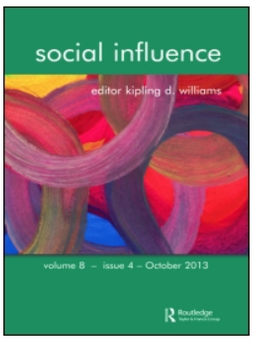

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Ideological group influence: central role of message meaning

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ABSTRACT

Social influence, in Asch's famous analysis, depends on recipients' interpretations of what issues mean. Building on this view, we showed that influence is a two-step process in which recipients first infer the meaning of a message based on the ideology of the source group. In the second step, recipients agree more with messages that support their own group ideologies. Supporting the causal sequence in the model, recipients' attitudes changed when message meaning changed, but not when message meaning was held constant.

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Social influence; social meaning; ideology; attitude change; ideological influence

It all began with pizza. When asked about Indiana's 'Religious Freedom Restoration Act,' Crystal O'Conner, co-owner of Memories Pizza in Walkerton, Indiana, said

> If a gay couple was to come in, and they wanted us to provide them pizza for their wedding, we'd have to say no … Memories Pizza is a Christian establishment … We're not discriminating against anyone; that's just our belief. (Payne, 2015, para 4)

Millions of Americans reacted over social media. Religious individuals supported O'Conner's service policy, interpreting it (as she did) as a Constitutionally-protected expression of religious freedom (cf. Maule, 2015), whereas secular critics decried the policy, interpreting it as a form of institutional discrimination.

This illustrates Asch's (1940) claim that disagreements emerge when people interpret an issue in divergent ways. According to his *change-of-meaning* hypothesis, conformity pressures influence individuals' judgments by first influencing their interpretation of attitude objects. Thus, the respective ire and admiration of O'Conner's secular critics and religious sympathizers were tied to their perceptions of what her policy meant.

These interpretations were not arbitrary – they were reflections of different social groups' ideological views. Ideology is 'a belief system of the individual that is typically shared with an identifiable group and that organizes, motivates, and gives meaning to … behavior' (Jost, 2006, p. 654). In this way, ideology implies shared group identity as well as shared beliefs and values that shape how members of ideological groups interpret the world (Graham, Haidt, & Nosek, 2009).

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We formalize group influence as a two-step process: First, people rely on group ideologies to understand what issues mean. Specifically, *social meanings* are constructed by imposing a group's ideological beliefs and values onto features of an attitude object (cf. Cohen, 2003). People then agree or disagree with an inferred ideological meaning, depending on how well it supports their own group identity.

Message meaning depends on group ideology

If group ideology is well known, then the meaning of a persuasive appeal can be retrieved from existing knowledge of the group. For example, participants in one study inferred that, if Democratic sources opposed a Federal jobs training program, then the program was conservative and highlighted personal responsibility over humanitarian values (Cohen, 2003). In this way, 'group influence did not bias information processing as much as it posited the very information to be processed' (Cohen, 2003, p. 820). It seems likely, then, that recipients retrieve positions of well-known ideological source groups from memory and do not have to carefully process and assess their stance on relevant issues.

Figure 1[1] displays the meaning change process that we have described. The *a* path depicts the influence of an ideological source on the perceived meaning of the message. This is a direct effect, unmoderated by recipient ideology, since we predict that knowledge of the source's ideological views should be the primary factor influencing interpretations.

Evaluations depend on message meanings

In step 2 of our model, recipients' own group identities lead them to agree or disagree with the meanings they have inferred (the $b_{\text{Interpretations} \times \text{Ideology}}$ path in Figure 1). For people who strongly identify with an ideological group, messages interpreted as consistent with that group's values will be evaluated more favorably than messages interpreted as inconsistent with them. Although this could be true for many reasons (e.g., simple favorability of a matched source), we believe that ideological interpretations that match one's own beliefs and identity will have greater *subjective validity* (cf. Turner, 1991) than those that do not.

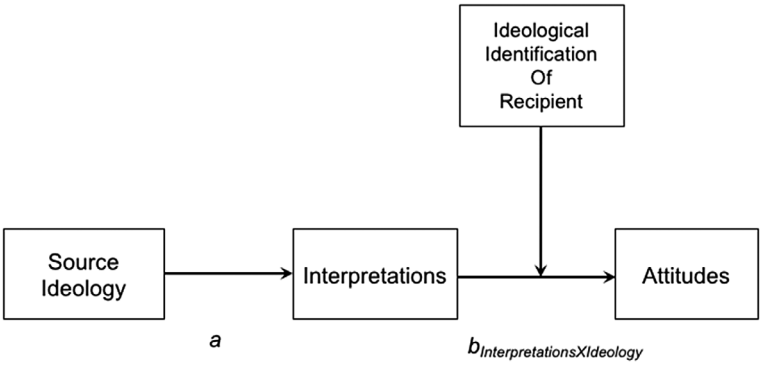

Figure 1. Conditional indirect effect of recipient group identity and source group identity on attitudes through message meaning (full model). This is a conceptual model and not a formal path diagram. In the interest of clarity, it omits lower-order paths required to estimate the model as well as other statistical information (e.g., variances, disturbance terms, etc., Hayes & Preacher, 2013).

Indeed, these may be 'seen as reflecting, defining, and informing about social reality for people similar to the recipient' (Mackie, Worth, & Asuncion, 1990, p. 813). Statistically, we predict different *conditional indirect effects* on attitudes for recipients from different ideological groups (Hayes & Preacher, 2013; Preacher, Rucker, & Hayes, 2007). For recipients who belong to the same ideological group as the source (i.e., a conservative recipient evaluating a message from a Republican source), this should lead to agreement. In contrast, for recipients who belong to an opposing ideological group, this should lead to disagreement.

Relationship to persuasion processes

The present research builds upon prior work on source effects in persuasion (cf. Mackie et al., 1990; Petty, Wheeler, & Bizer, 2000). The novelty of our model lies in its focus on the ideological influence domain and on ideological interpretations as a central process variable. Ideological interpretations have rarely been studied (e.g., Cohen, 2003; Wood, Pool, Leck, & Purvis, 1996) and have not represented a major focus in the existing literature, despite the clear potency of ideological interpretations in many real world situations. Therefore, our model extends prior work on attitude matching that has not addressed this variable. In this section, we compare our two-step model with two theories particularly germane our predictions.

Step 1: interpreting (persuasive) communications

Step 1 of our model bears a close resemblance to Chaiken and Maheswaran's (1994) classic description of bias in message processing that 'occur[s] mainly when persuasive argumentation … is amenable to differential interpretation' (p. 461). A critical difference, however, is that these authors did not directly assess 'differential [message] interpretations,' but operationalized their proposed cognitive bias in terms of the valence of recipients' cognitive responses. Furthermore, since it was not their focus, these authors did not assess persuasion in ideological groups.[2]

Our model extends Chaiken and Maheswaran's ideas in key ways. First, we situate our model in the ideological influence domain, positing that the interpretations given to messages are specifically linked to the belief systems of ideological groups. Second, we position interpretations, rather than thought valence, as the key process variable in our model.[3]

Step 2: evaluating ideological interpretations

Step 2 of our model resembles *self-schema matching* (Cacioppo, Petty, & Sidera, 1982); a phenomenon in which recipients agree with messages framed in a manner aligned with their schematic self-representations. For example, religious individuals are more likely to agree with religiously-framed arguments (e.g., about abortion) than legally-framed arguments. Although our theoretical framework aims to highlight ideological *group* identities, rather than individualistic *self*-schemas, our predictions at step 2 of our model are broadly consistent with Cacioppo's self-schema predictions. Thus, we hope that our studies will simultaneously address both 'the paucity of research on self-schema matching and persuasion' (Petty et al., 2000, p. 147) and the arguably greater paucity of research on ideological social influence.

The present research

We tested our model in two experiments. Experiment 1 tested the indirect effect of source identity on message agreement through the inferred ideological meaning of a message. Experiment 2 manipulated ideological interpretations in order to test whether these interpretations exerted a causal influence on attitudes.

Experiment 1: two-step model

In Experiment 1 participants read educational policy statements from a Republican or Democratic source. In step 1 of ideological influence, partisan source identity should influence message meaning so that, when attributed to the Republican, the message should be perceived as more conservative. Similarly, when attributed to the Democrat, the message should be perceived as more liberal (Figure 1, path *a*).

In step 2, the influence of the inferred ideological meaning of the statement on participants' attitudes toward the statement should depend on their own ideological identities. Liberal participants should evaluate the statement more favorably to the extent that they interpret it as having a more liberal than conservative meaning, and for conservative participants the reverse should be true. Thus, source identity should exert an indirect effect on attitudes by first influencing message interpretations, but the direction of this indirect effect should reverse for liberals compared with conservatives (Figure 1, path *b*).

Method

Participants

Three hundred eighty-one University of Southern California students (100 liberals, 78 conservatives, 100 moderates, and 17 not reporting political beliefs) participated online for course credit (272 women). An additional 18 individuals were excluded prior to our main analyses for failing manipulation check questions (see below).

Procedure

Participants read the following message: 'In order to increase the overall quality of public education in the United States, it is first necessary that the Department of Education address the problem of children who are struggling academically,' attributed to one of three sources – a Democrat (Representative G. L. Seiffert – Democrat, Massachusetts), a Republican (Representative G. L. Seiffert – Republican, Texas), or no source. After viewing the statement and source, the survey advanced to a new screen with a manipulation-check question asking them to correctly identify the source's political affiliation (Republican, Democrat, did not say). If a participant answered incorrectly, (s)he was routed back to the previous screen before advancing to re-answer the same manipulation check question. If, after two chances for accurate responding, the participant did not correctly identify the ideological affiliation of the source (our key manipulation), (s)he was dropped from the data-set. All such exclusions were made prior to data analysis on the basis of this decision rule. Participants then completed the remaining measures and were debriefed and excused.

Social meaning

Two items assessed the overall ideological partisanship of the message, 'To what extent do the ideas in this statement overall reflect partisan interests?' (1 = 'Extremely liberal,' 7 = 'Extremely conservative') and 'How balanced do you think the ideas in this statement are between conservative and liberal ideas and values?' (1 = 'The ideas expressed are almost entirely conservative,' 9 = 'The ideas expressed are almost entirely liberal;' reverse scored). These items displayed acceptable reliability (α = .68), and were standardized and averaged to form a composite.

Political identity

Political identification was measured first on a 7-point scale ranging from 1 = *strongly liberal* to 7 = *strongly conservative*, and then using 3-item self-relevance scales (adapted from Wood et al., 1996) assessing the extent to which participants agreed or disagreed with (−5 = 'Almost always disagree,' 5 = 'Almost always agree'), found it important to hold the attitudes and values of (−5 = 'Extremely important that I reject,' 5 = 'Extremely important that I hold'), and desired to be similar to (−5 = 'Extremely important that I be dissimilar from,' 5 = 'Extremely important that I be similar to') Democrats/Republicans. To create a composite measure of political identity, we reverse-scored Democratic items so that higher scores indicated more conservative responses. Given good reliability (α = .92), all political identity items were standardized and averaged. Overall, descriptive statistics prior to this standardization and consolidation indicated that the sample was more liberal than conservative (7-pt identification, M = 3.45, SD = 1.32; average 9-pt self-relevance, M = −.94, SD = 1.79).

Attitude measures

Attitudes toward the policy statement were assessed via six items (α = .93): support for statement (1 = *strongly oppose*, 7 = *strongly support*), positivity toward it (1 = *not at all,* 11 = *extremely positive*), and four 9-point semantic differential scales (*good-bad, beneficial-harmful, wise-foolish, favorable -unfavorable*). These items were standardized and averaged to form a composite attitude measure. Throughout the studies reported in this paper, continuous/noncategorical predictors were standardized prior to inclusion in regression interactions.

Results

Table 1 displays means (SDs) of interpretations and attitudes among liberals and conservatives by experimental condition. The top half of Table 2 displays the results of the two regressions that comprise our model (Figure 1). Message source is represented by effect-coded variables for the Republican and Democratic Source conditions, with the No Source condition coded as the reference group (−1). The first regression predicted interpretations from Republican and Democratic source identity and recipients' political identification. The second regression predicted attitudes from source identity, recipient identification, statement interpretations, and the Interpretation x Recipient Identification interaction.

In the first regression (Figure 1, path *a*), participants exposed to a Republican source interpreted the message as significantly more conservative relative to the sample mean, whereas participants exposed to a Democratic source interpreted the message as more liberal. In the

Table 1. Experiment 1: mean (SDs) of interpretations and attitudes as a function of source identity and participant identity.

	Source identity		
	No source	Democratic source	Republican source
Participant identity		Interpretations	
Liberal	−.48 (.91)	−.76 (.94)	.49 (1.02)
Conservative	.23 (1.06)	−.17 (.83)	.64 (.78)
		Attitudes	
Liberal	.40 (.68)	.42 (.68)	.03 (1.01)
Conservative	−.28 (.98)	−.29 (.88)	.27 (.76)

Notes: Interpretations and attitudes are standardized. Higher interpretation scores indicate more conservative social meanings and lower interpretation scores indicate more liberal social meanings. Liberal individuals identified as at least 'slightly liberal' on political identity measures, whereas conservative individuals identified as at least 'slightly conservative.' Higher scores on attitude measures indicate greater agreement with the message and lower scores more disagreement.

Table 2. Experiment 1: regressions predicting interpretations and attitudes along with conditional indirect effects.

Outcome	Predictor	*B* (SE)	*z*	*p*
Interpretations				
	Intercept	.00 (.05)	.07	.934
	Republican source	.50 (.07)	7.18	<.001
	Democratic source	−.33 (.07)	−4.78	<.001
	Identification	.15 (.05)	3.13	.002
	Residual variance	.86 (.06)	13.40	<.001
Attitudes				
	Intercept	.03 (.04)	.60	.552
	Republican source	.09 (.06)	1.48	.140
	Democratic source	−.08 (.06)	−1.28	.200
	Identification	−.17 (.04)	−4.16	<.001
	Interpretations	−.14 (.04)	−3.25	<.001
	Identification × interpretations	.20 (.04)	4.87	<.001
	Residual variance	.60 (.05)	13.40	<.001

Conditional effects depending on participants' identification	Conditional indirect effects [CI]		Simple slopes of interpretations on attitudes		
	Source: Democrat	Source: Republican	*B* (SE)	*z*	*p*
Extremely liberal	.18 [.1, .31]	−.27 [−.44, −.16]	−.55 (.09)	−6.172	<.001
Moderately liberal	.12 [.07, .2]	−.18 [−.29, −.11]	−.37 (.06)	−6.174	<.001
Slightly liberal	.06 [.03, .11]	−.09 [−.15, −.04]	−.18 (.04)	−4.121	<.001
Moderate	.02 [−.02, .06]	−.03 [−.08, .03]	−.05 (.05)	−1.029	.304
Slight conservative	−.03 [−.08, .02]	.04 [−.03, .12]	.08 (.07)	1.147	.252
Mod conservative	−.09 [−.18, −.02]	.13 [.03, .27]	.26 (.1)	2.622	.009
Extremely conservative	−.15 [−.29, −.05]	.22 [.08, .43]	.44 (.13)	3.313	.001

Notes: Conditional indirect effects reported with 95% bias-corrected bootstrap CIs. Republican and Democratic source are effect-coded variables, with No Source the reference group. Interpretations and attitudes are standardized. Higher interpretation scores indicate more conservative social meanings and lower interpretation scores indicate more liberal social meanings. Identification is standardized such that higher scores represent identification with conservatives and lower scores represent identification with liberals. Higher scores on attitude measures indicate more favorable and lower scores more unfavorable attitudes.

second regression (Figure 1, path *b*), a significant Interpretation x Identification interaction indicated that the effect of interpretations on recipients' attitudes depended on their own group identification.

To clarify this interaction, the bottom half of Table 2 displays the simple slopes of attitudes on interpretations as well as the conditional indirect effects (and 95% bootstrap CIs, Hayes & Preacher, 2013) for nonidentified, slightly identified, moderately identified, and highly identified liberal and conservative recipients.[4] Figure 2 displays this interaction. It is clear from this figure that liberals evaluated the statement significantly more favorably if they interpreted the statement as liberal than if they interpreted the message as conservative, whereas the opposite was true for conservatives.

Conditional indirect effects of source identity on attitudes through message interpretations

Examining the conditional relative indirect effect of the Democratic source on attitudes through social meaning, the positive coefficients among liberals indicate that, for these participants, a Democratic source led to a more liberal interpretation of the message and a more favorable evaluation of the message. Because the bootstrap CIs do not contain zero for any liberal group, the conditional indirect effects are significant.

For conservative recipients, in contrast, the conditional indirect effects were negative, indicating that conservatives evaluated the message more negatively when they perceived its social meaning as more liberal as a result of viewing a Democratic source. The bootstrap CIs revealed that these conditional indirect effects were significant for moderately- and strongly-identified conservatives but not for slightly identified ones.

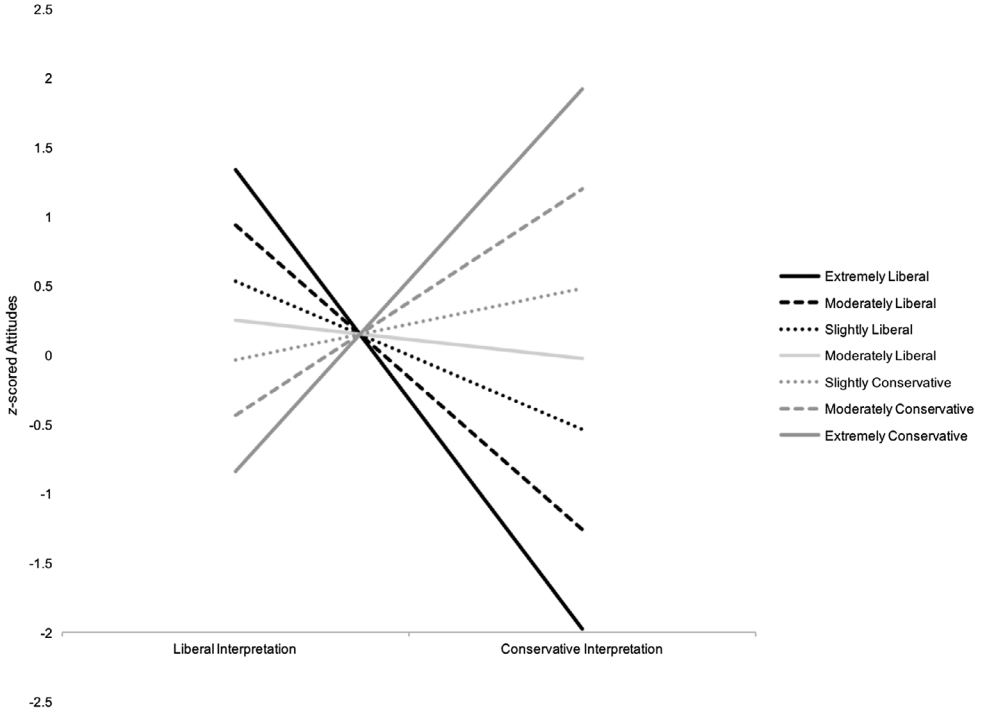

Figure 2. Simple slopes of interpretations on attitudes at values of recipient identification in Experiment 1. The (relatively more) liberal vs. conservative interpretation labels on the *x*-axis correspond to standard ±1 SD on the interpretation measure. Please see the online supplemental material for calculation of identification values.

Messages attributed to a Republican source revealed the reverse pattern of effects. Among slightly-, moderately-, and strongly-identified liberals, the negative conditional indirect effects revealed that the more conservative the interpretation attributed to this source, the more negative their attitudes toward the message. Conversely, among slightly-, moderately- and extremely-identified conservatives, the positive conditional indirect effects indicated that the more conservative the interpretation attributed to this source, the more favorable their evaluation of the message, although this effect did not reach significance for slightly-identified participants.[5]

Discussion

In Experiment 1, the same message was interpreted as conservative when attributed to a Republican source and liberal when attributed to a Democrat. Whether participants agreed with these interpretations depended on their own ideology. Liberals who perceived the policy statement as more liberal reported more favorable attitudes, whereas the reverse was true for conservatives. In this way, ideological sources influenced agreement indirectly by altering the perceived meaning of the policy, which then made it more or less congenial to participants' own ideological views.

Experiment 2: manipulating ideological meanings

Although our model suggests a clear causal direction from interpretation to attitudes, the correlational nature of the data on these two measures in Experiment 1 makes it difficult to rule out the opposite: that participants merely reinterpreted statements they disliked (cf. Buehler & Griffin, 1994). Experiment 2 provides more direct evidence for our hypotheses by experimentally manipulating participants' statement interpretations. If attitudes toward a statement truly depend on ideological interpretations of it, then recipients' attitudes should change when interpretations change. Such results would support our claim that interpretations are a predictor, rather than consequence, of group members' attitudes.

The first part of the study was comparable to Experiment 1, with identical predictions.[6] In the second part of the study, some participants were instructed to imagine that the meaning of the message was actually the reverse of what they had initially assumed (e.g., the meaning of the message is actually liberal instead of conservative, or vice versa). Others were instructed to imagine that the source of the statement was actually from the opposing political party, but that the meaning of the message was the same – thus holding interpretations constant.

If our reasoning is correct, and message meaning exerts a causal influence on attitudes, then attitude change in the second part of the study should result from a 3-way interaction between recipient ideology, initial message meaning, and alteration condition (different meaning with same source vs. same meaning with different source). This interaction should reflect that conservative individuals who initially interpreted the message as conservative should agree less after altering their interpretations to be more liberal, whereas conservatives who initially interpreted the message as liberal should agree more after altering their interpretations to be more conservative (vice versa for liberals). In contrast, if evaluations are really tied to the ideological meanings that recipients infer from sources, then recipients' agreement should not change much when ideological meanings are held constant, even when asked to imagine a different source.

Method

Participants

Six hundred U.S. Amazon Mechanical Turk workers (311 liberal, 177 conservative, 113 moderate, and 7 not reporting political beliefs) completed an online survey for one dollar (48% women). Data are not reported from the additional 8 participants who failed to complete the full survey.

Design and procedure

The experiment had a 2 (statement: 'achieve the best environmental outcomes' vs. 'develop our own energy resources')[7] × 3 (source: Republican vs. Democrat vs. No Source) × 2 (for source conditions only, alter source vs. alter statement meaning) design.

Participants were randomly assigned to read one of two political statements about environmental conservation ('The U.S. must remain a global leader in achieving the best environmental outcomes,' or 'To ensure U.S. energy safety, we need to develop our own energy resources'). The target statement was described as a quote from a speech on the senate floor by a Republican (Senator John Cornyn – Republican, Texas), or a Democrat (Senator Edward Markley – Democrat, Massachusetts),[8] or was given no source attribution. Participants then chose between a liberal and conservative interpretation of the target statement on a binary, forced-choice item (see below) and indicated how much they agreed or disagreed with the statement on a 7-pt scale ranging from 'strongly disagree' to 'strongly agree.'

Next, participants in the source conditions were randomly assigned to alter the meaning of the message or its source. Prior to doing so, participants were reminded of their previously indicated statement interpretations. When altering the message source, participants indicated how much they would have agreed with the statement, 'assuming that the meaning you indicated above really is what the statement means,' but the statement had actually been delivered by a different source. Thus, a statement initially attributed to Republican Senator John Cornyn instead was attributed Democratic Senator Edward Markley (and vice versa). When altering message meaning, participants indicated how much they would have agreed with the statement, assuming that the source's intended meaning was the alternative to the one participants had initially chosen. Thus, a statement initially given a more liberal meaning instead was changed to have the more conservative one (and vice versa).

Finally, participants completed ideological identification and self-relevance measures, demographic questions, and attention-check items. All participants were then debriefed.

Statement interpretations

Participants chose which of two interpretations better described the meaning of the assigned statement. The first interpretation corresponded with a more liberal ideology and the second with a more conservative ideology. For the statement concerning 'achieving the best environmental outcomes' participants were asked 'in the statement above … what does [Senator Cornyn/Senator Markley] mean by "achieving the best environmental outcomes?"' with response options 'government regulation to ensure the best environmental quality' versus 'individuals should be allowed to set and follow their own environmental priorities.'

For the statement concerning 'develop[ing] our own energy resources,' participants were asked 'in the statement above … what does [Senator Cornyn/Senator Markley] mean by "develop our own energy resources?"' with response options 'solar and wind (i.e., renewable

energy)' versus 'a broadened exploration of oil.' In both cases, participants in the no source conditions were simply asked 'in the statement above, what does [achieving the best environmental outcomes/develop our own energy resources] mean to you?' with the same response options as above.

Agreement before and after altering meaning or source

Participants indicated their agreement with the statement on 7-pt scales anchored by 'strongly disagree' and 'strongly agree.' After alteration, participants reported their agreement on the same 7-pt scales, either imaging that the statement came from a different source or that the same source had intended a different meaning.

Political ideology and self-relevance measures

Participants completed the identification measures used in Experiment 1. These items were standardized and averaged to form our measure of political identification ($\alpha = .95$).

Results

Replicating Experiment 1: the two-step model

Table 3 displays participants' mean attitudes before and after alteration. Table 4 displays the results of our two-step model, replicating Experiment 1. In the first model, effect-coded source variables and political identification were entered into a logistic regression predicting message meaning (1 = conservative interpretations, 0 = liberal interpretations), along with an effect-coded variable indicating which statement participants read (−1 = 'achieving the best environmental outcomes' and +1 = 'develop our own energy resources'). As predicted, statements from a Republican (vs. Democratic) source had greater log-odds of being judged as conservative, and participants who were conservative (vs. liberal) had greater log-odds of choosing a conservative interpretation.

In Step 2, an unanticipated effect emerged, though it did not compromise our predictions. Specifically, the critical Recipient Identification x Interpretations interaction was moderated by the effect-coded variable of statement, indicating that this key effect at Step 2 of our model was stronger for one statement ('develop our own energy resources') than the other ('achieving the best environmental outcomes').

Table 3. Experiment 2: means (SDs) of agreement by source, altering source identity or message meaning, and participant identity.

	Same interpretation, different source			Same source, different interpretation		
Source	Democrat	No source	Republican	Democrat	No source	Republican
Participant identity	Initial agreement: First part of study					
Liberal	6.28 (1.05)	6.39 (.86)	5.94 (1.38)	6.18 (1.32)	6.30 (1.16)	5.70 (1.84)
Conservative	5.71 (1.55)	5.50 (2.12)	5.50 (1.31)	5.50 (1.68)	5.57 (1.64)	5.31 (1.95)
	Agreement after source or meaning altered: Second part of study					
Liberal	5.30 (1.87)	–	5.52 (1.78)	3.87 (2.12)	–	3.98 (2.21)
Conservative	5.04 (1.83)	–	5.07 (1.48)	4.58 (2.00)	–	4.66 (2.09)

Notes: Agreement is unstandardized, reported on 7-pt scales ranging from 'strongly disagree' to 'strongly agree.' Liberal individuals self-identified as at least 'slightly liberal' on political identity measures, whereas conservative individuals identified as at least 'slightly conservative.'

Table 4. Experiment 2: two-step model (full data-set).

		B (SE)	*t*	*p*
Interpretations				
	Intercept	−1.57 (.12)	−13.64	<.001
	Republican source	.63 (.15)	4.28	<.001
	Democratic source	−.70 (.18)	−3.93	<.001
	Identification	.38 (.12)	3.09	.002
Agreement: Second part of study				
	Intercept	5.69 (.08)	69.39	<.001
	Republican source	−.04 (.08)	−.51	.614
	Democratic source	−.06 (.08)	−.77	.439
	Identification	−.35 (.08)	−4.31	<.001
	Interpretations	−.28 (.08)	−3.36	.001
	Statement	.34 (.08)	4.20	<.001
	Identification × interpretations	.04 (.08)	.48	.634
	Identification × statement	.51 (.08)	6.16	<.001
	Interpretations × statement	−.09 (.08)	−1.05	.295
	Identification × interpretations × statement	.33 (.08)	4.00	<.001

Simple slopes of meaning predicting agreement at levels of participant identification	Statement: '… Achieving the best environmental outcomes'			Statement: '… Develop our own energy resources.'		
	B (SE)	*t*	*p*	*B* (SE)	*t*	*p*
Extremely liberal	.24 (.27)	.87	.384	−.92 (.2)	−4.68	<.001
Moderately liberal	.05 (.2)	.24	.812	−.67 (.14)	−4.9	<.001
Slightly liberal	−.14 (.15)	−.97	.330	−.43 (.1)	−4.42	<.001
Moderate	−.28 (.13)	−2.20	.028	−.26 (.09)	−2.72	.007
Slightly conservative	−.42 (.13)	−3.11	.002	−.08 (.12)	−.71	.480
Moderately conservative	−.61 (.18)	−3.36	.001	.16 (.17)	.96	.336
Extremely conservative	−.80 (.25)	−3.21	.001	.41 (.23)	1.76	.079

Notes: In prediction of interpretations, interpretations are a dichotomous dependent variable, with conservative interpretations coded 1 and liberal interpretations coded 0. In prediction of attitudes, interpretations are an effect-coded independent variable with conservative interpretations coded +1 and liberal interpretations coded −1. Agreement with the statement is reported on 7-pt scales ranging from 'strongly disagree' to 'strongly agree.' Liberal individuals identified as at least 'slightly liberal' on political identity measures, whereas conservative individuals identified as at least 'slightly conservative.'

The effects of altering meanings

As a simple, interpretable metric for changes in agreement over time, we computed a difference score such that Time 1 (initial) agreement was subtracted from Time 2 (after the alteration manipulation) agreement, such that positive scores indicated that participants agreed more with alteration, whereas negative scores indicated participants agreed less with alteration.[9] Then, we predicted changes in agreement from alteration condition (+1 = same source, different interpretations, −1 = same interpretations, different source), initial interpretations (+1 = conservative, −1 = liberal), recipient ideology, and all two- and three-way interactions of these variables, as well as message source (+1 = Republican, −1 = Democrat). The results of this theoretical model are displayed in Table 5.[10] This analysis revealed the predicted Alteration Condition × Identification × Interpretation interaction.

Simple slopes are given in the bottom of Table 5, and the interaction is depicted in Figure 3. As predicted, liberal participants agreed more when they initially chose conservative interpretations and these were altered to be more liberal than when their initial liberal interpretations were altered to be more conservative. The reverse was true for conservative participants. For participants who held message meaning constant (but altered source identity), change in agreement was unrelated to meanings and identification (all simple slopes were nonsignificant).

Discussion

The first phase of this experiment replicated Experiment 1. In the second phase, participants were told that the message either meant the opposite of what they had originally inferred or that it meant exactly what they had originally inferred, but it came from the alternative,

Table 5. Experiment 2: regression predicting change in agreement after altering source or message meaning (Time 2 – Time 1).

	B (SE)	*t*	*p*
Intercept	−.87 (.14)	−6.08	<.001
Republican Source	.14 (.11)	1.23	.219
Identification	.16 (.17)	.99	.321
Interpretations	.32 (.15)	2.18	.030
Alteration condition	−.13 (.14)	−.93	.354
Identification × interpretations	−.25 (.17)	−1.49	.138
Identification × alteration condition	−.07 (.17)	−.41	.679
Interpretations × alteration condition	.51 (.14)	3.57	<.001
Identification × interpretations × alteration condition	−.47 (.17)	−2.83	.005

	Alteration condition					
	Same interpretation, different source			Same source, different interpretation		
Simple slopes of interpretations	*B* (SE)	*t*	*p*	*B* (SE)	*t*	*p*
Extremely liberal	−.52 (.41)	−1.28	.2	1.9 (.42)	4.5	<.001
Moderately liberal	−.37 (.27)	−1.37	.172	1.43 (.3)	4.72	<.001
Slightly liberal	−.23 (.2)	−1.13	.259	.95 (.22)	4.41	<.001
Moderate	−.12 (.22)	−.55	.584	.61 (.2)	3.04	.003
Slightly conservative	−.02 (.3)	−.06	.953	.27 (.24)	1.14	.256
Moderately conservative	.13 (.43)	.30	.765	−.21 (.34)	−.62	.537
Extremely conservative	.28 (.59)	.47	.637	−.69 (.46)	−1.48	.139

Notes: Interpretations are effect-coded with conservative interpretations +1 and liberal interpretations −1. Higher scores on agreement measures indicate greater agreement with the message and lower scores more disagreement. Liberal individuals self-identified as at least 'slightly liberal' on political identity measures, whereas conservative individuals identified as at least 'slightly conservative.' Statement is an effect-coded variable (+1, −1).

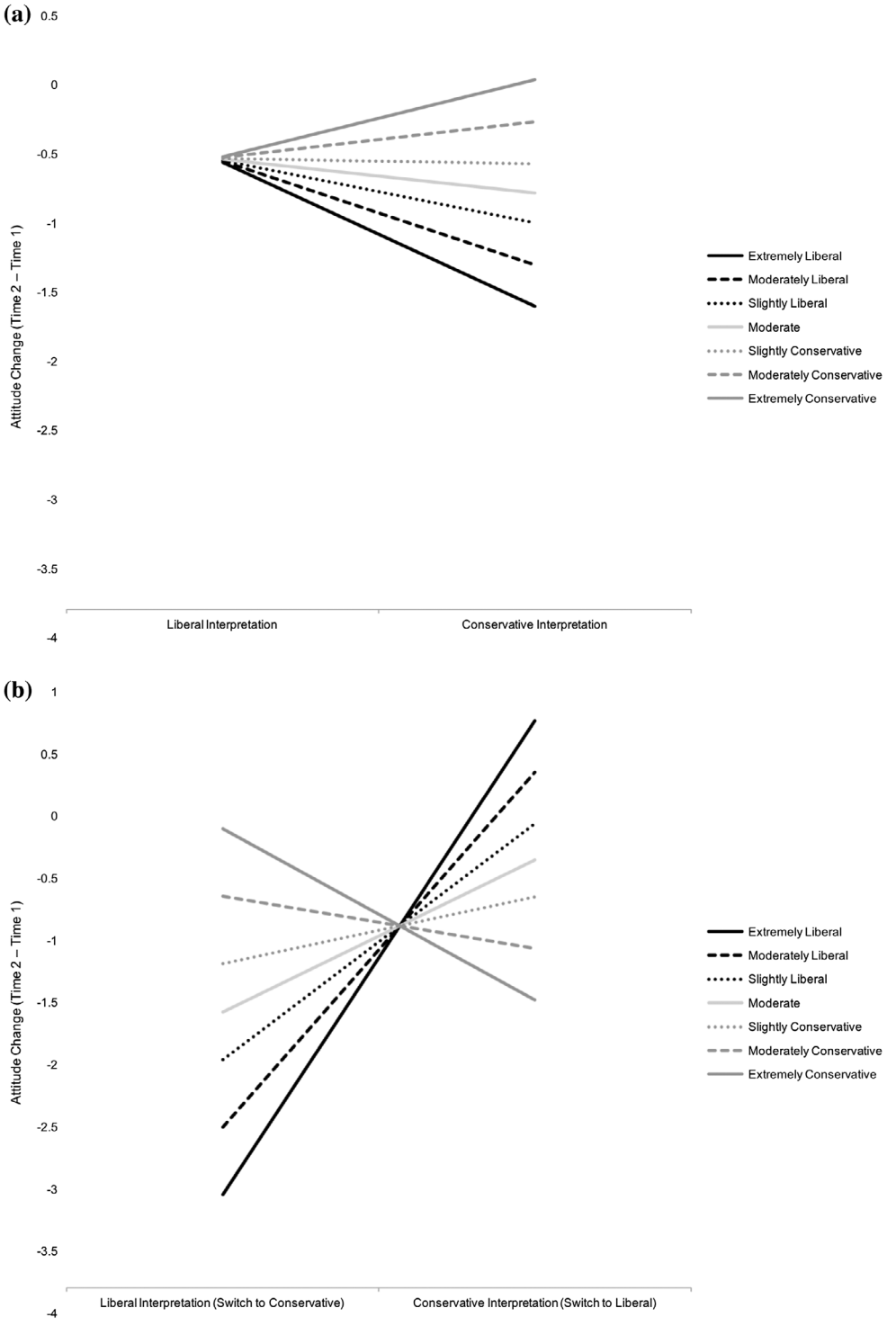

Figure 3. Simple slopes of interpretations on change in agreement (Time 2 – Time 1) at values of recipient identification in Experiment 2 among participants instructed to (a) imagine that the same interpretation was intended by the opposite source, or (b) imagine that the same source had intended the opposite interpretation.

opposing political party. Imagining that a statement had a different ideological meaning led participants to significantly change their agreement. They agreed more with messages that reflected their own ideological interpretations of the issue, and disagreed more with messages that deviated further from these interpretations. In contrast, agreement was limited when interpretations were held constant, despite being asked to imagine a different ideological source.[11]

Thus, in line with our model, agreement in Experiment 2 varied with changes in ideological interpretations, but did not vary when ideological interpretations were held constant. Therefore, Experiment 2 supports the causal role of ideological meanings in our model.

General discussion

Two experiments demonstrated the link between ideological identities and interpretations. In Experiment 1, message source influenced recipients' attitudes indirectly through the inferred social meanings of their messages. In Experiment 2, agreement with ideological messages varied with (manipulated) ideological interpretations, but did not change when perceived social meanings were held constant.

Future research should investigate whether meaning changes are effortful (Lord, Ross, & Lepper, 1979) or less effortful processes (e.g., Petty, Cacioppo, & Goldman, 1981). We predict that because ideological social meanings are well-known and well-rehearsed, they should come to mind effortlessly when recipients judge ideological attitude objects.[12] This novel prediction stands in contrast to work describing meaning change in (non-ideological) influence as 'a logical inferential process requiring some effort' (Buehler & Griffin, 1994, p. 994). Once an ideological meaning is (effortlessly) inferred, however, recipients' level of scrutiny will likely depend on well-documented persuasion variables (cf. Petty et al., 2000).

The research reported here indicates that social influence is guided by a set of well-known, socially shared group ideologies. Although the study of meaning change dates back to Asch (1940), only limited attempts have been made to develop these ideas into a generally accepted framework of the mechanisms of influence. This is surprising given the historical importance of social influence to the field and the impressive literature on other information processing mechanisms of persuasion. As the experiments reported here indicate, message meaning provides an integrated way to understand the processes through which ideological groups exert influence. We hope our experiments help to reinvigorate the historically fruitful investigations into social influence and more closely tie research on motivated processing to understanding of ideologies and group identification.

Notes

1. This model is not a formal path diagram but a conceptual model that represents our key theoretical predictions. In the interest of clarity, it omits lower-order paths required to estimate the model as well as other statistical information (e.g., variances, disturbance terms, etc., Hayes & Preacher, 2013). The full model for Experiment 1 is depicted in the online supplement.
2. These researchers demonstrated their proposed effects by pairing ambiguous messages about a telephone answering machine with credible or less credible sources.
3. Additionally, although we employ ambiguous messages in our studies, we note that ideological interpretations seem pervasive, even in scenarios in which message content appears unambiguous (cf. Cohen, 2003). For example, Crystal O'Conner's statements left

little ambiguity regarding her own interpretation of her service policy. Nonetheless, religious sympathizers and secular critics interpreted the policy along ideological lines, with the latter group imposing their own views.

4. See online supplement for details concerning calculation of these values, given the different scaling of our ideology items.
5. It is also important to note that the conditional indirect effects were not significant among individuals with moderate political identification who did not identify with either political group. These nonsignificant results reflect that ideological influence processes occurred only for individuals who identified with a liberal or conservative ideology, and not for individuals who lacked this social identity.
6. Careful readers will notice that we do not include the conditional indirect effects in our model results for this Experiment. The reason for this omission is twofold. First, because the mediator (social meaning) in Experiment 2 was operationalized as a binary variable, the conditional indirect effect does not have its usual interpretation (since the *a* path in this model now represents the effect of source on the log-odds of the mediator, rather than on the value of the mediator, itself). Second, because our primary goal in Experiment 2 was to assess the effect of manipulating the mediator (alteration condition), and because the interpretation of mediation models with binary *M* is not well-known, we opted to avoid these issues altogether and simply report the regression results from our two-step model.
7. We included two statements in order to enhance the generalizability of our effects and make the case that these results are not tied to one particular item or interpretation. We had identical predictions for both statements.
8. Careful readers may notice the inclusion of geographical information (Massachusetts vs. Texas) along with our source information in both studies. This was added to increase the realism of the manipulation by paring each senator with a 'Blue' or 'Red' state. However, we have obtained these same patterns of effects (source influencing meaning, meaning interacting with ideology to influence attitudes) in a variety of subsequent studies that did not include this information. This information was also absent in past research on social meaning and attitudes (Cohen, 2003; Wood et al., 1996). Thus, we feel confident that this ancillary geographical information is not the root cause of the effects reported here.
9. Additionally, we replicated this analysis in a mixed model regression predicting agreement as a function of time (time 1 = 0 vs. time 2 = 1) and our other model variables. In this case, the critical interaction manifested as a four-way recipient ideology x interpretations x alteration condition x time interaction. To avoid the complexities of decomposing a four-way interaction, we chose to report the simpler change score analysis here in the main body of the paper. For interested and ambitious readers, however, we have included this analysis in the online supplemental material.
10. Note that because statement did not alter the results of this model, we collapsed across statement conditions (see online supplement). Furthermore, in addition to this parsimonious theoretical model, we replicated our key result in a model containing all possible interactions among our key variables, which may also be found in the online supplement.
11. Of course, it is possible that the real influence of imagining a different ideological source was somewhat muted by social desirability concerns – perhaps it is difficult to admit the influence a source cue might have on one's judgment when directly questioned. If so, there may be additional variation in attitudes accounted for by (presumably peripheral) evaluations of source cues. However, the absence of a source cueing effect is not a necessary precondition for our model. The claim we are making is that ideological meanings exert a direct, causal influence on attitudes – that ideological meanings matter. Whether source cues also matter in certain contexts (or mattered more than recipients were willing to self-reported) does not negate this point.
12. Although beyond the scope of the present article, initial pilot data support this notion, finding that participants make the same inferences about the social meaning of statements regardless of whether they are placed under cognitive load.

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