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Oneness With the Source as a Means of Reducing Motivated Reasoning About Climate Policy

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Addressing climate change requires persuading political conservatives—many of whom remain skeptical of climate science—to support climate initiatives. A possible method of reducing conservatives' resistance to such messages is to use a source that matches their political identity. We attempted to replicate previous findings that perceived oneness with the source may explain why source matching increases persuasiveness for both a targeted attitude and potentially related attitudes. We also tested the extent to which the source-matching effect was further moderated by audience ego-involvement in their political identity. Two studies using pretest–posttest designs were used to assess these hypotheses. Results replicated the importance of oneness in explaining the source-matching effect, but found ego-involvement to be an inconsistent moderator. The data were consistent with a path model summarizing these predictions for the source-matching effect and oneness with the source.

Keywords: motivated reasoning, climate communication, political communication

Communication researchers can foster support for policies addressing human-driven climate change by studying how to persuade people to endorse potential solutions. Yet, political partisanship may hinder efforts to convince enough people to do so, particularly in the United States (Cruz, 2017; Merkley & Stecula, 2021). Although public concern about climate change has increased in the U.S., this shift primarily reflects rising concern among Democrats, whereas Republicans' concern has remained largely stagnant (Tyson et al., 2023).

Motivated reasoning may explain why this partisan divide persists—and why many Republicans oppose climate change reduction policies. Specifically, motivated reasoning research suggests that people tend to view messages from politically aligned sources more favorably and those from opposing sources less favorably (e.g., Bolson et al., 2019; Carpenter & Cruz, 2021). As a result, people usually process messages

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from opposing-party sources more critically than those from politically aligned sources, leading to greater support for arguments that reinforce their existing ideological viewpoints. Over time, these tendencies create a situation where each side becomes increasingly entrenched, with Democrats firmly convinced that climate change should be a national priority and Republicans equally convinced otherwise.

The self-concept approach to motivated reasoning (Aronson, 1992; Carpenter, 2019b) offers one possible solution to partisan biases against climate action. This approach proposes that these effects occur because counter-attitudinal messages from an opposing political source are viewed as an attack on one's self-concept. Rejecting these messages—or embracing proattitudinal messages—serves an ego-protective function. Accordingly, the key to reducing motivated reasoning may be to find a source that can convey counter-attitudinal messages in a nonego-threatening manner. If the audience feels a sense of oneness or a shared political identity with the message source, this might alleviate concerns that the message is intended as a personal attack and thereby reduce the impulse to reject its claims.

Previous work (Carpenter & Cruz, 2021) found that partisan motivated reasoning shapes the persuasiveness of messages about U.S. climate policy and that feelings of oneness with the source help explain these effects. This report represents a preliminary investigation of the self-concept approach; more research is needed to test its potential in applied settings.

Accordingly, the goal of this article is to replicate and extend Carpenter and Cruz (2021). First, we seek to replicate the impact of partisan-motivated reasoning on how exposure to messages about U.S. climate policy shapes attitudes toward climate policy attitudes and related political and environmental policies (i.e., lateral attitude change; see Cruz, 2019; Glaser et al., 2015). Second, we seek to extend that study by testing the self-concept approach (Carpenter, 2019b) prediction that ego-involvement is a key moderator of partisan motivated reasoning effects. Though there is some evidence consistent with other aspects of the self-concept approach (Bergan et al., 2024), the importance of ego-involvement has not been extensively tested. Theoretically, the greater someone's ego-involvement in their political identity, the more threatening a message criticizing a component of that political identity will be, creating a stronger motivation to resist persuasion. However, ego-involvement has been inconsistently associated with motivated reasoning effects (Keating & Fan, 2024). Additionally, ego-involvement may not be the only motivation that causes motivated reasoning (Saucier et al., 2025). Testing this proposition is important both for testing the self-concept approach and for developing practical strategies for appealing to different political segments and audiences. Understanding motivated reasoning better may also assist in contexts such as health and safety promotion.

Below, we review motivated reasoning theory and apply it to climate advocacy. Then, we derive the hypotheses we tested across two studies.

Motivated Reasoning

Kahan (2013) defined motivated reasoning as "the tendency of people to conform assessments of information to some goal or end extrinsic to accuracy" (p. 408). The default for human information processing is accuracy-based reasoning: simply weighing whatever evidence we encounter about any

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judgment that we need. People generally engage in this kind of reasoning when an accurate judgment clearly serves their goals. For example, someone trying to decide if the marginally more expensive rain poncho is worth the extra money would likely form an unbiased opinion.

Alternatively, sometimes people wish to believe something, so they engage in various cognitive errors that make them feel as though they have both acted reasonably and maintained their preferred belief. They direct their reasoning toward justifying a particular judgment rather than forming an accurate judgment. Such directional reasoning is considered motivated reasoning. Most people probably believe that they use accuracy-based reasoning, unaware of their biases.

Kunda (1990) argued for various motives for motivated reasoning. Yet Aronson (1992) argued that the core of most (possibly all) motivated reasoning is a desire to protect the self-concept from threats that would force people to accept a claim inconsistent with aspects of their self-concept. People resist persuasion on certain topics to protect their self-concept and thereby their self-esteem.

Carpenter (2019b) argued that one's self-concept includes the set of cognitions one has about oneself, including beliefs, values, and identities that are particularly important for maintaining a positive self-concept. These are beliefs and identities in which people are ego-involved, meaning that their stance on the issue is connected to their self-concept in such a way that part of their self-esteem is derived from those beliefs and identities. Someone is therefore more likely to engage in motivated reasoning for issues and identities in which they have high ego-involvement and to engage in accuracy-driven reasoning for issues and identities in which they have low ego-involvement.

Although people may be ego-involved in particular topics, one important aspect of identity in which ego-involvement varies is political identity. People's self-concepts often include important groups like political affiliations (Tajfel & Turner, 1986). For someone with high ego-involvement in their political affiliation, preserving a positive impression of the beliefs and values of that political identity is part of preserving their positive self-concept. Ditto et al.'s (2019) meta-analysis found that U.S. Democrats and Republicans are consistently likely to believe claims made by their own party and reject those of the opposition. In particular, Hornsey et al. (2016) found that political affiliation is a strong predictor of accepting climate beliefs.

Reducing Motivated Reasoning

Political bias is well-documented, yet less evidence is available for bias mitigation. One means of reducing motivated resistance to persuasion may be to find a source whom the audience believes shares their identity. If motivated reasoning stems from a need to protect important aspects of one's identity, then an otherwise equivalent message from someone who shares that identity may be resisted less (Carpenter, 2019b). If the source is one of "us," then their beliefs are likely consistent with being one of "us." Some evidence supports this perspective (Ditto et al., 2019). Thus, we expect to replicate the two-way interaction: A source sharing the respondent's political affiliation should produce greater change in the targeted attitude than a source that does not (H1).

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Perceived oneness with the source (OwtS) may also help explain this source-matching effect. Cialdini et al. (1997) explained that OwtS is "a sense of shared, merged, or interconnected personal identities" (p. 483). Furthermore, Carpenter and Cruz (2021) argued that though a message may make claims otherwise inconsistent with the audience's political identity, if the audience perceives the message source to share that identity, they will be less resistant. Essentially, if the message comes from one of "us," then it must not violate or challenge our identity. Carpenter and Cruz (2021) found that for some sources, OwtS also shows a source-matching effect. People feel more OwtS when the source is presented as sharing their political identity, even if the policy they propose does not. As such, we expected to replicate this two-way interaction such that a message from a source sharing the audience's political affiliation would be perceived by the audience as having higher oneness with the audience than a source that does not (H2).

Carpenter and Cruz (2021) found that OwtS was positively associated with persuasion on the topic targeted by the message. We expected to replicate this finding. However, they also explored motivated reasoning processes about nontargeted, but related attitudes. Connectionist models suggest that when one attitude is changed, the connections between attitudes may cause other related attitudes to change as well. Glaser et al. (2015) referred to this process as lateral attitude change, specifically attitude generalization. For example, if someone is persuaded to support legislation that requires gun owners to lock their guns in a secure device like a safe, that person may also improve their attitudes toward laws that limit the size of the magazine permitted on guns, even if the original message did not mention magazine size. Carpenter and Cruz (2021) found that a message about climate attitudes also changed related attitudes. Generalization prototypically refers to cases in which a change in the targeted attitude mediates a change in related attitudes. Furthermore, previous work on attitude change suggests that generalization typically extends only to closely related attitudes (i.e., proximal attitudes), not to more distantly related attitudes (i.e., distal attitudes; e.g., Cruz, 2017). Carpenter and Cruz (2021), however, found their model fit better when OwtS was conceptualized as having a direct effect on both the targeted and untargeted attitudes, including one that was proximal to the targeted attitude and one that was distal. As such, we expect to replicate their finding that OwtS would be positively associated with a change in the targeted attitude and the untargeted, but related attitudes (H3).

Ego-Involvement as Moderator

The self-concept approach to motivated reasoning predicts a source-matching effect in which a counter-attitudinal message from the opposing party is resisted, but the same message from one's own party may be persuasive. Here, political identity is a strong source of resistance, probably because people have high ego-involvement in their political affiliation. As such, they are likely to resist opposition messages as attacks on their self-concept, but accept own-party messages as consistent with their identity. Yet, people may adopt a political affiliation without making it central to their identity. Such individuals have low ego-involvement in their political identity and would be less likely to resist messages that appear to target politically charged attitudes. In the current context, we expect the impact of the two-way interaction between source and audience political affiliation on persuasion (i.e., H1) to be enhanced when ego-involvement in one's political affiliation is high and reduced when ego-involvement is low (H4).

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Similar to attitude change with the targeted attitude, the effects of source matching on OwtS are also likely to be moderated by ego-involvement in one's political affiliation. If one does not have strong ego-involvement in one's political affiliation, one is not likely to differentiate between someone who shares their political identity and someone who does not when perceiving oneness. Oneness with a congenial source occurs because someone has strong ego-involvement with an aspect of their identity that the message source shares. As such, we hypothesized that the source-matching effect on OwtS hypothesized in H2 will be moderated by political ego-involvement such that it would be stronger when ego-involvement is high and weaker when it is low (H5).

If attitude generalization occurs, it likely follows the same combination of source and personal traits that cause the target attitude change. One would expect that once an attitude changes, proximal attitudes would change as well. Therefore, we predict a source-matching effect on the proximal attitude such that persuasion would be more likely when the source shares the audience's political affiliation. Furthermore, we expect this effect to be stronger when ego-involvement in one's political affiliation is strong rather than weak (H6). Here, we predict a similar two-way interaction as H1, but with proximal attitudes as the outcome instead of targeted attitudes. We also predict a three-way interaction on proximal attitudes described in H4, with ego-involvement enhancing the effect.

The possibilities for change in distal attitudes are less clear. Previous studies suggest that these more distantly related attitudes would not be expected to change (e.g., Cruz, 2017; Glaser et al., 2015). However, Carpenter and Cruz (2021) found that OwtS changed the distal attitude just as it did the targeted and proximal attitudes. We therefore predict a three-way interaction of audience political affiliation, source affiliation, and political ego-involvement on distal attitude, such that attitude change should be stronger when the source matches the audience's identity, with effect magnified by ego-involvement in one's political affiliation (H7).

Summary Model

If OwtS explains why source matching increases the audience's likelihood of message acceptance, then this model can be expressed by a modified version of Carpenter and Cruz's (2021) path model shown in Figure 1. They found data consistent with the model in their study, but only for the liberal source. The conservative source failed to evoke oneness with the Republican audience, which may have occurred because its source manipulation was somewhat weak, focusing on conservative economic leadership. Thus, we attempted to develop a stronger source manipulation that more clearly emphasized that the source shared either conservative values or liberal values, depending on the condition. Additionally, we argue that ego-involvement in one's political affiliation further moderates the source-matching effect as described above. As such, we hypothesized that the model shown in Figure 1 would be consistent with the data for both the conservative and liberal sources (H8).

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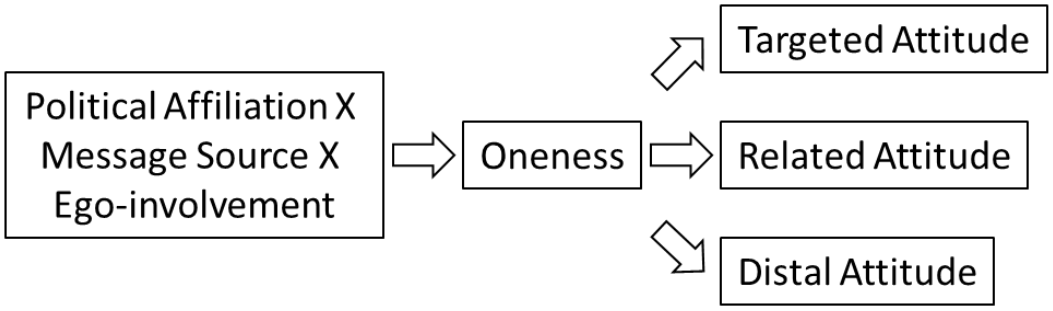

Figure 1. Proposed model with changes in attitudes as the outcome.

Overview

Both studies used a pretest–posttest design. Pretest measures included political affiliation ego-involvement, political affiliation, and baseline intent to persuade others about (Study 1) or attitudes toward (Study 2) the targeted topic (a climate policy), a closely related topic (solar tax credits, vegetarianism), and a distally related topic (gun control, animal testing). At each posttest, participants were randomly assigned to a conservative, neutral, or liberal source condition, read a persuasive message attributed to that source, and then filled out posttest measures of the outcomes and OwtS. Both studies described a policy proposal likely to be counter-attitudinal to conservatives—a tax on meat to reduce greenhouse gas emissions from livestock (see Funke et al., 2022, for details). We expected such a policy to be counter-attitudinal to conservatives because it threatens freedom of choice and traditional American diets. We chose intent to persuade as the outcome measure of persuasion in Study 1 to assess whether our inductions would be strong enough to affect advocacy behavior.

Study 1

Method

Sample

Data from U.S. residents were collected in November 2021 via CloudResearch (https://www.cloudresearch.com/), which recruits pre-vetted participants from online research panels and screens their responses for data quality. Participants were compensated for each survey wave, with payment type determined by their platform (e.g., small amounts of money, gift cards, or reward points; CloudResearch, n.d.). 800 participants completed the T0 survey (pretest), 651 of whom completed the T1 survey (posttest) as well (81.4% retention). Analyses included only participants who completed both parts of the study: 288 identified as male, 357 as female, 4 as nonbinary, and 2 chose "prefer not to say." Ages ranged from 20 to 80 (M = 42.94, Med = 40, SD = 12.72). A power analysis was conducted before data collection with the skpr package in *R* (Morgan-Wall & Khoury, 2023). For a three-way interaction in a regression with α = .05 (two-tailed), N = 350 was needed to detect a medium-sized effect (d = .30) with a power of .81.

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Procedure & Materials

At the pretest (T0), participants received a brief description of the proposed climate policy central to this study and were asked about their intentions to promote it to others, as well as their intentions to promote two other topics, one proximally related (tax credits for solar power) and one distally related (banning high-capacity magazines in firearms). They also responded to measures of both political affiliation and political party ego-involvement. Approximately two weeks later, the participants were contacted again to participate in the posttest (T1). They were randomly assigned to one of three source conditions (conservative, liberal, or bipartisan) and provided with a description of the source. Besides the source organization's name and its commitment to conservative, bipartisan, or liberal values, everything else about the source description was held constant. Then, all were exposed to the same message promoting the climate policy and asked about their intentions to promote the meat tax, solar tax credits (proximal topic), and gun control policy (distal topic), as well as their perceived OwtS.

As noted above, the policy focused on implementing a meat tax to reduce climate change. The persuasive message, identical across all source conditions, proposed a 10% federal meat tax on all consumer meat sales in the United States, explaining that it would reduce the purchase of meat, which would, in turn, reduce climate change because of the meat industry's substantial role in greenhouse gas emissions (see the OSF page for the full message text, source inductions, and datafile[1]). We selected this policy for two reasons. First, attitudes may be more malleable because the topic is novel. Second, we expected the topic to produce a particularly strong partisan divide and, accordingly, a strong potential for partisan-motivated reasoning. The medium-sized correlation between political party and pretest intentions to persuade, shown in the correlation matrix in Table 1 (along with *M*s, SDs, and reliabilities), suggests a stronger baseline receptiveness to the topic among Democrats, consistent with this expectation.

Measures

Pretest and posttest intent to persuade others to adopt the meat tax were measured with a single item: "How likely are you to try to convince important people in your life (such as friends and family) that the United States should adopt a meat tax?" (1 = *definitely will not*, 7 = *definitely will*). T0 scores on this item were subtracted from T1 scores to measure change in intentions to promote the meat tax (a positive score indicates an increase in intentions). The same measure was used to assess intentions to persuade others to support a solar tax credit and a high-capacity gun magazine ban.

[1] https://osf.io/s9j2d/?view_only=531245bcdd8f4da6879babfe9f269e4a

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Table 1. Correlations, Means, Standard Deviations, and Alpha Reliability Estimates (Study 1).

Variable	*M* (SD)	1	2	3	4	5	6	7	8	9	10	11
1. Political affiliation	3.58 (1.98)	–										
2. Political ego-inv	5.19 (1.21)	.12*	.90									
3. Oneness	2.46 (1.61)	.28*	.13*	.87								
4. ITP targeted (T0)	2.30 (1.88)	.35*	.03	.48*								
5. ITP targeted (T1)	2.78 (2.09)	.39*	.13*	.71*	.68*							
6. ΔITP targeted	0.48 (1.59)	.10*	.13*	.36*	−.29*	.50*						
7. ITP proximal (T0)	4.66 (1.96)	.31*	.05	.30*	.36*	.37*	.07					
8. ITP proximal (T1)	4.83 (1.91)	.30*	.08*	.34*	.29*	.40*	.19*	.72*				
9. ΔITP proximal	0.16 (1.46)	−.02	.04	.05	−.10*	.03	.15*	−.41*	.35*			
10. ITP distal (T0)	3.75 (2.25)	.50*	.11*	.41*	.44*	.46*	.09*	.48*	.41*	−.11*		
11. ITP distal (T1)	3.96 (2.32)	.54*	.15*	.43*	.42*	.52*	.19*	.40*	.49*	.11*	.76*	
12. ΔITP distal	0.21 (1.57)	.09*	.06	.05	.002	.11*	.15*	−.10*	.13*	.31*	−.30*	.39*

Note. Alpha reliabilities are shown on the diagonal. ITP = intent to persuade.
*$p < .05$.

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Political leaning was measured with the item: "Please indicate your political leaning on this scale. If you identify as an independent, please choose the option that is closest to your political leaning." (1 = *strong Republican*, 2 = *weak Republican*, 3 = *lean Republican*, 4 = *lean Democrat*, 5 = *weak Democrat*, 6 = *strong Democrat*).

Ego-involvement in one's political affiliation was measured at the pretest using Cho and Boster's (2005) value-relevant involvement scale (VRI), which has been validated for the motivated reasoning context as a measure of ego-involvement (Carpenter, 2019a). The scale included "political orientation" as the target of ego-involvement. The scale included seven items (e.g., "My beliefs about how I should live my life determine my political orientation") measured on 7-point Likert-type scales (1 = *strongly disagree*, 7 = *strongly agree*).

OwtS was measured at the posttest using the two-item Cialdini et al. (1997) measure. The first item asked participants the degree to which they would use the term "we" to describe themselves and the message source (1 = *definitely would not*, 7 = *definitely would*). The second item showed participants seven pairs of numbered circles (1–7), with the first pair barely overlapping, the seventh pair almost completely overlapping, and gradations in between. They were asked which pair represented their perception of themselves and the message source. The two items were averaged together to measure OwtS.

Confirmatory factor analyses (CFA) were conducted in R 4.2.1 to examine the fit of the political affiliation ego-involvement items. The lavaan package (Rosseel et al., 2024) was used to obtain model fit statistics. The initial model exhibited adequate fit (CFI = .95, SRMR = .03, RMSEA = .12), but item residuals indicated that two items (the second and third) had larger errors than would be expected to occur due to chance alone. Removing these items improved fit (CFI = .98, SRMR = .03, RMSEA = .11). The remaining items were averaged, with higher scores indicating greater political ego-involvement.

Results

Overview

The design of our studies allowed us to compare the effect of each partisan source with the bipartisan and opposing-partisan sources. As such, in the regression equations for both studies, we created separate variables with effect-coded message source inductions such that for the conservative source variable, we coded the conservative source as 1 and the combination of the liberal and bipartisan sources as −1. For the liberal source variable, we coded the liberal source as 1 and the combination of the conservative and bipartisan sources as −1. This coding pattern allowed us to include all predictors in the model simultaneously, with the bipartisan source represented when the value of both variables is −1. To test the hypothesized two-way and three-way interaction effects, we constructed separate interaction terms for the conservative source variable and the liberal source variable. In the regressions that followed for both studies, the variance inflation factor (VIF) was consistently below 3. Political affiliation and ego-involvement were standardized before calculating interaction terms. All regression coefficients were standardized.

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Replication Hypotheses

We hypothesized that the effect of message source on attitude change for the targeted attitude (meat tax) would be moderated by political affiliation (H1), such that change in intent to persuade would be higher when the source matched the audience's political affiliation than when it did not. Examination of Table 2 (see column *ITP targeted*) shows the effects of the predictors and their interactions on the changes in intent to persuade people about the targeted attitude. The rows showing the interactions between the sources and political affiliation (e.g., *conservative* × *affiliation*) show that the two-way interactions were not substantial or statistically significant. The data were not consistent with H1.

The last column of Table 2 shows the results for H2, which predicted the same two-way interactions between source and political affiliation for OwtS. Again, the coefficients were neither ample nor statistically significant, though the medium-sized effect of political affiliation on OwtS suggests that, regardless of the identity of the source, Democrats felt more OwtS than Republicans.

H3 predicted that OwtS would be associated with increased intent to persuade people about the untargeted topics of solar energy and gun control. Table 1 shows the correlations among these variables and indicates that neither change in intentions was associated with OwtS, inconsistent with H3.

Table 2. Regression Table With Standardized Coefficients (Study 1).

	Outcome			
Predictors	ITP targeted	ITP proximal	ITP distal	Oneness with source
Conservative source	−.09*	−.03	−.07	−.001
Liberal source	−.04	−.05	−.10*	.004
Political affiliation	.03	−.01	.07	.29*
Political ego-involvement	.10	.07	.06	.13*
Affiliation × political ego-inv	.10	.06	.06	.05
Conservative × affiliation	−.08	.02	−.02	.06
Conservative × political ego-inv	−.04	.06	.01	−.02
Liberal × affiliation	−.06	.04	−.02	.03
Liberal × political ego-inv	.02	.05	.05	.08
Conservative × affiliation × ego-inv	.10*	.11*	.14*	−.003
Liberal × affiliation × ego-inv	.13*	.07	.02	−.03
R^2	.05*	0.02	.03*	.10*

*$p < .05$.

Ego-Involvement as Moderator

We predicted a three-way interaction between message source, participant political affiliation, and political ego-involvement (H4) such that the source-matching effect predicted in H1 would be stronger when ego-involvement was higher. Table 2 shows that these three-way interactions for both the conservative source and the liberal source were statistically significant.

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Figure 2 shows the graph of the interaction for the conservative source versus the others (all graphs show unstandardized estimates for ease of interpretation in their original metrics). The right side of the panel showing the pattern for Democrats shows that regardless of source, as ego-involvement increased, so did their intention to persuade others on the targeted topic, but the left side, showing Republican participants, shows the opposite of expectations. Only those conservatives with low political ego-involvement responded more favorably to the conservative source than the others. In this case, the highly ego-involved Republicans were unlikely to change their intent to persuade, regardless of message source.

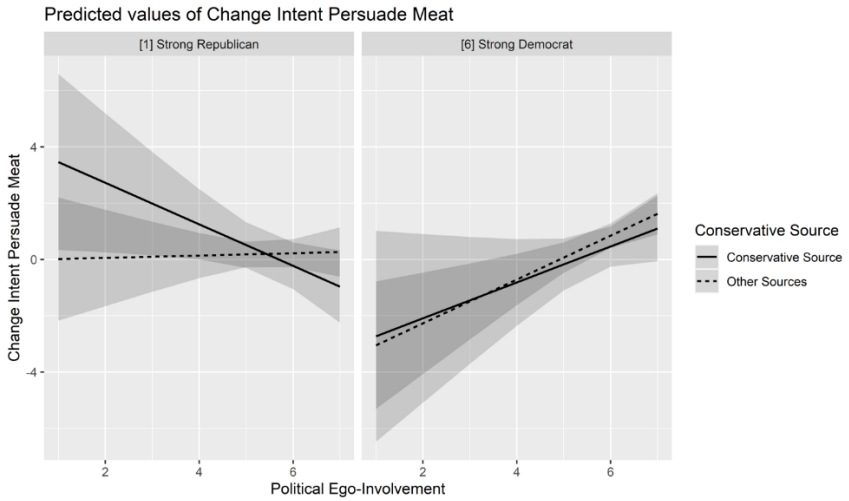

Figure 2. Predicted values of change in intention to persuade about meat tax as a function of conservative source, political affiliation, and ego-involvement (Study 1).

Note. The outcome was calculated by subtracting post-test scores from pre-test scores.

Figure 3 shows the three-way interaction for the liberal source versus the others. Again, we see members of both parties showing a greater source-matching effect for those with low ego-involvement. Yet, for the Republicans, those with high political ego-involvement showed almost no change regardless of source; for the Democrats, the highly ego-involved showed the most change regardless of source. The matching effects were consistent with expectations, but the nature of the moderation by ego-involvement was the opposite of expected.

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Figure 3. Predicted values of change in intention to persuade about meat tax as a function of liberal source, political affiliation, and ego-involvement (Study 1).

Note. The outcome was calculated by subtracting posttest scores from pretest scores.

H5 predicted the same three-way interaction, but with OwtS as the outcome. Table 2's last column shows these effects. The three-way interactions were neither ample nor statistically significant, inconsistent with H5.

Next, we predicted that the same three-way interactions would be associated with intention to persuade others about the proximal issue (H6). The closely related issue of solar power (proximal issue) showed no substantial statistical interactions for the liberal source. However, the three-way interaction was statistically significant for the conservative source (see Figure 4). For Republicans, there was no source-matching effect. As political ego-involvement increased, however, they became less likely to lower their intention to persuade others about it. For Democrats, the other sources produced little change in intention across levels of ego-involvement. Surprisingly, as ego-involvement increased among Democrats, they became more likely to increase their intentions to persuade others when there was a conservative source. Thus, there was a source effect for Democrats, but it ran counter to expectations and diminished as ego-involvement increased. These results are inconsistent with H6.

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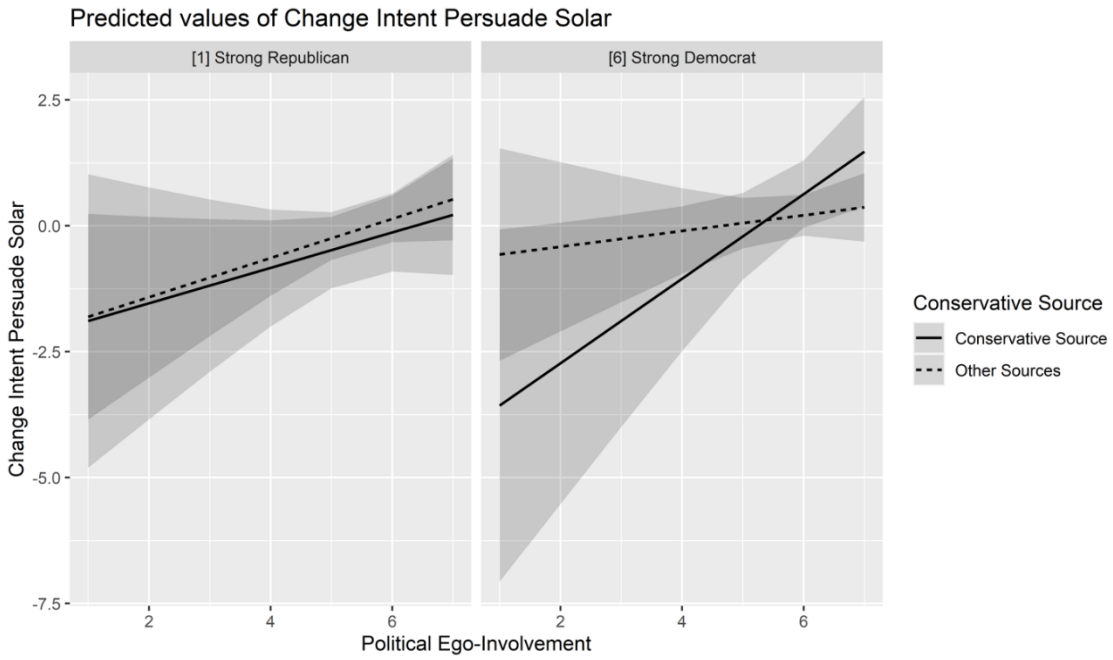

Figure 4. Predicted values of change in intention to persuade about solar tax credits as a function of conservative source, political affiliation, and ego-involvement (Study 1).

Note. The outcome was calculated by subtracting posttest scores from pretest scores.

For the distally related gun control topic, Table 2 again shows no simple source-matching effect, but does again show a three-way interaction for the conservative source. Figure 5 shows that for the Republicans, there is again an odd convergence as ego-involvement increases. At lower levels of ego-involvement, exposure to a conservative source was associated with a smaller decline in intentions to persuade than exposure to the other sources, but this difference again disappeared as ego-involvement increased. For the Democrats, there was a greater predicted difference for the low ego-involvement participants, such that they showed a negative effect in response to the conservative source relative to the others. Still, there was again a convergence such that neither source seemed to affect intentions to persuade among those with high ego-involvement. These results are inconsistent with predictions.

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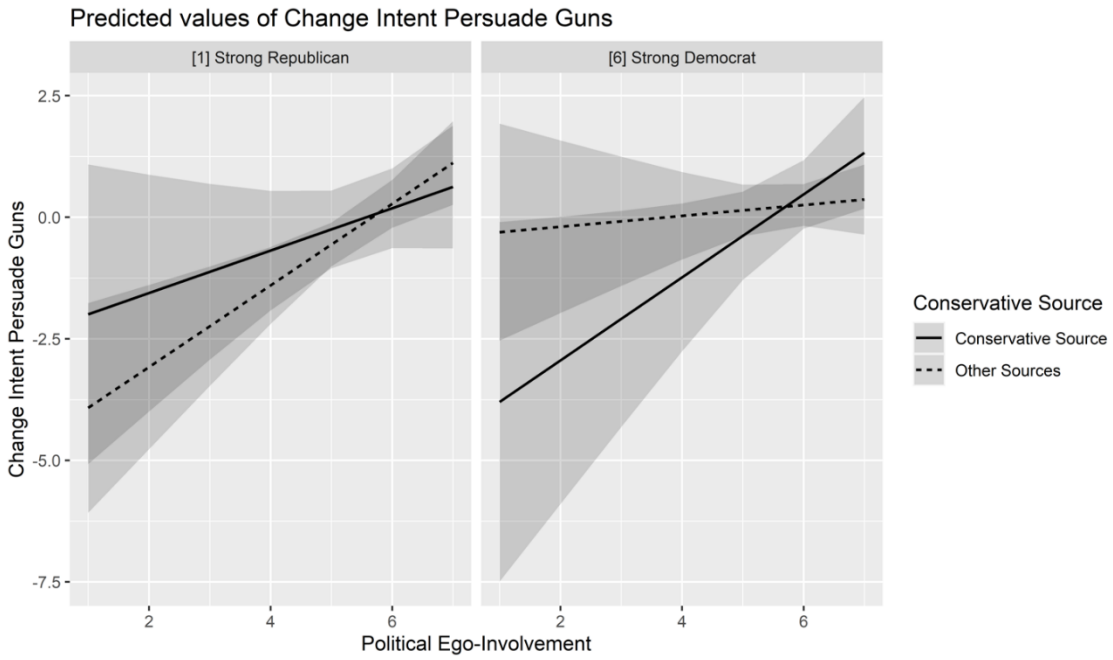

Figure 5. Predicted values of change in intention to persuade about gun control as a function of conservative source, political affiliation, and ego-involvement (Study 1).

Note. The outcome was calculated by subtracting posttest scores from pretest scores.

Finally, we predicted a good fit for the proposed path model. However, the lack of a source-matching effect on OwtS indicates that the model does not fit the data, inconsistent with H7.

Discussion

Study 1 revealed some noteworthy patterns. First, when changes in intent to persuade differed by message source, those differences were for those with lower levels of ego-involvement. This finding was unexpected, but may have occurred because the audience with higher political ego-involvement had solidified their attitudes already and were thus less persuadable by any source. Perhaps campaigns might target less politically involved individuals.

Study 1 failed to replicate the results of the Carpenter and Cruz (2021) study, which found source-matching effects and OwtS to be key mediators. One explanation is that the current study used changes in intention to persuade people about the topic, whereas they used an attitude measure. Accordingly, our second study switched to an attitude measure and attempted to replicate the source-matching effects found in Carpenter and Cruz (2021) and test political ego-involvement as a moderator of those effects. We also sought to strengthen source induction in the second study by manipulating both the label for the source and the language in the message.

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Study 2

Method

Sample

The sample for Study 2 was recruited online using Qualtrics Services and included a two-wave design. To reach the targeted sample of about 850, Qualtrics initially oversampled, collecting a sample of N = 2097 for T0. Once the targeted 850 were reached in T1, the survey was closed (final N = 855). Using quota sampling for approximately equal numbers of Democrats and Republicans, the final two-wave sample included 417 Democrats and 438 Republicans (M_{age} = 41.04, SD_{age} = 13.35). When asked about their gender, 245 indicated male, 599 female, 9 nonbinary/third gender, one chose not to respond, and one chose to self-describe.

Procedure

The two waves of the study included the pretest at T0 and the experiment and posttest at T1, approximately two weeks later. The measures were arranged similarly to Study 1. At T1, the participants were randomly assigned to one of three message source conditions: a conservative source (a conservative radio host), a liberal source (a liberal professor), and a neutral source with no listed political affiliation (an agriculture CEO). The agriculture CEO may be perceived as somewhat conservative, but research by Cruz and Carpenter (2024) showed that such sources are considered credible by both Democratic and Republican Party members. Participants were given background information on the source and then exposed to a message attributed to this source. The message again presented arguments proposing a federal tax on meat aimed at reducing meat consumption and mitigating climate change. Although the substance of the arguments was nearly identical, the language was varied slightly to match the source because it would have seemed odd for a radio host, CEO, and professor to all use the same language. This variation was meant to enhance the verisimilitude of the message source manipulation, even though source language and source description were confounded. Our goal was to understand ways the source could bias message interpretation, so we believed this option worked best for strengthening the source induction. The outcome variables then followed.

Measures

Table 3 shows the means, standard deviations, alpha reliabilities, and correlation matrix for the measures at both time points. We used a single item to measure political affiliation (1 = *strong Republican*, 4 = *Independent*, 7 = *strong Democrat*). To construct a quota sample, those who chose 4 were asked to indicate if they felt closer to the Democratic or Republican Party, excluding participants who felt closer to neither.

Attitudes about the targeted, proximal, and distal topics were measured at both time points using the same set of four semantic differential items (*wise* vs. *foolish*, *beneficial* vs. *harmful*, *good* vs. *bad*, and *right* vs. *wrong*). To extend the results of the first study, different lateral attitude objects were also used

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here: vegetarianism, for the proximal attitude, and animal testing, for the distal attitude. OwtS and ego-involvement used the same measures as in Study 1.

We used CFA to assess the fit of the measurement model for the multiple-item measures at T0 using the same statistical package as Study 1. Some invalid items in the value-relevant involvement measure were dropped. The resulting model showed a good fit (CFI = .99, RMSEA = .05, SRMR = .02). A second CFA on the T1 measures also showed a good fit (CFI = .99, RMSEA = .05, SRMR = .02). Accordingly, the remaining items were averaged to form composites for each variable.

Results

Replication Predictions

We hypothesized that the effect of message source on attitude change for the targeted attitude (meat tax) would be moderated by political affiliation, such that attitude change would be higher when the source matched the audience's political affiliation than when it did not (H1). The first column in Table 4 shows the effects of each variable and its interaction terms.

The coefficient associated with the conservative source variable's interaction with political affiliation was neither substantial nor statistically significant. The coefficient associated with the liberal source variable's interaction with political affiliation was statistically significant, though somewhat small (see Figure 6). For the liberal source, as participant political affiliation shifted from Republican toward Democrat, attitude change increased, as predicted. Strong Democrats changed their attitudes more in response to a message from a liberal source than from other sources, whereas strong Republicans changed their attitudes less in response to a message from a liberal source than from other sources. These results are consistent with H1 for the liberal source condition, but not for the conservative source condition.

Next, we tested the OwtS hypothesis that the effect of message source on perceived OwtS would be moderated by political affiliation, such that oneness would be higher when the source matched the audience's political affiliation than when it did not (H2). The fourth column in Table 4 shows that the interaction between the liberal source variable and political affiliation was a statistically significant predictor, as was the interaction between the conservative source and political affiliation. For the liberal source, there was a clear partisan reaction, as predicted (see Figure 7, left panel). As political affiliation varied from Republican to Democrat, OwtS increased, though it did not cross the midpoint. Unexpectedly, the conservative source (see Figure 7, right panel) did not show a parallel effect. We predicted that as party varied from Republican to Democrat, we would see a steady decline in oneness among the participants in this condition. The opposite occurred: as political affiliation varied from Republican to Democrat, oneness increased. The slope, however, was steeper for nonconservative sources. These results are only partially consistent with H2.

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Table 3. Correlations, Means, Standard Deviations, and Alpha Reliability Estimates (Study 2).

		M (SD)	1	2	3	4	5	6	7	8	9	10	11	12
1.	Political affiliation	3.96 (2.29)	–											
2.	Attitude targeted (T0)	2.22 (1.26)	.29*	.96										
3.	Attitude proximal (T0)	3.34 (1.12)	.40*	.57*	.93									
4.	Attitude distal (T0)	4.04 (1.14)	.18*	.14*	.21*	.97								
5.	Attitude targeted (T1)	3.38 (1.91)	.23*	.47*	.39*	.13*	.97							
6.	Attitude proximal (T1)	3.96 (1.86)	.37*	.48*	.61*	.17*	.59*	.97						
7.	Attitude distal (T1)	5.40 (1.81)	.20*	.13*	.18*	.44*	.19*	.27*	.97					
8.	Attitude change targeted	1.15 (1.73)	.03	−.22*	.02	.05	.76*	.29*	.12*	.92				
9.	Attitude change proximal	0.65 (1.46)	.15*	.18*	.01	.05	.44*	.80*	.19*	.35*	.82			
10.	Attitude change distal	1.37 (1.66)	.10*	.04	.05	−.22*	.12*	.18*	.78*	.09*	.18*	.95		
11.	Oneness	2.66 (1.61)	.07	.38*	.29*	.05	.58*	.44*	.13*	.36*	.33*	.11*	.79	
12.	Political ego-involvement	5.02 (1.21)	−.01	.02	−.02	.01	.06	.02	−.01	.04	.02	−.02	.09*	.77

Note. Alpha reliabilities are shown on the diagonal.
*$p < .05$

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Table 4. Regression Table With Standardized Coefficients (Study 2).

	Outcome			
Predictors	Att change targeted	Att change proximal	Att change distal	Oneness
Conservative source	−.04	−.07	−.02	−.09*
Liberal source	−.04	−.03	.02	.02
Political affiliation	.07	.15*	.02	.09*
Political ego-involvement	.03	.05	.004	.07
Affiliation × ego-involvement	.05	.05	.07	.11*
Conservative × affiliation	.01	−.06	−.08	−.11*
Conservative × political ego-inv	−.04	.06	.003	−.01
Liberal × affiliation	.10*	.03	−.11*	.21*
Liberal × political ego-inv	−.02	−.01	.03	−.02
Conservative × affiliation × ego-inv	.05	.06	.04	−.03
Liberal × affiliation × ego-inv	.05	.11*	.11*	.05
R^2	.02	.05*	.03*	.10*

*$p < .05$.

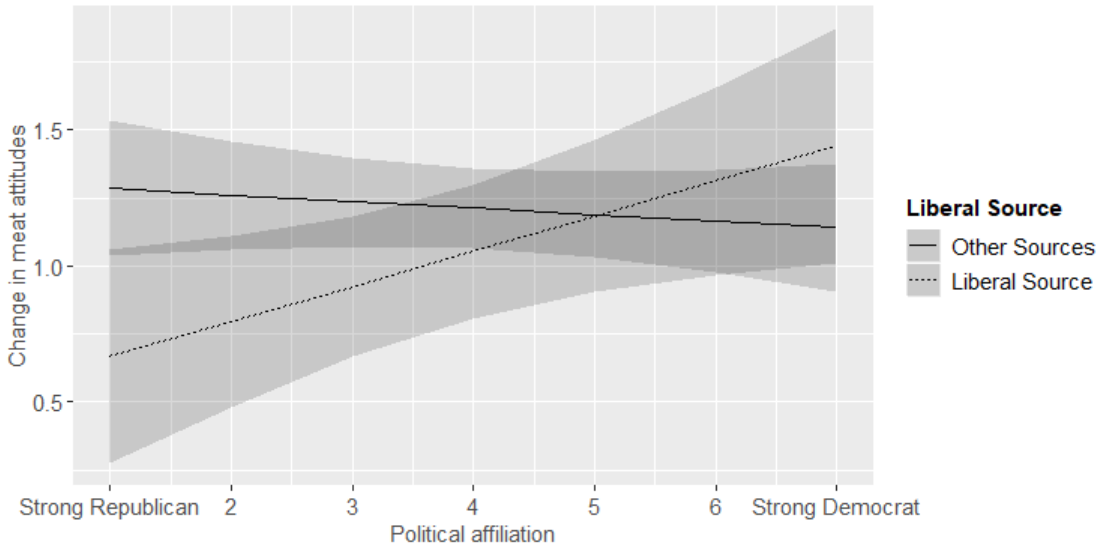

Figure 6. Predicted values of change in meat tax attitudes as a function of source and political affiliation (Study 2).

Note. The outcome was calculated by subtracting posttest attitudes from pretest attitudes.

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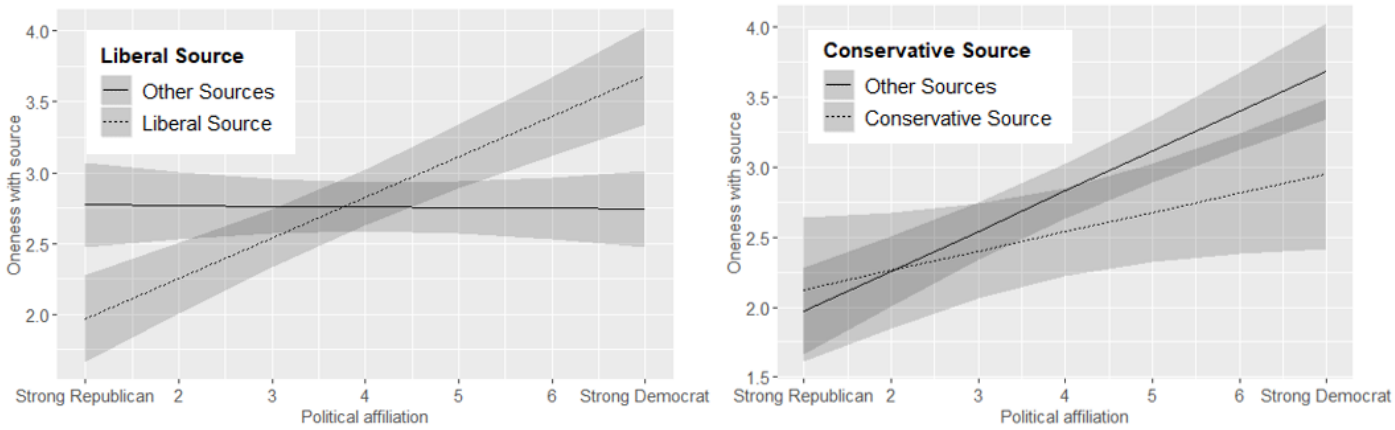

Figure 7. Predicted values of oneness with the source as a function of source and political affiliation (Study 2).
Note. Oneness with the source was calculated by averaging the two oneness items together.

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We predicted (H3) that OwtS would be positively related to proximal vegetarianism and distal animal testing attitudes. Examination of Table 3 shows that the correlations of OwtS with both were statistically significant and in the predicted directions. The effect of OwtS on the proximal attitude was somewhat larger than the effect of OwtS on the distal attitude.

Ego-Involvement as a Moderator

We also hypothesized that the source-matching effect predicted by H1 would be magnified by ego-involvement in one's political affiliation, such that the difference in attitude change in the attitude targeted by the message would be stronger when ego-involvement was higher (H4). Examination of the first column in Table 4 shows that the three-way interaction terms for ego-involvement were neither statistically significant nor ample. These results were inconsistent with H4.

Similarly, we hypothesized (H5) that the source-matching effect on perceived OwtS predicted in H2 would also be magnified by audience ego-involvement. Examination of the fourth column in Table 4 shows that the three-way interactions were small and not statistically significant. As such, the data were inconsistent with H5.

Next, we hypothesized that the source-matching effects predicted by H3 for proximal vegetarianism attitudes would also be moderated by ego-involvement, such that the interaction effect would strengthen as ego-involvement increased (H6). The second column in Table 4 shows that there was a modest but statistically significant effect for the interaction between the liberal source variable, political affiliation, and ego-involvement on proximally related attitudes (see Figure 8). The left side shows the predicted values for strong Republicans, and the right side, for strong Democrats. For strong Republicans, as ego-involvement increased, nonliberal sources had a more positive effect on their proximal attitudes, whereas liberal sources became less likely to influence their attitudes. For strong Democrats, as ego-involvement increased, the liberal source had a more positive effect on their proximal attitudes, and nonliberal sources caused a slightly smaller positive attitude change. These results largely aligned with expectations for the liberal source, but the lack of an effect for the conservative source variable was inconsistent with the hypothesis.

H7 predicted the same three-way interaction of the predictor variables (message source, political affiliation, and ego-involvement) on distal animal testing attitudes. Examination of the third column in Table 4 shows the regression coefficients. For this variable, there was a statistically significant three-way interaction between the liberal source variable, political affiliation, and ego-involvement (see Figure 9). Rather than the crossover interactions found for proximal attitudes, there appeared to be more of a convergence as ego-involvement increased for both parties, such that those highly ego-involved were not more or less likely to change their attitudes based on message source.

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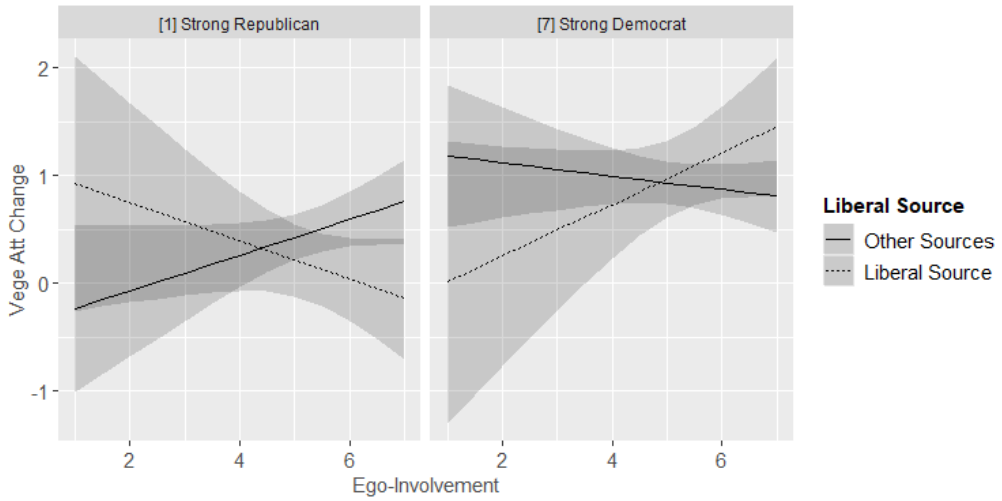

Figure 8. Predicted values of change in proximal vegetarian attitudes as a function of source, ego-involvement, and political affiliation (Study 2).

Note. The outcome was calculated by subtracting posttest attitudes from pretest attitudes.

Yet, at low levels of ego-involvement, Republicans were more likely to improve their distal attitude when the source was liberal than when the source was either conservative or neutral. The low ego-involved Democrats were a mirror image, such that at low levels of ego-involvement, they were more likely to improve their distal attitudes if the source was conservative or neutral than if the source was liberal. The data show more attitude change among those with low ego-involvement for a distally related topic when the source did not match their political affiliation.

Overall Model

H8 predicted a good fit for a model in which OwtS mediated the relationship between the match of source and participant political affiliation and changes in all three types of attitudes (targeted, proximal, and distal), with effects expected to be strongest when ego-involvement was high rather than low. As seen above, however, ego-involvement was not a consistent moderator of the effect of the inductions on the outcomes. As such, we focused our analysis on the effect of political affiliation under different message source conditions, excluding ego-involvement. These final models thus represent a direct replication of the Carpenter and Cruz (2021) path model.

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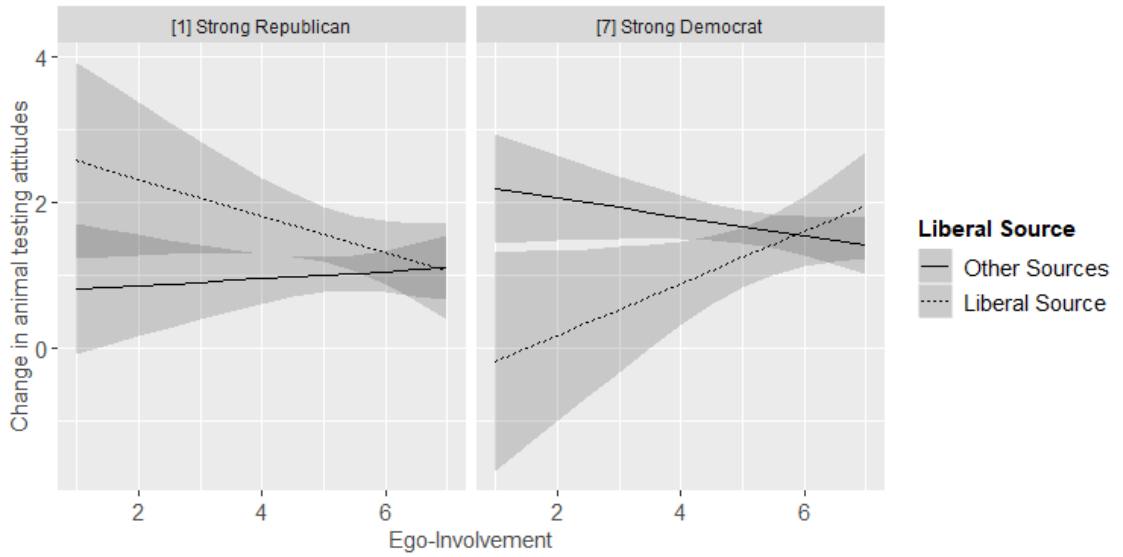

Figure 9. Predicted values of change in distal animal testing attitudes as a function of source, ego-involvement, and political affiliation (Study 2).

Note. The outcome was calculated by subtracting posttest attitudes from pretest attitudes.

Examination of the path coefficients shown for the models in Figure 10 for the conservative source conditions shows that they are sufficiently strong for most of the paths, except for the path indicating the effect of oneness on changes in distal attitudes. We used lavaan to test the model and found that dropping that construct from the model produced a good fit (CFI = .97, RMSEA = .07, SRMR = .03). Oneness only affected the targeted and proximal attitudes in the conservative source condition.

The path coefficients for the liberal source model were all substantial enough to warrant global model fit testing. The model fit well (CFI = .99, RMSEA = .05, SRMR = .03). It appears that for the liberal source, OwtS had an effect on all three attitude topics, though the size of the path coefficient between OwtS and the change in distal attitudes was weaker than the other two. These results are mostly consistent with H8.

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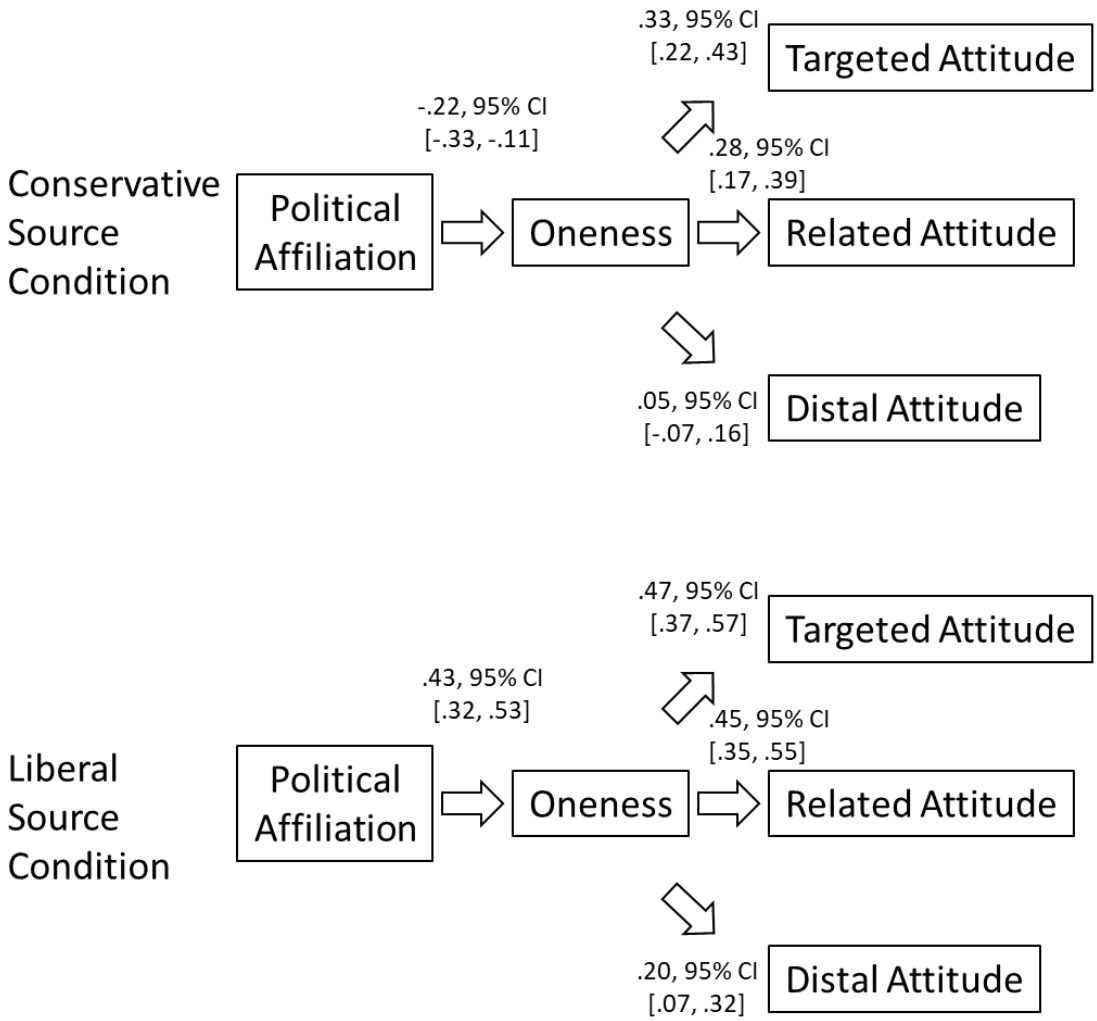

Figure 10. Path models with standardized path coefficients (Study 2).

Discussion

The objective of Study 2 was to address some of the factors that may have led to the predominantly null results in Study 1, which failed to replicate Carpenter and Cruz (2021). We used a stronger source manipulation. We also switched to an attitude outcome rather than the intent to persuade outcome from Study 1. As anticipated, the results of Study 2 were stronger.

Three patterns stood out. First, the expected results occurred with the liberal source, but not with the conservative source. Perhaps a conservative talk radio host has difficulty breaking through the bias against such obviously liberal policies. Second, the path models showed that for both sources, attitude

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change was largely because of differences in OwtS the audience felt, even for untargeted attitudes. Unlike Study 1, these findings replicate Carpenter and Cruz's (2021) demonstration of the importance of OwtS. Although attitude change spread to both untargeted topics for the liberal source, it occurred only for the proximal topic for the conservative source. Third, evidence showed that ego-involvement in political affiliation moderated the matching effects on untargeted attitudes, though the patterns were not always consistent with expectations.

General Discussion

Theoretical Implications

Overall, the results of these two studies indicate that the predictions from the self-concept approach to motivated reasoning (Carpenter, 2019b) were only partially consistent with the data. The importance of oneness for improving persuasion outcomes in a context likely to spur motivated reasoning was clearly demonstrated in Study 2, but not in Study 1. Perhaps the threshold for merely increasing one's attitude toward a policy is lower than that for intending to evangelize about it. As such, the importance of OwtS that Carpenter and Cruz (2021) found was inconsistently replicated.

These studies did not find consistent evidence that ego-involvement is the key cause of motivated reasoning, as predicted by the self-concept approach to motivated reasoning (Carpenter, 2019b), probably because more abstract aspects of identity, such as political affiliation, are not consistently tied to every political topic for everyone. Additional research is needed to determine whether ego-involvement in the specific issue advocated will be the key motivator of motivated reasoning. It is also possible that the aspect of a topic driving motivated reasoning differs between Democrats and Republicans. For example, ego-involvement in environmental protection may cause motivated reasoning on climate policy among Democrats, while ego-involvement in government regulations may drive it among Republicans.

Practical Implications

For science communicators trying to convince conservative audiences to support climate change abatement policies, the results suggest that using conservative sources may be partially successful, but more work is needed. It may be difficult for a conservative audience to identify with a source arguing in favor of a climate change abatement policy. Even a conservative talk radio host (Study 2) was only modestly successful in evoking a sense of oneness with Republican participants. Perhaps citing conservative sources would be more effective in promoting a more moderate policy to the meat tax proposed by our source.

Strengths and Limitations

An important strength of these studies is that they used a pretest–posttest design, which enabled a more accurate assessment of change than a posttest-only design. However, against these strengths, one must weigh some limitations to the study's ecological validity. The topic of a meat tax, though chosen to

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increase partisan reactions, was somewhat unlikely as a national policy proposal. Results might differ for policies that are more likely to be enacted or more actively considered and debated.

Additionally, these studies suffer from the general difficulties of studying motivated reasoning. There tends to be a general pattern of political ideology predicting policy preferences. With climate change, policy proposals tend to be more accepted by generally skeptical conservatives if the source is conservative (Bolson et al., 2019). However, it is difficult to assess causality because some of the key variables cannot be randomly assigned, such as political affiliation and ego-involvement. For example, Fischer et al. (2022) observed that there was often a link between science reasoning skill and motivated reasoning in previous research. Yet, when asked to interpret summaries of scientific studies, the science reasoning skill of their participants did not magnify partisan motivated reasoning effects. Similarly, the correlations between political affiliation and political stances may not be consistently magnified by political ego-involvement when faced with particular policy proposals. Finally, the power analysis was estimated for medium-sized effects, so it is possible that these studies missed small effects.

Conclusion

These studies attempted a replication and extension of Carpenter and Cruz (2021). These studies also sought to assess and understand source-matching effects via OwtS and political ego-involvement. The results suggest that oneness may continue to prove fruitful for future research, as it has now twice been shown to be an important mediator of persuasive effects for both a targeted attitude and for attitude generalization (though not for intent to persuade people about a topic). Still, questions remain about the self-concept approach to motivated reasoning and how sources can effectively generate feelings of oneness, particularly among Republican audiences.

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