (*renew*), lifestyle and consumer changes to reduce personal energy use (*lifestyle*), a revenue-neutral carbon tax (*carbon*), and a cap-and-trade system (*captrade*). Regarding each strategy, respondents could say whether it should be a high, medium, or low priority or not a priority at all.

Table 1 also lists a set of seven independent variables that previous research has identified as predictors of general climate-change opinions and other environmental concerns. These include standard items for respondent age, sex, race, education, and income. There also are two political items, *party4* and *Trump*. *Party4* records respondents' self-identification as Democrats, Independents, Republicans, or Tea Party supporters, using a four-party scheme developed by Hamilton and Saito (2015). In that study and others (Leiserowitz et al. 2011; Shao 2016), Tea Party supporters stand apart from other Republicans in their overwhelming rejection of anthropogenic climate change. Previous work has shown that *party4* exhibits

TABLE 1 Variable definitions with codes used for regression analysis and weighted summary statistics ($n = 1411$)

Independent variables

Age—18 to 96 years (*mean*: 46 years)

Sex—Male (0, 49 percent) or female (1, 51 percent)

Race—White (0, 82 percent) or non-white (1, 18 percent)

Education—High school or less (–1, 16 percent), some college (0, 28 percent), college degree (1,

32 percent), or postgraduate degree (2, 25 percent)

Income—Less than $20,000/year (1, 10 percent), $20,000–$40,000/year (2, 14 percent), $40,000–$60,000/year (3, 15 percent),
$60,000–$90,000/year (4, 19 percent), $90,000–$160,000/year (5,

22 percent), or more than $160,000/year (6, 21 percent)

Party—Democrat (–1, 42 percent), Independent (0, 17 percent), Republican (1, 23 percent), or

Tea Party (2, 18 percent)

Trump—Planned to vote for Trump (pre-election) or did vote for Trump (postelection; 1, 29 percent) or not (0,71 percent)

Dependent variables

Climate—Think climate is happening now, caused mainly by human activities (1, 64 percent) or not

(0, 36 percent)

Renew—"Some people have suggested that public investment in renewable energy such as

wind and solar power could help to reduce risks of climate change. Do you think

that renewable energy development should be a high priority (4, 66 percent), medium

priority (3, 24 percent), low priority (2, 6 percent), or not a priority at all (1, 4 percent) for

the U.S.?"

Lifestyle—"Others have suggested that changes in lifestyles and consumer behavior, to use

less energy, could help to reduce risks of climate change. Do you think that

reducing personal energy use should be a high priority (4, 56 percent), medium priority

(3, 29 percent), low priority (2, 9 percent), or not a priority at all (1, 7 percent) for the

U.S.?"

Carbon—"One policy step that has been proposed is a "carbon tax" on the production and use

of fossil fuels, with revenue returned to consumers through "carbon dividend" tax

reductions. Do you think that a carbon tax of this type should be a high priority (4,

25 percent), medium priority (3, 33 percent), low priority (2, 16 percent), or not a priority at

all (1, 27 percent) for the U.S.?"

Captrade—"Another policy step that has been proposed is a "cap-and-trade" system, which

sets a limit on carbon emissions but allows for trading between companies. Do you

think that a cap-and-trade system should be a high priority (4, 26 percent), medium

priority (3, 40 percent), low priority (2, 17 percent), or not a priority at all (1, 17 percent) for

the U.S.?"

Source: Polar, Environment, and Science (POLES) National Survey, August 2016 and November/December 2016.

monotonic and approximately linear effects on climate and other environmental dependent variables, so it is coded as an ordinal predictor, centered on "Independent," for regression analysis here.

Political identity also is represented by a second item: support for Donald Trump. This indicator flags respondents who said they intended to vote for Trump (in the August 2016 interviews) or did in fact vote for him (in the November/December interviews). Several studies have found Trump support itself to be a strong predictor of climate-change rejection (Hamilton 2017, 2019; Shao and Hao 2019).

Solutions given high priority, by political party
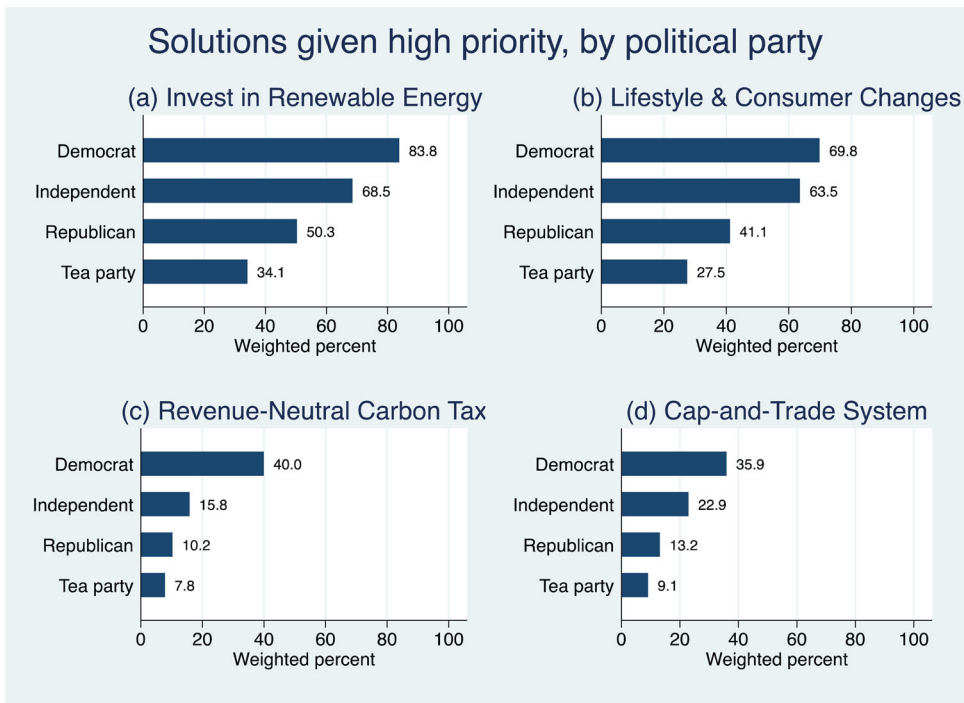
FIGURE 1   Percentage of respondents who assign high priority to climate-change mitigation steps, by political party. *Source*: Polar, Environment, and Science (POLES) National Survey, August 2016 and November/December 2016

The summary statistics in Table 1, and all other analyses in this article, apply sampling weights calculated to enhance the representativeness of results. The *climate* responses to POLES appear very consistent with those of other nationwide or regional surveys that have asked the same question (Hamilton et al. 2018).

The climate-mitigation questions defined in Table 1 (*renew*, *lifestyle*, *carbon*, and *captrade*) each have four response options, from high priority (coded 4) to not a priority at all (coded 1). In the following section, we employ probability-weighted ordered logit regression to analyze how these ordinal responses relate to the background and political factors, including the interaction of education and party. The overall climate-change item *climate* is coded dichotomously, so binomial logit could have been used instead, but ordered and binomial logit give equivalent results with a {0,1} dependent variable.

RESULTS

Overall, a majority of respondents (64 percent) agree that climate change is happening now and is caused mainly by human activity. They indicate a range of support for the four climate-mitigation steps studied here. Renewable energy development is by far the most popular, seen as a high priority by 66 percent. Changes in lifestyle and consumer behavior to reduce energy consumption are the second most popular at 56 percent. These are comparatively well-known issues; a cap-and-trade system or revenue-neutral carbon tax may have been less popular (prioritized by about a quarter of the respondents each) in part because they are less well understood.

Figure 1 breaks down support for each mitigation step according to respondents' political party. The four panels each show strong partisan gradients while also following the overall preferences mentioned above. Democrats express the highest levels of support across all four questions, followed by Independents, Republicans, and last, Tea Party supporters. Although the gradient is steepest when it comes to

TABLE 2 Survey-weighted odds ratios from ordered logistic regression of belief in anthropogenic climate change and the degree to which respondents prioritize responses to climate change based on key independent variables

Independent variables	Dependent variables				
	Climate	*Renew*	*Lifestyle*	*Carbon*	*CapTrade*
Age	0.9851*	0.9937	0.9932	0.9919	0.9958
Sex (Female)	1.3693	1.0931	1.5826**	1.0529	1.3083
Race	1.5065	0.6873	1.2388	1.0316	0.7965
Education	1.6906***	1.2886*	1.2637*	1.2239*	1.1877*
Income	0.9106	0.9643	0.9119	0.9653	0.9305
Party (D-I-R-T)	0.6172***	0.6878***	0.6914***	0.5522***	0.6033***
Trump	0.2493***	0.2612***	0.4986**	0.2933***	0.5405**
Education × Party	0.6724***	0.7893**	0.8422*	0.8604*	0.8667*
F-statistic	(8, 1031) = 21.87	(8, 1022) = 16.54	(8, 1020) = 13.83	(8, 971) = 24.77	(8, 937) = 13.64
Est. Sample (n)	1041	1032	1030	981	947

Source: POLES National Survey, August 2016 and November/December 2016.
*Coefficient statistically significant at $\alpha = 0.05$; **coefficient statistically significant at $\alpha = 0.01$; ***coefficient statistically significant at $\alpha = 0.001$.

renewable energies, with a nearly 50-point difference between Democrats and Tea Partiers, this is also the solution with the broadest support among all parties, including conservative voters. Renewable energy development thus has both the strongest partisanship and the highest overall support, a combination that needs further attention.

These four mitigation steps differ greatly in their absolute levels of support, and we see hints that their support bases may be somewhat different (Figure 1). To evaluate the effects of multiple background characteristics together, in the tradition of social-bases research, Table 2 presents results from five probability-weighted ordered logit regression analyses, in which recognition of anthropogenic climate change (*climate*) and support for each of four mitigation activities is regressed on respondent background characteristics (age, sex, race, income) and political identity (party and Trump support). Each model also includes an education × party interaction. Variable definitions and coding for this analysis are given earlier in Table 1.

Education, political party, Trump support, and education × party interactions show significant effects in the same direction across all five models in Table 2. Odds ratios greater than 1.0 correspond to "positive" effects, and those less than 1.0 correspond to "negative" effects. The farther from 1.0 in either direction, the stronger these effects are. A key takeaway from the five models in Table 2 is that recognition of the reality of human-caused climate change, and support for any proposed mitigation activity, have fairly similar social bases. We see for the first time that similarity extends to education × party interactions. The Trump effects also are new here, being independent of political party effects but comparable in magnitude.

Although the impacts of climate change are particularly detrimental for people of color and the poor, race and income do not show independent effects in any of these models. Age and sex effects are significant in just one equation each. These null results may be somewhat unexpected in light of previous environmental-concern research, which intermittently found such effects. It may be that these positional and ascribed characteristics matter less than they once did for predicting individual opinions, while political identity has become more dominant.

Party effects

The effect of party is strong (odds ratios much different from 1.0) and statistically significant across the board. The main effects of party (effects when *education* = 0, i.e., respondents with technical school or some

college education) are strongest, however, regarding carbon tax and cap-and-trade. A carbon tax, even one that is revenue-neutral as described here, runs contrary to the classically anti-tax stance of ideological conservatives. Cap-and-trade proposals, which call for more regulation of the industry, also face ideological objections. These findings align with existing research that shows conservatives are wary of government intervention and that political identity has the strongest negative impact on environmental policies that appear intrusive (Klineberg et al. 1998).

Easy-issue voters (Carmines and Stimson 1980) may retreat to their party line on broad issues like whether or not humans are contributing to climate change, but policy choices do not always provide a clear ideological pathway. As such, the main effects of party are notably weaker regarding renewable energy and lifestyle changes, where ideological positions are less clearly defined. With its potential for greater independence, lower prices, and more jobs, renewable energy has at least some attraction for ideological conservatives as well as centrists and liberals (Hamilton et al. 2018). Lifestyle changes toward less consumer dependence could appeal to some ideological conservatives as well.

Trump effects

It is notable that the negative effect of supporting or voting for Donald Trump is the strongest single predictor in each equation. Across all five dependent variables in Table 2, Trump support exhibits significant negative effects, above and beyond those of partisan identity. Donald Trump was a notably non-ideological president, acting against many nominally conservative principles, so the Trump effects in these equations might be interpreted as more representative of respondent sociopolitical identity, including negative partisanship (Abramowitz and Webster 2016, 2018) rather than ideology—with the latter better captured by party.

Trump effects are notably strong regarding belief in anthropogenic climate change, although the difference in strength between Trump and party effects on *climate* is less than for renewable energy. Although party effects are weaker, Trump effects are strongest when it comes to support for renewable energy. The greater strength of Trump (rather than party) effects with this item might reflect opposition to renewable energy because it is something the other side wants rather than because it is ideologically objectionable in itself (Abramowitz and Webster 2016, 2018; Merkley and Stecula 2018). From a purely ideological standpoint, renewable energy has aspects that should appeal to conservatives as well as liberals (Hamilton et al. 2018).

The impact of Trump support across the board, intensifying opposition to any step intended to reduce risks of climate change, makes real-world mitigation efforts more difficult and less susceptible to arguments, or policy adjustments meant to overcome ideological resistance. It may be that climate-change mitigation of any sort is opposed by many Trump-supporting conservatives because it has support among their political opponents.

Education × party interaction effects

Another unique result is the consistency of education × party interactions on support for each of the four mitigation steps. Among political independents (*party* = 0), the main-effect odds ratios for education are all greater than 1.0, meaning that more educated independents are more likely to prioritize each mitigation step. The interaction-effect odds ratios are all less than 1.0, meaning that (1) education has even stronger positive effects on mitigation support among Democrats; (2) education has basically no effect on mitigation support among non-Tea Party Republicans; and (3) education has strong negative effects on support for renewable energy or lifestyle changes, and slightly negative effects on support for cap and trade or a carbon tax, among Tea Party supporters. Figure 2 graphs these four interaction effects with adjusted margins plots calculated from the models in Table 2.
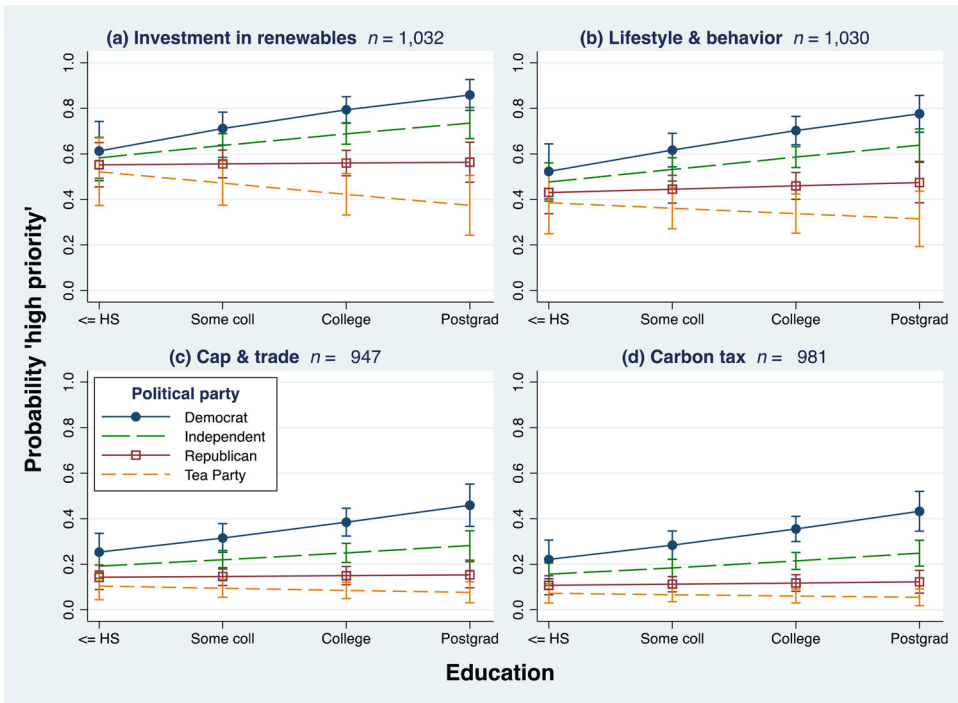
FIGURE 2 Predicted probability of respondents' high prioritization of responses as a function of education level and political party, based on ordered logistic regressions from Table 2. *Source*: POLES National Survey, August 2016 and November/December 2016

Interaction effects, or political divisions increasing with education, appear strongest for renewable energy and lifestyle changes (Figure 2a,b). The very low support for cap-and-trade or a carbon tax among conservatives, however, creates something of a floor. Support could not get much lower, so the interaction has little room to spread out.

Previous studies have documented the education × party interactions that affect belief in the reality of climate change itself, and here we see that they also affect support for actions that might reduce it. Education × party interactions are commonly explained with reference to information-filtering processes such as biased assimilation, motivated reasoning, or elite cues. Such processes could account for education × party interactions if individuals who are more educated are also more efficient in acquiring information that supports their political views or identity, including information on what positions a person with their identity "should" adopt. The concepts substantially overlap, but diverge somewhat in their emphasis on how such information is gained, whether by selectively attending to information sources and arguments (as in biased assimilation or motivated reasoning), or more directly by observing statements of leaders or media of your side (elite cues). The strength of Trump effects in our analysis supports an elite cues emphasis. Retrospectively, the stronger Trump and interaction effects on the renewable energy question fit with Trump's vehement, personally rooted denouncements of wind power, escalating to a declaration that wind turbines cause cancer (Bump 2019).

CONCLUSION

In this study, we perform an analysis of a nationally representative U.S. survey, conducted before and after the 2016 presidential election, to test respondent characteristics as predictors of views on four policy steps that might reduce risks from climate change. These include renewable energy development, lifestyle and

consumer behavior, cap-and-trade policy, and a revenue-neutral carbon tax. Our findings contribute to a robust field regarding the social bases of environmental concern by better understanding the factors that contribute to decision making on the technically complex issue of climate change mitigation. Increased attention to environmental issues in recent years means that a majority of Americans now believe in the reality of anthropogenic climate change; refusal to believe in climate change is itself a symbolic marker of political identity for those on the far right. Where this was once an arguably "hard" issue, in many ways, it now mimics other "easy" social issues: long-standing, ends-focused, and easily communicated to the masses (Carmines and Stimson 1980).

However, the electorate is not typically voting on whether or not climate change exists, but rather what should be done about it. This involves the consideration of more complex scientific, technical, and economic issues. As such, it is critical that we understand patterns of support for mitigation strategies among U.S. voters. This analysis attempts to do this by considering the effect of political party, the role of particular political leaders (in this case, Donald Trump), and the interaction of these variables with education. In particular, the strong effect of Trump support (even more so than political party) suggests that voters may rely on elite cues when faced with complicated policy decisions. This poses a challenge for policymakers, given that ideological compromises may not be able to overcome entrenched partisan opposition. Additionally, the interaction effect of education and party—whereby education increases mitigation support among Democrats and decreases support among Tea Party Republicans— suggests that people with more education may be better equipped to seek out information from political and cultural leaders who confirm their existing beliefs. This may produce more partisan—but not necessarily more informed—voters.

Some changes have taken place that have led voters to more readily accept the reality of climate change. Now, voters face important questions about where we go from here. As these issues often include a great deal of scientific and economic complexity, future research should consider the factors that influence this decision making.

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