Self-Affirmation and Identity-Driven Political Behavior

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Forthcoming in the *Journal of Experimental Political Science*

Abstract

Psychological attachment to political parties can bias people's attitudes, beliefs, and group evaluations. Studies from psychology suggest that self-affirmation theory may ameliorate this problem in the domain of politics on a variety of outcome measures. We report a series of studies conducted by separate research teams that examine whether a self-affirmation intervention affects a variety of outcomes, including political or policy attitudes, factual beliefs, conspiracy beliefs, affective polarization, and evaluations of news sources. The different research teams use a variety of self-affirmation interventions, research designs, and outcomes. Despite these differences, the research teams consistently find that self-affirmation treatments have little effect. These findings suggest considerable caution is warranted for researchers who wish to apply the self-affirmation framework to studies that investigate political attitudes and beliefs. By presenting the "null results" of separate research teams, we hope to spark a discussion about whether and how the self-affirmation paradigm should be applied to political topics.

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Psychological attachment to political parties and related identities and values can bias

information processing, belief and attitude formation, and group evaluations. Researchers have

sought to apply self-affirmation theory (Steele, 1988) to this problem. Self-affirmation theory

proposes that the overall goal of the self is to protect one's view of their own self-integrity. In response to threats to this view, people act to restore self-worth through defensive reactions. Alternatively, though, self-worth can be restored through affirmation of other sources of self-integrity, such as one's commitment to personally important values. This alternative route to protected self-integrity in the face of threatening information can reduce the need to rely on defensive biases

Several studies report promising results in explicitly partisan contexts (Badea et al., 2016; Badea et al., 2017; Binning et al., 2010; Binning et al., 2015; Carnahan et al., 2018; Cohen et al., 2007; Van Prooijen et al., 2014), which they interpret as demonstrating that affirming people's self-worth in non-political domains might serve to reduce defensive or biased behavior resulting from a perceived risk to one's identity or self-concept. This general finding — that self-affirmation may ameliorate partisan biases — has since been canonized in reviews (Sherman & Cohen 2006; Cohen & Sherman, 2014). While the broader self-affirmation literature in psychology is voluminous, recent studies have called into question the uniformity of its effects (e.g., Reavis et al., 2017). Large-scale replications (Hanselman et al., 2017; Protzko & Aronson, 2016) suggest that self-affirmation interventions may be "fragile" in some domains of social psychology (but see Borman et al., 2018).

In this article, we report a series of studies conducted independently by separate research teams that examine self-affirmation in political contexts. We employ conceptual extensions of prior work applying self-affirmation to politics, rather than close replications. Indeed, our goal was to add more evidence about previous self-affirmation applications' effectiveness in new, but theoretically related outcomes in politics. In other words, we apply self-affirmation procedures to new political outcomes of interest, and note how and if we depart from any prior work that

found significant effects. Our results find that self-affirmation treatments consistently have little effect across a range of samples and outcome measures (attitudes, factual beliefs, conspiracy beliefs, affective polarization, and evaluations of news sources).[1] Our hope is that these findings help unite evidence about the study of self-affirmation in political contexts. The studies we report suggest that self-affirmation may have more limited potential in political contexts than previously thought. We hope that future scholars considering using self-affirmation in a political context will consider the evidence about the prior literature we collect here, as well as the variety of interventions and designs we report, and that these results will be useful to future work considering self-affirmation's potential to reduce partisan biases.

Table 1. Summary of prior studies testing self-affirmation in political contexts

Authors /Study	Self-Affirmation approach	Subject Matter	Dependent Variable(s)	Sample	Year	Country	Key Estimate
Cohen et al 2007 Study 1	Information following full cross of SA/self-threat X convictions/rationality prime	9/11	Openness to information	Students (N=43)	?	US	SA X salience: $F_{(1, 38)} = 4.62$, $p = .038$.
Cohen et al 2007 Study 2	Information between full cross of SA/self-threat X convictions prime	Abortion	Number of concessions made	Students (N=35), pro-choice	?	US	SA X salience: $F_{(1, 29)} = 8.03$, $p = .008$
Cohen et al 2007 Study 3	Information between full cross of SA/self-threat X commitment/compromise prime	Abortion	Number of acceptable restrictions on abortion access	Students (N=39), pro-choice	?	US	SA X salience: $F_{(1, 33)} = 8.98$, $p = .005$
Binning et al 2010	Information following randomized SA	US politics/ debate performance	Candidate evaluations	Convenience, other (N=110), partisans	2008	US	SA X party: $F_{(1, 105)} = 5.77$, $p = .018$
Van Prooijen et al 2013	SA without information treatment	Climate change	Perceptions of pro-environmental behaviours	Students (N=90)	?	UK	SA X worldview: $B = .32$, $p = .01$, $B = -.49$, $p < .001$, $B = .23$, $p = .07$, $B = .15$, $p = .25$
Van Prooijen et al 2014	Information following randomized SA	Climate change	a) acceptance of climate change risk b) efficacy	Students (N=88)	?	UK	SA X initial beliefs: $B = -0.52$, $p = .009$, $B =$

							−0.61, p = .007
Binning et al 2015 Study 1	Information following full cross of SA and information treatment	Obama/US politics	Approval ratings	Convenience, other (N=115), Democrats	2009	US	SA X normative info: F(1, 111) = 3.93, p = .050.
Binning et al 2015 Study 2	Full cross of SA and 4-cell information treatment (2 X 2 X 2)	Obama/US politics	Approval ratings	Convenience, other (N=159), Republicans	2010	US	SA X direction X data type: F(1, 151) = 3.99, p = .047
Binning et al 2015 Study 3	Full cross of SA and information treatment	Obama/US politics	Approval ratings	MTurk (N=224)	2012	US	SA X article X American ID: B = −.76, SE = .37, B = −.25, p = .043
Badea et al 2016	SA (6-cell: self/group/control X left/right values) without information treatment	Refugees	Behavioral intent toward refugees	Students (N=192)	?	France	SA X value-type X congruence: b = -.44, p = .03
Badea et al 2017	SA (3-cell: self/group/control) without information treatment	Terrorism	Perceived threat (symbolic, realistic), support for discriminatory policy, prejudice	Students (N=240)	?	France	SA X individualism : B = −0.16, p < .05, −0.20, p < .01, B = −0.09, n.s., B = −0.24, p < .001.
Carnahan et al 2018 Study 1	Information following randomized SA	Common Core (education policy)	Change in belief accuracy	SSI (N=301)	2016	US	SA X attitude: B = -.12, p < .05
Carnahan et al 2018 Study 2	Full cross of SA and information treatment	GMOs	Change in belief accuracy	MTurk (N=509)	2017	US	SA X attitude X correction : B = −.16, p < .05

Self-affirmation theory

The theory of self-affirmation is based on the premise that people resist threats to their sense-of-self (e.g., processing counterattitudinal political information in a biased manner) *and* that self-integrity can cross domains. In other words, defensive processing in one aspect of a person's self-concept may be tempered by bolstering another (Steele, 1988). According to this account, threats in one domain lose their potency when self-worth is affirmed in other core aspects of one's self-worth, eliminating the need for ego protection. This elegant theoretical

account explains a general problem (biased processing), a mechanism (ego-defending reactions in response to threat), and a potential solution (debiasing by affirming one's sense-of-self in an unrelated domain). Self-affirmation is canonically induced by way of writing prompts that ask respondents to reflect on important values or characteristics they hold, and describe experiences in which these were exhibited or played an important role in their life.

The core tenet of the self-affirmation approach is that threats to highly central or salient social identities could result in significant "costs" which promotes defensive responses absent alternative sources of self-integrity (Sherman & Cohen, 2006, p. 218; Cohen et al., 2007). Previous literature suggests that threats to social identity (such as one's political affiliation) can be buffered through affirmation, which could lead to less anchoring of group evaluations in one's self-concept and thereby allowing individuals to evaluate groups independent of their self-evaluation (Cohen et al., 2000). The importance of the domain, or particular social group, is supposed to condition the degree of self-threat and therefore the effectiveness of affirmation (Boninger et al., 1995). Consequently, any given self-affirmation intervention is not predicted to affect everyone equally. Rather, the effect should be conditional or contingent for those who are being confronted with a threat to their identity. Consequently, each of the studies we present here examines the effect of self-affirmation on the appropriate target population.

An important qualifying condition for the relevance of the self-affirmation approach is to establish that political identities are available to people. Klar (2013) shows that partisan identity can be made salient through mere mention. Asking questions about respondents' feelings toward their own party and the opposing party, as would commonly occur in a survey about political topics, makes partisan identity salient. Threat is an even more powerful means of raising salience

(Klar, 2013). For strong partisans or those with strong prior attitudes, many of the experimental set-ups themselves constitute a threat. For example, those with strong beliefs against the scientific consensus on climate change view contrary information as a threat (Ma et al., 2019). Partisans sometimes see the opposing party as a threat to their way of life (Iyengar et al., 2019). Mason (2018) compellingly shows the centrality to partisanship to identity and the extent to which this generates powerful negative affect towards political outgroups, creating clear opportunities to experience the type threat that self-affirmation is theorized to protect against. In sum, for strong partisans, questions about political beliefs and feelings toward political groups themselves generate reactance and negative emotion. Under these conditions, former work predicts we should see self-affirmation reduce negative attitudes or group conformity (see e.g., van Prooijen et al 2014).

A summary of each study's approach can be found in Table 2. Further detail can be found in the Supplementary Materials.

Table 2a. Summary of unpublished studies

Authors	Self-Affirmation approach	Subject Matter	Dependent Variable(s)	Sample	Year
Research Team A	SA without information treatment	Ideological conspiracy endorsement	Ideologically consistent conspiracy theory indices	MTurk (N=3799)	2016
Research Team B	SA without information treatment	Climate change	Climate change attitudes and beliefs	Toluna (N=696)	2016
Research Team F	SA without information treatment	Immigration	Belief extremity; belief superiority	MTurk (N = 400)	2016
Research Team G	SA without information treatment	Affective polarization	Party affect; candidate affect; outparty tolerance	MTurk (N=204)	2016

| Research Team H | Full cross of SA and information treatment | Climate change | News evaluations | Other (N=455) | 2013 |

Table 2b. Summary of studies published during project

Authors	Self-Affirmation approach	Subject Matter	Dependent Variable(s)	Sample	Year
Research Team C	SA without information treatment	Affective polarization	Party affect; outparty threat; social distance	GfK [TESS] (N=1,345)	2016
Research Team D Study 1	Information following randomized SA	Mining spills	Attribution of blame and motivation	MTurk (N=130)	2015
Research Team D Study 2	Information following randomized SA	Biofuels	Risk/benefit perception	MTurk (N=274)	2016
Research Team E Study 1	Full cross of SA and information treatment	Foreign policy (U.S./Iraq)	Trend/change in insurgent attacks in Iraq	YouGov [CCES] (N=525)	2008
Research Team E Study 2	Full cross of SA and information treatment	Economy	Trend/change in number of jobs 2010-2011	MTurk (N=247)	2011
Research Team E Study 3	Full cross of SA and information treatment	Climate change	Trend/change in global average surface temperature	Qualtrics (N=244)	2011

Selection of studies

The corresponding author solicited "file drawer" studies examining self-affirmation and political behavior, regardless of findings, in March 2018. No studies nominated in the process were excluded. All authors then shared data allowing for a parallel analysis, as described below. Over the course of the project, three research teams published articles based on the data provided to the corresponding author. (We report all findings from the different research teams using the same analytic strategy. The results we report here for studies that were accepted during this process are substantively consistent with the published version, but the model specifications and

point estimates are different.) To aid the reader, we have created separate tables to distinguish between published and unpublished studies.

We report results from a number of studies that examine various outcomes in which political identity may drive biases. Specifically, we look at self-affirmation's potential to mitigate conspiracy beliefs (e.g., Miller & Saunders 2016; Oliver & Wood 2014), affective polarization (e.g., Iyengar et al. 2019; Mason, 2018), belief superiority (e.g., Saucier & Webster, 2010), news evaluations (e.g., Pingree et al., 2014), and various forms of party-aligned factual beliefs (e.g., Taber & Lodge 2006; Kahan & Braman 2006).

Analytic approach

Social psychology experiments that examine the role that self-affirmation may have in reducing bias or extremity typically fall into three types. The first type of study looks at the effect of self-affirmation for relevant vs. non-relevant groups (Van Koningsbruggen et al, 2009; Sherman et al, 2000; Harris & Napper, 2005; Correll et al, 2004; Binning et al., 2010). For example, a message detailing coffee's health effects may be shown to drinkers and non-drinkers. A typical study would randomly assign subjects to a self-affirmation task (vs placebo task), and then show all participants the same stimulus. Analysis would then focus on the effects of self-affirmation for relevant versus non-relevant groups. Research Team D follows this approach.

The second type of study examines the effect of self-affirmation on attitudes and extreme beliefs without an information treatment. These studies randomize assignment to a self-affirmation task (vs a placebo task), and then measure outcomes of interest (e.g., Lehmiller et al., 2010). While not always framed in this way, from a political science perspective one can

see these studies as assessing whether self-affirmation makes people more amenable to considering counter-attitudinal information already encoded when constructing a survey response, a la Zaller (1992). Research Teams A, B, C, F, and G studies follow this approach.

Finally, some researchers examine how self-affirmation influences information processing in the face of threat by concurrently manipulating both self-affirmation and information treatments. For example, Reavis et al. (2017) examine how affirmation moderates the effect of a threatening article correcting the MMR-autism link (versus a placebo article) on intent to vaccinate. Some of our studies follow this route (Teams E and H)

As a result, we take two approaches to analysis. First, we look at each study as a 2-cell experiment in which participants were randomly assigned to self-affirmation or a control treatment. We construct our analyses so that stimuli were either uniform across all participants or absent. While this approach easily incorporates studies that only manipulate self-affirmation, we need to take an extra step to incorporate studies that also manipulate information. When participants were shown one of two information treatments (Team H; Team E study 3), we split the study into two analyses — one for each information treatment. Thus, the analyses examine the effect of receiving being self-affirmed versus not being self-affirmed for those who received an information treatment. When the control group received no information (Team E studies 1 and 2), we only include cells where participants received the information treatment;[2] again comparing the effect of being self-affirmed versus not being self-affirmed for those who receive an information treatment. (To make sure all cells are analyzed, the supplementary analyses include any cells that were excluded given the approach above.)

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[2] We drop from these analyses irrelevant conditions, such as alternate (non-self-affirmation) treatment arms (Teams C, D, and F studies).

We use OLS regression with robust standard errors to estimate the effect of self-affirmation in each study. In each model, we estimate the effect of the affirmation treatment as an indicator variable, as well as a relevant moderator — such as party identity or strength of partisanship — and the corresponding interaction term identified by the authors. To compare effects directly, we rescale all dependent variables to range from 0 to 1.

Treatment of multiple outcome measures

Some studies collected multiple relevant dependent variables. We deal with this in two ways. In the Teams B, G, and H analyses, we create a composite item due to high internal consistency among measures, which also reduces measurement error and improves power (Ansolabehere, Rodden, & Snyder 2008). In cases where dependent variables are potentially orthogonal to one another, we analyze the effects of the self-affirmation treatment on each dependent variable separately.

Summary of results

We find no main effects across the studies. However, the theory of self-affirmation expects that effects should be limited to specific (threatened or counter-attitudinal) subgroups. Therefore we relegate these analyses to the appendix. Our focus now is on the interaction between self-affirmation and an indicator variable identifying the relevant (threatened or coutnerattitudinal) subgroups. In Figure 1, we plot regression coefficients for all interactions of the unpublished studies.

Figure 1. Interaction terms across unpublished studies

Notes: All outcome variables re-scaled to range from 0-1. Corresponding statistical information shown in Table 2. For full regression models, see appendix.

Table 3a. Coefficients for self-affirmation * subgroup indicator interaction

Outcome measure	Sample Size	B	SE	CI lower	CI upper
Liberal conspiracy beliefs (Team A)	3796	0.02	0.01	0.00	0.05
Conservative conspiracy beliefs (Team A)	3797	0.01	0.01	-0.01	0.03
Climate change attitudes (Team B)	696	-0.03	0.02	-0.07	0.01
Belief superiority (Team F)	393	-0.01	0.04	-0.09	0.07
Belief extremity (Team F)	393	0.00	0.03	-0.07	0.06
Affective polarization (Team G)	204	-0.02	0.05	-0.12	0.07
Outparty intolerance (Team G)	204	0.08	0.08	-0.08	0.23
Outparty intolerance 2 (Team G)	203	0.00	0.08	-0.16	0.16
News evaluations (Climate change hoax condition, Team H)	235	0.01	0.03	-0.06	0.07
News evaluations (Climate change real condition, Team H)	220	0.01	0.03	-0.06	0.07

Table 3b. Coefficients for self-affirmation * subgroup indicator interaction

Outcome measure	Sample Size	B	SE	CI lower	CI upper
Affective polarization (Team C)	1334	-0.01	0.01	-0.03	0.01

	N				
Discussion polarization (Team C)	1338	-0.02	0.01	-0.05	0.00
Outparty danger (Team C)	1345	-0.03	0.02	-0.06	0.00
Social distance (Team C)	1333	0.02	0.02	-0.01	0.05
Outparty blame (Team D)	130	-0.04	0.09	-0.22	0.14
Risk perception (Team D)	274	0.00	0.04	-0.08	0.08
ISAF insurgent attacks (Graph condition , Team E)	525	0.00	0.02	-0.04	0.05
Jobs (Obama approval moderator, graph condition, Team E)	247	0.02	0.06	-0.10	0.13
Jobs (Economy MIP moderator, graph condition, Team E)	247	0.01	0.06	-0.10	0.12
Anthropogenic GW (Text condition , Team E)	122	-0.05	0.17	-0.38	0.28
Anthropogenic GW (Graph condition, Team E)	122	-0.31	0.15	-0.62	-0.01
Temperature trend (Text condition, Team E)	122	-0.03	0.08	-0.19	0.13
Temperature trend (graph condition, Team E)	121	-0.06	0.08	-0.23	0.10

The interaction term of the pooled (Neyeloff et al., 2012) unpublished studies is b = .007, SE = .038 (95% CI: -.067, .081), though we urge caution due to the differing outcome measures across these studies (Carpenter, 2020). The interaction term when pooling all of the studies in the present manuscript (including those published) is b = -.019, SE = .052 (95% CI: -.120, .083).

Finally, when re-analyzing the experiments that included information treatments (Team E Study 1-3, and Team H), we find effects similar to those above (see Tables A8 – A9).

Discussion

Can self-affirmation mitigate the psychological effects of partisanship and polarization? This article pools a number of studies undertaken by independent research teams to test this claim. Across studies, contexts, and outcomes of interests, we found little evidence that self-affirmation manipulations have ameliorative effects.

Prior work in the self-affirmation literature reveals that such effects may be contingent on a number of factors (e.g., Ferrer & Cohen, 2019; Borman et al., 2018). For this reason, our

analyses focus on moderation effects, as self-affirmation effects should be found for those who care more about politics and/or those most threatened by inconvenient claims or by interactions with their political opponents. In this collection of studies, we offer evidence of a number of scenarios in which self-affirmation does not seem to improve outcomes, even among these subgroups.

These findings should be understood in the context of their limitations. The previously unpublished studies we report draw on samples of varying size --- though some are large (n = 3,799) others instead rely on sample sizes resembling those in the existing self-affirmation literature, which are under-powered to detect interaction effects (Blake & Gangestad, 2020). In other words, these findings should also be considered in the context of prior work that motivated these studies. While all teams were excited by the potential of self-affirmation to address phenomena with strong normative implications -- misperceptions, conspiracy belief, and polarization -- the relatively limited evidentiary value provided by the small sample sizes of and inconsistent methods of prior studies (Table 1) is clearer in hindsight. These prior studies often show contingent effects, though little work has directly replicated the specific contingencies, which vary from study to study. At the same time, the studies presented here may be missing key features necessary for self-affirmation to work. If the work presented here can help clarify the limits of self-affirmation, we believe that would be a valuable contribution.[3]

Kotcher (2016, p. 68-9) provides a potential empirical explanation for the self-affirmation method's inconsistent effects:

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[3] Notably, recent works suggest that "heterogeneity and moderation of effects is unlikely for a zero average true effect size, but increasingly likely for larger average true effect size," (Olsson-Collentine et al., 2020). As such, the search for potential hidden moderators may be by more costly than its contribution to the scientific record merits.

> "self-affirmation not only can activate multiple psychological processes, but […] it may activate both productive and counter-productive processes simultaneously… This suggests that self-affirmation is at the same time both more complex than previously understood […] and less precise as a potential intervention than one might hope."

Given this richness and complexity, self-affirmation may remain a topic worthy of study for its own sake. At the same time, self-affirmation interventions may not be precise enough to allow researchers to produce normatively desirable outcomes without the danger of concurrently eliciting negative responses. Or, the true effects of self-affirming people may be null or artifactual. Indeed, there is evidence of publication bias in other literatures applying the self-affirmation framework (Weisz et al., 2016; see also Protzko & Aronson, 2016). We hope the findings presented here help form a more complete picture of self-affirmation effects on an assortment of identity-driven cognitive and affective phenomena.

With these null results, we also offer a number of research design suggestions for those who wish to continue exploring whether self-affirmation interventions can produce normatively desirable outcomes related to politics. We encourage researchers to use preregistered designed that employ samples large enough to detect the interaction effects that this theory proposes (Blake & Gangestad, 2020) or to precisely estimate null results. The results we report rely on conceptual replications. Direct replications (with samples large enough to reliably detect interaction effects) may help identify whether the eight separate research teams whose work is presented here simply erred in how they applied self-affirmation, or whether the approach is less   useful than previously thought.

Others might wish to advance work summarized in Tables 1 and 2 by manipulating identity salience or threat directly. The *experimental manipulation* of threat may be key to uncovering self-affirmation effects (Ferrer & Cohen., 2019). Indeed, we see this as an unclear

proposition given the present state of the literature. While Cohen et al. (2007) manipulate salience, other studies (Binning et al., Badea et al., van Prooijen et al., and Carnahan et al.) do not. Moreover, our view is that none of these studies manipulate *threat* to identity. Consequently, it is hard to establish that any positive effects of a self-affirmation intervention are contingent on salience or threat manultipations. Cohen et al. (2007) complicate matters by comparing self-affirmation not to a control, but to a "self-threat" condition where participants report a time they failed to live up to an important value. Experimental paradigms that can reliably induce identity threat may help identify when and where self-affirmation interventions outside the lab may be effective.

Typically, self-affirmation research does not employ manipulation checks for the same reason studies manipulating self-esteem do not: the manipulation check itself may prime the intended state (McQueen & Klein, 2006). The development of manipulation checks that can evaluate whether a self-affirmation treatment is working as intended (without doubly treating respondents) would be a significant advance. Without manipulation checks, it is hard to know whether it is one's theory that has failed, or simply one's procedures that have failed (though see Fayant et al., 2017 and Hauser et al., 2018 on the limitations of manipulation checks more generally).

Conclusion

In this paper we present a number of studies that attempted to apply the self-affirmation paradigm to political topics. We bring together the work of eight separate research teams who conducted 11 separate experiments. These different research teams were all motivated by the promising results of studies presented in Table 1 to use self-affirmation

as a tool to, for lack a better word, improve politics in some way. Unfortunately, self-affirmation did not generate results consistent with the theory in any of the 11 different experiments.

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Appendix

Methods details and results are presented for studies in alphabetical order by author:

Team A

Hypotheses

H1: Does Self-Affirmation Mitigate the Effect of Motivated Conspiracy Endorsement?

Self-affirmation will mitigate the impact of motivated conspiracy endorsement. In other words, respondents who are given the opportunity to self-affirm will be less likely to feel the need to engage in ideologically motivated conspiracy endorsement to bolster their worldviews than those who are not given the opportunity to self-affirm.

Design

2 cell. Respondents were randomly assigned to one of two conditions. The first condition provided respondents the opportunity to self-affirm and the second did not.

Sample

We recruited 4,349 US adults from MTurk, through TurkPrime. Our analyses focus on the 3,337 self-identified conservatives and liberals. We also replicate our findings with party identification instead of ideology; for those analyses, we focus on the 3,799 self-identified Republicans and Democrats (treating leaners as partisans). The data were collected between May 20, 2016 and July 20, 2016.

Procedure

Self-affirmation manipulation. Respondents were randomly assigned to one of two conditions, in which they were (n=2,107) or were not (n=2,238) given the opportunity to self-affirm.

After the self-affirmation manipulation, respondents answered two "filler" questions about their interest in politics, and then proceeded to the conspiracy theory battery, followed by ideology, demographic, and personality questions.

We used a self-affirmation manipulation adapted from Cohen, Aronson, and Steele (2000; see also Nyhan & Reifler 2019). Respondents assigned to the self-affirmation condition saw the following prompt:

"In this portion of the study, we would like to ask you some questions about your ideas, your beliefs, and your life. When you respond to these questions, please bear in mind that there are no right or wrong answers. Below is a list of characteristics and values, some of which may be important to you, some of which may be unimportant. Looking at this list, please check the box next to the characteristic or value that is MOST important to you."

The list included the following characteristics and values: artistic skills/aesthetic appreciation, sense of humor, relations with friends/family, spontaneity/living life in the moment, social skills, athletics, musical ability/appreciation, physical attractiveness, creativity, business/managerial skills, and romantic values. On the next screen, the self-affirmation respondents saw the following prompt:

"In a brief paragraph, please describe a personal experience in which X characteristic or value [filled with the one that they chose as the MOST important] was especially important to you and made you feel good about yourself. Focus on your thoughts and feelings, and don't worry about spelling, grammar, or how well written it is."

After 30 seconds, the "next" button appeared at the bottom of the screen, at which time respondents could move on to the next questions (two political interest questions, followed by the conspiracy theory battery). The purpose of the 30-second delay was to ensure that respondents did not simply click past the text box and proceed to the rest of the survey.

Respondents assigned to the control condition saw the following prompt, "Please list everything you have had to eat or drink in the last 48 hours. Do not worry about those things you find yourself unable to remember." After 30 seconds, the "next" button appeared at the bottom of the screen, at which time control respondents could move on to same questions as the self-affirmation respondents (two political interest items, followed by the conspiracy theory battery). We created a dummy variable to represent whether respondents were assigned to the self-affirmation (1) or control (0) condition.

Measures

Moderator variables.
For political ideology, we recoded the standard seven-point ideology measure into a Conservative dummy variable. Respondents who said they were "extremely conservative," "conservative," or "slightly conservative" were coded as a 1 (n=1,148) and those who said they were "extremely liberal," "liberal," or "slightly liberal" were coded as a 0 (n=2,189). We replicated our analyses with party identification by recoding the standard seven-point branched party identification question into a Republican dummy variable. Respondents who said identified as strong, not very strong, or leaning Republicans were coded as a 1 (n=1,250), and those who identified as strong, not very strong, or leaning Democrats were coded as a 0 (n=2,549).

Dependent variables.
What most conspiracy theory definitions have in common is the notion that conspiracies comprise the belief that actors, usually more powerful than the average citizen, are engaging in wide-ranging, "black-boxed" activities to which individuals can attribute an insidious explanation to a confusing event. To assess conspiracy endorsement, we selected 13 questions that met the following criteria: 1) they fit the definition of a conspiracy theory, 2) they are relatively familiar to our respondents, and 3) they are political and ideological in nature.

We began with seven of the eight conspiracy theories we assessed in our previous work (for replication purposes see Miller et al. 2016a). Four are items that we found conservatives were more

likely to endorse: Obama was not born in the U.S., the 2010 Affordable Care Act included death panels, global warming is a hoax, and Saddam Hussein was involved in the 9/11 attacks. The other three are items that we found liberals were more likely to endorse: the government intentionally breached flood levees during Hurricane Katrina to protect middle-class homes, the Bush administration knew about 9/11 before it happened, and Republicans stole the 2004 election via voter fraud in Ohio.

To the four "conservative" items (i.e., ones that impugned leaders and institutions on the left, and that conservatives were therefore more likely to endorse), we added an additional three: the Jade Helm 15 military exercise was a scheme cooked up by President Obama to confiscate firearms from law-abiding citizens, former Secretary of State Hillary Clinton and others in the administration are involved in a cover-up surrounding the Benghazi terrorist attack, and the Democratically controlled Congress supported policies aimed at causing the 2008 financial crisis to push for greater federal government control over US banks and corporations.

To the three "liberal" items (i.e., ones that impugned leaders and institutions on the right, and that liberals were therefore more likely to endorse), we added an additional three: the largest banks in the US manipulate the economy for their financial gain, the Koch brothers are behind a hidden plot to destabilize the American government, and the Bush administration faked employment statistics in 2007 to obscure the seriousness of the financial crisis to protect the US banking industry and Republicans running for re-election in 2008.

Responses to each of the thirteen conspiracy questions were coded on four-point scales ranging from 0-1, with higher numbers representing greater endorsement. The seven items that we suspected would be more attractive to conservatives and Republicans were averaged to create a *conservative index* (Cronbach's alpha = .75). The six items that we suspected would be more attractive to liberals and Democrats were averaged to create a *liberal index* (Cronbach's alpha = .75).

Team B

Hypotheses:

H1: Self-affirmation will lead to more favorable changes among political conservatives, and to a lesser degree in moderates, in terms of key beliefs about, perceived importance of, and policy support to address climate change, whereas its effect on liberals will be indistinct.

Design

I conducted a randomized, controlled survey experiment with a 2 cell (traditional self-affirmation essay vs. control task) design.

Sample

Participants were recruited by an external vendor (Toluna) that maintains an online panel of participants who have agreed to participate in online surveys. Participants were quota-matched to recruit a demographically diverse sample that approximately reflects national proportions of age, gender, education, and Hispanic ethnicity found in the U.S. Census. Specifically, the sample was 48.2% male and 51.8% female; 83% non- Hispanic or non-Latino and 17% Hispanic or Latino; the median age was between 45-54; and the median level of education was "some college".

A total sample of n=696 individuals completed the survey cells in question.

Procedure

Traditional Self-Affirmation. This study utilized a value essay self-affirmation manipulation widely used in previous research (for a review, see McQueen & Klein, 2006). Participants were asked to rank a list of 11 values developed by Harber (1995; e.g., Artistic skills/aesthetic appreciation, Sense of humor, Relations with friends/family) in terms of their personal importance. Next, participants were asked to think about the value they ranked as the most important to them, and then to take a few minutes to write about three or four personal experiences in which this value was important to them and made them feel good about themselves. This procedure, along with this list of values, has been used in a number of prior studies (e.g., Binning, Brick, Cohen, & Sherman, 2015; Cohen, Aronson, & Steele, 2000; Zhao, Peterson, Kim, & Rolfe-Redding, 2014).

No affirmation control task. Individuals in these conditions were asked write down everything they ate or drank in the last 48 hours. Furthermore, individuals were instructed to "not worry about those things you find yourself unable to remember." This task has been used as a control in a number of previous studies because it is believed that almost any self-reflective writing task can potentially be self-affirming (e.g., Cohen et al., 2000; van Prooijen & Sparks, 2013).

Measures

Dependent Variables

Belief certainty that climate change is happening. Two items were used to compute a nine-point scale measuring certainty that climate change is happening. The first item asked respondents whether they think climate change is happening with response options being yes, no, or don't know. Individuals who

answered yes or no were then asked a follow up question which asked how sure they were that climate change is/is not happening (1=not at all sure, 4=extremely sure). The new variable combined responses to these two items such that 1=extremely sure climate change is not happening, 3 = somewhat sure climate change is not happening, 5=Don't know, 7 = somewhat sure climate change is happening, 9=extremely sure climate change is happening (M=7.03, SD=2.08).

Belief in human causation. A single, six-point item was used to measure the extent to which individuals think climate change is caused by human activities versus natural changes in the environment (1=None of the above because climate change isn't happening, 2=Caused entirely by natural changes in the environment, 3=Caused mostly by natural changes in the environment 4=Caused about equally by human activities and natural changes in the environment, 5=Caused mostly by human activities 6=Caused entirely by human activities; M=4.23, SD=1.16).

Worry about climate change. A single, 7-point item asked individuals, "How worried are you about climate change?" (1-Not at all worried, 7-Extremely worried; M=2.90, SD=1.24).

Climate change issue importance. A single, 7-point item asked individuals, "How important is the issue of climate change to you personally?" (1-Not at all important, 7- Extremely important; M=3.03, SD=1.25).

Perceived harm of climate change. Participants were asked to rate on a 7-point scale (1-Not at all, 7-A great deal), "How much do you think climate change will harm..." with four different targets: 1) you and your family, 2) people in the United States, 3) people in other countries, 4) future generations. Responses to these four items were averaged and combined into a single scale (M=4.94, SD=1.62, Cronbach's α=0.938).

Injunctive beliefs about climate change. Participants were asked on a 7-point scale whether they think the following entities should be doing "more or less to address climate change..." (1-should be doing much less, 4-currently doing about the right amount, 7- should be doing much more). The actors are: 1) your local government officials, 2) your state government, 3) The U.S. Congress, 4) The President. Responses to these four items were averaged and combined into a single scale (M=5.31, SD=1.73, Cronbach's α=0.967).

Climate change policy support. This variable was an averaged composite of responses to five different policies designed to address climate change. The question asked participants, "How much do you support or oppose the following policies?" (1-Strongly oppose, 4-Neither support nor oppose, 7-Strongly support; M=4.82, SD=1.12, Cronbach's α=0.734).

Political participation intentions. This variable was an averaged index of responses to the question, "Over the next 12 months, how likely are you to do each of the following?" (1-Very unlikely, 4-Neutral, 7-Very likely). The behaviors are: 1) Write letters, email, or phone government officials about climate change, 2) Attend a community meeting or rally about climate change, 3) Sign a petition about climate change, either online or in person, 4) Donate money to an organization working to reduce climate change, 5) Vote for a political candidate because they support action to reduce climate change (M=3.70, SD=1.84, Cronbach's α=0.921).

These items were averaged into a single composite climate attitudes outcome (alpha = .91)

Moderator

Political ideology. A single, 5-point scale asked individuals, "In general, do you think of yourself as..." (1-Very liberal, 3-Moderate, middle of the road, 5-Very conservative; M=2.94, SD=1.14).

Team C

Hypotheses:

Hypothesis 1: Self-affirmation techniques will reduce affective polarization.
Hypothesis 2: Self-affirmation will be less effective at reducing affective polarization for those with stronger identities.

Design:

2 cell: Subjects were randomly assigned a self-affirmation treatment condition, or an apolitical control.

Sample

The experiment was conducted by GfK Custom Research (previously Knowledge Networks), which uses random digit dialing and address-based sampling to recruit representative samples of the US population for studies such as this one. A total of 2,095 respondents completed the survey on April 15–25, 2016, for a completion rate of 55 percent and an AAPOR Response Rate 3 of 4.8 percent. After dropping other treatment arms, a total of n = 1345 respondents remained. The study was conducted through Time Sharing Experiments for the Social Sciences (TESS); the TESS proposal— which serves as the pre-analysis plan for this experiment—is provided in the online appendix.

Procedure

For the self-affirmation treatment, I follow McQueen and Klein (2006) and ask subjects to pick a characteristic or value that is important to them from a long list of options (i.e., creativity, athletic talent, etc.).

Measures

Dependent variables.

Affective polarization was measured in three ways:

1. 100-pt. Feeling thermometer ratings of the political parties (Abramowitz and Webster Forthcoming, Hetherington and Rudolph 2015) (difference score M = .36.30, SD = 34.33)

2. Social distance measures (i.e., friends with out-party, see Iyengar et al. 2012, Levendusky and Malhotra 2015) (4-pt., M = 1.78, SD = .79).

3. Whether the other party's ideas are so extreme they are dangerous for the health of the nation (Pew Research Center 2014) (5-pt., M = 3.94, SD = .98).

This study also included a "downstream" measure:

4. Whether respondent would like to discuss political topics in a partisan homogeneous or heterogeneous group (Klar 2014) (ranges from -3 to 3, M = .74, SD = 1.11).

Moderators

Partisanship strength (4-pt.)

Team D

Hypotheses:

H1. Self-affirmation will reduce group-aligned belief

H2. Self-affirmation effects will be stronger among strong partisans.

Study 1

Design

2 cell: Self-affirmation vs. control.

Sample

Data were collected using Amazon Mechanical Turk's (mTurk) panel of online workers. All participants were compensated monetarily. 257 participants were recruited for Study 1 in October 2015 (After dropping irrelevant treatment arms n = 130)

Procedure

Participants in the self-affirmation condition were provided with a list of personal values. After selecting the most personally important value, they were instructed to write about why the value is important to them. The list (Personal Values Questionnaire II, Cullen, 2014) is similar to most common affirmation instruments (e.g., Nyhan & Reifler, 2019) but gives greater focus to internal values.

Individuals in the control were asked write down everything they ate or drank in the last 48 hours.

Following the writing prompt, participants completed a battery of manipulation checks. Next, they were informed that they would be asked about "a recent event in the news. An investigation by the United States Environmental Protection Agency at an Alaskan mine went badly awry earlier this year, triggering a spill of zinc, iron, copper, and other heavy metals into the water supply." Next, participants read a news story on the spill that reported two statements from each group (Republicans vs. Democrats and the EPA) that blamed the other for the spill. Participants then reported their belief in each of four claims.

Measures

Dependent variable
Group-aligned belief was computed based on the following factual beliefs: "The EPA probably allowed the toxic spill to occur on purpose," (M = 3.02, SD = 1.69); "The EPA probably is not being held to the same standard they would apply to a private business," (M = 4.57, SD = 1.58); "Republican lawmakers were probably willing to risk the spill in order to discredit the EPA," (M = 4.10, SD = 1.73); and "Republicans are probably using the spill to undercut the Obama administration's rollout of emissions regulations," (M = 4.47, SD = 1.69). Beliefs that blamed Republicans were reverse coded so that all beliefs ranged from Democrat-aligned (1) to Republican-aligned (7). These were combined, recoded with a midpoint at 0, and crossed with respondent party to create a final group-aligned belief

measure that excluded Independents (M = .56, SD = .87, n = 191). This measure was converted to a standardized z-score.

Moderator
To test for interventions' effects across levels of group identification, strength of party affiliation (2-pt.) was also measured.

Study 2

Sample

598 participants were recruited via Amazon Mechanical Turk in March 2016 (after dropping irrelevant treatment arms n = 274)

Procedure

The Study 2 procedure replicated Study 1, except with the context altered to a partisan dispute over a fictional advanced biofuels mandate. The news story was presented as a two-minute news video, with the transcript embedded below. The video included claims regarding the benefits of an advanced biofuels mandate, attributed to Democrats, and claims regarding risks, attributed to Republicans. Participants then answered questions about perceived risks and benefits.

Measures

Dependent variable
Risk and benefit beliefs were measured on 7-pt. scales (1 = *strongly disagree*, 7 = *strongly agree*). These items were drawn from prior studies (see Fung et al., 2014), and covered economic, environmental, and social aspects of biofuels technology. Risk perception was measured with six items, Chronbach's α = .85, M = 3.77, SD = 1.21. Benefit perception was also measured with six items, Chronbach's α = .90, M = 5.21, SD = 1.13. *Group-aligned beliefs* were calculated by subtracting risk from benefits and crossing with respondent party, excluding true independents (M = .69 SD = 1.07, n = 507). This measure was converted to a standardized z-score.

Moderator
Participants also reported party affiliation strength (2-pt.) to be used as the moderator.

Team E

Hypothesis:

H1. Self-affirmation reduces partisan misperceptions

Study 1

Design

2 (affirmation) X 2 (graph) between-subjects survey experiment. One manipulation randomly assigned respondents to an affirmation condition in which they were asked to recall an experience in which they felt good about themselves (Affirmation) or a control condition. Another randomly exposed respondents to graphical information about the troop surge in Iraq.

Sample

Study 1 was part of a pre-election module on the 2008 Cooperative Congressional Election Survey (CCES) that was administered by YouGov/Polimetrix in October 2008. The dataset consists of an Internet sample of 1000 people constructed from more than 50,000 opt-in respondents to approximate a random probability sample (Rivers, n.d.). After removing irrelevant cells of the study, n = 525.

Overall, the sample is representative of the American population and matches known benchmarks well. Respondents are 48% male and 52% female. 73% are white, 12% are black, and 8% are Hispanic. 32% are age 18-34, 37% are 35-54, and 32% are 55 or older. Finally, 43% have a high school degree or less, 32% have some college or a two-year degree, and 25% have a four-year college degree or more.

In terms of party identification, our respondents are 37% Democrats, 27% independents (including leaners and identifiers of other parties), 27% Republicans, and 8% not sure, which almost perfectly matches the partisan distribution from telephone polls conducted in October 2008.

CCES respondents may be somewhat more sophisticated or politically active than those in a probability sample, but such discrepancies should not threaten the internal validity of our experimental results.

Procedure

Our affirmation manipulation (adapted from Cohen, Aronson, and Steele 2000) asked respondents in the treatment group to select the value that is most important to them from a list and then to write about a

time in which it was "especially important to you and made you feel good about yourself." In the control condition, respondents instead reported what they had to eat or drink in the previous 48 hours.

Information treatment

Those in the graph condition saw the following:

Below is a graph showing the number of insurgent attacks against US and coalition forces in Iraq per week since January 2004. Please take a moment to study it before proceeding.

Weekly insurgent attacks in Iraq
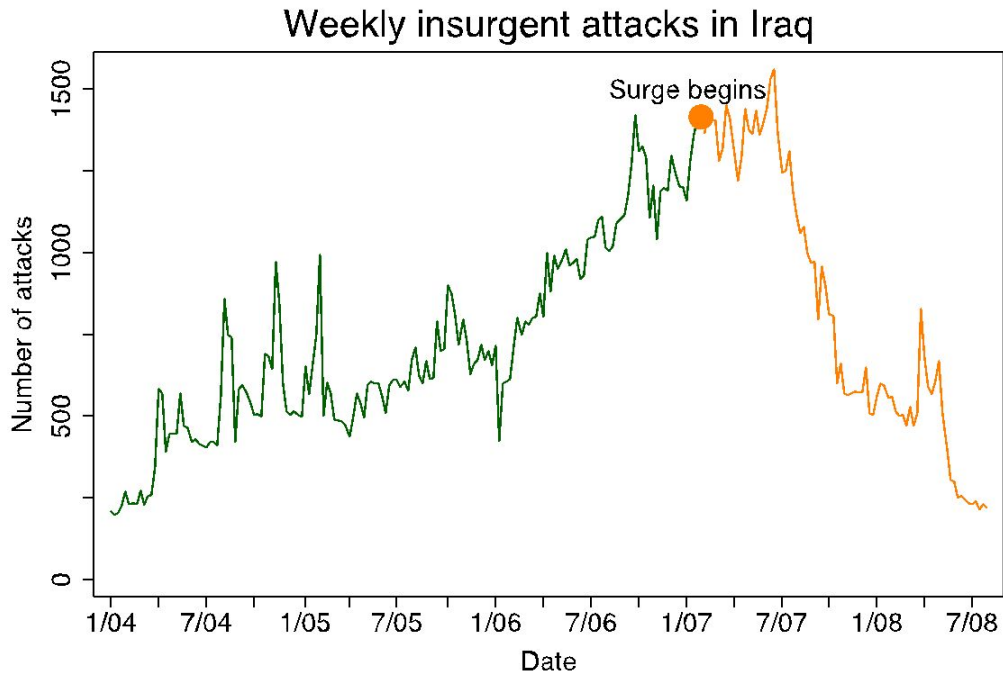
Source: Multi-National Force -- Iraq

Measures

Dependent variable

Our outcome of interest is factual beliefs about changes in attacks after the surge. After the manipulations, respondents were asked how the number of attacks changed on a five-point scale from "decreased substantially" to "increased substantially" . The exact wording is as follows:

From what you know about the US involvement in Iraq, what has happened to the number of insurgent attacks in Iraq since the recent increase in troop levels ("the surge") began?

- Attacks have decreased substantially [1]
- Attacks have decreased slightly [2]
- Attacks have stayed the same [3]
- Attacks have increased slightly [4]
- Attacks have increased substantially [5]

As in each of our studies, responses were coded so that lower values indicate more accurate beliefs (attacks decreased) and higher values indicate greater misperceptions (attacks increased).

Study 2

Design

Our 2 x 2 design closely mirrors Study 1. Respondents are randomly assigned to a self-affirmation condition (Affirmation) or to a control condition. The self-affirmation and corresponding control condition are virtually identical to Study 1 except for the inclusion of several more choices of values in the self-affirmation exercise.

Respondents were also randomly assigned to see a graph depicting the U.S. jobs trend and asked to assess the trend.

Sample

This study was conducted using Qualtrics with participants from Mechanical Turk (N = 247). In our sample, 41% of respondents were 18-29, 43% were 30-49, and 16% were 50 and over. 56% were female, 4% were black, and 5% Hispanic. 10% had a high school degree or less, 33% had some college, and 58% had a college degree or greater. 53% identified as Democrats (with leaners), 30% as Republicans (with leaners), and 16% as independents.

Information treatment

Below is a graph showing the total number of jobs in the United States from January 2010 to January 2011. Please take a moment to study it before proceeding.
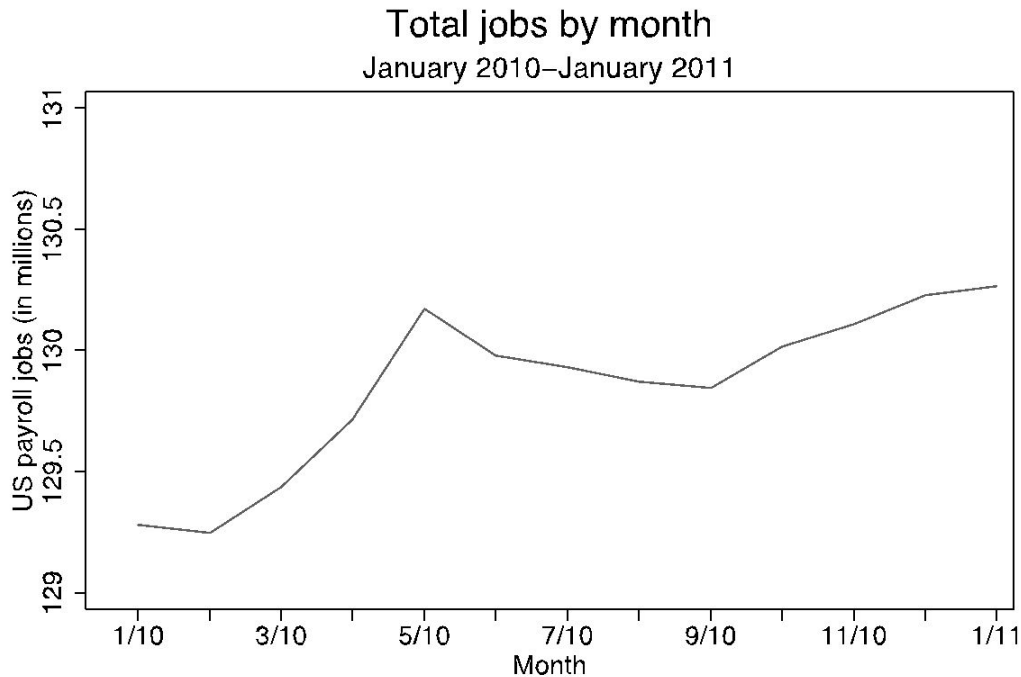
NOTE: The survey will allow you to move to the next page after a reasonable amount of time has elapsed. Please take all the time you need to study the graph below.

Measures

Our outcome measure is adapted from American National Election Study questions on economic trends (Bartels 2002) asking if the number of people with jobs in the country has gone up, stayed about the same, or gone down since January 2010. Using branching follow-ups, we constructed a five-point Likert scale ranging from "Gone up a lot" to "Gone down a lot." As in each study, responses were coded so that higher values represent greater misperceptions (i.e. greater belief that jobs had gone down).[7]

Study 3

Design

We use a 2 x 3 design in which participants are randomly assigned to either a self-affirmation condition (Affirmation) or a non- affirmation control. They were also randomly assigned to see a graph or text about global temperatures, or a control.

Sample

The study was conducted in July–August 2011 using an online convenience sample from Qualtrics.com's respondent panel. We limited this sample to respondents who previously self-identified as Republicans, the group that is most likely to hold inaccurate beliefs about global warming (McCright and Dunlap 2011). We also excluded respondents who failed to pass a pre-treatment attention filter designed to make sure that subjects were carefully reading survey questions.

This study was restricted to self-identified Republicans in an online convenience sample obtained from Qualtrics. As an initial check on data quality, we asked the standard ANES party identification questions. The data match the screening almost perfectly. Only five respondents (1%) self-identify as Democrats or Democratic leaners, while 2% identify as pure independents. The remaining 97% identify as Republicans – 48% as strong Republicans, 43% as weak Republicans, and 5% as Republican-leaning independents. The sample is less racially diverse (95% white) than Study 2, which was not pre-screened on party identification. However, we still see diversity in other demographics. For instance, the sample is slightly more female (51%) than male (49%) and more diverse by age than respondents in Study 2.

Procedure

The self-affirmation treatment and control conditions are identical to those in Study 2. Participants then viewed either a graph or text describing surface temperature trends, or a control condition.

Information treatments

Graph treatment

Now we would like to turn to a different topic.

Below is a graph showing changes in average global surface temperatures since 1940. Please take a moment to study it before proceeding. (Note: A change of 1 degree Celsius = 1.8 degrees Fahrenheit.)
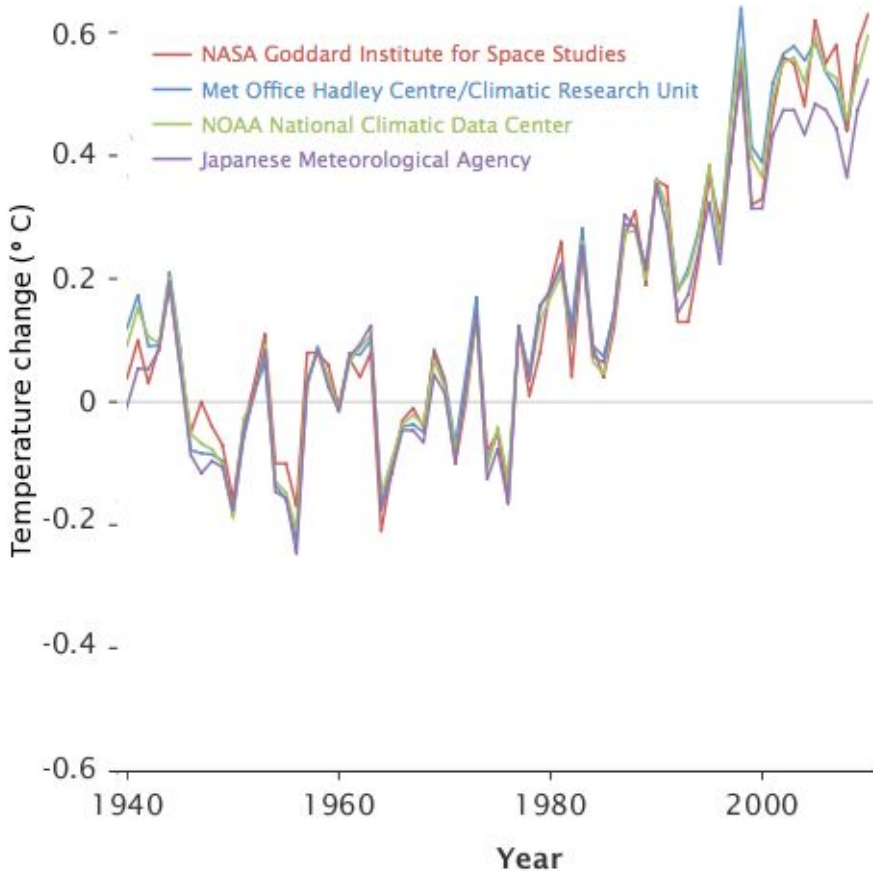
Text treatment

Now we would like to turn to a different topic.

Below is information about changes in average global surface temperatures since 1940. Please take a moment to study it before proceeding. (Note: A change of 1 degree Celsius = 1.8 degrees Fahrenheit.)

Groups of scientists from several major institutions — NASA's Goddard Institute for Space Studies, the National Oceanic and Atmospheric Administration's National Climatic Data Center, the Japanese Meteorological Agency and the Met Office Hadley Centre in the United Kingdom — tally data collected by temperature monitoring stations spread around the world. All four records show peaks and valleys that vary in virtual sync with each other. They each show an increase in average global surface temperatures of approximately 0.5 degrees Celsius over the last three decades. Data from each source also indicate that the last decade is the warmest since 1940.

Measures

Dependent variables

In this study, we measure respondents' perceptions of global temperature change as well as their more general beliefs about global warming, a more politically salient topic where people might be more prone

to motivated reasoning. The first outcome measure, Temperature change, asks if average global surface temperatures have gone up, stayed about the same, or gone down in the last 30 years. Using branching follow-ups, we construct a five- point Likert scale ranging from "Gone down a lot" to "Gone up a lot" where higher values indicate greater misperceptions (temperatures decreased significantly). Our second dependent variable, Global warming, asks respondents whether they believe global warming is a theory that has not yet been proven, a proven fact caused mostly by natural changes that have nothing to do with emissions from cars and industrial facilities, or a proven fact mostly caused by emissions from cars and industrial facilities. We ask this question before and after the experimental manipulations (the pre-treatment question is a control variable in analyses below). Both variables are coded so that higher values represent more misinformed views.

Moderator: Strength of party affiliation (2-pt.)

Team F

Hypotheses:

H1: Self-Affirmation Will Mitigate Belief Superiority

People exposed to a self-affirmation intervention will be less likely than those in a control condition to report that their beliefs on immigration are superior (aka, that those beliefs are more correct than alternatives).

H2: Self-Affirmation Will Mitigate Belief Extremity

People exposed to a self-affirmation intervention (vs. control) will also report less extreme beliefs on immigration.

H3. Self-Affirmation Effects Will Be Stronger Among Strong Partisans than Weak Partisans

The magnitude of the effects of the self-affirmation intervention on belief superiority and extremity will be greater for participants who have stronger partisan beliefs than those with weaker beliefs.

Design

This was a two-condition between-subjects survey experiment. Respondents were randomly assigned to either a self-affirmation condition in which they were asked to recall examples of their most highly cherished characteristic or a control condition.

Sample

Participants were recruited from Amazon Mechanical Turk. This dataset includes 400 participants in the Control (n = 219) and Self-Affirmation (n = 181) conditions.

Procedure

Participants were told at the outset that this was a study about "the nature of attitudes and beliefs about a variety of political topics in the United States." Participants provided responses to demographics, moderators, the self-affirmation exercise, dependent variables, an attention check, and a quality check.

For Control, participants were asked to write down as many types of automobiles in the free-entry space as they could, and the Qualtrics page was time-locked for three minutes before they could move on. For Self-Affirmation, participants were asked to rank 11 areas of values/characteristics about themselves (all available in dataset), and then to describe three personal experiences in which they exhibited the value/characteristic that they ranked as most important.

Measures

Dependent measures:

Belief extremity was computed by squaring the centered version of a 7-pt. immigration belief measure (M = 3.06, SD = 3.59). This immigration belief measures asked participants to indicate

their agreement with the following statement: "The government should do more to secure U.S. borders to halt the flow of undocumented immigrants."

Belief superiority was captured by asking, "How much more correct are your views on immigration than other beliefs about this issue?" Participants responded to both measures using a 5-point scale (1 = *no more correct than other viewpoints*; 5 = *totally correct – mine is the only correct view*; M = 2.34, SD = 1.24).

Moderator:

Strength of partisanship (3-pt.)

Team G

Research Question:

RQ1. Does self-affirmation reduce affective polarization?

Design

2 cell between-subjects survey experiment. One manipulation randomly assigned respondents to an affirmation condition in which they were asked to recall an experience in which a self-chosen value played an important role in their life (Affirmation) or a control condition.

Sample

349 participants (56% male, mean age 35) were recruited through Amazon's Mechanical Turk on August 1-2 2016.

Procedure

Value essay with control (where participants write about why the value might be important to someone else). It is very similar to the one used by Cohen, Aronson and Steele (2000) in their third study.

Measures

Dependent variables

To measure affective polarization, two different measures were used. The first is via 100-pt. feeling thermometer attitudes towards own party and its presidential candidate and feeling thermometer attitudes toward other party and its presidential candidate. These two difference scores (between parties (M 41.77, SD = 29.72) and candidates (M = 41.83, SD = 37.45)) were averaged. (alpha = .68)

The second approach used two items measuring intolerance towards party identifiers from opposing party. The first item was "Although I am a [Republican], I think that many [Democrats] have good reasons for holding the political views that they do", on a 7-pt. Likert scale, rescaled to range from 0-1, M = .52, SD= .26). The second item was "On average, [Republicans] are less informed about society and politics than [Democrats]" also on a 7-pt. Likert scale, rescaled to range from 0-1, M = .59, SD= .27).

Moderator

Strength of partisanship (3-pt.)

Team H

Hypotheses and Research Question:

H1. The expectation is that self-affirmation will reduce message derogation toward the counter-attitudinal article, thus narrowing the evaluation gap between pro- and counter-attitudinal articles.

RQ1. The relevant vs. irrelevant self-affirmation manipulation was considered an open research question. It is possible that the relevant self-affirmation (by priming political values) will exacerbate, rather than reduce, biased processing. But with the lack of clarity in the literature regarding related vs. unrelated self-affirmation, I am not comfortable enough to advance a firm hypothesis.

Design:

3 (Affirmation: control vs. irrelevant vs. relevant) X 2 (article type: real vs. hoax) factorial design.

Sample: A convenience sample of the general public recruited by undergraduate students in a research methods class (N = 455). Participants completed study online using SurveyMonkey. No compensation was provided. Data were collected in 2013.

Procedures:

Study began with an affirmation task (essay writing in response to two short prompts – why something is important or good and describe an experience with it)

- Control condition wrote about a fruit that is ranked third on a list of 5 (apple, banana, etc.)

- Irrelevant condition wrote about top-ranked positive personal trait out of 5 (eg kindness, honesty)

- Relevant condition wrote about a top-ranked social political value out of 5 (social equality, gay rights, right to bear arms, etc.)

After self-affirmation, participants were randomly assigned to read one of two news articles

- Climate change is real and should be addressed now

- Facts and hype about climate change (essentially suggesting climate change is a hoax)

After reading the article, participants rated the article on a number of dimensions, including credibility, whether it exaggerated things, and how much they liked it.

Measures

Dependent variables
The primary dependent variable is a scale of 16 7-pt Likert news evaluation items (M = 3.83, SD = 1.03, alpha = .84). This composite scale is the average of liking (1 item; M = 3.80, SD = 1.38), a credibility scale (7 items; M = 3.77, SD = 1.11, alpha = .84) and a perceived message quality scale (8 items; M = 3.91, SD = 1.02, alpha = .85).

Moderator

Party (3 pt.: Republican, Democrat, Independent).

Appendix 2. Regression Tables

Team A - Conspiracy beliefs

	Liberal conspiracy theory beliefs				
	B	Robust SE	p	95% CI	
Republican	-0.11	0.01	0.000	-0.13	-0.09
Self-Affirmation	0.00	0.01	0.729	-0.02	0.01
Affirmation x Republican	0.02	0.01	0.083	0.00	0.05
Constant	0.48	0.01	0.000	0.47	0.49
N					3796
R2					0.06

	Conservative conspiracy theory beliefs				
Republican	0.22	0.01	0.000	0.20	0.24
Self-Affirmation	0.01	0.01	0.087	0.00	0.03
Affirmation x Republican	0.01	0.01	0.404	-0.01	0.03
Constant	0.29	0.00	0.000	0.28	0.29
N					3797
R2					0.27

Team B- Climate change attitudes

	Climate change attitudes				
	B	Robust SE	p	95% CI	
Self-Affirmation	0.02	0.04	0.598	-0.05	0.09
Ideology	-0.11	0.01	0.000	-0.13	-0.08
Affirmation x ideology	-0.03	0.02	0.180	-0.07	0.01
Constant	0.87	0.02	0.000	0.82	0.92
N					696
R2					0.19

Team C- Affective polarization

	Affective polarization (FT)				
	B	Robust SE	p	95% CI	
Self-Affirmation	0.02	0.02	0.458	-0.03	0.06
Strength of partisanship	0.10	0.01	0.000	0.09	0.11
Affirmation X strength	-0.01	0.01	0.386	-0.03	0.01
Constant	0.49	0.01	0.000	0.47	0.52
N					1334
R2					0.23

			Discussion polarization		
Self-Affirmation	0.04	0.02	0.132	-0.01	0.08
Strength of partisanship	0.08	0.01	0.000	0.06	0.10
Affirmation X strength	-0.02	0.01	0.050	-0.05	0.00
Constant	0.48	0.02	0.000	0.45	0.51
N					1338
R2					0.09

			Outparty danger		
Self-Affirmation	0.05	0.03	0.136	-0.02	0.11
Strength of partisanship	0.08	0.01	0.000	0.06	0.10
Affirmation X strength	-0.03	0.02	0.100	-0.06	0.00
Constant	0.59	0.02	0.000	0.54	0.63
N					1345
R2					0.05

			Social distance		
Self-Affirmation	-0.05	0.03	0.121	-0.12	0.01
Strength of partisanship	0.02	0.01	0.133	-0.01	0.04
Affirmation X strength	0.02	0.02	0.237	-0.01	0.05
Constant	0.23	0.02	0.000	0.18	0.27
N					1333
R2					0.01

Team D- Factual beliefs

			Study 1: Party-aligned blame		
	B	Robust SE	p	95% CI	
Self-Affirmation	-0.05	0.04	0.139	-0.12	0.02
Strength of partisanship	0.16	0.07	0.034	0.01	0.30
Affirmation X strength	-0.04	0.09	0.650	-0.22	0.14
Constant	0.40	0.02	0.000	0.36	0.45
N					130
R2					0.12

			Study 2: Party-aligned risk perception		
Self-Affirmation	0.00	0.03	0.943	-0.06	0.05
Strength of partisanship	0.10	0.03	0.000	0.04	0.15
Affirmation X strength	0.00	0.04	0.927	-0.08	0.08

Constant	0.54	0.02	0.000	0.50	0.59
N					274
R2					0.08

Team E - Misperceptions

	Study 1: Attacks after troop surge				
	B	Robust SE	p	95% CI	
Self-Affirmation	0.00	0.04	0.928	-0.08	0.09
Iraq withdrawl	0.11	0.02	0.000	0.08	0.15
Affirmation x withdrawal	0.00	0.02	0.879	-0.04	0.05
Constant	-0.06	0.03	0.027	-0.12	-0.01
N					525
R2					0.13

	Study 2: Jobs trend				
	B	Robust SE	p	95% CI	
Self-Affirmation	-0.02	0.05	0.656	-0.13	0.08
Economy import	0.03	0.03	0.280	-0.03	0.09
Obama disapproval	-0.06	0.03	0.053	-0.12	0.00
Affirmation x economy	0.01	0.06	0.802	-0.10	0.12
Affirmation x disapproval	0.02	0.06	0.764	-0.10	0.13
Constant	0.76	0.03	0.000	0.70	0.82
N					247
R2					0.03

	Study 3: Global warming (text)				
	B	Robust SE	p	95% CI	
Self-Affirmation	-0.03	0.13	0.795	-0.29	0.22
Strong Republican	0.13	0.11	0.241	-0.09	0.34
Affirmation x strong Republican	-0.05	0.17	0.756	-0.38	0.28
Constant	0.58	0.08	0.000	0.43	0.73
N					122
R2					0.02

	Study 3: Global warming (graph)				
Self-Affirmation	0.14	0.11	0.214	-0.08	0.37
Strong Republican	0.16	0.11	0.150	-0.06	0.37

Affirmation x strong Republican	-0.31	0.15	0.044	-0.62	-0.01
Constant	0.48	0.08	0.000	0.31	0.65
N					122
R2					0.03

Study 3: Temperature trend (text)					
Self-Affirmation	-0.03	0.06	0.566	-0.15	0.08
Strong Republican	0.02	0.05	0.607	-0.07	0.12
Affirmation x strong Republican	-0.03	0.08	0.713	-0.19	0.13
Constant	0.41	0.03	0.000	0.35	0.47
N					122
R2					0.01

Study 3: Temperature trend (graph)					
Self-Affirmation	0.05	0.06	0.438	-0.07	0.16
Strong Republican	0.01	0.06	0.852	-0.10	0.12
Affirmation x strong Republican	-0.06	0.08	0.468	-0.23	0.10
Constant	0.23	0.04	0.000	0.15	0.31
N					121
R2					0.01

Team F - Immigration belief superiority

	Belief superiority				
	B	Robust SE	p	95% CI	
Self-Affirmation	-0.02	0.06	0.715	-0.15	0.10
Strength of partisanship	0.03	0.03	0.267	-0.03	0.09
Affirmation X strength	-0.01	0.04	0.780	-0.09	0.07
Constant	0.31	0.05	0.000	0.21	0.40
N					393
R2					0.01

	Belief extremity				
Self-Affirmation	-0.01	0.05	0.829	-0.12	0.09
Strength of partisanship	0.01	0.02	0.694	-0.03	0.05
Affirmation X strength	0.00	0.03	0.883	-0.07	0.06
Constant	0.20	0.03	0.000	0.13	0.27
N					393
R2					0.00

Team G - Affective polarization

	Affective polarization (FTs)				
	B	Robust SE	p	95% CI	
Self-Affirmation	0.05	0.12	0.678	-0.19	0.28
Strength of partisanship	0.16	0.03	0.000	0.09	0.22
Affirmation X strength	-0.02	0.05	0.610	-0.12	0.07
Constant	0.31	0.08	0.000	0.15	0.47
N					204
R2					0.15

	Outparty intolerance (item 1))				
Self-Affirmation	-0.18	0.18	0.331	-0.54	0.18
Strength of partisanship	-0.15	0.06	0.007	-0.26	-0.04
Affirmation X strength	0.08	0.08	0.347	-0.08	0.23
Constant	0.88	0.13	0.000	0.63	1.14
N					204
R2					0.05

	Outparty intolerance (item 2)				
Self-Affirmation	-0.02	0.19	0.934	-0.39	0.36
Strength of partisanship	0.10	0.05	0.074	-0.01	0.21
Affirmation X strength	0.00	0.08	0.983	-0.16	0.16
Constant	0.37	0.13	0.004	0.12	0.62
N					203
R2					0.03

Team H - News evaluations

	News evaluations (Climate change is a hoax)				
	B	Robust SE	p	95% CI	
Self-Affirmation	-0.02	0.07	0.826	-0.16	0.13
Political Self-Affirmation	-0.04	0.07	0.563	-0.17	0.09
Party	0.00	0.03	0.916	-0.05	0.05
Affirmation x party	0.01	0.03	0.874	-0.06	0.07
Political affirmation x party	0.02	0.03	0.594	-0.05	0.09
Constant	0.48	0.05	0.000	0.38	0.57
N					235

R2					0.00

	News evaluations (Climate change is real)				
Self-Affirmation	0.03	0.07	0.690	-0.11	0.16
Political Self-Affirmation	-0.06	0.09	0.524	-0.25	0.13
Party	-0.03	0.02	0.210	-0.08	0.02
Affirmation x party	0.01	0.03	0.876	-0.06	0.07
Political affirmation x party	0.02	0.04	0.667	-0.06	0.10
Constant	0.49	0.05	0.000	0.39	0.60
N					220
R2					0.03

Reanalysis of affirmation effects across information treatments

Team E – Misperceptions

Study 1: Attacks after troop surge

	B	Robust SE	p	95% CI	
Self-affirmation	-0.02	0.04	0.659	-0.11	0.07
Iraq withdrawal	0.13	0.01	0.000	0.11	0.16
Affirmation x withdrawal	-0.02	0.02	0.420	-0.06	0.02
Graph	-0.09	0.02	0.000	-0.14	-0.05
Affirmation X graph	0.06	0.05	0.275	-0.05	0.17
Affirmation X graph X withdrawal	0.00	0.03	0.882	-0.05	0.05
Constant	-0.01	0.03	0.843	-0.06	0.05
N					987
R2					0.16

Study 2: Jobs trend					
	B	Robust SE	p	95% CI	
Self-affirmation	-0.01	0.05	0.785	-0.10	0.08
Graph	0.29	0.03	0.000	0.24	0.34
Economy import	-0.02	0.03	0.439	-0.08	0.03
Obama disapproval	-0.12	0.03	0.000	-0.18	-0.07
Affirmation X economy	-0.03	0.05	0.605	-0.13	0.08
Affirmation X disapproval	0.08	0.05	0.162	-0.03	0.18
Affirmation X graph	-0.06	0.06	0.301	-0.19	0.06
Affirmation X graph X economy	0.10	0.06	0.141	-0.03	0.22
Affirmation X graph X disapproval	0.01	0.07	0.912	-0.13	0.14
Constant	0.53	0.03	0.000	0.47	0.58
N					471
R2					0.31

Study 3: Temperature trend					
	B	Robust SE	p	95% CI	
Self-affirmation	-0.08	0.06	0.157	-0.19	0.03
Strong Republican	-0.01	0.03	0.794	-0.08	0.06
Affirmation X strong Republican	0.16	0.07	0.031	0.01	0.30
Graph	-0.11	0.02	0.000	-0.15	-0.07
Text	-0.04	0.04	0.393	-0.12	0.05
Affirmation X text	0.03	0.08	0.671	-0.12	0.19
Affirmation X graph	0.06	0.04	0.125	-0.02	0.13
Affirmation X text x strong Rep.	-0.15	0.09	0.091	-0.33	0.02
Affirmation X graph x strong Rep.	-0.10	0.04	0.025	-0.19	-0.01
Constant	0.46	0.04	0.000	0.39	0.53
N					357
R2					0.14

	Study 3: Global warming				
Self-affirmation	-0.13	0.10	0.216	-0.33	0.08
Strong Republican	0.07	0.06	0.274	-0.05	0.19
Affirmation X strong Republican	0.15	0.12	0.238	-0.10	0.39
Graph	-0.07	0.04	0.065	-0.14	0.00
Text	-0.06	0.07	0.417	-0.20	0.08
Affirmation X text	0.07	0.15	0.653	-0.23	0.37
Affirmation X graph	0.11	0.07	0.108	-0.02	0.25
Affirmation X text x strong Rep.	-0.14	0.17	0.409	-0.47	0.19
Affirmation X graph x strong Rep.	-0.18	0.08	0.017	-0.33	-0.03
Constant	0.66	0.06	0.000	0.56	0.77
N					358
R2					0.03

Team H– News evaluations

	News evaluations				
	B	Robust SE	p	95% CI	
Self-affirmation	0.07	0.09	0.463	-0.11	0.24
Message (CC real vs hoax)	-0.07	0.04	0.056	-0.14	0.00
Political affirmation	0.01	0.04	0.848	-0.06	0.08
Self-affirmation X message	-0.02	0.06	0.671	-0.14	0.09
Constant	0.56	0.06	0.000	0.43	0.68
N					129
R2					0.07

Note: Only republican respondents included in model to examine whether affirmation reduces rejection of climate change is real message.

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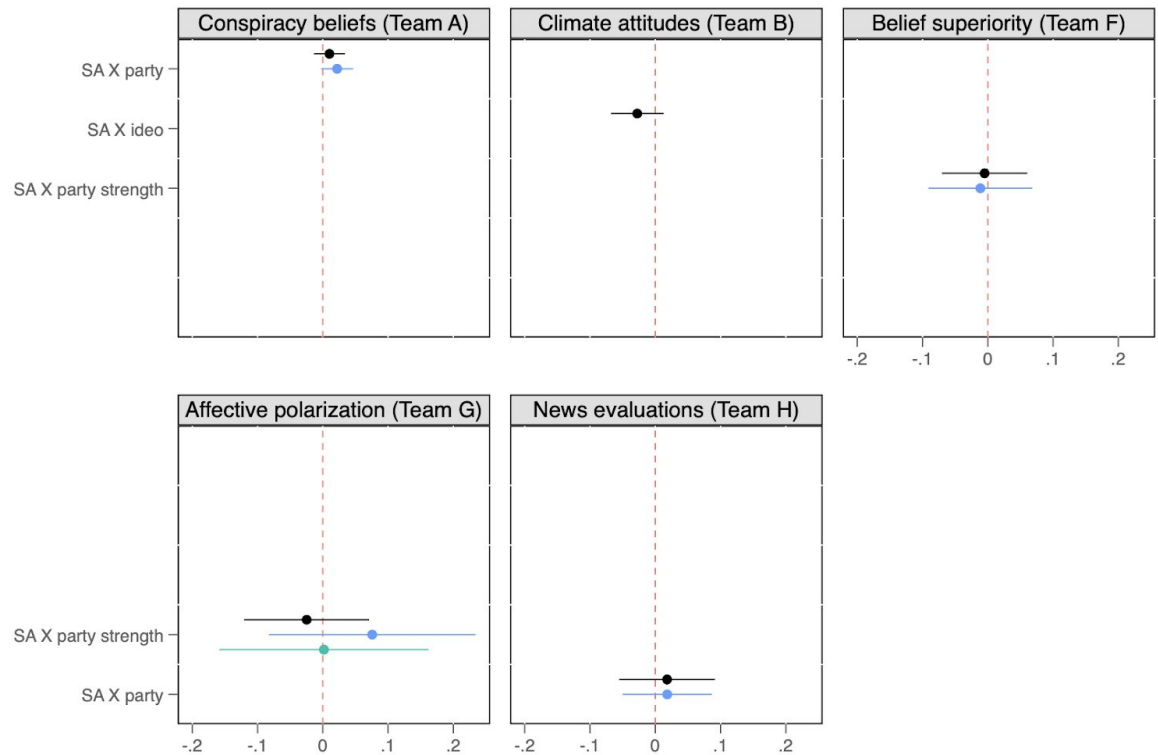
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