

Do Partisanship and Politicization Undermine the Impact of Scientific Consensus on Climate Change Beliefs?*

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Abstract

Scientists are in near universal agreement that human activity is a primary cause of climate change. Yet, despite this scientific consensus, the American public remains divided when it comes to climate change beliefs. We investigate the role of partisan group identity and the politicization of science in undermining the impact of scientific consensus communications. We do so with a survey experiment administered on a nationally representative sample, finding that partisan identity and especially politicization can limit the impact of scientific consensus statements about climate change. We conclude with a discussion about how scientists, as a group, might work with partisans to more effectively communicate scientific information.

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How does the American public arrive at its beliefs about human-induced climate change? Do these beliefs influence its opposition or support for climate mitigation policies? These questions are of obvious import given the contested nature of climate change beliefs and the potential societal implications. One source of information on climate change is personal experience (e.g., Druckman, 2015). Yet perhaps of greater relevance is information that people obtain indirectly from two key groups: scientists and political party elites. These two groups differ in their perspectives. Scientists, as a group, nearly universally agree (i.e., there is a consensus) that human activity is a primary cause of climate change (e.g., Cook et al., 2013; Cook et al., 2016; International Panel on Climate Change, 2013; Rosenberg, Vedlitz, Cowman, & Zahran, 2010).¹ In contrast, American political elites are divided with Democrats largely accepting the scientific consensus that human activity is a primary cause of climate change, while many Republicans remain skeptical (Bolsen, Druckman, & Cook, 2015; Lavelle, 2017).

When it comes to the American public, it seems as if partisan group identity reigns supreme, especially among those who are knowledgeable: as partisans gain more information, they polarize such that Democrats strongly believe in human-induced climate change and Republicans do not (Bolsen et al., 2015; Hamilton, 2011; Kahan, 2016). Can scientists, as a group, intercede in these processes and exert influence via a consensus statement? If so, among which partisan subgroups are such messages most effective? Does politicizing the science – by which we mean introducing its inherent uncertainty and political application – nullify the effect of communicating scientific consensus among partisan subgroups influenced by such messages? If so, are there ways to combat this, such as by offering a warning telling individuals that they are likely to encounter a politicization message that they should dismiss? Finally, are there

indirect effects of communicating scientific consensus on support for climate mitigation policies?

In the next section, we present our experiment designed to address these questions. We find partisan group identity can, at least for high knowledge Republicans, limit the ultimate impact of a scientific consensus statement. Even so, the more daunting general challenge to consensus communication effects seems to come from politicization, which undermines the impact of a scientific consensus statement for nearly all partisans.

Experimental Design and Procedure

We conducted an experiment embedded in a nationally representative survey in the United States (implemented over the Internet) with a total of 1,329 participants.² Data were collected during July 2014. To address the aforementioned questions, we randomly assigned participants to one of five experimental conditions: a control condition, a consensus information condition, a politicization condition, a warning condition, and a correction condition.

Participants in the control condition began by reading a brief introduction, which stated, “We are now going to ask your opinion about *human-induced* climate change. Climate change refers to a long-term change in the Earth’s climate due to an increase in the average atmospheric temperature.” These participants then immediately answered our main outcome measures. We asked them whether “most scientists are in agreement or divided on the statement that human activities are causing climate change?” (coded “1” if there is a perception of scientific consensus, “0” otherwise). Additionally, we measured belief in human-induced climate change with the question, “To what extent do you think climate change is *human-induced* as opposed to a result of Earth’s natural changes?” (responses were provided on a 7-point fully labeled scale, coded “1” for “entirely Earth’s natural changes” and “7” for “entirely human-induced”).³ Finally, we

measured opposition or support for a set of three climate change policies including: (1) whether government should decrease or increase investments in ways to reduce impacts from climate change; (2) the importance of planning for ways to reduce climate change's impacts; and, (3) opposition or support for laws aimed to cut emissions of greenhouse gases (responses to each question were recorded on a 1 to 7 strongly oppose / strongly support scale). We created a single scaled measure from these three items tapping *policy beliefs* (alpha = .91) such that higher scores indicate greater support for climate mitigation policy action.

These variables allow us to test van der Linden, Leiserowitz, Rosenthal, and Maibach's (2015) gateway belief model which posits consensus messages affect perceived scientific consensus which shapes belief in human-induced climate change, which finally influences support for climate mitigation policies (also see van der Linden, Leiserowitz, & Maibach, 2016). While the nature of our study does not allow for a direct test of mediation (see Bullock & Ha, 2011), we can offer suggestive evidence regarding the model's causal predictions.

To address the question of how a consensus statement that scientists as a group find human activity to be a primary cause of climate change affects partisans, we randomly assigned some respondents to a consensus condition. They read the following statement immediately after the aforementioned introduction (that was also provided to control group respondents):

A recent report, *Climate Change Impacts in the United States*, produced by 300 expert scientists and reviewed by the National Academy of Sciences as well as agencies with representatives from oil companies, puts much of the uncertainty to rest by stating that climate change "is primarily due to human activities."

The gateway model suggests such a statement will increase perceptions of scientific consensus, belief in human-induced climate change, and ultimately support for climate mitigation policy. Other work suggests these effects could be contingent on partisan group identity and political knowledge, due to "motivated reasoning."

In the case of motivated reasoning, partisans hold prior views that may mimic the aforementioned party elite's views such that Republicans are less likely to believe in human-induced climate change than Democrats (e.g., Bolsen et al., 2015; Hamilton, 2011). Partisans then interpret new information in line with their prior belief, regardless of its "objective" accuracy. Thus, Republicans may counter-argue and reject the consensus statement that is counter to their prior beliefs; they may even become *less* likely to believe in the role that humans are playing in the process in an effort to maintain their prior beliefs. Democrats, on the other hand, may accept the consistent information and shift their opinions in the direction of the scientific consensus on human-induced climate change (see, e.g., Bolsen, Druckman, & Cook, 2014a; Lavine, Johnston, & Steenbergen, 2012; Leeper & Slothuus, 2015; for more general discussion of partisanship and climate change beliefs, see Schuldt, Konrath, & Schwarz, 2011; Schuldt, Roh, & Schwarz, 2015).

Motivated reasoning occurs most often among individuals with high amounts of knowledge. Those individuals tend to hold prior opinions that echo elite views (Lenz, 2012), and tend to have the motivation and ability to engage in effortful and defensive cognitive processes, including counter-arguing against information that is incongruent with existing beliefs (Taber & Lodge, 2006). In terms of consensus messaging effects, we suspect the largest group identity hurdle to come from high knowledge Republicans who may reject the evidence, counter-argue, and potentially shift their opinions away from scientific consensus information (see Bolsen et al., 2015; Kahan, 2015; also see Cook & Lewandowsky, 2016; Deryugina & Shurchkov, 2016).

To address our question of whether a politicization claim can undermine the impact of the scientific group consensus, we randomly assigned some respondents to a politicization condition.

In this condition, respondents read the following passage immediately after the aforementioned introduction:

As you have likely heard, the role that humans' actions play in driving climate change has been a point of debate. Politics nearly always color scientific work with advocates selectively using evidence (e.g., that supports their policy positions). This leads some to say there is too much uncertainty over the role that humans play in this process – *politics make it difficult to assess* whether climate change reflects human activities or the Earth's natural changes. This may be true even for a recent report. That debated report, *Climate Change Impacts in the United States*, produced by 300 expert scientists and reviewed by the National Academy of Sciences as well as agencies with representatives from oil companies, "claimed" to put much of the uncertainty to rest by stating that climate change "is primarily due to human activities."

This operationalization follows Bolsen and Druckman's (2015) characterization of politicization occurring "*when an actor emphasizes the inherent uncertainty of science to cast doubt on the existence of scientific consensus*" (p. 746, emphasis in original). As the authors note, this is typically done in pursuit of a particular political agenda.⁴ The general consequence of politicization is that it introduces uncertainty regarding whether one can trust scientific consensus information (when it is invoked in a political setting) (Bolsen, Druckman, & Cook, 2014b; Freudenburg, Gramling, & Davidson, 2008; Stekette, 2010). This uncertainty undermines the scientific consensus effect, making it ineffectual in political debates (see Bolsen et al., 2014b, Bolsen & Druckman, 2015). In short, the expectation is that the politicization claim will eliminate any impact of the consensus statement on our outcome variables.

We randomly assigned participants to one of two additional experimental conditions to test whether there are approaches to combat the potentially nullifying effect of politicization on scientific consensus information. Bolsen and Druckman (2015) suggest offering a warning in advance of politicization, which tells people they may hear a politicization claim and it is false, may "inoculate" people from the effect of politicization encountered later and resuscitate the scientific consensus effect (also see van der Linden, Leiserowitz, Rosenthal, & Maibach, 2017).

Another possibility is to offer what is akin to a post-hoc warning or a “correction” that comes after the politicized statement, telling people to discount the politicization claim. We operationalized both in line with Bolsen and Druckman (2015) such that each condition added a statement, either earlier in the survey for a warning (*prior to* the politicization and consensus information) or later in the survey for a correction (*after* the politicization and consensus information). The statement read:

Some say that it is difficult to assess the role of human actions in climate change since people only point to evidence that supports their positions (e.g., their policy positions). Yet, despite what some claim, there is virtually no uncertainty when it comes to the assessment of *human-induced* climate change; a recent comprehensive report, endorsed by a wide range of individuals and organizations, makes clear that a consensus of scientists believes that human activities play a fundamental role.

The idea is that these treatments might restore the impact of the consensus information. In sum, respondents were randomly assigned to one of five experimental conditions with the following flow of information: (1) control; (2) consensus information only; (3) politicization claim + consensus information; (4) warning + politicization claim + consensus information; and, (5) politicization claim + consensus information + correction. All groups then answered the aforementioned outcome variables (i.e., perception of a scientific consensus, belief in human-induced climate change, and policy belief items)

The survey also included items to measure partisan identity and knowledge. We measured party identification with a standard 7-point response scale, with higher values moving toward “strong Republican” (i.e., the labels are: strong Democrat, weak Democrat, lean Democrat, Independent, lean Republican, weak Republican, strong Republican). We measured knowledge by counting the number of correct answers to 11 factual questions about politics, science, and energy. We included a mix of general political knowledge and domain-specific questions because it will identify individuals who are more likely to attend to their party’s

positions (e.g., politically knowledgeable individuals are more likely to be aware of elites' positions in general), and who are generally motivated to process information in line with the aforementioned motivated reasoning account (e.g., those knowledgeable about science and energy will be motivated to protect their existing beliefs in this domain). Our use of objective knowledge measures enhances its validity since people often over-report self-reported knowledge due to social desirability bias; it also is a fairly common practice when it comes to public opinion studies (e.g., Delli-Carpini & Keeter, 1996). Finally, we included other demographic and political measures; question wording for these measures appear in the Supplementary Appendix, as does a demographic profile of our sample.⁵

As mentioned, we expect, as explained, that the impact of the consensus information will be contingent on partisan knowledge subgroups (i.e., high knowledge Republicans may not be affected by the consensus information, possibly moving in the opposite direction). We distinguish Democrats and Republicans based on our partisanship measure, treating leaners as partisans (see Druckman, Peterson, & Slothuus, 2013; Levendusky, 2010).⁶ For knowledge, we created low and high knowledge subgroups by taking a median split on the 11-point (politics, science, and energy) knowledge scale (for discussion of median splits, see Iacobucci, Posavac, Kardes, Schneider, & Popovich, 2015a; Iacobucci, Posavac, Kardes, Schneider, & Popovich, 2016).⁷ We then created four subgroups: low knowledge Democrats (N = 213), low knowledge Republicans (N = 173), high knowledge Democrats (N = 286), and high knowledge Republicans (N = 264).⁸

Results

We present the results with five tables – one for all groups merged and then separately for each distinct subgroup. Each table includes five models, consistent with van der Linden et al.'s

(2015) gateway model, to test whether the conditions affect (1) perceptions of consensus, (2) belief in human-induced climate change, (3) human-induced beliefs through a process mediated by perceptions of consensus, (4) policy beliefs, and (5) policy beliefs through a process mediated by a belief in human-induced climate change.⁹

Table 1 shows the consensus statement increases perception of a scientific consensus among all partisans ($p < .01$, model 1). While the consensus statement did not directly impact a belief in human-induced climate change among all partisans (model 2), perception of a scientific consensus on human-induced climate change is a significant predictor of belief in human-induced climate change (see model 3). This suggests an indirect effect of the scientific consensus statement (since that statement affected perception of a consensus in model 1 which is associated with an increased belief in human-induced climate change in model 3).¹⁰ The consensus condition had no effect on policy support (model 4) but, again, there appears to be an indirect effect. The consensus statement affects perceptions of consensus that increases belief in human-induced climate change (which is added to model 5), which in turn, increases support for climate mitigation policy. This coheres with the gateway model's prediction of a consensus statement exerting indirect effects on policy support mediated by its impact on belief in human-induced climate change (although the effects are not fully mediated).¹¹ *Consensus messages affect perceptions of consensus and ultimately impact belief in human-induced climate change and support for climate mitigation policy.*

[Table 1 About Here]

Alas, we also find that the politicization message undermines the scientific consensus message effect among all partisans. When politicized, the consensus message does not have a significant positive effect on perception of a scientific consensus among all partisans (Table 1,

model 1). While perception of a scientific consensus is a significant predictor of belief in human-induced change, and the latter affects policy beliefs, these effects are *not* from the experimental stimuli but rather reflect the importance of these “fundamental” beliefs in the opinion-formation process on this issue. In short, *politicizing science eliminates the positive impact of a consensus message*. Moreover, offering a pre-emptive warning or post-hoc correction meant to counter the politicized message does nothing to combat politicization’s nullification of the scientific consensus effect. (We are unsure what explains the positive and significant effect of the politicization claim on policy beliefs in model 5, Table 1.)

[Tables 2-3 About Here]

When we turn to the analyses of the experimental conditions on partisan knowledge subgroups, the results for both low knowledge Democrats (Table 2) and low knowledge Republicans (Table 3) look similar to the findings in our merged models in Table 1. Indeed, the consensus message increases perception of a consensus regarding human induced climate change for both groups ($p < .05$). Moreover, the consensus statement increases belief in human-induced climate change for both low knowledge Democrats ($p > .05$) and low knowledge Republicans ($p < .10$). This latter effect is mediated entirely through perceptions of consensus, as shown in model 3, where the main effect of the consensus condition becomes insignificant once the perception of consensus measure is included as an independent variable. There are no main effects of any of the experimental conditions on policy beliefs (model 4), but again, we see potential indirect effects on policy support through the impact of the consensus message on belief in human-induced climate change: the consensus statement affects views of consensus (model 1) which is positively associated with a belief in human-induced climate change (model 3), which in turn is positively associated with support for climate mitigation policy (model 5).

We also find the politicization claim undermines the scientific consensus effect for low knowledge Democrats (Table 2, model 1) – but does not undermine perception of a scientific consensus for low knowledge Republicans ($p < .10$, Table 3, model 1), – and eliminates the impact of the consensus message on belief in human induced climate change for both subgroups. Further, warnings and corrections have no resuscitative impact. This is stark for low knowledge Democrats: the scientific consensus effect evaporates entirely in the presence of politicization. For low knowledge Republicans (Table 3), politicization does not undermine the impact of communicating scientific consensus on perception of a consensus (model 1), however, its negative influence on belief in human-induced climate change (model 3) counters the indirect consensus message effect that carried over via perceptions of consensus.¹² Warnings and corrections also failed to resuscitate the scientific consensus effect for either group, and thus for all low knowledge respondents, politicization undermines the consensus message's positive effect.

[Table 4 About Here]

Table 4 presents the results for high knowledge Democrats. We find that the consensus information has no effect on perceptions of consensus among this subgroup (model 1). This may reflect that the bulk of this subgroup already held this belief and so there was not a lot of room for movement (i.e., 71% of high knowledge Democrats in the control condition held this belief). That said, however, the politicization claim significantly increases perception of a scientific consensus on climate change among high knowledge Democrats ($p < .05$), and it is not entirely clear why (although it could reflect counter-arguments generated in response to the politicization claim among a small group of knowledgeable Democrats who already leaned in this direction but needed a contrary prompt to generate motivated reasoning).

We further find the consensus message significantly increases belief in human-induced climate change among high knowledge Democrats ($p < .01$) and the politicization claim does not undermine this effect (model 2, Table 4). Again, we surmise, although we have no direct evidence, that this reflects motivated reasoning processes (e.g., the generation of counter-arguments) among these motivated partisans who previously believed in human-induced climate change. (We are unsure why the correction condition is not significant.)

The gateway model's mediational predictions also are supported with one interesting caveat. The impact of the consensus message on belief in human-induced climate change exerts an independent impact even after controlling for perception of a scientific consensus on human-induced climate change (model 3, Table 4). This suggests that high knowledge Democrats become more supportive for reasons beyond recognizing the existence of the consensus: they may be motivated to think through other considerations such as the policy implications of their belief (Campbell & Kay, 2014) and the social implications of re-affirming their partisan identity (Kahan, 2015). In sum, the consensus message affects belief in human-induced climate change, and its effect on policy beliefs appears to be mediated through its impact on belief in human-induced climate change (model 5, Table 4). And for this subgroup, politicization does not undermine the scientific consensus effect (the correction condition is the exception).

[Table 5 About Here]

Table 5 shows that high knowledge Republicans react differently to the scientific consensus message compared to other partisan subgroups. Like other subgroups, the consensus message significantly increases this subgroup's perception of a scientific consensus ($p < .10$, model 1), and that belief is a significant predictor of belief in human-induced climate change ($p < .01$, model 3), which positively predicts support for climate mitigation policy ($p < .01$, model

5) (also see van der Linden et al., 2015; van der Linden, 2016). Yet, the significant negative coefficient for the consensus condition in model 3 ($p < .05$) counteracts the positive effect of the perception of scientific consensus belief ($p < .01$) on belief in human-induced climate change, and shows that high knowledge Republicans may incorporate alternative considerations such as an aversion to policy solutions that might follow from a belief in human-induced climate change (e.g., restrictions on personal freedom, new taxes, etc.) or from the social implications of affirming their partisan group identity. This nullifies any mediated effect of consensus messaging on the belief that climate change is primarily human-induced and on support for climate mitigation policies. We also find that politicization eliminates the scientific consensus effect among high knowledge Republicans, and that warnings and corrections failed to resuscitate its impact among this group as well.

To summarize:

- A scientific consensus statement leads all partisan subgroups, with the exception of high knowledge Democrats¹³, to increase their perception of the existence of a scientific consensus,
- A scientific consensus statement increases belief in human-induced climate change for all partisan subgroups, with the exception of high knowledge Republicans, which in turn is associated with increased support for climate mitigation policies. This coheres with van der Linden et al.'s (2015) gateway belief model and suggests that even if consensus science statements do not directly affect policy views, they can have indirect (mediated) effects.

However, there are two major caveats.

- High knowledge Republicans reject the consensus statement's direct application to human-induced climate change beliefs thereby undermining (or at least vitiating) its indirect impact on policy support.
- With the exception of high knowledge Democrats, politicizing science largely eliminates the impact of the consensus statement on beliefs about human-induced climate change and then ultimately policy support. Moreover, efforts to counteract politicized statements fail.

In short, partisan group identity can, at least for some, limit the impact of scientific consensus messaging, but perhaps the more daunting challenge comes from politicization.

Conclusion

Our results clarify what, to this point, have been mixed findings on the impact of consensus messaging on climate change (c.f., Cook & Lewandowsky, 2016; Deryugina & Shurchkov, 2016; van der Linden et al., 2015; van der Linden, 2016). Consistent with van der Linden et al.'s (2015) gateway model, we find that consensus messaging can have a positive effect among all partisan subgroups, at least on some outcome measures (e.g., perceptions of consensus). We also find evidence of a backfiring effect among high knowledge Republicans who are exposed to the consensus message on belief in human-induced climate change, consistent with a cultural cognition/motivated reasoning account of opinion formation (e.g., Kahan, 2016). The bottom line is studying the impact of such messaging requires careful attention both to which outcome variables are being studied (e.g., perceptions of consensus, belief in human-induced climate change, policy support) and to specific subgroup differences in partisanship and knowledge. Future work should also attend, more carefully than we were able

given our design (Bullock & Ha, 2011), to specific causal relationships between variables in the gateway belief model – our work is only suggestive of causal pathways.

We also find that politicization statements constitute a threat to scientific consensus effects, and in many ways, may be a more challenging hurdle than inter- (and intra-) group partisan differences. That said, we take some comfort in that, in contrast to our results here, other studies have shown warnings (and sometimes corrections) can counter politicized statements or misinformation about climate change (Bolsen & Druckman, 2015; van der Linden et al., 2017). It is entirely possible, if not likely, that our warning and correction were simply too weak to counteract politicization in this instance. More work is needed on effective messaging approaches and credible source cues for different audiences (Druckman & Lupia, n.d.).

Finally, our results have implications for inter-group relations. We began by noting that citizens might choose to form beliefs about climate change by obtaining information from scientists or partisan elites. Scientists, as a group, do not often arrive at a consensus as clear as the one about human-induced climate change; yet, the public remains divided. Part of this stems from the fact that partisan identities are deeply held and can trump the collective wisdom and perceived expertise of scientists. But it also comes from the ostensible ease with which politicizing statements can undermine consensus-messaging effects. While our study did not attribute the politicization statement to a partisan source, such messages do indeed often originate from political figures (more work on this is needed).

Scientists, for good reason, typically avoid taking clear partisan stances, as neutrality is a key to credibility. Even so, there may be benefits from scientists, in communicating what they know, working more closely with partisans of different stripes. They can clarify what the science shows and does not show: differentiating the existence of knowledge about the impact of human

activity on climate change from the implications of the scientific consensus on different policy approaches. It is this latter topic on which science typically has less to say – and conflation of scientific knowledge and policy implications may lie beneath some Republicans’ aversion to expressing a belief in human-induced climate change (i.e., they deny it due to an aversion to “likely” policy solutions; see Campbell & Kay, 2014). Indeed, our results on high knowledge Republicans suggest that the consensus statement generates more thoughts than simply realizing there is a consensus. The hope is that clearer communication of what scientists know and do not know, and acknowledgment and respect for group differences and values, will help lessen the impact of science’s politicization. This could help build trust in science and empower scientists’ collective wisdom.

References

- Bolsen, T., & Druckman, J.N. (2015). Counteracting the politicization of science. *Journal of Communication*, *65*, 745–769. doi: 10.1111/jcom.12171
- Bolsen, T., Druckman, J. N., & Cook, F. L. (2014a). The influence of partisan motivated reasoning on public opinion. *Political Behavior*, *36*, 235–262. doi: 10.1007/s11109-013-9238-0
- Bolsen, T., Druckman, J.N., & Cook, F.L. (2014b). How frames can stunt support for scientific adaptations: Politicization and the status quo bias. *Public Opinion Quarterly*, *78*, 1–26. doi: 10.1093/poq/nft044
- Bolsen, T., Druckman, J.N., & Cook, F.L. (2015). Citizens', scientists', and policy advisors' beliefs about global warming. *The ANNALS of the American Academy of Political and Social Science*, *658*, 271–295. doi: 10.1177/0002716214558393
- Campbell, T. H., & Kay, A. C. (2014). Solution aversion: On the relation between ideology and motivated disbelief. *Journal of Personality and Social Psychology*, *107*, 809-824. doi: 10.1037/a0037963
- Cook, J., & Lewandowsky, S. (2016). Rational irrationality: Modeling climate change belief polarization using bayesian networks. *Topics in cognitive science*, *8*, 160–179. doi: 10.1111/tops.12186
- Cook, J., Nuccitelli, D., Green, S.A., Richardson, M., Winkler, B., Painting, R., Way, R., Jacobs, P., & Skuce, A. (2013). Quantifying the consensus on anthropogenic global warming in the scientific literature. *Environmental Research Letters*, *8*, 024024.
- Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R., Verheggen, B., Maibach, E. W., ... & Nuccitelli, D. (2016). Consensus on consensus: a synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters*, *11*, 048002.
- Delli Carpini, M.X., & Keeter, S. (1996). *What Americans know about politics and why it matters*. Yale University Press.
- Deryugina, T., & Shurchkov, O. 2016. The effect of information provision on public consensus about climate change. *PloS One*, *11*, e0151469. doi:10.1371/journal.pone.0151469
- Druckman, J.N. (2015). Eliminating the local warming effect. *Nature Climate Change*, *5*, 176-177.
- Druckman, J.N., & Kam, C.D. (2011.) Students as experimental participants: A defense of the 'narrow data base'. In J.N. Druckman, Green, D.P., Kuklinski, J.H., & Lupia, A. (Eds.),

- Cambridge Handbook of Experimental Political Science*, (pp. 41–57). New York: Cambridge University Press.
- Druckman, J.N., & Lupia, A. (N.d). Using frames to make scientific communication effective. In Scheufele, D., Kahan, D.M., & Jamieson, K.H., eds., *Handbook of the Science of Science Communication*, New York: Oxford University Press.
- Druckman, J.N., & Nelson, K.R. (2003.) Framing and deliberation: How citizens' conversations limit elite influence. *American Journal of Political Science*, 47, 729–745. doi: 10.1111/1540-5907.00051
- Druckman, J.N., Peterson, E., & Slothuus, R. (2013). How elite partisan polarization affects public opinion formation. *American Political Science Review*, 107, 57–79. doi: 10.1017/S0003055412000500
- Freudenburg, W.R., Gramling, R., & Davidson, D.J. (2008). Scientific certainty argumentation methods (SCAMs): Science and the politics of doubt. *Sociological Inquiry*, 78, 2–38. doi: 10.1111/j.1475-682X.2008.00219.x
- Hart, P. S., & Nisbet, E. C. (2012). Boomerang effects in science communication: How motivated reasoning and identity cues amplify opinion polarization about climate mitigation policies. *Communication Research*, 39, 701–723. doi:10.1177/0093650211416646
- Iacobucci, D., Posavac, S. S., Kardes, F. R., Schneider, M. J., & Popovich, D. L. (2015a). The median split: Robust, refined, and revived. *Journal of Consumer Psychology*, 25, 690–704. doi: 10.1016/j.jcps.2015.06.014
- Iacobucci, D., Posavac, S. S., Kardes, F. R., Schneider, M. J., & Popovich, D. L. (2015b). Toward a more nuanced understanding of the statistical properties of a median split. *Journal of Consumer Psychology*, 25, 652–665. doi: 10.1016/j.jcps.2014.12.002
- IPCC, (2013). *Climate Change 2013: The physical science basis. Contribution of working group I to the fifth assessment report of the intergovernmental panel on climate change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp, doi:10.1017/CBO9781107415324.
- Kahan, D.M. (2015). Climate-science communication and the measurement problem. *Political Psychology*, 36(S1), 1–43. doi: 10.1111/pops.12244
- Kahan, D.M. (2016). 'The strongest evidence to date . . .': What the van der Linden et al. (2015) data actually show. Unpublished Paper, Yale University Law School.

- Kahan, D.M., Jenkins-Smith, H., & Braman, D. (2011). Cultural cognition of scientific consensus. *Journal of Risk Research*, *14*, 147–174. doi: 10.1080/13669877.2010.511246
- Kahan, D.M., Peters, E., Wittlin, M., Slovic, P., Ouellette, L.L., Braman, D., & Mandel, G. (2012). The polarizing impact of scientific literacy and numeracy on perceived climate change risks. *Nature Climate Change*, *2*, 732–735. doi:10.1038/nclimate1547
- Kinder, D. R., & Sanders, L. M. (1990). Mimicking political debate with survey questions: The case of white opinion on affirmative action for blacks. *Social cognition*, *8*, 73.
- Krosnick, J. A., & Brannon, L. A. (1993). The media and the foundations of presidential support: George Bush and the Persian Gulf conflict. *Journal of Social Issues*, *49*, 167–182. doi:10.1111/j.1540-4560.1993.tb01186.x
- Lavelle, M. (2017). Partisan divide in Congress wider than ever on environmental issues, group says. *Inside climate news*, February 23, <https://insideclimatenews.org/news/23022017/congress-environmental-climate-change-league-conservation-voters>
- Lavine, H., Johnston, C., & Steenbergen, M. (2012). *The ambivalent partisan: How critical loyalty promotes democracy*. Oxford University Press.
- Leeper, T. J., & Slothuus, R. (2015). Can citizens be framed? How information, not emphasis, changes opinions. *Unpublished paper, Aarhus University*.
- Lenz, G. (2012). *Follow the leader? How voters respond to politicians' policies and performances*. University of Chicago Press.
- Levendusky, M. S. (2010). Clearer cues, more consistent voters: A benefit of elite polarization. *Political Behavior*, *32*, 111–131. doi: 10.1007/s11109-009-9094-0
- Maibach, E.W., & van der Linden, S.D. (2016). The importance of assessing and communicating scientific consensus. *Environmental Research Letters*, *11*, 091003.
- Nelson, T. E., Oxley, Z.M., & Clawson, R.A. (1997). Toward a psychology of framing effects. *Political Behavior*, *19*, 221–246. doi:10.1023/A:1024834831093
- Oreskes, N., & Conway, E.C. (2010). *Merchants of doubt: How a handful of scientists obscured the truth on issues from tobacco smoke to global warming*. Bloomsbury Publishing.
- Rosenberg, S., Vedlitz, A., Cowman, D. F., & Zahran, S. (2010). Climate change: A profile of US climate scientists' perspectives. *Climatic Change*, *101*(3-4), 311–329. doi:10.1007/s10584-009-9709-9

- Schuldt, J.P., Roh, S., & Schwarz, N. (2015). Questionnaire design effects in climate change surveys: Implications for the partisan divide. *The Annals of the American Academy of Political and Social Science*, 658, 67–85. doi: 10.1177/0002716214555066
- Schuldt, J.P., Konrath, S.H., & Schwarz, N. (2011). “Global warming” or “climate change”? Whether the planet is warming depends on question wording. *Public Opinion Quarterly*, 75, 115–124. doi: 10.1093/poq/nfq073
- Shwed, U., & Bearman, P.S. (2010). The temporal structure of scientific consensus formation. *American Sociological Review*, 75, 817–840. doi: 10.1177/0003122410388488
- Steketee, M. (2010). Some skeptics make it a habit to be wrong. *The Australian*, November 20. <http://www.theaustralian.com.au/national-affairs/some-sceptics-make-it-a-habit-to-be-wrong/story-fn59niix-1225956414538?nk=88273c4b51f7681ad3c1847e54436548>.
- Taber, C.S, & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50, 755–769. 10.1111/j.1540-5907.2006.00214.x
- van der Linden, S. (2016). A conceptual critique of the cultural cognition thesis. *Science Communication*, 38, 128–138. doi:10.1177/1075547015614970
- van der Linden, S. L., Leiserowitz, A. A., Feinberg, G. D., & Maibach, E. W. (2015). The scientific consensus on climate change as a gateway belief: Experimental evidence. *PloS One*, 10(2): e0118489. doi:10.1371/journal.pone.0118489
- van der Linden, S., Leiserowitz, A., & Maibach, E. W. (2016). Communicating the scientific consensus on human-caused climate change is an effective and depolarizing public engagement strategy: Experimental evidence from a large national replication study. Available https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2733956.
- van der Linden, S., Leiserowitz, A., Rosenthal, S. & Maibach, E. (2017). Inoculating the public against misinformation about climate change. *Global Challenges*, 1600008.

Table 1: Message Effects on All Respondents

	(1) Perceptions of Consensus	(2) Human- Induced Climate Change	(3) Human- Induced Climate Change	(4) Policy Beliefs	(5) Policy Beliefs
Consensus	0.772*** (0.221)	0.171 (0.147)	-0.00722 (0.139)	0.0159 (0.0281)	-0.00537 (0.0219)
Politicization	0.100 (0.208)	-0.223 (0.145)	-0.250* (0.136)	0.00830 (0.0276)	0.0358* (0.0215)
Warning	0.235 (0.211)	-0.0636 (0.146)	-0.125 (0.137)	-0.0211 (0.0278)	-0.0127 (0.0217)
Correction	0.0988 (0.216)	-0.134 (0.150)	-0.151 (0.141)	-2.31e-05 (0.0287)	0.0159 (0.0224)
Percep. of Cons.			0.995*** (0.0887)		
Human-Induc.					0.118*** (0.00491)
Constant	0.114 (0.151)	4.582*** (0.105)	4.060*** (0.110)	0.666*** (0.0201)	0.122*** (0.0275)
Observations	919	924	919	907	907
R-squared		0.009	0.129	0.002	0.394

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table 2: Message Effects on Low Knowledge Democrats

	(1) Perceptions of Consensus	(2) Human- Induced Climate Change	(3) Human- Induced Climate Change	(4) Policy Beliefs	(5) Policy Beliefs
Consensus	1.165** (0.522)	0.474** (0.238)	0.346 (0.238)	0.0125 (0.0422)	-0.0127 (0.0397)
Politicization	-0.386 (0.436)	-0.151 (0.233)	-0.120 (0.230)	0.0181 (0.0412)	0.0322 (0.0386)
Warning	-0.334 (0.449)	-0.215 (0.240)	-0.190 (0.237)	0.0188 (0.0428)	0.0363 (0.0401)
Correction	-0.339 (0.438)	-0.197 (0.233)	-0.161 (0.232)	0.00804 (0.0415)	0.0259 (0.0389)
Percep. of Cons.			0.491*** (0.155)		
Human-Induc.					0.0630*** (0.0114)
Constant	0.386 (0.314)	4.651*** (0.166)	4.374*** (0.189)	0.718*** (0.0298)	0.420*** (0.0608)
Observations	208	210	208	205	205
R-squared		0.052	0.097	0.001	0.133

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table 3: Message Effects on Low Knowledge Republicans

	(1) Perceptions of Consensus	(2) Human- Induced Climate Change	(3) Human- Induced Climate Change	(4) Policy Beliefs	(5) Policy Beliefs
Consensus	1.353** (0.572)	0.517* (0.289)	0.268 (0.278)	0.0288 (0.0555)	-0.0154 (0.0518)
Politicization	0.922* (0.548)	-0.381 (0.273)	-0.551** (0.261)	0.118** (0.0528)	0.140*** (0.0488)
Warning	0.312 (0.576)	-0.350 (0.280)	-0.400 (0.264)	-0.0536 (0.0538)	-0.0321 (0.0497)
Correction	0.547 (0.574)	-0.299 (0.284)	-0.390 (0.269)	-0.0147 (0.0550)	0.000812 (0.0508)
Percep. of Cons.			0.803*** (0.174)		
Human-Induc.					0.0757*** (0.0143)
Constant	-1.145*** (0.434)	4.138*** (0.204)	3.944*** (0.197)	0.554*** (0.0396)	0.245*** (0.0687)
Observations	158	159	158	156	156
R-squared		0.086	0.198	0.079	0.224

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table 4: Message Effects on High Knowledge Democrats

	(1) Perceptions of Consensus	(2) Human- Induced Climate Change	(3) Human- Induced Climate Change	(4) Policy Beliefs	(5) Policy Beliefs
Consensus	0.502 (0.432)	0.349** (0.178)	0.303* (0.174)	0.0230 (0.0293)	0.00459 (0.0280)
Politicization	1.270** (0.553)	0.481*** (0.188)	0.388** (0.186)	0.0351 (0.0311)	0.00948 (0.0298)
Warning	0.422 (0.424)	0.402** (0.177)	0.363** (0.174)	0.00161 (0.0292)	-0.0206 (0.0279)
Correction	0.170 (0.422)	0.208 (0.182)	0.191 (0.179)	-0.0231 (0.0301)	-0.0328 (0.0286)
Percep. of Cons.			0.499*** (0.139)		
Human-Induc.					0.0536*** (0.00934)
Constant	0.904*** (0.287)	5.356*** (0.127)	5.000*** (0.159)	0.840*** (0.0208)	0.553*** (0.0538)
Observations	286	286	286	282	282
R-squared		0.030	0.072	0.015	0.120

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table 5: Message Effects on High Knowledge Republicans

	(1) Perceptions of Consensus	(2) Human- Induced Climate Change	(3) Human- Induced Climate Change	(4) Policy Beliefs	(5) Policy Beliefs
Consensus	0.784* (0.415)	-0.347 (0.261)	-0.459* (0.260)	0.0195 (0.0589)	0.0620 (0.0483)
Politicization	-0.181 (0.394)	-0.315 (0.249)	-0.292 (0.245)	0.0179 (0.0557)	0.0585 (0.0457)
Warning	0.632 (0.404)	-0.151 (0.256)	-0.233 (0.254)	-0.0157 (0.0575)	0.00372 (0.0470)
Correction	0.365 (0.440)	-0.400 (0.279)	-0.437 (0.277)	0.0140 (0.0635)	0.0628 (0.0521)
Percep. of Cons.			0.527*** (0.160)		
Human-Induc.					0.129*** (0.0115)
Constant	-0.314 (0.302)	3.800*** (0.192)	3.578*** (0.201)	0.473*** (0.0429)	-0.0168 (0.0560)
Observations	259	261	259	257	257
R-squared		0.012	0.052	0.002	0.335

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Notes

¹ Maibach and van der Linden (2016) suggest scientists offer a potential “wisdom-of-crowds” effect, which may be especially impactful given scientists’ perceived expertise.

² We hired the firm *ResearchNow* to conduct the survey. They collected the data from a non-probability-based but representative (on all key census demographics) sample of the United States. When it comes to experimental research, such a sample is sufficient to ensure generalizable causal inferences (Druckman & Kam, 2011).

³ Prior to this question, all respondents were asked, “Climate change refers to a long-term change in Earth’s climate due to an increase in the average atmospheric temperature. What do you think? Do you think that climate change is happening?,” with answers on a 7-point fully labeled scale. Anyone who answered “definitely is NOT happening,” had their survey terminated as it would have been nonsensical to ask such respondents about the causes of something they believe is not happening. This led to the exclusion of a total of 31 respondents.

⁴ This treatment also coheres with that put forth by one of the most noted books on politicization – *Merchants of Doubt* – which defines the politicization of science as “exploiting the inevitable uncertainties about aspects of science to cast doubt on the science overall... thereby magnifying doubts in the public mind” (Stekette, 2010, p. 2; Oreskes & Conway, 2010).

⁵ We also measured confidence in science by asking “Would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in the Scientific Community?,” on a fully labeled 3-point scale from “hardly any” to “a great deal.” We present results showing the effect of the experimental conditions on confidence in science in the Supplementary Appendix.

⁶ We do not use the full 7-point party identification scale, as our predictions are not contingent on the strength of partisanship *per se* – only the party to which they belong. Note that 19 respondents did not answer the partisanship question and thus are excluded from our analyses. Also, for our analyses, we exclude pure Independents. We present results for individuals who identify as a pure Independent in the Supplementary Appendix. As shown, there, surprisingly we find no effects of the experimental treatments on pure Independents. We are uncertain what explains the non-effects (e.g., the consensus statement did not lead pure Independents to increase their belief in the existence of a scientific consensus regarding human-induced climate change).

⁷ This also follows prior work such as Kinder and Sanders (1990), Krosnick and Brannon (1993), Nelson, Oxley, and Clawson (1997), Druckman and Nelson (2003), and Deryugina and Shurchkov (2016).

⁸ For our knowledge median split, we coded those who answered fewer than 7 questions correctly as “low knowledge” (a total of 45% of the sample) and those who answered greater than 6 questions as “high knowledge” (a total of 55% of the sample) (see Supplementary Appendix). If we look at this knowledge split only among Democratic respondents, the relevant percentages are 43% coded as “low knowledge” and 57% coded as “high knowledge”; the relevant percentages for Republicans are 40% coded “low knowledge and 60% coded “high knowledge.” A median split at less than than 8 correct answers for “low knowledge” and greater than 7 answers correct for “high knowledge” generates 58% of Democrats coded as “low knowledge” and 42% coded as “high knowledge”; the relevant percentages for Republicans are 55% coded “low knowledge” and 45% coded “high knowledge.” In the Supplementary Appendix, we re-run all analyses using a median split at less than 8 or greater than 7 correct answers to the objective knowledge items, instead of less than 7 or more than 6 to categorize

“low” and “high” knowledge partisans. We find largely similar results for Democrats, with the main exception being a positive and significant effect for the consensus condition on perception of scientific consensus among high knowledge Democrats; for low knowledge Democrats, the scientific consensus effect becomes only marginally significant ($p=.107$). For low knowledge Republicans, we no longer find a significant effect for the scientific consensus condition on perception of a scientific consensus ($p= .156$); however, for high knowledge Republicans there is a positive scientific consensus effect that emerges ($p < .001$). For high knowledge Republicans, we no longer see a significant negative coefficient for the politicization condition (as appears in Table 2).

⁹ In the Supplementary Appendix, we provide analyses with control variables included for all models. The results reported in Table 1–Table 5 are generally robust when control variables are added, although the impact of the consensus statement on perception of a consensus falls just short of statistical significance ($p =.137$) for high knowledge Republicans. Further, for high knowledge Republicans, the consensus statement significantly decreases belief in human-induced climate change in model 2 ($p < .05$). For low knowledge Republicans, the counterintuitive positive significant effect of politicization on policy beliefs disappears in model 4 and is only marginally significant in model 5 once additional control variables are included.

¹⁰ For models 2-5, the substantive movement on the seven-point response scale due to random assignment to the experimental conditions is easily interpretable as it roughly reflects the size of the regression coefficients (e.g., the politicization statement decreases belief in human-caused climate change, on average, by .25 on a 7-point scale, for all partisans in Table 1, model 3).

¹¹ In the Supplementary Appendix, we present policy models that include only belief in human-induced climate change and then models that include both a belief in human-induced climate

change and perceptions of consensus as independent variables. In every case, all these variables are significant. In the text, we only include belief in human-induced climate change, in line with the gateway model.

¹² We are unsure why politicization alongside a consensus message increases support for climate mitigation policy among low knowledge Republicans in model 4 ($p < .05$) and model 5 ($p < .01$); these effects disappeared in model 4 when control variables were added, see the Supplementary Appendix

¹³ For high knowledge Democrats, a consensus message significantly increases perceptions of consensus when a different median split is used to categorize the high knowledge subgroup. In particular, when “high knowledge” is coded based on > 7 correct answers (as opposed to > 6 correct answers) to the objective knowledge items, the consensus message increases this subgroup’s perception of a consensus (see Supplementary Appendix). Moreover, although the main effect of the consensus condition on perception of a consensus among high knowledge Republicans vanishes once the control variables are included in the model (see Supplementary Appendix), the significant positive effect re-appears among this subgroup when the median split for “high knowledge” is coded as > 7 (rather than > 6) (see Supplementary Appendix).

Table A1. Message Effects on All Partisans (with Controls)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.724*** (0.236)	0.0761 (0.134)	-0.0297 (0.131)	0.00709 (0.0217)	-0.000652 (0.0188)
Politicization	0.0979 (0.222)	-0.257* (0.131)	-0.277** (0.127)	-0.00116 (0.0211)	0.0200 (0.0183)
Warning	0.332 (0.224)	0.0137 (0.132)	-0.0429 (0.128)	-0.00302 (0.0212)	-0.00345 (0.0184)
Correction	0.122 (0.231)	-0.0897 (0.136)	-0.108 (0.132)	0.0199 (0.0220)	0.0265 (0.0190)
Percep. of Cons.			0.686*** (0.0865)		
Human- Induc.					0.0798*** (0.00466)
Age	-0.0550 (0.0719)	0.0610 (0.0415)	0.0677* (0.0405)	-0.00171 (0.00672)	-0.00738 (0.00582)
Female	-0.0191 (0.153)	0.276*** (0.0889)	0.270*** (0.0865)	0.0404*** (0.0143)	0.0171 (0.0125)
Income	-0.00451 (0.0678)	-0.0257 (0.0393)	-0.0241 (0.0381)	-0.0131** (0.00632)	-0.0110** (0.00547)
Minority	-0.142 (0.193)	0.136 (0.113)	0.156 (0.110)	0.0472** (0.0183)	0.0362** (0.0159)
Education	0.252*** (0.0848)	0.171*** (0.0492)	0.134*** (0.0480)	0.0188** (0.00793)	0.00572 (0.00691)
Distrust Sci.	-0.165*** (0.0528)	-0.0738*** (0.0304)	-0.0491* (0.0297)	-0.0162*** (0.00490)	-0.0101** (0.00426)
Econ./Envir.	-0.318*** (0.0480)	-0.353*** (0.0271)	-0.306*** (0.0270)	-0.104*** (0.00437)	-0.0762*** (0.00412)
Constant	1.069* (0.606)	4.751*** (0.350)	4.267*** (0.347)	0.966*** (0.0564)	0.589*** (0.0536)
Observations	898	903	898	886	886
R-squared		0.215	0.267	0.441	0.581

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A2: Message Effects on Low Knowledge Democrats with Controls
 (“high knowledge” > 6 correct; “low knowledge” < 7)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	1.129** (0.540)	0.407* (0.235)	0.290 (0.236)	0.00700 (0.0356)	-0.00851 (0.0343)
Politicization	-0.452 (0.461)	-0.213 (0.231)	-0.200 (0.231)	0.0158 (0.0351)	0.0279 (0.0337)
Warning	-0.608 (0.485)	-0.266 (0.241)	-0.241 (0.241)	-0.0126 (0.0369)	0.00164 (0.0355)
Correction	-0.296 (0.471)	-0.175 (0.234)	-0.170 (0.234)	0.00452 (0.0359)	0.0150 (0.0344)
Percep. of Cons.			0.420*** (0.158)		
Human- Induc.					0.0442*** (0.0102)
	(0.156)	(0.0735)	(0.0746)	(0.0111)	(0.0107)
Female	-0.220 (0.366)	0.00277 (0.176)	-0.00663 (0.177)	0.0244 (0.0265)	0.0255 (0.0254)
Income	-0.138 (0.149)	-0.0152 (0.0721)	-0.00191 (0.0714)	-0.0229** (0.0109)	-0.0222** (0.0104)
Minority	-0.635* (0.340)	-0.198 (0.167)	-0.144 (0.167)	0.0359 (0.0255)	0.0450** (0.0245)
Education	0.0165 (0.187)	0.127 (0.0914)	0.126 (0.0906)	0.0326** (0.0137)	0.0276 (0.0132)
Distrust Sci.	-0.139 (0.123)	-0.0623 (0.0593)	-0.0489 (0.0588)	-0.0239*** (0.00888)	-0.0210** (0.00852)
Econ./Envir.	-0.183 (0.112)	-0.161*** (0.0542)	-0.149*** (0.0541)	-0.0660*** (0.00818)	-0.0592*** (0.00799)
Constant	3.592** (1.431)	4.821*** (0.662)	4.377*** (0.698)	0.869*** (0.0997)	0.650*** (0.108)
Observations	207	209	207	204	204
R-squared		0.125	0.157	0.323	0.384

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A3: Message Effects on Low Knowledge Republicans with Controls
 (“high knowledge” > 6 correct; “low knowledge” < 7)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	1.410** (0.625)	0.497* (0.292)	0.303 (0.287)	0.0230 (0.0543)	-0.0142 (0.0516)
Politicization	0.811 (0.580)	-0.465* (0.271)	-0.583** (0.265)	0.0748 (0.0508)	0.0983* (0.0479)
Warning	0.613 (0.624)	-0.227 (0.285)	-0.309 (0.276)	0.00288 (0.0528)	0.0137 (0.0496)
Correction	0.658 (0.627)	-0.202 (0.290)	-0.286 (0.280)	-0.0105 (0.0540)	-0.00258 (0.0507)
Percep. of Cons.			0.652*** (0.183)		
Human- Induc.					0.0650*** (0.0147)
Age	0.0876 (0.177)	0.000244 (0.0843)	-0.0112 (0.0813)	0.00223 (0.0158)	0.00276 (0.0148)
Female	0.572 (0.429)	0.489** (0.197)	0.411 (0.191)	0.0254 (0.0365)	-0.00475 (0.0349)
Income	0.328* (0.185)	0.0102 (0.0885)	-0.0331 (0.0863)	0.0184 (0.0163)	0.0178 (0.0153)
Minority	0.332 (0.589)	0.570* (0.291)	0.527* (0.281)	-0.00323 (0.0532)	-0.0404 (0.0506)
Education	-0.142 (0.232)	0.0700 (0.112)	0.0904 (0.108)	-0.00817 (0.0205)	-0.0129 (0.0193)
Distrust Sci.	-0.317** (0.149)	-0.0604 (0.0696)	-0.0186 (0.0683)	-0.0175 (0.0130)	-0.0120 (0.0123)
Econ./Envir.	-0.244* (0.145)	-0.136** (0.0677)	-0.103 (0.0659)	-0.0661*** (0.0126)	-0.0587*** (0.0119)
Constant	-0.843 (1.473)	3.673*** (0.686)	3.459*** (0.664)	0.786*** (0.126)	0.547*** (0.130)
Observations	151	152	151	149	149
R-squared		0.161	0.232	0.253	0.347

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A4: Message Effects on High Knowledge Democrats with Controls
 (“high knowledge” > 6 correct; “low knowledge” < 7)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.428 (0.465)	0.305** (0.177)	0.272 (0.175)	0.0288 (0.0250)	0.0166 (0.0241)
Politicization	1.278** (0.576)	0.420** (0.184)	0.350** (0.184)	0.0241 (0.0260)	0.00728 (0.0252)
Warning	0.476 (0.449)	0.413** (0.174)	0.378** (0.172)	0.0131 (0.0245)	-0.00376 (0.0238)
Correction	0.201 (0.453)	0.171 (0.181)	0.158 (0.179)	-0.00192 (0.0255)	-0.00794 (0.0245)
Percep. of Cons.			0.413*** (0.144)		
Human- Induc.					0.0400*** (0.00821)
Age	0.303* (0.159)	0.0405 (0.0598)	0.0223 (0.0594)	0.00556 (0.00848)	0.00377 (0.00815)
Female	-0.545* (0.330)	0.166 (0.120)	0.199* (0.119)	-0.00465 (0.0169)	-0.0110 (0.0162)
Income	0.0128 (0.143)	0.00966 (0.0526)	0.00737 (0.0519)	-0.000379 (0.00740)	-0.000709 (0.00711)
Minority	-0.328 (0.393)	-0.153 (0.152)	-0.127 (0.150)	-0.0285 (0.0215)	-0.0228 (0.0207)
Education	0.394** (0.181)	0.167** (0.0674)	0.142** (0.0670)	0.0128 (0.00952)	0.00615 (0.00924)
Distrust Sci.	0.0688 (0.111)	0.0164 (0.0396)	0.0121 (0.0391)	0.00336 (0.00559)	0.00277 (0.00536)
Econ./Envir.	-0.268** (0.110)	-0.115*** (0.0420)	-0.0976** (0.0419)	-0.0608*** (0.00593)	-0.0564*** (0.00577)
Constant	-0.430 (1.247)	4.508*** (0.470)	4.305*** (0.469)	0.915*** (0.0661)	0.735*** (0.0734)
Observations	283	283	283	279	279
R-squared		0.101	0.128	0.325	0.380

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A5: Message Effects on High Knowledge Republicans with Controls
 (“high knowledge” > 6 correct; “low knowledge” < 7)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.685 (0.461)	-0.527** (0.256)	-0.583** (0.257)	-0.0429 (0.0472)	0.00219 (0.0417)
Politicization	-0.207 (0.437)	-0.471* (0.243)	-0.455* (0.243)	-0.0264 (0.0445)	0.0152 (0.0393)
Warning	0.739* (0.445)	-0.262 (0.249)	-0.316 (0.250)	-0.0373 (0.0456)	-0.0144 (0.0401)
Correction	0.595 (0.486)	-0.309 (0.273)	-0.343 (0.276)	0.0468 (0.0508)	0.0714 (0.0446)
Percep. of Cons.			0.342** (0.165)		
Human- Induc.					0.0882*** (0.0103)
Age	-0.424*** (0.149)	-0.0109 (0.0787)	0.0156 (0.0811)	-0.0336** (0.0148)	-0.0329** (0.0129)
Female	0.427 (0.308)	0.0237 (0.171)	-0.00900 (0.172)	0.0139 (0.0320)	0.00977 (0.0281)
Income	-0.0917 (0.134)	0.0576 (0.0746)	0.0645 (0.0746)	-0.00994 (0.0137)	-0.0154 (0.0121)
Minority	-0.455 (0.555)	-0.181 (0.312)	-0.151 (0.312)	-0.00193 (0.0572)	0.0153 (0.0502)
Education	0.211 (0.173)	-0.0673 (0.0965)	-0.0822 (0.0967)	-0.0138 (0.0177)	-0.00816 (0.0155)
Distrust Sci.	-0.250*** (0.102)	-0.0233 (0.0555)	-0.00235 (0.0566)	-0.0153 (0.0103)	-0.0133 (0.00903)
Econ./Envir.	-0.243*** (0.0965)	-0.304*** (0.0526)	-0.285*** (0.0533)	-0.120*** (0.00972)	-0.0936*** (0.00906)
Constant	2.123* (1.271)	5.330*** (0.700)	5.005*** (0.715)	1.247*** (0.130)	0.784*** (0.126)
Observations	251	253	251	249	249
R-squared		0.140	0.155	0.426	0.561

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A6: Message Effects on Low Knowledge Democrats
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human-Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	0.655 [^] (0.406)	0.422* (0.217)	0.337* (0.215)	0.0123 (0.0356)	-0.0117 (0.0324)
Politicization	-0.0325 (0.386)	-0.164 (0.217)	-0.178 (0.214)	0.0199 (0.0356)	0.0363 (0.0323)
Warning	-0.00267 (0.385)	-0.0582 (0.216)	-0.0753 (0.213)	0.0265 (0.0357)	0.0348 (0.0324)
Correction	-0.275 (0.386)	-0.250 (0.217)	-0.225 (0.215)	0.00117 (0.0357)	0.0239 (0.0325)
Percep. of Cons.			0.461*** (0.137)		
Human- Induc.					0.0688*** (0.00882)
Constant	0.310 (0.281)	4.906*** (0.157)	4.657*** (0.174)	0.744*** (0.0261)	0.402*** (0.0499)
Observations	284	286	284	280	280
R-squared		0.041	0.078	0.003	0.185

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests. [^] ($p = .107$, two-tailed test)

Table A7: Message Effects on Low Knowledge Republicans
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human- Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	0.651 [^] (0.458)	0.118 (0.249)	-0.0182 (0.232)	-0.0251 (0.0521)	-0.0431 (0.0447)
Politicization	0.322 (0.458)	-0.638*** (0.247)	-0.715*** (0.229)	0.0190 (0.0519)	0.0810* (0.0450)
Warning	0.0645 (0.470)	-0.365 (0.252)	-0.378* (0.232)	-0.0805 (0.0526)	-0.0465 (0.0452)
Correction	0.268 (0.471)	-0.323 (0.254)	-0.359 (0.236)	-0.0367 (0.0539)	-0.0147 (0.0463)
Percep. of Cons.			0.927*** (0.144)		
Human- Induc.					0.108*** (0.0121)
Constant	-0.693** (0.354)	4.278*** (0.188)	3.969*** (0.180)	0.584*** (0.0396)	0.129** (0.0615)
Observations	221	224	221	219	219
R-squared		0.058	0.210	0.022	0.286

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests. [^] ($p = .156$, two-tailed test)

Table A8: Message Effects on High Knowledge Democrats
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human-Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	1.464** (0.685)	0.450** (0.202)	0.326* (0.198)	0.0457 (0.0343)	0.0229 (0.0331)
Politicization	1.677** (0.800)	0.747*** (0.213)	0.614*** (0.210)	0.0461 (0.0364)	0.00753 (0.0358)
Warning	0.483 (0.531)	0.585*** (0.203)	0.530*** (0.197)	0.00472 (0.0343)	-0.0255 (0.0334)
Correction	0.454 (0.532)	0.434** (0.204)	0.382* (0.198)	-0.0170 (0.0348)	-0.0377 (0.0335)
Percep. of Cons.			0.707*** (0.185)		
Human- Induc.					0.0517*** (0.0113)
Constant	1.126*** (0.332)	5.224*** (0.138)	4.691*** (0.193)	0.838*** (0.0233)	0.568*** (0.0632)
Observations	210	210	210	207	207
R-squared		0.066	0.129	0.023	0.115

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A9: Message Effects on High Knowledge Republicans
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human- Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	1.561*** (0.514)	-0.458 (0.299)	-0.619** (0.303)	0.0441 (0.0695)	0.0979* (0.0597)
Politicization	0.118 (0.438)	-0.0770 (0.269)	-0.0892 (0.266)	0.0796 (0.0616)	0.0888* (0.0526)
Warning	1.002** (0.457)	-0.128 (0.280)	-0.236 (0.281)	0.0108 (0.0642)	0.0262 (0.0548)
Correction	0.613 (0.511)	-0.605* (0.318)	-0.671** (0.316)	0.0229 (0.0729)	0.0953 (0.0629)
Percep. of Cons.			0.439** (0.186)		
Human- Induc.					0.120*** (0.0142)
Constant	-0.539 (0.336)	3.605*** (0.205)	3.444*** (0.214)	0.430*** (0.0470)	-0.00185 (0.0651)
Observations	196	196	196	194	194
R-squared		0.029	0.057	0.011	0.283

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A10: Message Effects on Low Knowledge Democrats with Controls
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human- Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	0.541 (0.425)	0.263 (0.208)	0.195 (0.209)	0.00166 (0.0298)	-0.00849 (0.0282)
Politicization	-0.197 (0.403)	-0.302 (0.208)	-0.318 (0.208)	0.00104 (0.0297)	0.0177 (0.0282)
Warning	-0.206 (0.404)	-0.152 (0.207)	-0.168 (0.207)	0.00130 (0.0300)	0.0107 (0.0283)
Correction	-0.259 (0.405)	-0.226 (0.208)	-0.230 (0.208)	0.0125 (0.0300)	0.0255 (0.0284)
Percep. of Cons.			0.337** (0.135)		
Human- Induc.					0.0473*** (0.00814)
Age	-0.114 (0.125)	0.113*** (0.0624)	0.120* (0.0627)	0.00994 (0.00890)	0.00453 (0.00845)
Female	-0.434 (0.309)	0.0512 (0.152)	0.0586 (0.154)	0.0161 (0.0218)	0.0143 (0.0206)
Income	-0.0601 (0.124)	0.0353 (0.0630)	0.0418** (0.0625)	-0.0166* (0.00901)	-0.0182** (0.00850)
Minority	-0.648** (0.292)	-0.272* (0.151)	-0.230 (0.151)	0.0123 (0.0218)	0.0257 (0.0207)
Education	0.0994 (0.153)	0.176** (0.0776)	0.169** (0.0771)	0.0232** (0.0111)	0.0154 (0.0105)
Distrust Sci.	-0.131 (0.0975)	-0.0643 (0.0495)	-0.0529 (0.0492)	-0.0126* (0.00705)	-0.00966 (0.00667)
Econ./Envir.	-0.160* (0.0916)	-0.205*** (0.0466)	-0.196*** (0.0465)	-0.0705*** (0.00665)	-0.0610*** (0.00648)
Constant	2.480** (1.183)	4.660*** (0.575)	4.377*** (0.597)	0.900*** (0.0818)	0.675*** (0.0864)
Observations	281	283	281	277	277
R-squared		0.168	0.188	0.344	0.418

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A11: Message Effects on Low Knowledge Republicans with Controls
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human-Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	0.591 (0.493)	0.127 (0.249)	0.0299 (0.237)	-0.0194 (0.0478)	-0.0346 (0.0427)
Politicization	0.399 (0.480)	-0.688*** (0.243)	-0.762*** (0.231)	0.000760 (0.0470)	0.0543 (0.0426)
Warning	0.277 (0.506)	-0.244 (0.254)	-0.293 (0.240)	-0.0143 (0.0487)	0.00271 (0.0436)
Correction	0.484 (0.508)	-0.194 (0.256)	-0.263 (0.244)	-0.0139 (0.0501)	-0.00685 (0.0447)
Percep. of Cons.			0.780*** (0.149)		
Human- Induc.					0.0863*** (0.0121)
Age	-0.0535 (0.142)	0.00103 (0.0716)	0.00723 (0.0688)	-0.0125 (0.0140)	-0.0120 (0.0125)
Female	0.215 (0.324)	0.337** (0.163)	0.287* (0.155)	0.0186 (0.0315)	-0.00963 (0.0284)
Income	0.193 (0.150)	0.0154 (0.0762)	-0.0152 (0.0724)	0.0105 (0.0145)	0.00865 (0.0130)
Minority	0.303 (0.515)	0.491* (0.267)	0.433* (0.253)	0.0438 (0.0509)	0.00189 (0.0458)
Education	0.0702 (0.189)	0.0190 (0.0961)	0.0150 (0.0917)	-0.0155 (0.0184)	-0.0180 (0.0164)
Distrust Sci.	-0.190* (0.111)	-0.0554 (0.0560)	-0.0225 (0.0539)	-0.0137 (0.0109)	-0.00764 (0.00976)
Econ./Envir.	-0.214** (0.109)	-0.195*** (0.0548)	-0.157*** (0.0524)	-0.0841*** (0.0105)	-0.0684*** (0.00965)
Constant	-0.304 (1.224)	4.437*** (0.624)	4.094*** (0.593)	0.963*** (0.119)	0.584*** (0.119)
Observations	210	213	210	208	208
R-squared		0.149	0.251	0.287	0.435

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A12: Message Effects on High Knowledge Democrats with Controls
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human-Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	1.560** (0.711)	0.409** (0.202)	0.301 (0.201)	0.0460 (0.0297)	0.0300 (0.0289)
Politicization	1.806** (0.834)	0.715*** (0.212)	0.608*** (0.210)	0.0457 (0.0311)	0.0171 (0.0308)
Warning	0.486 (0.562)	0.609*** (0.203)	0.563*** (0.199)	0.0215 (0.0295)	-0.00267 (0.0291)
Correction	0.583 (0.574)	0.376* (0.207)	0.328 (0.203)	-0.00660 (0.0303)	-0.0204 (0.0294)
Percep. of Cons.			0.604*** (0.191)		
Human- Induc.					0.0397*** (0.0100)
Age	0.0660 (0.226)	0.0560 (0.0724)	0.0518 (0.0708)	0.00776 (0.0107)	0.00512 (0.0103)
Female	-0.0965 (0.430)	0.104 (0.138)	0.110 (0.135)	-0.00294 (0.0202)	-0.00681 (0.0195)
Income	-0.144 (0.187)	-0.0172 (0.0598)	-0.0111 (0.0586)	0.000502 (0.00874)	0.00126 (0.00843)
Minority	0.211 (0.547)	-0.125 (0.177)	-0.132 (0.173)	-0.0272 (0.0258)	-0.0223 (0.0249)
Education	0.474* (0.247)	0.166** (0.0801)	0.135* (0.0790)	0.0236** (0.0117)	0.0171 (0.0114)
Distrust Sci.	0.305* (0.165)	0.00906 (0.0468)	-0.00888 (0.0461)	-0.00171 (0.00682)	-0.00207 (0.00657)
Econ./Envir.	-0.378*** (0.147)	-0.0897** (0.0489)	-0.0633 (0.0486)	-0.0566*** (0.00717)	-0.0533*** (0.00697)
Constant	-0.482 (1.642)	4.435*** (0.540)	4.092*** (0.539)	0.856*** (0.0788)	0.681*** (0.0880)
Observations	209	209	209	206	206
R-squared		0.118	0.161	0.307	0.359

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A13: Message Effects on High Knowledge Republicans with Controls
(“high knowledge” > 7 correct; “low knowledge” < 8)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Belief in Human- Induced Climate Change	Belief in Human- Induced Climate Change (with consensus)	Policy Beliefs	Policy Beliefs (with belief in Human Change)
Consensus	1.824*** (0.602)	-0.632** (0.306)	-0.732** (0.313)	-0.0185 (0.0564)	0.0329 (0.0507)
Politicization	-0.0966 (0.507)	-0.259 (0.274)	-0.253 (0.273)	-0.00540 (0.0499)	0.0160 (0.0445)
Warning	1.065** (0.522)	-0.223 (0.283)	-0.284 (0.286)	-0.0413 (0.0516)	-0.0231 (0.0460)
Correction	1.004* (0.598)	-0.490 (0.328)	-0.545* (0.330)	0.0764 (0.0598)	0.117** (0.0535)
Percep. of Cons.			0.283 (0.203)		
Human- Induc.					0.0839*** (0.0121)
Age	-0.545*** (0.193)	0.0439 (0.0957)	0.0731 (0.0977)	-0.0269 (0.0176)	-0.0308** (0.0157)
Female	0.752** (0.386)	0.0994 (0.204)	0.0576 (0.205)	0.0379 (0.0377)	0.0284 (0.0336)
Income	0.0288 (0.157)	0.0415 (0.0843)	0.0391 (0.0841)	-0.00436 (0.0154)	-0.00812 (0.0137)
Minority	-1.131* (0.660)	-0.149 (0.356)	-0.0908 (0.357)	-0.0772 (0.0648)	-0.0643 (0.0577)
Education	0.0428 (0.199)	0.00722 (0.110)	0.00561 (0.109)	-0.00980 (0.0200)	-0.0107 (0.0178)
Distrust Sci.	-0.333*** (0.128)	-0.0316 (0.0676)	-0.0129 (0.0687)	-0.0149 (0.0124)	-0.0124 (0.0110)
Econ./Envir.	-0.306*** (0.122)	-0.251*** (0.0629)	-0.234*** (0.0638)	-0.122*** (0.0116)	-0.102*** (0.0107)
Constant	2.905* (1.529)	4.433*** (0.803)	4.137*** (0.829)	1.159*** (0.148)	0.794*** (0.142)
Observations	192	192	192	190	190
R-squared		0.111	0.120	0.426	0.549

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A14. Message Effects on Low (Political) Knowledge Democrats (using only the political knowledge variables for the knowledge split)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	1.489** (0.579)	0.342 (0.273)	0.178 (0.275)	0.00246 (0.0442)	-0.0144 (0.0402)
Politicization	0.103 (0.470)	-0.315 (0.273)	-0.348 (0.270)	-0.0134 (0.0442)	0.0141 (0.0403)
Warning	-0.0572 (0.449)	-0.171 (0.262)	-0.184 (0.260)	-0.00169 (0.0430)	0.0155 (0.0391)
Correction	-0.398 (0.445)	-0.271 (0.259)	-0.228 (0.259)	-0.0142 (0.0422)	0.0110 (0.0385)
Percep. of Cons.			0.510*** (0.178)		
Human- Induc.					0.0675*** (0.0106)
Constant	0.302 (0.320)	4.829*** (0.185)	4.557*** (0.211)	0.732*** (0.0306)	0.400*** (0.0590)
Observations	193	195	193	189	189
R-squared		0.037	0.077	0.001	0.183

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A15: Message Effects on Low (Political) Knowledge Republicans (using only the political knowledge variables for a median split)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	1.434** (0.588)	0.668** (0.306)	0.410 (0.297)	-0.0520 (0.0574)	-0.115** (0.0505)
Politicization	0.613 (0.543)	-0.596** (0.279)	-0.710*** (0.267)	0.0298 (0.0524)	0.0863** (0.0460)
Warning	0.693 (0.565)	0.0280 (0.295)	-0.0903 (0.281)	-0.0249 (0.0553)	-0.0276 (0.0478)
Correction	0.423 (0.608)	-0.394 (0.315)	-0.463 (0.299)	-0.0597 (0.0591)	-0.0223 (0.0514)
Percep. of Cons.			0.763*** (0.179)		
Human- Induc.					0.0950*** (0.0133)
Constant	-0.999** (0.442)	4.154*** (0.220)	3.948*** (0.215)	0.618*** (0.0414)	0.223*** (0.0656)
Observations	154	155	154	155	155
R-squared		0.137	0.232	0.027	0.276

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A16: Message Effects on High (Political) Knowledge Democrats (using only the political knowledge variables for a median split)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.361 (0.415)	0.423** (0.177)	0.377** (0.170)	0.0235 (0.0291)	0.00239 (0.0280)
Politicization	0.291 (0.425)	0.408** (0.183)	0.370** (0.175)	0.0366 (0.0301)	0.0164 (0.0289)
Warning	0.239 (0.418)	0.437** (0.181)	0.405** (0.174)	0.0203 (0.0297)	-0.00179 (0.0285)
Correction	0.245 (0.426)	0.251 (0.185)	0.219 (0.177)	-0.00575 (0.0303)	-0.0170 (0.0290)
Percep. of Cons.			0.698*** (0.130)		
Human- Induc.					0.0505*** (0.00910)
Constant	0.951*** (0.286)	5.213*** (0.128)	4.710*** (0.154)	0.827*** (0.0209)	0.564*** (0.0514)
Observations	301	301	301	298	298
R-squared		0.028	0.115	0.009	0.103

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other tests. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A17: Message Effects on High (Political) Knowledge Republicans (using only the political knowledge variables for a median split)

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.766* (0.406)	-0.424* (0.247)	-0.529** (0.246)	0.0623 (0.0565)	0.107* (0.0476)
Politicization	0.0174 (0.396)	-0.212 (0.241)	-0.215 (0.237)	0.0459 (0.0548)	0.0650 (0.0461)
Warning	0.458 (0.397)	-0.391 (0.244)	-0.448* (0.241)	-0.0374 (0.0553)	0.00486 (0.0466)
Correction	0.378 (0.420)	-0.312 (0.257)	-0.348 (0.254)	0.0410 (0.0592)	0.0693 (0.0498)
Percep. of Cons.			0.498*** (0.153)		
Human- Induc.					0.122*** (0.0119)
Constant	-0.423 (0.295)	3.812*** (0.179)	3.615*** (0.187)	0.441*** (0.0409)	-0.0204 (0.0564)
Observations	263	265	263	258	258
R-squared		0.014	0.054	0.018	0.309

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other tests. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A18: Message Effects on Confidence in Science

	(1) All Partisans	(2) Low Knowledge Democrats	(3) Low Knowledge Republicans	(4) High Knowledge Democrats	(5) High Knowledge Republicans
Consensus	0.0602 (0.0674)	0.239* (0.129)	0.344** (0.154)	0.161* (0.0896)	-0.325** (0.133)
Politicization	-0.102 (0.0663)	-0.127 (0.126)	-0.110 (0.144)	0.179* (0.0949)	-0.186 (0.127)
Warning	0.0198 (0.0668)	0.0220 (0.129)	-0.0167 (0.147)	0.150* (0.0893)	-0.0678 (0.131)
Correction	0.0566 (0.0687)	0.0864 (0.126)	0.0879 (0.149)	0.0965 (0.0920)	-0.0274 (0.144)
Constant	2.326*** (0.0482)	2.286*** (0.0898)	2.138*** (0.107)	2.576*** (0.0639)	2.156*** (0.0980)
Observations	917	208	156	286	260
R-squared	0.009	0.042	0.066	0.017	0.032

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.

*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A19: Message Effects on Confidence in Science with Controls

	(1)	(2)	(3)	(4)	(5)
	All	Low	Low	High	High
	Partisans	Knowledge	Knowledge	Knowledge	Knowledge
		Democrats	Republicans	Democrats	Republicans
Consensus	0.0182 (0.0632)	0.181 (0.122)	0.355** (0.159)	0.153* (0.0878)	-0.354*** (0.133)
Politicization	-0.120* (0.0614)	-0.160 (0.119)	-0.141 (0.145)	0.178* (0.0915)	-0.237* (0.127)
Warning	0.0379 (0.0617)	-0.0525 (0.125)	0.0979 (0.151)	0.184** (0.0862)	-0.118 (0.130)
Correction	0.0567 (0.0639)	0.0987 (0.122)	0.203 (0.154)	0.0991 (0.0898)	-0.0483 (0.144)
Age	-0.00600 (0.0197)	0.0198 (0.0386)	-0.00873 (0.0458)	-0.00400 (0.0297)	-0.0827* (0.0415)
Female	0.0307 (0.0419)	0.0285 (0.0912)	0.0396 (0.106)	-0.0337 (0.0593)	-0.0325 (0.0894)
Income	-0.0190 (0.0184)	-0.0691* (0.0370)	-0.0467 (0.0474)	0.0242 (0.0261)	0.0278 (0.0389)
Minority	-0.0446 (0.0531)	-0.202** (0.0862)	-0.0699 (0.155)	-0.0811 (0.0755)	0.0246 (0.163)
Education	0.0398* (0.0231)	0.0558 (0.0472)	0.100* (0.0598)	0.00572 (0.0334)	-0.0520 (0.0504)
Distrust Sci.	-0.0963*** (0.0143)	-0.102*** (0.0307)	-0.106*** (0.0376)	-0.0578*** (0.0196)	-0.0856*** (0.0291)
Econ./Envir.	-0.123*** (0.0127)	-0.0815*** (0.0280)	-0.0943** (0.0362)	-0.0737*** (0.0208)	-0.0787*** (0.0274)
Constant	2.968*** (0.166)	2.869*** (0.350)	2.602*** (0.372)	2.924*** (0.233)	3.316*** (0.365)
Observations	896	207	149	283	252
R-squared	0.175	0.189	0.166	0.114	0.125

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A20: Message Effects on Policy Beliefs (All Partisans)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	-0.0245 (0.0258)	-0.0243 (0.0213)
Politicization	0.00219 (0.0252)	0.0285 (0.0208)
Warning	-0.0343 (0.0254)	-0.0205 (0.0209)
Correction	-0.00470 (0.0262)	0.0119 (0.0216)
Percep. of Cons.	0.226*** (0.0164)	0.123*** (0.0144)
Human-Induc.		0.104*** (0.00505)
Constant	0.547*** (0.0203)	0.125*** (0.0265)
Observations	903	903
R-squared	0.176	0.440

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A21: Message Effects on Policy Beliefs (Low Knowledge Democrats)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	-0.0185 (0.0408)	-0.0325 (0.0390)
Politicization	0.0281 (0.0395)	0.0386 (0.0377)
Warning	0.0255 (0.0409)	0.0395 (0.0390)
Correction	0.0204 (0.0399)	0.0341 (0.0381)
Percep. of Cons.	0.126*** (0.0264)	0.0999*** (0.0257)
Human-Induc.		0.0529*** (0.0114)
Constant	0.645*** (0.0327)	0.409*** (0.0594)
Observations	203	203
R-squared	0.105	0.194

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A22: Message Effects on Policy Beliefs (Low Knowledge Republicans)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	-0.0156 (0.0531)	-0.0349 (0.0509)
Politicization	0.0820 (0.0502)	0.109** (0.0484)
Warning	-0.0614 (0.0505)	-0.0418 (0.0485)
Correction	-0.0270 (0.0517)	-0.0105 (0.0495)
Percep. of Cons.	0.147*** (0.0334)	0.0959*** (0.0344)
Human-Induc.		0.0595*** (0.0150)
Constant	0.517*** (0.0381)	0.287*** (0.0684)
Observations	155	155
R-squared	0.178	0.257

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A23: Message Effects on Policy Beliefs (High Knowledge Democrats)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	0.0130 (0.0282)	-0.000691 (0.0272)
Politicization	0.0141 (0.0301)	-0.00349 (0.0291)
Warning	-0.00694 (0.0280)	-0.0241 (0.0272)
Correction	-0.0263 (0.0289)	-0.0339 (0.0278)
Percep. of Cons.	0.114*** (0.0224)	0.0914*** (0.0220)
Human-Induc.		0.0456*** (0.00928)
Constant	0.759*** (0.0255)	0.531*** (0.0525)
Observations	282	282
R-squared	0.099	0.172

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A24: Message Effects on Policy Beliefs (High Knowledge Republicans)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	-0.0257 (0.0551)	0.0256 (0.0462)
Politicization	0.0278 (0.0515)	0.0619 (0.0430)
Warning	-0.0515 (0.0533)	-0.0246 (0.0445)
Correction	-0.00973 (0.0587)	0.0405 (0.0492)
Percep. of Cons.	0.228*** (0.0339)	0.168*** (0.0288)
Human-Induc.		0.116*** (0.0110)
Constant	0.377*** (0.0422)	-0.0401 (0.0529)
Observations	256	256
R-squared	0.155	0.416

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A25: Message Effects on Policy Beliefs with Controls (All Partisans)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	-0.0154 (0.0206)	-0.0144 (0.0183)
Politicization	-0.00578 (0.0199)	0.0141 (0.0178)
Warning	-0.0147 (0.0200)	-0.0109 (0.0178)
Correction	0.0159 (0.0208)	0.0237 (0.0185)
Percep. of Cons.	0.142*** (0.0136)	0.0937*** (0.0125)
Human-Induc.		0.0707*** (0.00468)
Age	-0.000472 (0.00636)	-0.00603 (0.00567)
Female	0.0378*** (0.0136)	0.0177 (0.0121)
Income	-0.0132** (0.00595)	-0.0112** (0.00530)
Minority	0.0545*** (0.0173)	0.0428*** (0.0154)
Education	0.0114 (0.00751)	0.00238 (0.00671)
Distrust Sci.	-0.0116** (0.00465)	-0.00790* (0.00414)
Econ./Envir.	-0.0939*** (0.00423)	-0.0727*** (0.00402)
Constant	0.868*** (0.0543)	0.569*** (0.0522)
Observations	882	882
R-squared	0.506	0.609

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.

*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A26: Message Effects on Policy Beliefs with Controls (Low Knowledge Democrats)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	-0.0195 (0.0345)	-0.0277 (0.0336)
Politicization	0.0223 (0.0337)	0.0320 (0.0328)
Warning	-0.00705 (0.0355)	0.00425 (0.0345)
Correction	0.00998 (0.0345)	0.0189 (0.0335)
Percep. of Cons.	0.104*** (0.0231)	0.0892*** (0.0228)
Human-Induc.		0.0364*** (0.0101)
Age	0.0155 (0.0108)	0.0120 (0.0105)
Female	0.0218 (0.0257)	0.0230 (0.0249)
Income	-0.0209** (0.0104)	-0.0207** (0.0101)
Minority	0.0541** (0.0246)	0.0593** (0.0239)
Education	0.0315** (0.0131)	0.0273** (0.0128)
Distrust Sci.	-0.0212** (0.00847)	-0.0193** (0.00823)
Econ./Envir.	-0.0625*** (0.00786)	-0.0573*** (0.00775)
Constant	0.772*** (0.101)	0.608*** (0.108)
Observations	202	202
R-squared	0.393	0.433

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A27: Message Effects on Policy Beliefs with Controls (Low Knowledge Republicans)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	-0.00825 (0.0531)	-0.0281 (0.0512)
Politicization	0.0497 (0.0493)	0.0755 (0.0477)
Warning	-0.0101 (0.0509)	0.00413 (0.0489)
Correction	-0.0207 (0.0520)	-0.0101 (0.0499)
Percep. of Cons.	0.106*** (0.0339)	0.0668* (0.0342)
Human-Induc.		0.0549*** (0.0152)
Age	0.00172 (0.0151)	0.00246 (0.0145)
Female	0.00946 (0.0353)	-0.0111 (0.0343)
Income	0.0122 (0.0158)	0.0145 (0.0152)
Minority	-0.00801 (0.0512)	-0.0369 (0.0497)
Education	-0.00400 (0.0197)	-0.00918 (0.0189)
Distrust Sci.	-0.0122 (0.0127)	-0.0101 (0.0122)
Econ./Envir.	-0.0601*** (0.0122)	-0.0561*** (0.0118)
Constant	0.749*** (0.122)	0.561*** (0.127)
Observations	148	148
R-squared	0.302	0.364

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A28: Message Effects on Policy Beliefs with Controls (High Knowledge Democrats)

	(1) Policy Beliefs (with Percep. of Cons.)	(2) Policy Beliefs (with belief Human-Induc.)
Consensus	0.0227 (0.0243)	0.0131 (0.0236)
Politicization	0.0105 (0.0255)	-0.00187 (0.0249)
Warning	0.00668 (0.0239)	-0.00698 (0.0233)
Correction	-0.00422 (0.0248)	-0.00911 (0.0241)
Percep. of Cons.	0.0813*** (0.0199)	0.0668*** (0.0195)
Human-Induc.		0.0352*** (0.00817)
Age	0.00170 (0.00830)	0.000817 (0.00804)
Female	0.00186 (0.0165)	-0.00485 (0.0160)
Income	-0.000848 (0.00720)	-0.00105 (0.00697)
Minority	-0.0229 (0.0210)	-0.0189 (0.0203)
Education	0.00814 (0.00932)	0.00313 (0.00910)
Distrust Sci.	0.00238 (0.00543)	0.00204 (0.00526)
Econ./Envir.	-0.0574*** (0.00583)	-0.0541*** (0.00569)
Constant	0.875*** (0.0650)	0.724*** (0.0721)
Observations	279	279
R-squared	0.365	0.406

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A29: Message Effects on Policy Beliefs with Controls (High Knowledge Republicans)

	(1) Policy Beliefs with Percep. of Cons.	(2) Policy Beliefs (with belief in Human Change)
Consensus	-0.0651 (0.0453)	-0.0186 (0.0404)
Politicization	-0.0201 (0.0423)	0.0174 (0.0377)
Warning	-0.0623 (0.0436)	-0.0365 (0.0386)
Correction	0.0237 (0.0485)	0.0506 (0.0430)
Percep. of Cons.	0.152*** (0.0291)	0.125*** (0.0259)
Human-Induc.		0.0821*** (0.00999)
Age	-0.0200 (0.0143)	-0.0216* (0.0126)
Female	-0.00257 (0.0306)	-0.00360 (0.0270)
Income	-0.00761 (0.0131)	-0.0131 (0.0116)
Minority	0.0136 (0.0545)	0.0268 (0.0481)
Education	-0.0208 (0.0169)	-0.0142 (0.0149)
Distrust Sci.	-0.00727 (0.00995)	-0.00690 (0.00878)
Econ./Envir.	-0.113*** (0.00936)	-0.0894*** (0.00873)
Constant	1.111*** (0.126)	0.705*** (0.122)
Observations	248	248
R-squared	0.486	0.601

Note: Coefficients are from ordinary least squares models. Standard errors in parentheses.
*** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A30: Message Effects on Independents

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.0978 (0.333)	0.210 (0.208)	0.196 (0.199)	0.00998 (0.0420)	-0.00902 (0.0348)
Politicization	0.287 (0.329)	0.0576 (0.205)	-0.000184 (0.198)	0.0145 (0.0411)	0.00827 (0.0340)
Warning	0.182 (0.337)	-0.188 (0.211)	-0.219 (0.202)	0.000260 (0.0422)	0.0238 (0.0349)
Correction	-0.471 (0.328)	-0.118 (0.196)	-0.0330 (0.189)	0.000397 (0.0392)	0.0125 (0.0324)
Percep. of Cons.			0.811*** (0.131)		
Human- Induc.					0.111*** (0.00872)
Constant	-0.376* (0.219)	4.575*** (0.136)	4.240*** (0.141)	0.619*** (0.0274)	0.110** (0.0458)
Observations	360	363	360	354	354
R-squared		0.011	0.108	0.001	0.320

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A31: Message Effects on Low Knowledge Independents

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.0462 (0.506)	0.471 (0.286)	0.476* (0.279)	0.0123 (0.0496)	-0.0251 (0.0435)
Politicization	0.492 (0.499)	-0.0119 (0.290)	-0.0810 (0.283)	0.0414 (0.0499)	0.0428 (0.0435)
Warning	0.375 (0.487)	-0.358 (0.280)	-0.407 (0.274)	0.00596 (0.0483)	0.0387 (0.0423)
Correction	-0.118 (0.510)	0.186 (0.282)	0.209 (0.277)	0.0553 (0.0486)	0.0376 (0.0424)
Percep. of Cons.			0.708*** (0.183)		
Human- Induc.					0.0826*** (0.0110)
Constant	-0.780** (0.364)	4.583*** (0.203)	4.349*** (0.208)	0.591*** (0.0356)	0.213*** (0.0591)
Observations	185	187	185	179	179
R-squared		0.050	0.123	0.011	0.254

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A32: Message Effects on High Knowledge Independents

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.405 (0.474)	-0.140 (0.306)	-0.240 (0.285)	0.0253 (0.0696)	0.0537 (0.0539)
Politicization	0.243 (0.452)	0.128 (0.290)	0.0589 (0.273)	-0.00257 (0.0653)	-0.0210 (0.0506)
Warning	0.300 (0.512)	0.113 (0.332)	0.0392 (0.309)	0.0218 (0.0746)	0.00562 (0.0578)
Correction	-0.685 (0.436)	-0.402 (0.271)	-0.243 (0.254)	-0.0420 (0.0609)	0.0156 (0.0475)
Percep. of Cons.			0.988*** (0.187)		
Human- Induc.					0.143*** (0.0134)
Constant	-0.118 (0.281)	4.569*** (0.182)	4.104*** (0.191)	0.637*** (0.0409)	-0.0172 (0.0688)
Observations	175	176	175	175	175
R-squared		0.024	0.162	0.007	0.408

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A33: Message Effects on Independents with Controls

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.0540 (0.371)	0.120 (0.191)	0.117 (0.188)	-0.00344 (0.0350)	-0.0106 (0.0316)
Politicization	0.376 (0.371)	0.0708 (0.190)	0.0139 (0.188)	0.0249 (0.0345)	0.0194 (0.0311)
Warning	0.0837 (0.377)	-0.302 (0.194)	-0.309 (0.191)	-0.0172 (0.0353)	0.00865 (0.0320)
Correction	-0.472 (0.370)	-0.0408 (0.181)	-0.00625 (0.179)	0.0137 (0.0330)	0.0155 (0.0298)
Percep. of Cons.			0.535*** (0.135)		
Human- Induc.					0.0784*** (0.00887)
Age	0.0694 (0.110)	0.00820 (0.0552)	0.000169 (0.0546)	0.0104 (0.0101)	0.0103 (0.00910)
Female	-0.0449 (0.251)	0.165 (0.128)	0.186 (0.126)	0.0479** (0.0233)	0.0331 (0.0210)
Income	0.143 (0.115)	0.0417 (0.0576)	0.0264 (0.0571)	0.0128 (0.0105)	0.00895 (0.00946)
Minority	-0.460 (0.313)	0.290* (0.157)	0.346** (0.155)	0.00473 (0.0286)	-0.0207 (0.0259)
Education	0.212 (0.132)	-0.0683 (0.0659)	-0.0866 (0.0652)	0.00413 (0.0122)	0.0108 (0.0110)
Distrust Sci.	-0.341*** (0.0911)	-0.0410 (0.0447)	-0.00793 (0.0449)	-0.0101 (0.00808)	-0.00709 (0.00730)
Econ./Envir.	-0.464*** (0.0845)	-0.332*** (0.0402)	-0.285*** (0.0415)	-0.0886*** (0.00733)	-0.0622*** (0.00725)
Constant	1.109 (0.861)	5.656*** (0.443)	5.252*** (0.446)	0.793*** (0.0806)	0.348*** (0.0885)
Observations	353	356	353	347	347
R-squared		0.204	0.241	0.339	0.464

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A34: Message Effects on Low Knowledge Independents with Controls

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.0362 (0.558)	0.256 (0.281)	0.256 (0.278)	-0.00415 (0.0473)	-0.0203 (0.0437)
Politicization	0.674 (0.556)	-0.180 (0.282)	-0.248 (0.281)	0.0367 (0.0475)	0.0498 (0.0439)
Warning	0.347 (0.535)	-0.573** (0.272)	-0.607** (0.270)	-0.0221 (0.0458)	0.0189 (0.0429)
Correction	-0.265 (0.557)	0.00452 (0.273)	0.0115 (0.273)	0.0286 (0.0460)	0.0268 (0.0424)
Percep. of Cons.			0.504*** (0.186)		
Human- Induc.					0.0644*** (0.0118)
Age	-0.0356 (0.149)	0.0708 (0.0751)	0.0707 (0.0750)	0.0156 (0.0127)	0.0109 (0.0118)
Female	0.366 (0.364)	0.210 (0.184)	0.187 (0.183)	0.0466 (0.0305)	0.0295 (0.0283)
Income	0.0594 (0.173)	0.0415 (0.0890)	0.0425 (0.0888)	0.00214 (0.0151)	-0.00163 (0.0139)
Minority	-0.555 (0.447)	0.323 (0.220)	0.377 (0.218)	-0.00805 (0.0370)	-0.0324 (0.0344)
Education	0.0981 (0.193)	-0.0127 (0.0979)	-0.0252 (0.0971)	0.00129 (0.0170)	0.00363 (0.0157)
Distrust Sci.	-0.226* (0.136)	-0.0220 (0.0690)	-0.00402 (0.0692)	-0.00171 (0.0114)	-0.00112 (0.0105)
Econ./Envir.	-0.426*** (0.120)	-0.270*** (0.0576)	-0.230*** (0.0591)	-0.0552*** (0.00967)	-0.0374*** (0.00949)
Constant	0.556 (1.208)	5.018*** (0.631)	4.724*** (0.634)	0.660*** (0.105)	0.342*** (0.113)
Observations	182	184	182	176	176
R-squared		0.189	0.224	0.201	0.325

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A35: Message Effects on High Knowledge Independents with Controls

	(1)	(2)	(3)	(4)	(5)
	Perceptions of Consensus	Human- Induced Climate Change	Human- Induced Climate Change	Policy Beliefs	Policy Beliefs
Consensus	0.408 (0.554)	-0.101 (0.274)	-0.154 (0.268)	0.0180 (0.0516)	0.0341 (0.0454)
Politicization	0.266 (0.539)	0.324 (0.267)	0.257 (0.263)	0.0318 (0.0498)	0.00225 (0.0439)
Warning	-0.0383 (0.614)	0.0974 (0.304)	0.0949 (0.297)	0.0324 (0.0567)	0.0234 (0.0498)
Correction	-0.525 (0.525)	-0.0411 (0.252)	0.00981 (0.246)	0.0397 (0.0469)	0.0422 (0.0411)
Percep. of Cons.			0.629*** (0.202)		
Human- Induc.					0.0911*** (0.0131)
Age	0.107 (0.188)	-0.0242 (0.0879)	-0.0296 (0.0859)	0.00501 (0.0164)	0.00787 (0.0144)
Female	-0.442 (0.404)	0.0296 (0.193)	0.0928 (0.190)	0.0400 (0.0360)	0.0358 (0.0316)
Income	0.188 (0.164)	0.0428 (0.0777)	0.0155 (0.0764)	0.0206 (0.0145)	0.0169 (0.0127)
Minority	-0.227 (0.473)	0.345 (0.235)	0.378 (0.230)	0.0601 (0.0438)	0.0262 (0.0388)
Education	0.240 (0.212)	-0.0821 (0.102)	-0.101 (0.0999)	0.00506 (0.0190)	0.0140 (0.0167)
Distrust Sci.	-0.435*** (0.133)	-0.0316 (0.0605)	0.0151 (0.0610)	-0.00848 (0.0113)	-0.00494 (0.00992)
Econ./Envir.	-0.600*** (0.135)	-0.392*** (0.0592)	-0.326*** (0.0619)	-0.123*** (0.0110)	-0.0869*** (0.0110)
Constant	2.150 (1.381)	6.087*** (0.663)	5.485*** (0.674)	0.896*** (0.124)	0.333*** (0.135)
Observations	171	172	171	171	171
R-squared		0.264	0.308	0.490	0.610

Note: Coefficients are from a logit model for the perceptions of consensus model and from ordinary least squares for the other models. Standard errors in parentheses. *** $p \leq .01$; ** $p \leq .05$; * $p \leq .10$ for two-tailed tests.

Table A36. Sample Demographics

Variable	Question / Distribution
Gender	Are you male (46.42) or female (53.58%)?
Ethnicity	Which of the following do you consider to be your primary racial or ethnic group? White (1) = 82.34%; African American (2) = 4.25%; Asian American (3) = 6.52%; Hispanic (4) = 3.71%; Native American (5) = 2.12%; Other (6) = 1.06%
Age	What is your age? under 18 (1) = 3.56%; 18-24 (2) = 13.93%; 25-34 (3) = 26.65%; 35-50 (4) = 32.70%; 51-65 (5) = 23.09%; over 65 (6) = 0.08%
Education	What is the highest level of education you have completed? less than high school (1) = 0.68%; high school graduate (2) = 7.20%; some college = 29.70%; 4 year college degree (4) = 35.15%; advanced degree (5) = 27.27%.
Income	What is your estimate of your family's annual household income (before taxes)? < \$30,000 (1) = 13.07%; \$30,000 – \$69,999 (2) = 31.50%; \$70,000 – \$99,999 (3) = 23.62%; \$100,000 - \$200,000 (4) = 25.69%; > 200,000 (5) = 6.12%
Minority	What is your race? Coded 0=White (82%); 1=Otherwise (18%)
Party Identification	Generally speaking, which of the options on the scale below best describes your party identification? strong Democrat (1) = 16.41%; weak Democrat (2) = 8.63%; lean Democrat (3) = 13.05%; Independent (4) = 28.55%; lean Republican (5) = 12.29%; weak Republican (6) = 8.40%; strong Republican (7) = 12.67%
Distrust in Science	Do you think that science enables us to overcome almost any problem, or that science creates unintended consequences and replaces older problems with new ones? definitely overcomes problems (1) = 6.36%; 2 = 19.77%; 3 = 18.79%; not sure (4) = 28.48%; 5 = 17.73%; 6 = 6.52%; definitely creates new problems (7) = 2.35%
Econ. Over Envir.	In general, what do you think is more important: protecting the environment, even at the risk of curbing economic growth, OR maintaining a prosperous economy, even if the environment suffers to some extent? definitely protect the environment (1) = 17.73%; (2) = 16.14%; (3) = 10.38%; (4) = 37.42%; (5) = 8.56%; (6) = 6.52%; definitely maintain a prosperous economy (7) = 3.26%
Knowledge	Know which party is more conservative in the U.S. (76% correct; 24% incorrect) Know majority required to over-ride a Presidential veto (61% correct; 39% incorrect) Know which party has majority in U.S. House (62% correct; 38% incorrect) Know whose responsibility it is to declare law unconstitutional (80% correct; 20% incorrect)

	<p>Know current U.S. Sec. of State (67% correct; 33% incorrect)</p> <p>Know whether most of the oil imported to the US comes from the Middle East (41% correct; 59% incorrect)</p> <p>Know whether there is currently a ban on drilling for oil and gas off the Atlantic Coast and in the eastern Gulf of Mexico (26% correct; 74% incorrect)</p> <p>Know what country is the world's largest exporter of crude oil (40% correct; 60% incorrect)</p> <p>Know which of the following is not a renewable energy source (62% correct; 38% incorrect)</p> <p>Is it true or false that lasers work by focusing sound waves? (51% correct; 49% incorrect)</p> <p>Which travels faster: light or sound? (84% correct; 16% incorrect)</p> <p><i>Overall:</i> 0 correct = 2.03%; 1 correct = 1.96%; 2 correct = 4.06%; 3 correct = 6.55%; 4 correct = 6.02%; 5 correct = 11.59%; 6 correct = 12.79%; 7 correct = 14.15%; 8 correct = 15.73%; 9 correct = 14.67%; 10 correct = 7.98%; 11 correct = 2.48%</p>
Percep. of Cons.	<p>Do you think most scientists agree or disagree on the statement that human activities are causing climate change? (1 to 7 disagree to agree); <i>Overall:</i> (46% disagree, 54% agree)</p>
Human-Induc.	<p>To what extent do you think climate change is <i>human-induced</i> as opposed to a result of Earth's natural changes? (1 to 7 scale ranging from natural changes to human-induced); <i>Overall:</i> (1)=1%; (2)=7%; (3)=14%; (4)=26%; (5)=25%; (6)=20%; (7)=6%</p>
Policy Beliefs Scaled Items ($\alpha = .91$)	<p>Extent to which agree or disagree with statement about importance of planning for ways to reduce impacts (1 to 7 disagree to agree); (1) 5%; (2) 5%; (3) 5%; (4) 18%; (5) 18%; (6) 24%; (7) 25%</p> <p>Extent U.S. government should increase or decrease investments in way to reduce impacts from CC (1 to 7 decrease to increase); (1) 6%; (2) 4%; (3) 6%; (4) 24%; (5) 24%; (6) 20%; (7) 15%</p> <p>Extent to which oppose or support laws that aim to cut the emissions of greenhouse gases (1 to 7 strongly oppose to support). (1) 7%; (2) 6%; (3) 4%; (4) 17%; (5) 19%; (6) 24%; (7) 21%</p>