

Positive beliefs about cross-partisan empathy can strengthen Americans' support for democracy

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Abstract

Undemocratic practices, such as voter suppression and election interference, threaten democracies worldwide. Across four studies ($N = 4,350$), we find that informational and motivational factors drive Americans' support for such practices. Partisans drastically overestimate how much opponents support undemocratic practices, which decreases people's willingness to defend democracy themselves (S1–S2). One remedy for this dynamic is to inform people about the extent to which their rivals actually support democracy, but in polarized contexts, people are incurious about the true beliefs of outpartisans. To address this, we test a new method for improving democratic attitudes—changing beliefs about cross-party empathy. Empathizing across disagreements can improve connections and boost persuasion. When people learn about these valued consequences of empathic engagement, their curiosity about outpartisans increases (S3), and they choose to learn about opponents' support for democracy, which reduces their own support for undemocratic practices and politicians (S4). Our findings suggest that fostering support for democracy requires not just informational strategies but also motivational ones. The power of our combined approach comes in that—instead of presenting people with information about outpartisans—it induces them to seek out that information themselves. Together, these results highlight how cross-party empathy beliefs can increase people's curiosity about those they disagree with and disrupt processes of political escalation.

Keywords: politics, empathy, conflict, democracy, motivation

Significance Statement

In polarized contexts, people avoid learning more about outpartisans and tend to overestimate how undemocratic their perceived rivals are. Across four studies, we find that teaching people about the utility of cross-partisan empathy—the value of understanding and sharing outpartisans' internal states—increases their curiosity about outpartisans' democratic views. Learning about these views strengthens people's own commitment to democratic principles, even when these principles conflict with partisan goals.

Introduction

The Peloponnesian War lasted 27 years, killed hundreds of thousands of people, and was among the most destructive conflicts in ancient history. Yet, according to historians, neither Sparta nor Athens wanted to start it (1). As hostility grew between their allies—Corinth and Corcyra—both Sparta and Athens became convinced that the other side would soon attack. Growing mutual fear spurred each side to attack preemptively, producing the war they feared in the first place. Thomas Hobbes proposed that contexts of mutual distrust, such as the ones preceding the Peloponnesian War, can lead both parties to become trapped in unwanted, yet escalating, conflict—i.e. a “Hobbesian Trap” (2).

Nowadays, Democrats and Republicans also appear ensnared in a Hobbesian Trap. Both sides believe that outpartisans are more

hateful (3, 4), unscrupulous, and violent (5) than they actually are. These exaggerated perceptions create a breeding ground for preemptive retaliation. Here, we focus on one particularly corrosive consequence: people's reduced commitment to democracy.

Voters are reluctant to uphold democratic principles—such as supporting fair elections and civil liberties—when these principles conflict with partisan goals. In one study, researchers asked participants about their willingness to either vote for an inparty politician who engaged in undemocratic practices or vote for an outparty politician they knew nothing about. Just 13% of participants chose to punish the inparty politician by voting for the outparty candidate (6).

Despite voters' tolerance of undemocratic politicians, Americans are still more supportive of democracy than their political

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opponents realize. Recent work suggests that people dramatically exaggerate the undemocratic leanings of outparty voters (7, 8) and that correcting these misperceptions is one of the most successful strategies to improve people's own support for democracy (9). In other words, people are willing to forgo democratic principles when they believe the other side already has. As such, providing information about outpartisans' actual level of support for democracy strengthens people's own commitment to it.

However, corrective information is only useful if people encounter it. Yet, in polarized contexts, they go out of their way to avoid it (10). Partisans engage in a range of cognitive processes and behaviors to preserve their preexisting beliefs and maintain derogatory views of the outparty (11, 12). In this context, people simply may not want to engage with interventions that challenge their worldview. Indeed, partisans selectively evade belief-incongruent content and will even lose money to avoid learning about outpartisans' views (12).

In this light, strengthening voters' support for democracy is not merely an informational challenge but also a motivational one. Thus far, empirical work in this space has not explicitly grappled with this motivational problem (10). We start addressing this gap by proposing a falsifiable model of escalation that takes into account people's motivations to engage with information about the other side. Specifically, we propose that people's incuriosity about outpartisans contributes to a potentially self-escalating process: partisans are disinclined to learn about rivals' actual views, which leads them to greatly underestimate the extent to which their opponents support democracy, eroding their own support for democracy in turn (Fig. 1).

Here, we provide evidence for this process and test a new way of disrupting it—by changing people's beliefs about the value of empathizing across political differences. Empathy—i.e. the ability to understand and share someone else's internal states^a—drives prosociality (15) and reduces outgroup hostility (16, 17). Outparty empathy also has strategic value, rendering people more persuasive advocates of their own views (18, 19). Despite these benefits, people tend to avoid empathy due to expected costs (20) and are especially reluctant to empathize with outgroup members (21).

As such, teaching people about the strategic and prosocial utility of empathizing across group lines could lead to more approach-oriented behaviors—such as greater curiosity to learn about outgroup members—and consequently, elicit greater accuracy in representing outgroup members' views and even lower support for dishonest practices that provide ingroup gain. We apply this reasoning to the US partisan context, proposing three main hypotheses (Fig. 1). First, we hypothesize that informing people about the utility of cross-party empathy will increase their curiosity about outpartisans' democratic views (Hypothesis 1). Second, we hypothesize that greater curiosity will lead people to seek out information about outpartisans' support for democracy, reducing misperceptions (Hypothesis 2). Lastly, we hypothesize that learning about outpartisans' support for democracy will increase people's opposition to undemocratic practices and politicians (Hypothesis 3).

We test these hypotheses across four studies (total $N = 4,350$). In study 1, we examine the associations between the constructs in our proposed model (Fig. 1) in a nationally representative non-probability survey of US partisans. In study 2, we test Hypothesis 1 by experimentally increasing people's positive beliefs about cross-partisan empathy and measuring their cross-party curiosity. In study 3, we test Hypothesis 3 by randomly assigning partisans to either learn more about outpartisans' support for democracy

(misperception correction condition) or not (control condition) and then measuring their own support for democracy. Lastly, in a large preregistered experiment (study 4), we test the three steps in our proposed model together by first shifting people's cross-party empathy beliefs and then giving them the opportunity to learn more about outpartisans' democratic attitudes before measuring how undemocratic they think outpartisans are, and the extent to which they themselves support undemocratic practices and politicians.

Study 1

In this study, we estimated cross-sectional associations between the different components of our proposed model. We recruited a nonprobability sample ($N = 851$) that was representative of the population of US Democrats and Republicans on demographic benchmarks (e.g. race, gender, and education) from a panel maintained by Bovitz Inc. (see [Supplementary material](#) for more information about this sample provider). In an online survey, we measured our four variables of interest: participants' beliefs about cross-party empathy (BCPE; adapted from (19); e.g. "to what extent do you feel that empathizing with [outpartisans] would help you discover areas of common ground?"), their curiosity about opposing views, their perceptions of outpartisans' undemocratic beliefs, and their own support for undemocratic practices adapted from (10); see Table 1 for example items. To maximize ecological validity, all our undemocratic support measures were adapted from real-world practices that have been used by politicians in the United States to gain undue inparty advantages (6).

Results

We found that Democrats and Republicans scored, on average, below the midpoint of the scale on support for undemocratic practices (overall $M = 34.78$, $SD = 23.38$), $t(850) = 43.4$, $P < 0.001$. Republicans supported these practices ($M = 38.60$, $SD = 24.07$) significantly more than Democrats did ($M = 31.15$, $SD = 22.13$), $t(834) = 4.70$, $P < 0.001$.

As shown in Fig. 2A, both groups of partisans greatly overestimated how undemocratic outpartisans were. Democrats' average perceptions of Republicans' support for undemocratic practices ($M = 69.88$, $SD = 24.41$) were 81% greater than Republicans' actual attitudes, $M_{diff} = 31.28$; $t(848) = 18.82$, $P < 0.001$. Similarly, Republicans' average views of Democrats ($M = 64.38$, $SD = 25.16$) were 107% greater than Democrats' actual average support for undemocratic practices, $M_{diff} = 37.23$; $t(823) = 20.42$, $P < 0.001$.

In fact, people's estimates of the average outparty voter's undemocratic beliefs were higher than those expressed even among people who identified as strong partisans. Democrats' estimates of the average Republican undemocratic views greatly exceeded even strong Republicans' actual attitudes ($M_{diff} = 29.36$; $t(601) = 15.70$, $P < 0.001$), and Republicans' views of the average Democrat also exceeded those of strong Democrats: $M_{diff} = 32.91$; $t(653) = 17.97$, $P < 0.001$.

We calculated the difference between participants' estimates of outpartisans' undemocratic beliefs and each party's average support for undemocratic practices to create a misperception measure. Those with greater BCPE scores had lower misperceptions, $b = -0.56$, $SE = 0.05$, $t(844) = -11.96$, $P < 0.001$ (Fig. 2B). The differences in accuracy were substantial. Whereas people with higher BCPE scores (+1 SD) overestimated outpartisans' support for undemocratic practices by an average of 18 points on a 101-point scale, those with lower BCPE scores (−1 SD) overestimated it by 47 points.

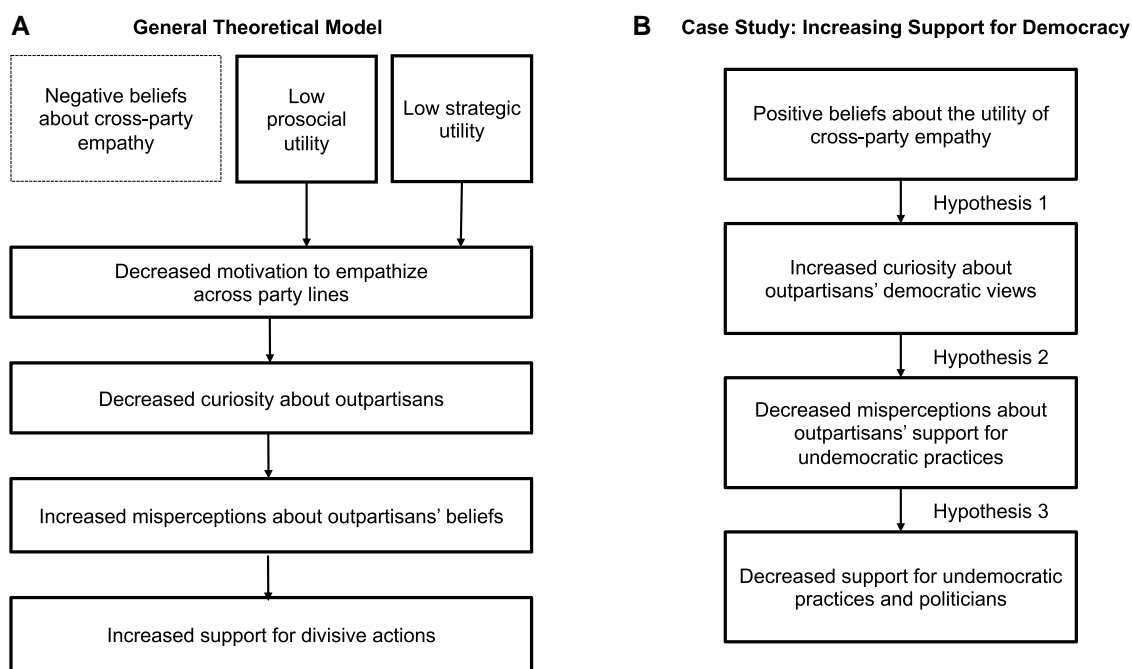


Fig. 1. A) A schematic rendering of a model escalation that exacerbates support for divisive actions is depicted. B) A simplified intervention model applied to improving people's support for democracy is depicted.

We also found correlational evidence for our proposed model. Consistent with Hypothesis 1, greater BCPE scores were associated with greater curiosity, $b = 0.28$, $SE = 0.06$, $t(844) = 4.64$, $P < 0.001$. Consistent with Hypothesis 2, greater curiosity was associated with decreased *misperceptions*, $b = -0.08$, $SE = 0.03$, $t(844) = -2.85$, $P = 0.005$. Consistent with Hypothesis 3, stronger *misperceptions* were associated with one's own *support for undemocratic practices* (Hypothesis 3), $b = 0.07$, $SE = 0.03$, $t(844) = 2.44$, $P = 0.02$.

Unexpectedly, the strength of association between *misperceptions* and one's own *support for undemocratic practices* depended on participants' party affiliation; interaction $b = 0.27$, $SE = 0.06$, $t(842) = 4.34$, $P < 0.001$. Republicans' overestimates of Democrats' undemocratic beliefs positively predicted their own support for undemocratic practices $b = 0.22$, $SE = 0.05$, $t(408) = 4.75$, $P < 0.001$, but Democrats' overestimates of Republicans' undemocratic leanings were not significantly associated with their own support for these practices, $b = -0.04$, $SE = 0.04$, $t(429) = -1.00$, $P = 0.32$. Recent correlational work has found similar asymmetric associations between *misperceptions* and support for democracy for Democrats and Republicans (8) (see [Supplementary material](#) for more information on this effect).

Together, these findings offer some correlational support for our model and, along with other emerging research (7, 8), suggest that Americans hold exaggerated views of the undemocratic leanings of outpartisans. One possibility is that our misperception finding is driven by participants trying to appear more supportive of democracy than they really are. In other words, people's perceptions of outpartisans could be accurate, whereas their self-reports could be misleading. However, there are several reasons to doubt that such self-report biases underlie these "perception gaps". First, there is not strong evidence that people are reluctant to openly support undemocratic strategies. In fact, in one study, only about 1 in 10 participants reported preferring to vote for a hypothetical outparty candidate over a clearly undemocratic in-party candidate (6). Second, in our sample, participants' average support for undemocratic practices ($M = 34.78$) is closer to the

midpoint of the scale—i.e. 50-points—than to the floor of the scale—i.e. "0-points = *strongly disagree*", suggesting that people find it acceptable to report at least moderate endorsement of undemocratic practices that provide ingroup gains. Third, the perception gap shown here is very large (94% overestimation on average). People's estimates drastically exceeded even strong partisans' support for undemocratic practices. Thus, even if participants shifted their self-reports to be more desirable, it is unlikely that it fully accounts for the substantial overestimates we find here.

An important limitation of study 1 is that all tests of our hypotheses are correlational, making it difficult to rule out various spurious associations and reverse causality. In the studies that follow, we use experiments to test the causal links between these phenomena.

Study 2

In study 2, we conducted an online experiment with 588 US partisans (55% Democrats, 45% Republicans) recruited via Cloud Research, an online panel that curates a large, attentive sample of Amazon Mechanical Turk (MTurk) workers (22).

Participants were randomly assigned to either read a text about the value of empathizing across party lines (high utility condition) or received no text to read (control condition). The high utility condition underscored that empathizing across party lines has strategic benefits, such as increasing one's likeability and persuasion. For example,

"Recent scientific work suggests that empathizing across differences can not only help us better understand people's perspectives, but also make us more convincing advocates of our own beliefs."

The text also included a smaller section on prosocial reasons for empathizing, such as better understanding outpartisans and forging mutually beneficial solutions. The manipulation was

Table 1. Questionnaires for studies 1–4.

Outcome variable	Example item
Beliefs about cross-party empathy (BCPE)	To what extent do you feel that empathizing with (outpartisans) help better understand their point of view?
Curiosity about opposing views (measured in study 1)	How curious would you be to learn more about someone who disagreed with you on abortion?
Curiosity to learn more about outpartisans (measured in studies 2 and 4)	How curious are you to learn more about (outparty) voters' perspectives on political issues?
Interest in reading outparty report	How interested would you be to read a report on (outpartisans') support for democracy?
Desire to talk to an outpartisan	How interested would you be to talk to a (inparty/outparty) voter in a future study? ^a
Outpartisans' undemocratic beliefs	(Outpartisan) voters support redrawing districts to maximize the (outparty) potential to win elections, even if it may be technically illegal ^b
Support for undemocratic practices	I support redrawing districts to maximize the (inparty) potential to win elections, even if it may be technically illegal
Support for undemocratic politicians	How likely would you be to vote for candidate A if you learned that they support a proposal to reduce the number of polling stations in areas that support the (outparty)?

The first column provides the name of each outcome variable. The second column provides an example item illustrating how each outcome variable was measured. See "Methods" for more information and [Supplementary material](#) for the full scales.

^aWe measured *ingroup bias in conversation partner* as the difference between participants' preference for talking to an inparty vs. outparty voter.

^bWe calculated the difference between participants' *outpartisans' undemocratic beliefs* and each party's average *support for undemocratic practices* from study 1 to create the *misperception* measure.

adapted from prior work (19; see [Supplementary material](#) for full text).^b

After reading the text participants were asked to complete a writing exercise (i.e. "Your task now is to spread the knowledge that empathy can be useful in competitive contexts to [an inparty member] who has never read the text you just did. Please write a compelling message to them explaining why they should try to empathize with people with whom they disagree."). See [Supplementary material](#) for an analysis of these participant-generated messages (Table S1 and Fig. S2). Participants in the control condition were asked to write about their day (i.e. "Reflect on your day yesterday, from the time you woke up to the time you went to bed. Please describe some of the things you did").

As a manipulation check, we next measured participants' BCPE. We then assessed participants' curiosity about rival partisans across three different measures: (i) *interest in learning more about outpartisans*, (ii) *interest in reading an article about opposing partisans' views on democracy*, and (iii) *desire to talk to an outpartisan* (see Table 1 for example items).

Results

As expected, the treatment successfully shifted beliefs in cross-partisan empathy. Compared with the no-treatment control

condition ($M = 56.87$, $SD = 18.23$), the *high utility condition* increased participants' BCPE ($M = 69.07$, $SD = 14.52$), $b = 12.15$, $SE = 1.37$, $t(577) = 8.87$, $P < 0.001$, $d = 0.74$.^c

As shown in Fig. 3, the manipulation also improved people's curiosity about outpartisans, offering support for Hypothesis 1. Compared to participants in the *control condition* ($M = 36.03$, $SD = 29.42$), participants in the *high utility condition* were more curious about outpartisans' perspectives ($M = 45.16$, $SD = 27.26$), $b = 9.12$, $SE = 2.34$, $t(577) = 3.90$, $P < 0.001$, $d = 0.32$.

This represents a 25% increase in curiosity—moving *high utility* (vs. *control*) participants closer to the midpoint of the 101-point scale. In fact, while the modal curiosity levels for participants in the control condition was 0 (i.e. "extremely uncurious"), the mode response for those in the *high utility condition* was 50 (i.e. "moderately curious"). Participants in the *high utility condition* were also more interested in reading an article about outpartisans' support for democracy ($M = 53.43$, $SD = 33.75$) than participants in the control condition ($M = 46.75$, $SD = 33.76$), $b = 6.63$, $SE = 2.77$, $t(577) = 2.39$, $P = 0.02$, $d = 0.20$. Participants in the *high utility condition* exhibited less ingroup bias when asked about their interest in having an outparty (vs. an inparty) conversation partner ($M = 7.68$, $SD = 27.13$) than participants in the control condition ($M = 17.97$, $SD = 30.99$), $b = -10.23$, $SE = 2.41$, $t(577) = -4.25$, $P < 0.001$, $d = 0.35$. None of these effects were significantly moderated by party affiliation.^d

In sum, an intervention that improved people's cross-party empathy beliefs increased their curiosity about outpartisans across three different dependent measures (Fig. 3A). We believe that this increase in curiosity is a likely mechanism by which positive BCPE can lead to more accurate perceptions of outpartisans' democratic views and, ultimately, strengthen people's own support for democracy.

Study 3

We hypothesized that learning about the actual democratic attitudes of outpartisans can diminish people's own support for these practices (Hypothesis 3). In study 3, we experimentally test this claim.

To do so, we developed a novel intervention for correcting outgroup misperceptions.

Thus far, most interventions that correct misperceptions of outpartisans' views rely on presenting people with quantitative data on the actual attitudes of outpartisans (5, 9). For instance, researchers have asked people to estimate outpartisans' support for, and willingness to engage in, partisan violence and then provided them with actual survey data from a representative sample of outpartisans (5).

To make this standard misperception correction intervention even more effective, we build on recent work suggesting that personal narratives can bridge divides better than facts (24). Based on these findings, we supplemented our misperception correction intervention with short qualitative messages from outpartisans describing their views on democracy. To do this, we asked partisans recruited via CloudResearch to write short notes about why they answered the *support for undemocratic practices* measure the way they did (see [Supplementary material](#) for the stimuli collection procedure). Our misperception correction intervention included a sample of these notes together with summary data regarding outpartisans' actual democratic beliefs from study 1 (see [Supplementary material](#) for full intervention materials). To ensure that we picked messages that were representative of partisans' views, we selected notes from respondents whose support

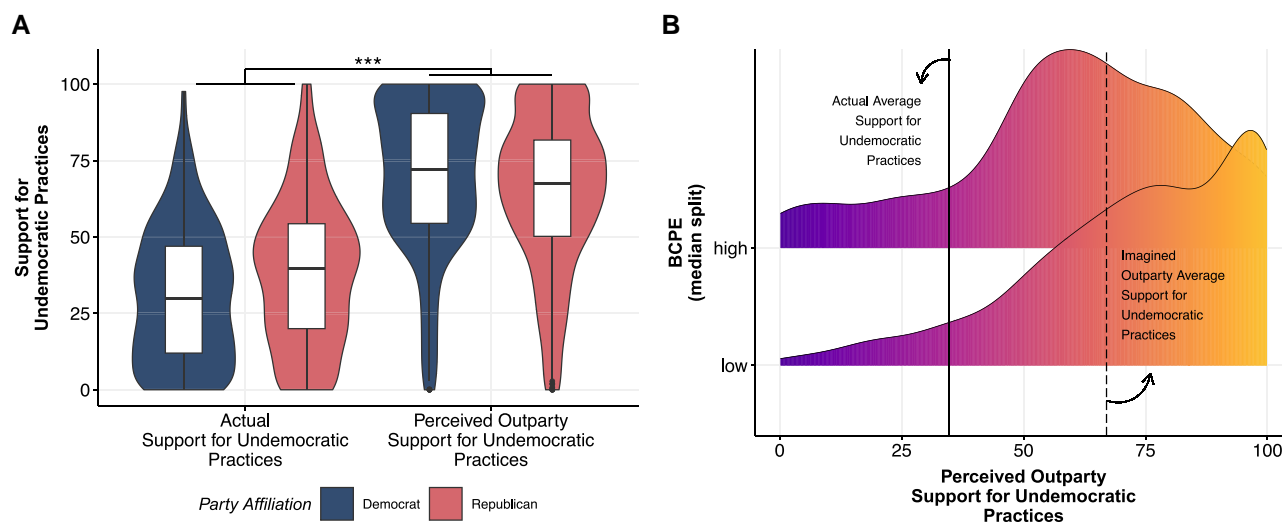


Fig. 2. Participants' support for undemocratic practices and their estimates of outpartisans support for these practices as a function of their own party affiliation and their cross-party empathy beliefs. A) Depicts participants' self-reported support for undemocratic practices on the left and their estimates of outpartisans' support for these practices on the right. The stars denote the significant difference between people's actual support for undemocratic practices and their outparty perceptions. Color in (A) represents participants' party affiliation (i.e. Democrats are shown in blue and Republicans in red). B) Depicts the distribution of people's estimates of outpartisans' undemocratic beliefs as a function of their BCPE levels. For visualization purposes, BCPE levels were binarized into low (i.e. values below the median) and high (i.e. values above the median). The solid line reflects the average support for undemocratic practices and the dashed line reflects the average outpartisans' undemocratic beliefs. The stars denote the significant difference between these two averages. Color in B represents gradient levels of outpartisans' undemocratic beliefs (i.e. lower values are darker, and higher values are lighter). *** $P < 0.001$.

for undemocratic practices was within 1 SD of their party's average (measured in study 1).

We tested this intervention in an online experiment with US partisans ($N = 460$) recruited via Cloud Research (48% Democrat, 52% Republican). Participants filled out the outpartisans' undemocratic beliefs measure from study 1 before being randomly assigned to either the misperception correction intervention described above or a control condition (see [Supplementary material](#) for full text).

Participants then answered the outpartisans' undemocratic beliefs measure a second time, followed by their own support for undemocratic practices. They were also asked to complete a measure of support for undemocratic politicians, another antidemocratic attitude that has important societal consequences (6, 9) (see Table 1 for example items).

Results

Corroborating our study 1 finding, before condition assignment participants were, on average, very inaccurate^e about the extent to which outpartisans are undemocratic (overall inaccuracy $M = 25.74$, $SD = 24.65$). As expected, participants in the misperception correction condition were much less inaccurate in their views about outpartisans posttreatment ($M = 11.28$, $SD = 25.78$) than participants in the neutral condition ($M = 23.32$, $SD = 24.73$), $b = -11.17$, $SE = 2.35$, $t(453) = -4.76$, $P < 0.001$, $d = -0.48$. These results hold when controlling for outpartisans' undemocratic beliefs pre-manipulation, $b = -11.58$, $SE = 1.52$, $t(452) = -7.60$, $P < 0.001$. The interaction between condition and the pretreatment measure of outpartisans' undemocratic beliefs significantly predicted their post-treatment misperceptions, $b = -0.23$, $SE = 0.06$, $t(451) = -3.87$, $P < 0.001$, suggesting that those with more extreme views experienced greater accuracy improvements than those with milder views on outpartisans' undemocratic attitudes (see Fig. S3).

Our results also provide support for Hypothesis 3. Participants in the misperception correction condition supported undemocratic practices less ($M = 16.11$, $SD = 19.98$) than participants in the

neutral condition ($M = 22.49$, $SD = 22.39$), $b = -5.72$, $SE = 1.90$, $t(453) = -3.01$, $P = 0.003$, $d = -0.30$ (Fig. 3). In fact, although very brief, our misperception correction intervention reduced support for undemocratic practices to a similar extent than the most effective intervention tested in a mega-study aimed at strengthening Americans' support for democracy (9) ($d = -0.25$).

Those in the misperception correction condition also supported undemocratic politicians less ($M = 33.28$, $SD = 22.86$) than those in the neutral condition ($M = 38.31$, $SD = 23.46$), $b = -4.42$, $SE = 2.09$, $t(453) = -2.11$, $P = 0.04$, $d = -0.22$ (Fig. 3). We did not find a significant interaction effect for party identification and experimental condition when predicting support for undemocratic practices or undemocratic politicians, suggesting that Republicans and Democrats were similarly moved by the treatment.

Overall, studies 2 and 3 provide support for two steps in our theoretical model. In study 2, we found support for Hypothesis 1: positive cross-party empathy beliefs increased cross-party curiosity. In study 3, we found support for Hypothesis 3: a misperception correction treatment reduced support for undemocratic practices and politicians. However, neither of these studies demonstrates that improving people's cross-party empathy beliefs can increase their curiosity in ways that bolster support for democracy. That is the goal of study 4.

Baseline preferences

In our proposed model of escalation (Fig. 1), we hypothesize that people are unmotivated to learn about outpartisans, which precludes them from correcting their misperceptions. We suggest that shifting empathy beliefs can help people overcome this motivational hurdle. However, empathy is cognitively costly (20). If people are as avoidant of learning about empathy as they are of learning about outpartisans, the applicability of our proposed solution would be limited.

As such, before testing the downstream consequences of BCPE in study 4, we assessed people's baseline preferences in learning

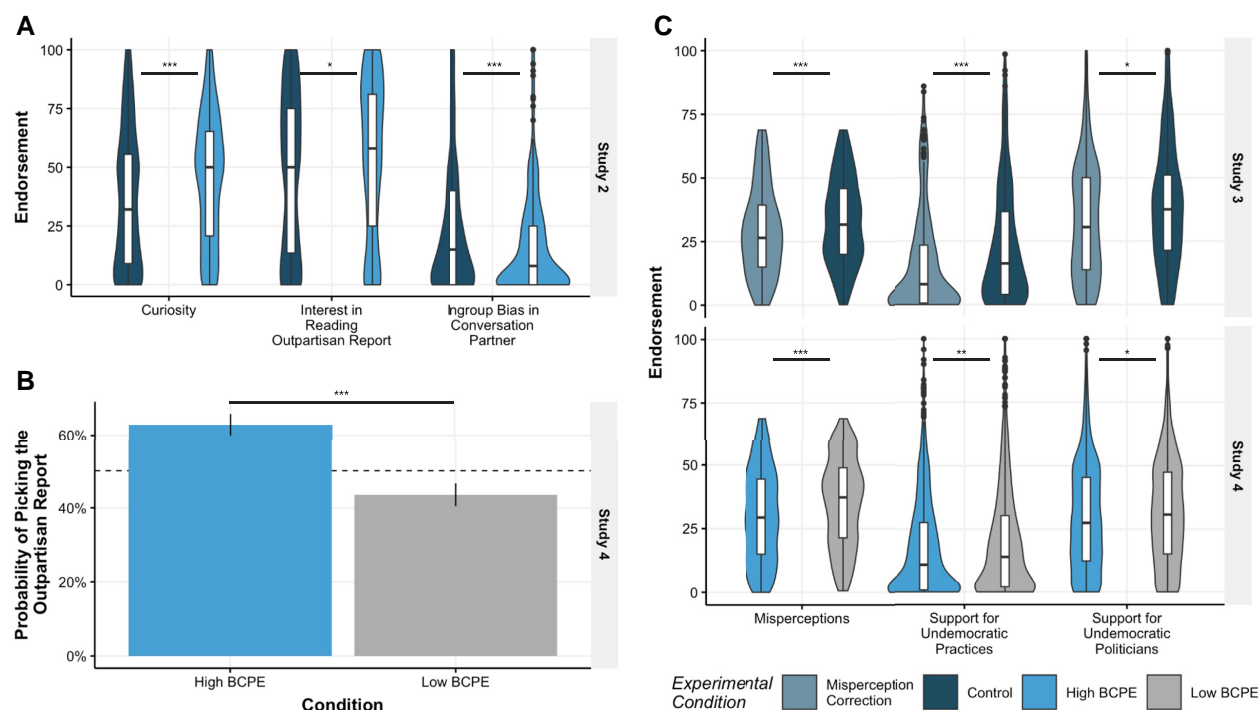


Fig. 3. Effects of condition on dependent variables for studies 2, 3, and 4. A and C) The distribution of participants' answers across each dependent variable is represented by violin plots with incorporated boxplots. B) Bar graphs represent the average likelihood of choosing the outpartisan article across each condition. Error bars reflect 95% bootstrapped CIs. A–C) Color represents the participants' experimental condition. The variables “ingroup bias in conversation partner” and “misperceptions” include negative values that are not displayed in these violin distributions but are accounted for in all models. *** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$.

about empathy and learning about outpartisans in a survey with 441 US partisans. In this survey, partisans were asked to pick one of two articles to read: the high utility of empathy text from study 2 or the misperception correction text from study 3. Before choosing, participants were presented with a title and a short description of each article (see Fig. S1). The descriptions were matched in length (29 words) and did not meaningfully differ in several linguistic features (25)—see [Supplementary material](#) for more information.

Participants were significantly more likely to choose the empathy article (63%) than the outpartisan article (37%), $t(440) = 5.88$, $P < 0.001$, suggesting that despite the cognitive costs associated with empathy, people are more motivated to learn about empathy-related topics compared to those that challenge their beliefs about political outgroups. These findings support our proposed model by highlighting that empathy beliefs could provide a more receptive starting point for interventions aimed at reducing misperceptions.

Study 4

In study 4, we tested our theoretical model in a large pre-registered online experiment ($N = 2,010$). Given that our proposed model outlines both the dangers of negative BCPE and the promise of positive BCPE, participants were randomly assigned to either read about how cross-party empathy could be advantageous (in the high utility condition; same text used in study 2), or disadvantageous (in the low utility condition). Participants were then asked to write about either the utility of empathizing with and learning about outpartisans (in the high utility condition), or the disutility of empathizing with and learning about outpartisans (in the low utility condition). After this writing task, participants completed

measures on outpartisans' undemocratic beliefs and curiosity to learn more about outpartisans. We then asked them to choose one of two articles to read as part of the study. The only information given to participants was that one article was about “outpartisans' views” and the other was about “copartisans' views” (see [Supplementary material](#)).

Participants who chose the outpartisan article read the same article used in the misperception correction condition in study 3, which contained information on outpartisans' actual support for democracy taken from study 1. People who chose the copartisans' article read an article describing the degree to which people on their own side believed outparty voters were undemocratic (also drawing on results from study 1). After reading their chosen article, participants were again asked to complete the measures of outpartisans' undemocratic beliefs, followed by their own support for undemocratic practices and support for undemocratic politicians (see Fig. 4 for a flow chart of this study design).

We pre-registered the different steps in our proposed model. We hypothesized that participants in the high utility condition would be more likely to choose to read the outpartisan article than those in the low utility condition (Hypothesis 1). We hypothesized that those who read the outpartisan article—a behavioral measure of cross-party curiosity—would be more accurate about outpartisans' support for democracy (Hypothesis 2), and therefore, would be more opposed to undemocratic practices and politicians (Hypothesis 3).

Results

Aligned with Hypothesis 1, we found that participants in the high utility condition were more curious about outpartisans' perspectives ($M = 49.88$, $SD = 26.67$) than participants in the low utility

condition ($M = 34.70$, $SD = 27.55$), $b = 15.24$, $SE = 1.20$, $t(2,003) = 12.61$, $P < 0.001$, $d = 0.56$. As pre-registered, the BCPE manipulation also influenced a behavioral marker of curiosity: participants in the high utility condition chose to read the outpartisans' views article significantly more often than participants in the low utility condition, $\chi^2(1) = 74.51$, $P < 0.001$, $d = 0.39$ [95% CI = (1.84, 2.64); odds ratio = 2.21]. As shown in Fig. 3, those in the low utility condition were significantly less likely than chance (i.e. 44%) to choose the outpartisan article $t(1,021) = -4.20$, $P < 0.001$, while those in the high utility condition were significantly more likely than chance to choose that same article (i.e. 63%), $t(987) = 8.40$, $P < 0.001$. These findings suggest that cross-party empathy beliefs can enhance curiosity in ways that lead people to seek information about outpartisans—effectively placing themselves in a misperception correction condition.

We also found causal evidence for the impact of BCPE on reducing misperceptions. Consistent with our model, participants in the high utility condition were less inaccurate in their outparty perceptions at time 2 ($M = 16.56$, $SD = 25.40$) than participants in the low utility condition ($M = 25.26$, $SD = 25.46$), $b = -8.64$, $SE = 1.13$, $t(2,003) = -7.62$, $P < 0.001$, $d = -0.34$ (Fig. 3). This result held even after controlling for people's estimates of outpartisans' undemocratic beliefs at time 1, $b = -5.38$, $SE = 0.91$, $t(2,002) = -5.93$, $P < 0.001$. Although not hypothesized, we also found evidence for a direct effect of BCPE condition on outpartisans' undemocratic beliefs at time 1. Participants in the high utility condition had significantly less inaccurate perceptions at time 1 than participants in the control condition, $b = -4.24$, $SE = 0.89$, $t(2,003) = -4.75$, $P < 0.001$, $d = -0.21$. In other words, believing in the value of empathizing with outpartisans may motivate partisans to see rivals more favorably (and accurately), even in the absence of new information. Although further replication is warranted, these findings suggest that when individuals recognize the benefits of empathizing across party lines, their motivation to sustain negative views of the outgroup may diminish. This shift toward a more favorable view of the outgroup could serve as a mechanism to seize opportunities for connection. After all, believing that the average outgroup member is extreme and undemocratic plausibly stiffens one's curiosity. This reasoning is in line with prior work that has theorized that inaccurate outparty misperceptions are a product of both (i) exposure to inaccurate information, (ii) motivated reasoning processes fostered by group identification (e.g. 5). Our positive BCPE manipulation may lessen (ii) by suggesting that people can empathize across party lines without betraying their own group.

We also found correlational support for Hypothesis 2. Curiosity significantly predicted lower misperceptions at time 2 $b = -0.38$, $SE = 0.02$, $t(2,003) = -20.34$, $P < 0.001$. Moreover, as preregistered, those who read the outpartisan article were much less inaccurate about outpartisans' undemocratic beliefs ($M = 6.74$, $SD = 22.09$) than those who read the copartisan article ($M = 37.08$, $SD = 19.43$), $b = -30.29$, $SE = 0.94$, $t(2,003) = -32.34$, $P < 0.001$, $d = -1.45$. These effects held when controlling for people's perceptions of outpartisans' undemocratic beliefs prior to reading the article $b = -26.12$, $SE = 0.71$, $t(2,002) = -36.61$, $P < 0.001$ —suggesting that people's article choice decisions were significantly associated with their desire to uphold democratic principles, even after holding constant people's initial misperceptions.

We found causal evidence for the impact of BCPE on support for democracy. Participants in the high utility condition were less supportive of undemocratic practices ($M = 17.15$, $SD = 18.98$) than participants in the low utility condition ($M = 19.91$, $SD = 21.13$), $b = -2.64$, $SE = 0.86$, $t(2,003) = -3.08$, $P = 0.002$, $d = -0.14$. They were also slightly less supportive of undemocratic

politicians ($M = 29.86$, $SD = 21.38$) compared to participants in the low utility condition ($M = 31.87$, $SD = 20.83$), $b = -1.91$, $SE = 0.91$, $t(2,002) = -2.09$, $P = 0.04$, $d = -0.10$ (Fig. 3). Although other research finds that beliefs about cross-partisan empathy do not directly lower undemocratic attitudes (9), here we find that they can when people are given a chance to learn accurate information about outpartisans' democratic views.

Aligned with Hypothesis 3, participants who read the outpartisan article were much less supportive of undemocratic practices ($M = 12.92$, $SD = 16.36$) than those who read the copartisan article ($M = 24.92$, $SD = 22.04$), $b = -11.37$, $SE = 0.83$, $t(2,003) = -13.76$, $P < 0.001$, $d = 0.62$. They were also much less supportive of undemocratic politicians ($M = 25.48$, $SD = 19.47$) than those who read the copartisan article ($M = 36.97$, $SD = 21.26$), $b = -10.96$, $SE = 0.88$, $t(2,002) = -12.39$, $P < 0.001$, $d = 0.57$ (see Fig. S4).^f In our pre-registered models, we did not include experimental condition as a control variable. However, we recognize its potential as a confound so, as a robustness check, we added condition as a covariate and found that choosing the outpartisan article is still a significant predictor of decreased support for undemocratic practices $b = -11.28$, $SE = 0.84$, $t(2,002) = -13.39$, $P < 0.001$ and politicians $b = -11.00$, $SE = 0.90$, $t(2,001) = -12.20$, $P < 0.001$.

We used a bias-corrected bootstrap estimation approach with 5,000 samples to estimate the indirect effects of our theoretical model (Fig. 1B)—i.e. the effects of experimental treatment on democratic views via the three serial mediators: curiosity, article choice, and misperceptions. This indirect effect was significant in predicting support for undemocratic practices $b = 0.63$ and 95% CI = (0.47, 0.81) and for undemocratic politicians $b = 0.56$ and 95% CI = (0.41, 0.75). Though mediation analyses do not allow conclusions about the causal effect of mediators, these findings provide further correlational support for our proposed model.

Discussion

In ancient times and today, divided groups risk falling into Hobbesian traps—in which both sides assume the worst about one another and are reluctant to learn more about them, resulting in conflict-escalating behaviors that confirm misguided assumptions. Across a national survey and three experiments, we find that a modern process of escalating division can be disrupted by inspiring people to have more positive beliefs about the value of empathizing with those they disagree with. Together, our findings offer support for our multistep model highlighting the cascading effects of a motivational treatment (i.e. cross-party empathy beliefs) on intergroup attitudes and behavior.

Our work has important limitations. First, the applicability of our results relies on the assumption that people will have access to accurate information about outgroup members; however, individuals in highly siloed informational environments may struggle to acquire accurate knowledge of outgroup members' true views. Second, in our research, we gauged participants' perceptions of the outgroup's beliefs using point estimates. Future studies should explore if showing partisans the distribution of opinions within the outgroup could elicit similar effects. Third, study 4 did not include a neutral control condition, so we cannot establish the extent to which the high vs. low utility conditions drove the downstream consequences we observed. Fourth, although we do not have evidence to suggest that our results are primarily driven by demand effects (see [Supplementary material](#) for more information), we acknowledge that any material designed to persuade inherently signals an intent to influence people's attitudes. We attempted to minimize demand effects by informing participants

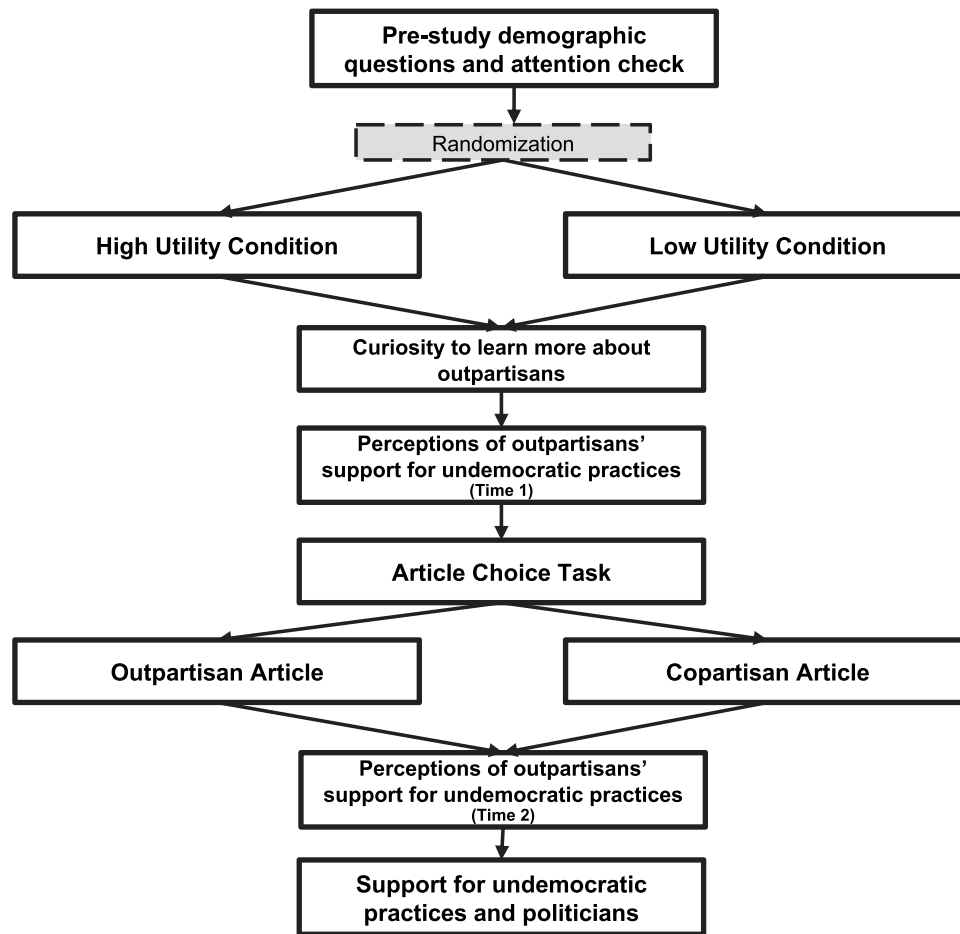


Fig. 4. Diagrammatic representation of the experimental design in study 4.

about the anonymity of their answers at the beginning of each survey and by including an effortful behavioral measure of curiosity in our designs. Future work can further lessen demand effects by creating a time lag between treatment and outcome measures (see (7) for a recent example). Lastly, our BCPE manipulation presented participants with both prosocial and strategic reasons to empathize across party lines. Future research should separately manipulate these two reasons to better understand their independent effects.

Despite these limitations, an important contribution of our work is the development and empirical test of a falsifiable model of escalating division. We demonstrate that beliefs about cross-partisan empathy are a malleable precursor to people's curiosity, their actual behavior, and their accurate perceptions of outparty views. We also show that a novel misperception intervention can reduce partisans' willingness to support undemocratic actions and politicians.

Our multistep model also shines a new light on the relationship between affective polarization and support for undemocratic practices. Recent studies have shown that reducing partisan animosity does not necessarily decrease undemocratic attitudes (9, 26, 27). Here, we demonstrate how intervening on empathy beliefs can be a key factor in opening individuals up to interventions that target their undemocratic views.

This work also identifies a scalable and generative framework that can be applied to different types of misperceptions. Although here we only tested how BCPE relate to support for democracy, we speculate that, by inspiring curiosity, our approach can cast a

wider "accuracy net" than reducing people's misperceptions one topic at a time. Prior work finds that these informational corrections do not spread far beyond the directly treated domain (9)—e.g. correcting people's exaggerated perceptions of outpartisans' support for violence does not affect how undemocratic they believe outpartisans to be. But instilling a belief that cross-partisan empathy is valuable may lead people to approach content that reduces their misperceptions across a range of different subjects. We hope that future work will explore the potential of this framework.

A burgeoning literature has documented the positive impact of improving people's accuracy about what opponents believe (3, 5, 9). Here, we show that partisans are not only deeply incorrect about what the other side believes, but they are also extremely unmotivated to correct these perceptions. However, this reluctance can be reversed when people learn about the value of empathizing across differences. One strength of this approach is that, rather than providing individuals with information on outpartisans, it encourages them to seek it out for themselves. In the context of our work, this greater curiosity bolsters people's opposition to practices and politicians that subvert democratic norms for partisan gains.

Methods

Samples

Across all studies, we ran a priori power analyses using G*Power (28) to determine the target sample size. In all studies, we aimed to have at least 80% power to detect a small-to-medium effect

size. We only recruited participants who had previously been identified by the sample providers as Democrats or Republicans. Before the start of each study, we resurveyed participants on their party affiliation and age. We only filtered into the study US adults who identified with one of the two major US parties (including Independents who leaned Democrat or Republican). Participants were excluded from analyses if they had duplicate IP addresses (keeping only the first case) or failed a simple attention check (in all experiments the attention checks were deployed precondition assignment). Using these criteria, 115 participants were excluded from study 1, 21 participants were excluded from study 2, 12 participants were excluded from study 3, and 85 participants were excluded from study 4. For more information about each sample, please refer to the [Supplementary material](#) (see Table S2 for demographics).

Independent variables

See [Supplementary material](#) for full texts and writing prompts.

High utility of empathy condition

Participants read a text about the utility of empathizing across party lines. The text emphasized that empathizing across political differences offers a powerful way to build consensus and find common ground across divides. After reading, participants completed a writing task about what they learned.

Low utility of empathy condition

The low utility of empathy text had the same overall structure as the high utility of empathy text, but it emphasized the disutility of empathizing across party lines (e.g. empathizing across political differences is an “ineffective way of building consensus across divides”). After reading, participants also completed a writing task about what they learned.

Misperception-correction condition

After participants reported their estimates of *outpartisans’ undemocratic beliefs* they were given the following study 1 finding: “The majority of (Republicans [67%]/Democrats [78%]) disagreed with these political actions.” Participants were then shown four notes written by *outpartisans*. See [Supplementary material](#) for all notes.

Control condition study 2

Participants completed a writing task describing their previous day. *Control condition study 3*. Participants were given a summary table with their answers to the *outpartisans’ undemocratic beliefs* at time 1.

Measures

See [Supplementary material](#) for all items. All composites formed reliable scales (i.e. across surveys Cronbach’s $\alpha > 0.79$ for all composites).

Analysis strategy

All data analysis was conducted using R (Version 4.2.2). We used open-source packages to run our analysis (e.g. “effsize”, “tidyverse”, and “stats”). All code necessary to reproduce our results and figures is available at the project’s OSF page. Our main analysis strategy was null hypothesis significance testing. We used linear regression models controlling for age, education, gender, political ideology, and race (as pre-registered in study 4). We used P-values from two-tailed tests as our inference criteria with $\alpha = 0.05$.

Supplementary Material

[Supplementary material](#) is available at PNAS Nexus online.

Notes

^a Empathy is a multifaceted construct that includes three main components: perspective-taking, empathic concern, and experience-sharing (13). Perspective-taking is the process through which perceivers try to understand the mental states of a target. Empathic concern is the feelings of compassion that can arise when witnessing someone in need. Experience-sharing is the tendency to vicariously take on the emotions of others. Despite being separable, these three components frequently co-occur in people’s empathic experiences (14). As such, in our writing and manipulations, we do not differentiate between these different empathic components.

^b Perceptions of both the strategic and prosocial utility of empathizing influence people’s curiosity about their other side. For instance, individuals might think that *outpartisans* possess such reprehensible beliefs that empathizing with them would fail to foster understanding or improve connections—thereby reducing prosocial utility and hampering curiosity. They may also view *outpartisans* as unchangeable (e.g. 23) leading them to conclude that empathy is ineffective in changing beliefs—thus diminishing the strategic utility of empathy and decreasing curiosity. Based on this rationale, both the intervention text and the BCPE scale incorporate strategic and prosocial reasons for empathizing across party lines.

^c Although the high utility condition focused on strategic reasons to empathize with *outpartisans*, the treatment improved people’s perceptions of both strategic ($d = 0.57$) and prosocial BCPE items ($d = 0.69$)—suggesting that emphasizing the strategic utility of empathy may not detract from its prosocial value.

^d BCPE significantly mediated the effect of condition on curiosity $b = 11.44$ and 95% CI = [8.82, 14.02], interest in reading an article about *outpartisans’* support for democracy $b = 5.19$ and 95% CI = [2.75, 7.81], and decreased ingroup bias $b = -7.90$ and 95% CI = [-10.66, -5.58].

^e Inaccuracy is measured as the difference between participants’ estimates and each party’s average support for undemocratic practices from study 1.

^f The effect of article choice on support for undemocratic politicians was moderated by party affiliation, $b = -3.88$, SE = 1.92, $t(2,001) = -2.02$, $P = 0.04$. Although reading the *outpartisan* article reduced both Democrats’ and Republicans’ support for undemocratic politicians, Tukey honestly significant difference (HSD) post hoc tests indicated that the effect was particularly strong for Republicans ($M_{diff} = 5.89$, 95% CI 4.02–7.76), $P < 0.001$.

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Author Contributions

L.A.S., J.G.V., R.W., and J.Z. conceptualized the research, developed the methods, and collected the data; R.W. and J.Z. supervised the project; L.A.S. analyzed the data, created visualizations, and wrote the original draft; L.A.S., J.G.V., R.W., and J.Z. reviewed and edited the manuscript.

Preprints

The preregistration for study 4 can be accessed at: https://osf.io/bcm26/?view_only=ba1eeb3dff2a4a0ebd7ae7fe21f57f82.

Data Availability

The data and code scripts can be accessed at: https://osf.io/y6akw/?view_only=c483c3997173416bae4ad9a6ce970b16.

Ethics Statement

All studies were approved by Stanford University's Institutional Review Board. Participants provided informed consent and were debriefed when our manipulation involved deception (study 4). All participants were paid for their participation.

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