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Identity concerns drive belief: The impact of partisan identity on the belief and dissemination of true and false news Group Processes & Integroup Relations 1–24 © The Author(s) 2021 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/13684302211030004 journals.sagepub.com/home/gpi



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Abstract

We test three competing theoretical accounts invoked to explain the rise and spread of political (mis) information. We compare the ideological values hypothesis (people prefer news that bolster their values and worldviews); the confirmation bias hypothesis (people prefer news that fit their preexisting stereotypical knowledge); and the political identity hypothesis (people prefer news that allow them to believe positive things about political ingroup members and negative things about political outgroup members). In three experiments (N = 1,420), participants from the United States read news describing actions perpetrated by their political ingroup or outgroup. Consistent with the political identity hypothesis, Democrats and Republicans were both more likely to believe news about the value-upholding behavior of their ingroup or the value-undermining behavior of their outgroup. Belief was positively correlated with willingness to share on social media in all conditions, but Republicans were more likely to believe and want to share apolitical fake news.

Keywords

fake news, identity, misinformation, political psychology, values

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Political misinformation has occupied a central place on the political stage for the past couple of years. Even though misinformation and propaganda are hardly new, access to the internet and the rise of social media have likely increased the ease, spread, and consequences of hyperpartisan content, conspiracy theories, and fake news. Nearly 4 billion people now have social media accounts, and the majority of Americans use social media as a news source (Dean, 2020; Shearer & Gottfried, 2017). An analysis of 126,000 stories spread by over 3 million people found that fact-checked fake news reached more people than the truth—especially in the domain of politics (Vosoughi et al.,

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Jay J. Van Bavel, New York University, Department of Psychology & Center for Neural Science, 6 Washington Place, New York, NY 10012-1126, USA. Email: jay.vanbavel@nyu.edu 2018). Misinformation has become a national security threat, as an estimated 126 million participants from the United States were exposed to false stories produced by Russian trolls around the 2016 U.S. presidential election (Romm, 2017). This is a problem because familiarity with (fake) news increases perceptions of accuracy (Pennycook et al., 2018). Yet there is still serious debate about the psychological factors that underlie the belief and spread of misinformation (see Van Bavel et al., 2021). The current paper tests competing psychological theories that have been proposed to contribute to the understanding of the belief in, and the spread of, fake news.

The spread of political fake news can have important negative consequences. A healthy democracy assumes the accurate information of citizens who can then vote accordingly and hold public officials accountable (Petts & Brooks, 2006; Webster, 1999). The tendency to believe and share misinformation poses a threat to democracy, as it can distort citizens' sense of reality and cause their actions to be guided by misinformation. This threat is true on a global scale: The UK prime minister accused Russia of "planting fake stories" to "sow discord in the West," suggesting that fake news (spread by Russia) have influenced several national elections in Ukraine, Bulgaria, France, and the US, as well as the Brexit campaign ("Russian Twitter Trolls Meddled," 2017). For instance, engagement with popular fake news stories about the 2016 U.S. presidential election surpassed engagement with real news stories prior to the election (Silverman, 2016). Moreover, misinformation is often associated anti-Democratic political movements with (Sternisko et al., 2020). While the precise scope and impact of fake news is still unknown (see Guess et al., 2019), these concerns have led many nations to treat misinformation as an issue of national security.

Given the political consequences and global scope of the problem, there is a need to understand the factors driving belief in hyperpartisan news and misinformation. Numerous news and social media organizations are trying to mitigate the impact of fake news. For instance, over 2 billion Facebook users were subject to a news rating system that prioritizes trusted news sources in their feed (Dwoskin & Shaban, 2018; Pennycook & Rand, 2019), and scientists across numerous disciplines are also striving to tackle this issue (Lazer et al., 2018; Roozenbeek & van der Linden, 2019; Van Bavel et al., 2021; Vosoughi et al., 2018). Despite concerns about fake news, there have been few studies disambiguating the role that partisan identity and ideological values might play in people's belief in fake news and the decision to disseminate them in their own social networks. The current paper presents three experiments examining the role of social identity and values in the consumption of fake and real news.

Ideological Values Hypothesis

In the world of politics, upholding social and moral values is a central motive. People are motivated to defend their values, ideologies, and worldviews (Maio & Olson, 1998), and this motivation leads to more positive attitudes towards targets who uphold (vs. undermine) these values (Rosenblatt et al., 1989). According to the worldview verification theory, people are more threatened by information that disconfirms (vs. confirms) their beliefs-even when the information has positive implications for their group (Major et al., 2007; Townsend et al., 2010). As such, the motivation to defend values and ideologies might lead people to believe information that promotes these values as compared to information that threatens or undermines them. For example, a person who values generosity may be more likely to believe that a target acted in a generous manner rather than in a selfish manner. We test this ideological values hypothesis in the present study.

According to the Schwartz value theory, ideologies are organized along 19 types of values in a circular model structured along two dimensions (Schwartz & Bilsky, 1990; Schwartz et al., 2012). The first dimension juxtaposes selfenhancement values, which encourage the promotion of one's self-interests, with self-transcendence values, which favor the promotion of the interests of others. The second dimension juxtaposes conservation values, which present a preference for stability and order, with openness to change values, which promote a preference for new ideas and experiences. Self-transcendence and openness to change are endorsed by liberals to a higher extent than conservatives and are therefore referred to as liberal values (Jost et al., 2016). Conversely, conservation and self-enhancement are endorsed by conservatives to a higher extent than liberals and are therefore referred to as conservative values (Jost et al., 2016).¹

We reasoned that people should be motivated to uphold different values to the extent that they affirm their worldview: Liberals should be motivated to uphold liberal values, whereas conservatives should be motivated to uphold conservative values. These values may align with prior beliefs or elicit motivated reasoning (Kunda, 1990), which would lead people to believe news stories that affirm their ideology. Although political ideology is not synonymous with political party identification, the correlation between the two is now extremely high in the current U.S. political context (Federico & Ekstrom, 2018). Thus, Democrats should be more likely to believe news stories which uphold liberal values or undermine conservative values, and disbelieve stories which undermine liberal values or uphold conservative ones. Conversely, Republicans should be more likely to believe stories which uphold conservative values or undermine liberal values, and disbelieve stories which undermine conservative values or uphold liberal ones.

Confirmation Bias Hypothesis

Social groups are associated with stereotypes (Devine, 1989) and political parties are no exception to this feature of social categorization. Stereotypes provide expectations about what a member of a group might do or say, which can provide guides for behavior (Allport, 1954) and decision-making (Conover, 1981; Rahn, 1993; Riggle et al., 1992). For example, information about a candidate's political party affiliation trumps information about their policy positions on candidate evaluations (Rahn, 1993). Accordingly, these stereotypes should shape belief in news. According to work on confirmation bias, people should seek or interpret new information in ways that align with their preexisting knowledge and expectations (see Nickerson, 1998). Stereotypes can trigger confirmation bias among perceivers whereby they interpret information in a fashion that confirms stereotypes (Lewandowsky et al., 2012; Nickerson, 1998).

People are well aware of the fact that liberals tend to endorse liberal values and reject conservative values, whereas conservatives generally endorse conservative values and reject liberal values (Gentzkow, 2016; Jost et al., 2016). In other words, people have metaknowledge of the differential values endorsed by conservatives and liberals. If anything, both liberals and conservatives hold exaggerated stereotypes about their own and the other political party (Ahler & Sood, 2018; Graham et al., 2012; Lees & Cikara, 2019). Accordingly, when presented with new information, people could engage in confirmation bias (Nickerson, 1998; Wason, 1960)-using their prior expectations about the values Democrats and Republicans support to guide the way they approach new information. Hence, a confirmation bias hypothesis would predict that members of both political parties should be more likely to believe news stories about a Republican politician who upholds conservative values or undermines liberal values, or about a Democrat politician who upholds liberal values or undermines conservative values. For example, Democratic and Republican observers should be more likely to believe that Trump cares about strengthening border security than to believe that Clinton does, simply because Trump is a Republican and border security is a stereotypically conservative issue.

Political Identity Hypothesis

Political parties represent not only a set of values, ideologies, and attitudes—they are also social groups with which people identify (Huddy, 2001; Tajfel & Turner, 1986). Although purely ideological values might shape news consumption, we argue that it is necessary to consider political identity in order to predict beliefs and news dissemination (Kahan, 2017a; Van Bavel & Pereira, 2018). Indeed, evidence suggests that party identities can trump value-driven preferences (Cohen, 2003), even when these identities are implicit (Hawkins & Nosek, 2012). From this perspective, people will be more likely to believe information that aligns with their identity goals as compared to information that threatens their identity goals.

Since party membership is a voluntary process, political parties usually reflect people's ideological beliefs. However, party membership also reflects identification with a social group. According to social identity theory (Tajfel & Turner, 1986), people can achieve a positive selfimage through identification with positively valued social groups: the good behavior of their groups reflects on their sense of self. For that reason, people are motivated to maintain a sense of positive distinctiveness with relevant outgroups. These social identity processes play a central role in political parties (Huddy, 2001), and political identities are represented in the brain similarly to other forms of group identities (Cikara et al., 2017). As such, it is possible that people will be more likely to believe positive information about ingroup members and negative information about outgroup members.

The value-undermining behavior of an outgroup member should allow people to feel positively about the moral status of their ingroup. If the same behavior is perpetrated by an ingroup member, it should threaten their moral status. Conversely, the value-upholding behavior of an outgroup may threaten their perceived moral status. If the same behavior is perpetrated by an ingroup member, it will improve the perceived moral status of their ingroup. As a consequence, people should be more likely to believe and share news stories where an outgroup member behaved in a value-undermining way as compared to news stories where an outgroup member behaved in a value-upholding way (and have the opposite effect for ingroup members).

Regardless of which specific values are upheld or undermined, partisan identities should distort belief in news stories similarly. This is because people are able to recognize when values are being upheld or undermined, regardless of whether they personally endorse those values. Therefore, upholding a value is seen as positive, whereas undermining a value is considered negative.² Thus, the political identity hypothesis predicts that Democrats will be more likely to believe that Clinton cares about border security than Trump does, despite the fact that it is a stereotypically conservative issue. However, the impact of partisanship likely only operates for most people with issues within a certain latitude of acceptance (and perhaps not for certain litmus issues, like abortion). For example, we do not claim that a story of Clinton supporting satanism would be widely believed by Democrats.

The Present Research

We conducted three experiments (N = 1,420) to test several competing models of political belief.3 In all experiments, participants were citizens from the United States who self-categorized as either Democrat or Republican-the two main political parties in the US. Our main dependent variables were the degree of belief in several news stories as well as the willingness to share these stories on social media. Recent work suggests that the same news headlines that were more likely to be hypothetically shared are also shared more frequently by actual Twitter users (r = .44; Mosleh et al., 2020). As such, we examined the intent to share these stories on social media. This approach allowed us to test three competing research hypotheses (see predictions in Table 1).

The ideological values hypothesis predicts that people will be more likely to believe in ideological value-upholding news as compared to valueundermining news, regardless of the party identity of the protagonist. The confirmation bias hypothesis predicts that both Democrats and Republicans will be more likely to believe news that confirm their preexisting expectations or stereotypes (i.e., news portraying Democrats who uphold liberal values and undermine conservative values, and news portraying Republicans who

Intervening fa	ctors				Competing	thypotheses		
Protagonist	Value orientation	Political	Ideological val	ues hypothesis	Confirmation	bias hypothesis	Political ident	ity hypothesis
group	of benavior	value	Democrats	Republicans	Democrats	Republicans	Democrats	Republicans
Democratic	Value-upholding	Liberal	Belief	Disbelief	Belief	Belief	Belief	Disbelief
		Conservative	Disbelief	Belief	Disbelief	Disbelief	Belief	Disbelief
	Value-undermining	Liberal	Disbelief	Belief	Disbelief	Disbelief	Disbelief	Belief
		Conservative	Belief	Disbelief	Belief	Belief	Disbelief	Belief
Republican	Value-upholding	Liberal	Belief	Disbelief	Disbelief	Disbelief	Disbelief	Belief

Table 1. Predictions as a function of competing models of political belief.

Now. The ideological values hypothesis makes predictions as a function of ideology only, regardless of the identity of the protagonist; the confirmation bias hypothesis makes similar predictions for Democratic and Republican evaluators; the political identity hypothesis predicts that ideology and political identity interact to predict political belief.

Disbelief Disbelief

Belief

Disbelief Belief Belief

Belief Belief

Belief Belief

Belief Belief

Disbelief Disbelief Belief

Conservative

Value-undermining

Liberal Conservative

Disbelief

Disbelief

Disbelief

uphold conservative values and undermine liberal values). The political identity hypothesis predicts that both Democrats and Republicans will be more likely to believe news in which ingroup members uphold values or outgroup members undermine values, regardless of whether the values are liberal or conservative.

Although our research was motivated by the need to understand misinformation belief, we theorized that similar psychological processes should lead people to (dis)believe real news. Therefore, in Experiment 1, we presented participants with real news (actual facts) related to the two presidential candidates (Hillary Clinton and Donald Trump) before the 2016 U.S. presidential election. In addition to the political party affiliation of the candidates (Democratic or Republican), we manipulated the value orientation of the stories (upholding or undermining), and the ideological content (liberal or conservative values). In Experiment 2, we presented participants with actual fake news from websites where content is notoriously unreliable (e.g., Empire News, National Report, National Enquirer). All stories were value-undermining, and we manipulated the political affiliation of the protagonists (Democratic, Republican). In Experiment 3, we created novel fake news to ensure that the content was carefully controlled. Our fake news looked like real news but were, in reality, false information. Creating fake news allowed us to ensure that participants would not have read or heard of the news prior to the experiment, minimizing any potential effects of prior knowledge or beliefs about the specific stories, and allowing each news story to be perceived as undermining only liberal or only conservative values, rather than covarying on these dimensions. Additionally, we could include protagonists (i.e., politicians) that no one had heard of, to rule out the possibility that infamy of the politicians accounted for the results.

Fake news are mainly shared through social media (Vosoughi et al., 2018), and political content tends to be shared within ideological echo chambers (Brady et al., 2017; Brady et al., 2020). Unfortunately, previous correlational analyses cannot speak to the causal factors that influence the spread of political content and fake news online. Thus, understanding the factors that cause such behavior is critical to understanding and preventing the spread of fake news. As such, Experiments 2 and 3 included a measure of willingness to share news on social media in addition to the main measure of belief in news.

Experiment 1

We presented Democrats and Republicans with facts related to the two main presidential candidates (Hillary Clinton and Donald Trump) right before the 2016 election. Over the previous decade, both candidates had made statements on both sides of numerous political issues. This allowed us to present participants with quotes from the two candidates that varied in terms of value orientation (value-upholding and valueundermining) and ideological content (liberal and conservative). The political candidates themselves were our manipulation of political party identity, as Clinton is a Democrat and Trump is a Republican (they were the leaders of their respective political parties).

Pilot Study

In a pilot study, we sought to confirm that the quotes on a conservative issue were perceived as conservative (and vice versa for liberal issues). For each candidate, we collected 14 quotes: for seven issues, we found both a value-upholding and a value-undermining quote. We found that liberal value-undermining quotes were perceived as more conservative than conversative value-undermining quotes. Liberal value-upholding quotes were perceived as more liberal than conversative value-upholding quotes. See Open Science Framework (OSF) page for more details (https://osf.io/vamjc/).

Method

Participants. For all experiments we report how we determined our sample sizes, all data exclusions, all manipulations, and all measures. We collected data on Amazon's Mechanical Turk





Note. Democrats and Republicans were randomly assigned to one of four conditions, and read quotes from Hillary Clinton and Donald Trump. The content of the quotes was manipulated: they were either about liberal (blue) or conservative (red) values; they were either value-upholding (ovals) or value-undermining (rectangles). Each participant read seven quotes (four about liberal values and three about conservative values). The order of presentation of the quotes was counterbalanced: half the sample saw T1 followed by T2 (see diagram) and the other half saw T2 followed by T1.

using U.S. citizens who were registered to vote in the 2016 election and self-categorized as either Democrat or Republican. Samples from Mechanical Turk have been shown to be reliable for research in psychology (Buhrmester et al., 2011), and specifically on political ideology (Clifford et al., 2015). This type of sample is more diverse than undergraduate samples at most U.S. American universities (Buhrmester et al., 2011) as well as convenience samples (Berinsky et al., 2012), and is a valid recruitment tool for research on political ideology (Clifford et al., 2015). As no effect sizes were known, we aimed for 480 participants.⁴ Four hundred sixty-four (464) participants from the US completed the survey ($M_{age} =$ 36.19, SD = 11.89; 38% male): 276 Democrats and 188 Republicans.

Procedure and design. Participants were invited to complete a survey about politics. Participants read quotes about both liberal and conservative values, and were randomly assigned to read value-upholding versus value-undermining quotes from Hillary Clinton versus Donald Trump for each value (see Figure 1 for procedure).

Half of the quotes were from Hillary Clinton and related to either liberal or conservative values, and half of the quotes were from Donald Trump and related to the other type of value. As such, each participant read four quotes that depicted one presidential candidate upholding or undermining liberal values, and three quotes depicting the other presidential candidate upholding or undermining conservative values. Order of presentation was counterbalanced within each condition (half of the participants read quotes from Clinton first, half from Trump first). All materials and data for all experiments are available at the OSF (https://osf.io/vamjc/?view_only =382649d0d13a43d39523ad9a65be1318).

Individual-level variables. Participants answered a Party Identification Scale on a 7-point Likert scale (1= disagree strongly, 7 = agree strongly) composed of 14 items such as "I feel a bond with the Democratic/Republican party" or "Being a Democrat/ Republican is an important part of how I see myself" (Leach et al., 2008). Participants showed moderate levels of party identification (M = 5.03, SD = 1.10, $\alpha = 0.95$), which did not differ as a function of party affiliation, F(1, 459) = 0.66, p =.416, d = 0.08. Participants answered the Schwartz Value Survey (1 = opposed to my values, 7 = of supreme importance), in which they were asked to

	Cronbach's alpha	M (SD)
Experiment 1		
Belief in (real) quotes: Liberal values	.65	4.43 (1.44)
Belief in (real) news quotes: Conservative values	.73	4.79 (1.58)
Experiment 2		
Belief in (fake) news stories	.70	2.66 (1.30)
Willingness to share (fake) news on social media	.87	2.07 (1.45)
Experiment 3		
Belief in (fake) news stories	.81	3.62 (1.05)
Willingness to share (fake) news on social media	.94	2.33 (1.42)

Table 2. Descriptive statistics for belief in (real and fake) quotes (Experiments 1, 2, 3) and willingness to share on social media (Experiments 2, 3).

Note. All items are on 7-point scales.

assign importance to a list of 46 values such as equality, a world at peace, national security, or respect for tradition (Schwartz, 2003). Consistent with prior work (Jost et al., 2016), Democrats endorsed self-transcendence values more than Republicans, F(1, 433) = 21.95, p < .001, d = 0.46, and Republicans endorsed conservation values more than Democrats, F(1, 431) = 35.59, p < .001, d = 0.01, d = 0.58.⁵

Quotes. We selected quotes that included the following self-transcendence values: equality, honesty, protecting the environment, world at peace; and the following conservation values: national security, respect for tradition, and being successful. For each of these specific values, we found actual quotes from Hillary Clinton and Donald Trump either upholding or undermining them. For example, in relation to protection of the environment, participants read a quote from Clinton repeatedly calling for a "global fight against climate change" (value-upholding) or supporting fracking (value-undermining; see supplemental material for exact wording of all quotes).

Belief in quotes. For each of the quotes, participants indicated the extent to which they believed the quote was real, on a 7-point Likert scale (1 = disa-gree strongly, to 7 = agree strongly). We aggregated the belief items into a score of belief in the quotes related to liberal values, and a score of belief in the

quotes related to conservative values (descriptive statistics and reliability for all experiments are presented in Table 2⁶).

Results

We conducted multilevel regression analyses on both the belief in quotes related to liberal values score and the belief in quotes related to conservative values score (scripts and model specifications are available at https://osf.io/vamjc/). We used the lmerTest package for R (Kuznetsova et al., 2017). Our model fitted the main effects and interactions of participants' party affiliation (Democratic or Republican), news story protagonist (Clinton or Trump), and news story value orientation (value-upholding or value-undermining), with random effects grouped by stimulus items (all main effects and all interactions) and by participants (all main effects), allowing the random effects to correlate and using the Kenward-Roger method to approximate degrees of freedom.

Belief in quotes related to liberal values. The two-way interaction effect between participants' party affiliation and news story protagonist was statistically significant, B = 1.56, SE = 0.49, t(15.88) = 3.19, p = .006. This effect was qualified by the predicted three-way interaction, B = 5.26, SE = 0.98, t(15.88) = 5.37, p < .001 (see Figure 2). No





Note. On the left panel and in blue are the belief values for Democrats, and on the right panel and in red are the belief values for Republicans. On the top panel are the quotes from Hillary Clinton, and on the bottom panel are the quotes from Donald Trump. On the x-axis is the value orientation of the news: left for value-undermining quotes, and right for value-upholding quotes. Dots represent individual participant scores, boxes represent means and 95% confidence intervals.

other effects were significant (ps > .692). We tested specific simple effects as a function of party affiliation of protagonists and participants.

When the quotes were from Clinton, Democrats believed the value-upholding quotes more than the value-undermining ones, B = 1.42, SE = 0.39, t(8.2) = 3.67, p = .022. When the quotes were from Trump, Democrats believed the value-undermining quotes more than the value-upholding news, B = -1.26, SE = 0.5, t(7.5) = -2.47, p = .039. Democrats were more likely to believe in value-upholding quotes that concerned Clinton as compared to Trump, B = 2.10, SE = 0.28, t(9.7) =

7.69, p < .001. Consistent with the political identity hypothesis, Democrats were more likely to believe news that portrayed their political ingroup as upholding versus undermining liberal values, and news that portrayed their political outgroup as undermining versus upholding liberal values.

Republicans showed the inverse pattern: when the quotes concerned Clinton, Republicans were more likely to believe value-undermining quotes than value-upholding ones, B = -1.41, SE =0.45, t(7.6) = -3.15, p = .013, whereas they were more likely to believe value-upholding quotes than value-undermining ones when the protagonist



Figure 3. Belief in conservative (real) news (y-axis) as a function of participants' and protagonists' political affiliation and value orientation of the news: Experiment 1.

Note. On the left panel and in blue are the belief values for Democrats, and on the right panel and in red are the belief values for Republicans. On the top panel are the quotes from Hillary Clinton, and on the bottom panel are the quotes from Donald Trump. On the x-axis is the value orientation of the news: left for value-undermining quotes, and right for value-upholding quotes. Dots represent individual participant scores, boxes represent means and 95% confidence intervals.

was Trump, B = 1.18, SE = 0.38, t(8.1) = 3.09, p = .018. Furthermore, Republicans were more likely to believe value-upholding quotes when Trump was the protagonist than when Clinton was, B = 2.10, SE = 0.44, t(8.38) = 4.75, p = .001.

Belief in quotes related to conservative values. We tested this hypothesis for news relating to conservative values. We found a trend for participants' political affiliation such that Republicans were marginally more likely to believe quotes related to conservative values than Democrats, B = 0.44, SE = 0.21, t(13.3) = 2.11, p = .054. We found a main effect of value such that value-undermining quotes were more believable than value-upholding ones, B = -0.68, SE = 0.28, t(10.53) = -2.46, p = .033. The interaction effect between participants' political affiliation and news story protagonist was trending but nonsignificant, B = 0.75, SE = 0.42, t(13.3) = 1.8, p = .094. These effects were qualified by the predicted three-way interaction, B = 6.06, SE =0.84, t(13.3) = 7.24, p < .001 (see Figure 3).

The three-way interaction on conservative values quotes was similar to that on liberal values quotes. For quotes from Clinton, Democrats were more likely to believe value-upholding quotes than value-undermining ones, B = 1.36, SE = 0.49, t(6.2) = 2.74, p = .033. Conversely,

they were more likely to believe value-undermining quotes than value-upholding Trump quotes, B = -2.09, SE = 0.47, t(6.01) = -4.39, p = .004. Democrats were more likely to believe news depicting Clinton's value-upholding behavior versus Trump's value-upholding behavior, B = 2.03, SE = 0.31, t(8.70) = 6.60, p < .001. Conversely, they were more likely to believe Trump did something value-undermining than Clinton did, B = -1.41, SE = 0.49, t(4.95) = -2.9, p = .034.

Republicans showed an inverse pattern of results. Republicans were more likely to believe Clinton's value-undermining quotes than value-upholding ones, B = 2.31, SE = 0.42, t(5.9) = 5.47, p = .002, although they believed Trump's value-upholding quotes to the same extent as his value-undermining ones, B = -0.30, SE = 0.27, t(14.5) = -1.13, p = .278. Nonetheless, Republicans were more likely to believe quotes in which Trump upheld conservative values rather than those in which Clinton did, B = 1.76, SE = 0.43, t(6.40) = 6.42, p = .006, and marginally more likely to believe quotes in which Clinton undermined values rather than those in which Trump did, B = 0.86, SE = 0.40, t(5.4) = 2.16, p = .079.

Discussion

Our findings were consistent with the political identity hypothesis: people were more likely to believe quotes in which an ingroup member upheld social and moral values as compared to quotes in which the ingroup member undermined such values, and quotes in which an outgroup member undermined values versus quotes in which the outgroup member upheld such values. This was true for both Democrats and for Republicans, and both for liberal and for conservative values. One exception to that pattern is that Republicans did not differ on their belief that Trump upheld or undermined conservative values. This effect might be due to the quotes we picked, which, in this specific condition, were relatively well-known quotes (e.g., one of the undermining quotes was about how Trump encouraged Russia to hack Clinton's email).

Further, this work used factual quotes and it is not clear if the principles findings from Experiment 1 apply to the belief in misinformation. Experiments 2 and 3 address these limitations.

Experiment 2

In Experiment 2, we measured not only belief in fake news but also willingness to share the news articles on social media. We hypothesized that people should be more likely to share the news they were more likely to believe, that is, news that help their in-group achieve moral status (in line with the political identity hypothesis). Our goal was to test the identity hypothesis specifically, but with real fake news. Therefore, we focused on value-undermining news and focused on the party identity of the participant and of the target in the false story.

This experiment also included a control condition in which we presented people with apolitical fake news. This condition provided a baseline to assess the direction of experimental effects (e.g., belief in fake news might increase it promotes the in-group, or it might decrease when it threatens the in-group) as well as ideological differences at baseline. Although there are reasons to believe that conservatives are more credulous than liberals (Pennycook & Rand, 2018b; Sterling et al., 2016) because they usually have higher levels of need for closure (Jost et al., 2017), other work has found that liberals and conservatives can be equally biased (Ditto et al., 2018).

Method

Participants. Following the procedure in the first experiment, we sought a minimum of 60 participants per cell and advertised the study on Amazon's Mechanical Turk for 360 Democrats or Republicans (compensating them with US\$0.60).⁷ The final sample consisted of 405 participants from the US ($M_{age} = 38.52$, SD = 13.94; 52% women): 248 Democrats and 157 Republicans.

Procedure and design. Participants completed an online survey about the news and were randomly assigned to one of the three conditions as a function of political affiliation of the protagonist in the news stories they read (Democratic news, Republican news, control news). They completed three scales with order counterbalanced: half the participants answered the scales first, and half saw the fake headlines first.

Individual-level variables. Participants completed the Party Identification Scale from Experiment 1 (M =5.05, SD = 1.14, $\alpha = .95$), and party identification did not differ as a function of party, F(1, 376) =1.23, p = .268. They completed the Schwartz Value Survey (Schwartz, 1990). As expected, Democrats endorsed self-transcendence values to a higher extent than Republicans, F(1, 376) = 56.45, p <.001, $\eta_p^2 = .13$, and Republicans endorsed conservation values to a higher extent than Democrats, $F(1, 427) = 69.70, p < .001, \eta_p^2 = .16$. Finally, they filled out the Need For Cognition Scale (Cacioppo & Petty, 1982; Furnham & Thorne, 2013; M =4.77, SD = 1.21, $\alpha = .91$), which also did not show any differences as a function of party affiliation, F(1, 376) = 1.78, p = .183.

News stories. The stimuli consisted of five screenshots of verified fake news from notoriously unreliable websites (e.g., Empire News, Addicting Info, National Enquirer). These stories were taken from the CUNY Graduate School of Journalism's Fact Checking, Verification and Fake News web page (https://guides.lib.jjay.cuny.edu/fakenews). All stories were value-undermining. For example, participants read that Hillary Clinton was wearing an earpiece during the debates (Democratic-candidate-related news), or that Trump had enacted a one-child law for minorities (Republican-candidate-related news), or that Marilyn Monroe was pregnant with John F. Kennedy's child (control news; see OSF page for stories).

Dependent variables. For each fake news story, participants indicated on a 7-point scale (1 = not at all, 7 = absolutely) the extent to which they (a) believed this to be true, and (b) would be willing to share this article on social media (e.g., Facebook, Twitter). We aggregated ratings on all belief items into a belief in the news stories score, and a willingness to share on social media score. Descriptive and reliability statistics are presented in Table 2.⁸

Results

We hypothesized that people would be more likely to believe negative news stories about their political outgroup as compared to their political ingroup. To test this hypothesis, we conducted multilevel regression analyses on the belief in news stories and on willingness to share on social media, including the main effects of participants' political affiliation (coded -1 = Democrats, 1 = Republicans) and two orthogonal contrasts to account for the effect of the news condition: C1 compared the Democratic and Republican conditions to the control condition (-1, -1, 2), and C2 compared the Democratic and the Republican conditions to each other (-1, 1, 0). We included random effects grouped by stimulus items and participants. We then used dummy coding to test the significance of the simple effects.

Belief in (fake) news stories. According to the political identity hypothesis, we expected the interaction effect between participants' party and the second contrast (C2) to be significant. The main effect of participants' political affiliation was significant, B = 0.31, SE = 0.14, t(21.6) = 2.17, p = .041, indicating that Republicans believed fake news stories more than Democrats. This effect was qualified by two significant interaction effects with C1, B = 0.22, SE = 0.10, t(16.4) = 2.20, p = .042, and C2, B = -1.09, SE = 0.28, t(7.01) = -3.96, p = .005. Results are displayed in Figure 4.

Democrats believed the value-undermining fake news stories more when they concerned Republican politicians than when they concerned Democratic politicians or apolitical targets, B =-0.80, SE = 0.32, t(5.9) = -2.49, p = .048. Conversely, Republicans believed negative fake news related to Republicans less than those related to Democrats or apolitical news, B =1.17, SE = 0.27, t(17.3) = 3.74, p = .002. This





Note. Democrats are displayed on the left in blue, and Republicans are displayed on the right in red. On the x-axis is the news content (Democratic, Republican, control). All news are value-undermining. Dots represent individual participant scores, boxes represent means and 95% confidence intervals.

suggests that Democrats and Republicans were more likely to believe value-undermining fake news that concerned their political outgroup versus their ingroup, and that Republicans were more likely to believe in nonpolitical fake news than Democrats.

Willingness to share (fake) news stories on social media. The political identity hypothesis predicted participants' party to interact with the second contrast to predict willingness to share fake news on social media. The main effect of participants' political affiliation was significant, B = 0.35, SE = 0.16, t(50.70) = 2.2, p = .032, indicating that Republicans were more willing to share fake news stories on social media than Democrats. This effect was qualified by an interaction with C2, B = -0.79, SE = 0.19, t(262.05) = -4.17, p < .001. Results are displayed in Figure 5.

Republicans were more willing to share negative news related to the Democratic candidate than other news, B = -0.96, SE = 0.28, t(56.2) = -3.42, p = .001, whereas Democrats were similarly willing to share negative news related to the Republican candidate and other news, B = -0.43, SE = 0.25, t(14.1) = -1.74, p = .103. Similar to the findings on the belief measure, both Republicans and Democrats (albeit marginally) were more willing to share value-undermining fake news on social media about their political outgroup than their ingroup or apolitical news. Although we found evidence of partisan bias, most participants were reluctant to share fake news.

Discussion

Consistent with the political identity hypothesis, people were more willing to believe and share news consistent with their political identity. Republicans were more likely to believe and share negative fake news about Democrats than Republicans, and



Figure 5. Willingness to share (fake) news (y-axis): Experiment 2.

Note. Democrats are displayed on the left in blue, and Republicans are displayed on the right in red. On the x-axis is the news content (Democratic, Republican, control). All news are value-undermining. Dots represent individual participant scores, boxes represent means and 95% confidence intervals.

Democrats showed the opposite pattern (although only marginally on the willingness to share measure). Republicans were also more credulous when the news were apolitical: belief in fake news was higher in the control condition for Republicans versus Democrats. This aligns with previous research which found that Republicans believed (largely nonpolitical) fake news more than Democrats (Roozenbeek et al., 2020).

Experiment 3

Experiments 1 and 2 found that identity concerns shape belief in fake news and willingness to share fake news on social media. However, both experiments used existing news stories, and we cannot exclude the possibility that some participants might have seen these news stories prior to our experiments, and that this prior knowledge might have influenced their responses or that there were key differences in the fake news about Democrats and Republicans that might have driven the results. Furthermore, the protagonists in the news were famous, and prior opinions about these targets may have influenced people's beliefs. Therefore, in Experiment 3, we constructed fake news stories from scratch to ensure they were not contaminated by these types of prior beliefs, and to ensure they manipulated liberal and conservative values similarly. These stories featured unknown politicians and were created to look like real news containing false information. Each news story featured either a Democratic or Republican politician alleged to have undermined liberal or conservative values.

Pilot Study

We constructed 10 fake news stories that undermined liberal values (self-transcendence values, that is, benevolence and universalism), and 10 fake news stories that undermined conservative values (conservation values, that is, tradition, security, and conformity). We recruited 25 U.S. citizens on Prolific: 12 Democrats and 13 Republicans for a pilot study to select five stories that best undermined their respective values while being neutral regarding other values. See OSF page for more details.

Method

Participants. We sought at least 100 participants per cell. To ensure we would have enough Republicans (as the population on Mechanical Turk is skewed liberal), we oversampled to account for exclusions. Therefore, we advertised the survey for 500 participants on Amazon's Mechanical Turk, compensating workers with US\$0.80.⁹ The final sample was composed of 551 participants: 354 Democrats and 197 Republicans $(M_{age} = 39.94, SD = 13.92; 53\%$ female).

Procedure and design. Participants completed an online survey about the news and were randomly assigned to one of the two conditions (Democratic news, Republican news; two-cell design) to complete two scales.

Individual-level variables. After providing demographic information, participants answered the Party Identification Scale (M = 4.89, SD = 1.09, $\alpha = .95$). In this experiment, Democrats reported higher levels of party identification than Republicans, F(1, 519) = 4.39, p < .036, $\eta_p^2 = .01$. Participants completed the Schwartz Value Survey (Schwartz, 1992); Democrats endorsed self-transcendence values more than Republicans, F(1,519) = 69.4, p < .001, $\eta_p^2 = .12$, and Republicans endorsed conservation values more than Democrats, F(1, 519) = 68.02, p < .001, $\eta_p^2 =$.12. The order of measures was counterbalanced with stories.

News stories. We used 10 fake news stories made to look like they were from a news aggregator (selected from the pilot). We manipulated the political affiliation of the politician in the news stories between subjects (Democratic, Republican). Stories were presented in random order.

Dependent variables. Participants indicated for each news story, on a 7-point scale (1 = not at all, 7 = absolutely), the extent to which (a) they believed that the news reported in this news story was true and (b) they would be willing to share the story on social media.

Results

We expected participants would be more likely to believe and share stories that concerned their political outgroup than their ingroup. Because all stories reported actions that undermined (liberal and conservative) values, we did not expect any content effects. We conducted multilevel analyses on belief and willingness to share the stories on social media as a function of political affiliation of the participants (-0.5 Democratic, 0.5 Republican), political affiliation of the politician in the stories (-0.5)Democratic, 0.5 Republican), value orientation of the news (-0.5 conservative, 0.5 liberal), and the interactions between these factors. We included random effects grouped by stimulus items and participants. When an interaction was significant, we tested simple effects using dummy coding.

Belief in (fake) news stories. We predicted an interaction between participants' party and protagonists' party. The main effects of political affiliation of participants, B = -0.02, SE = 0.10, t(66.7) =-0.19, p = .847, and of the politicians in the stories, B = 0.15, SE = 0.14, t(19.80) = 1.8, p = .295, were nonsignificant, but their interaction was significant, B = -0.91, SE = 0.18, t(546.9) = -5.008, p < .001 (see Figure 6). Consistent with the identity hypothesis, the three-way interaction was not significant, B = -0.35, SE = 0.19, t(546.7) = -1.9, p= .070. We therefore ignored the effect of value orientation in the simple effects analysis.¹⁰

Democrats believed in the negative fake news stories more when the protagonists were Republican versus Democratic politicians, B = 0.60, SE = 0.19, t(17.3) = 3.14, p = .005, whereas Republicans



Figure 6. Belief in (fake) news (y-axis): Experiment 3.

Note. Democrats are displayed on the left in blue, and Republicans are displayed on the right in red. On the x-axis is the political affiliation of the politician in the news story (Democratic, Republican). All news are value-undermining. Dots represent individual participant scores, boxes represent means and 95% confidence intervals.

believed in the negative news stories equally when the protagonists were Democratic and Republican politicians, although the pattern of means goes in the expected direction, B = -0.31, SE = 0.20, t(26.7) = -1.49, p = .149.

Willingness to share news stories on social media. We expected an interaction between participants' and protagonists' party. The main effects of participants' party, B = -0.02, SE = 0.13, t(543.80) = -0.2, p = .857, and of politicians' party, B = -0.16, SE = 0.13, t(222.8) = -1.2, p = .231, were both nonsignificant, but the interaction between the two was significant, B = -0.57, SE = 0.26, t(375.5) = -2.24, p = .023 (see Figure 7). Again, the main effect and all interaction effects of value orientation were not significant (all *ps* between .067 and .702), and we therefore disregard the effect of value orientation in the analysis of the simple effects.

The pattern of means mirrors the belief in (fake) news, but the only significant simple effect revealed that Republicans reported more willingness to share negative stories when they concerned Democratic versus Republican politicians, B = -0.45, SE = 0.20, t(184.8) = -2.17, p = .031. These findings replicate Experiment 2: Republicans were more willing to share value-undermining fake news when they concerned their political outgroup (Democratic politicians) versus their political ingroup (Republican politicians), but Democrats did not show the same tendency. As in Experiment 2, there was only a modest willingness to share fake news online.

Discussion

Experiment 3 provides further support for the political identity hypothesis: people were more likely to believe news that aligned with their



Figure 7. Willingness to share (fake) news (y-axis): Experiment 3.

Note. Democrats are displayed on the left in blue, and Republicans are displayed on the right in red. On the x-axis is the political affiliation of the politician in the news story (Democratic, Republican). All news are value-undermining. Dots represent individual participant scores, boxes represent means and 95% confidence intervals.

political identity. The value-upholding behavior of an ingroup member and the value-undermining behavior of an outgroup member may fulfill identity goals and are therefore more likely to be believed. As in Experiment 2, Republicans were more willing to share fake news about their outgroup than their ingroup. That difference was not significant among Democrats, even though the direction of the effect is consistent with a similar identity dynamic. An important note regarding Experiment 3 is that our manipulated stimuli are not representative of all "real" fake news (e.g., our stories used rational language, not the bombastic wording used in some fake news).

General Discussion

We conducted three experiments testing the role of political identity and personal values in belief in news and willingness to share news on social media. These experiments reveal the impact of partisanship under both ecologically rich and more carefully controlled contexts, to develop a better understanding of this psychological process. Across all experiments, we found consistent evidence for the political identity hypothesis: both Democrats and Republicans were more likely to believe—and share—news that reflected positively on their ingroup or negatively on their outgroup.

Three models made different predictions regarding the role of identity and ideology in the belief and dissemination of news. The ideological values hypothesis predicted that Democrats would be more likely to believe news that uphold liberal values as compared to news that undermine them or that uphold conservative values; conversely, Republicans would be more likely to believe news that uphold conservative values as compared to news that undermine them or that uphold liberal values. The confirmation bias hypothesis predicted that news that report Democratic politicians upholding liberal values or undermining conservative values would be more believable than the reverse; and news reporting Republican politicians upholding conservative values or undermining liberal values would be more believable than the reverse. Finally, the political identity hypothesis predicted that belief in news would be higher when the news reported an ingroup upholding social or moral values or an outgroup undermining such values, regardless of the content of those values (i.e., equally for liberal and conservative values).

Our results support the third perspective: Democrats and Republicans were more likely to believe news when their ingroup upheld (liberal or conservative) values, as compared to when it undermined (liberal or conservative) values, and when the outgroup undermined (liberal or conservative) values, as compared to when it upheld (liberal or conservative) values. We did not find consistent support for the ideological values hypothesis or for the confirmation bias hypothesis. These findings suggest that when political identity is activated, it can override other concerns that people may otherwise normally hold (e.g., about their cherished values, or about accuracy).

This is not to say that the other two models would never apply. For example, if political identity is not salient or important to a perceiver, it would be less likely to override other concerns or biases. Similarly, if a perceiver identified with their ideological inclination more strongly than with their political party (i.e., they cared more about their political values than about their party), then we would not expect partisan affiliation to shape belief. This might be more likely during periods of low polarization or in multiparty political systems. In a context in which partisan identities are strongly polarized and salient, they are more likely to be chronically salient and influence belief (see Finkel et al., 2020). Moreover, in polarized contexts, people tend to sort into ideological parties, compounding the impact of identity and ideology.

The Identity-Based Model of Political Belief

The present work does not explore why people tend to believe positive information about their ingroup and negative information about the outgroup. Some authors explain this effect through heuristics processes: people use party positions as cues to guide their own position because they think it will help them achieve accuracy (Cohen, 2003; Leeper & Slothuus, 2014). Another perspective considers political parties as objects of identification: people follow the party position because it allows them to maintain beliefs that are aligned with their political identity, which in turns fosters a positive social identity (Kahan, 2017b; Leeper & Slothuus, 2014). Although these frameworks are often seen as inconsistent, it is possible that identity cues provide heuristics that can help people obtain their goals (whether those involve the desire for achieving accuracy or fostering a positive social identity).

The identity-based model of belief suggests that people are more likely to believe news stories that provide a means for their political identities to fulfill certain psychological goals, such as belonging goals, epistemic goals, status goals, etc. (Van Bavel & Pereira, 2018). People can satisfy these goals by holding beliefs that align with their party and party members (Van Bavel & Pereira, 2018). As such, partisan identities can determine the value of different beliefs and distort cognition at different levels of processing, from analytical reasoning to memory formation. When social identity goals outweigh accuracy goals, people may modify their beliefs to align with their party identity rather than their personal values.

Accurate Thinking

Past work on fake news consumption reported that individual differences in analytic thinking are related to more belief in real news, and more disbelief in fake news (Pennycook & Rand, 2018a). Although analytic thinking did not exacerbate motivated reasoning in terms of partisanship (Kahan, 2013, 2017b), a recent reanalysis found that partisanship did shape bias in the judgment of true and false news (Batailler et al., 2021). Moreover, the effect size of partisanship was, if anything, larger than the effect of analytic thinking on the discrimination of true and false news. This body of work is consistent with the identitybased model of belief, which argues that partisan identities bias the belief in information, but accuracy goals can mitigate belief in fake news (see Van Bavel & Pereira, 2018). Since measures of analytic thinking rely on relatively simple questions, the measure likely captures the motivation to engage in accurate or deliberative thinking. As such, the effects of partisanship and of analytic thinking likely represent two independent factors driving the belief in fake news (with partisan identity increasing bias, and analytic thinking improving the discernment of true and false news).

Ideology Asymmetry

We observed ingroup bias for both Democrats and Republicans. This partisan symmetry is consistent with an effect of political group identity, whereas our asymmetrical findings are more likely due to an effect of political ideology. Our research also helps shed some light on the ideological asymmetry versus symmetry debate. One on hand, we consistently observed symmetrical patterns for belief in partisan information: both Democrats and Republicans were willing to believe true and false news stories in which members of their ingroup upheld values and the outgroup undermined values. On the other hand, we observed several asymmetrical patterns of fake news belief in nonpartisan news and willingness to share.

This pattern speaks to a long-standing debate about the existence of ideological differences. One program of research has extensively documented the existence of an ideological asymmetry in epistemic motives: conservatives consistently show higher levels of dogmatism, rigidity, intolerance of ambiguity, and needs for cognitive closure, structure, and order, as compared to liberals (Jost, 2017; Jost et al., 2003, 2017). According to the ideological "asymmetry" perspective, one might expect Republicans to believe and share fake news stories (see Guess et al., 2019). In contrast, other research has suggested that liberals can be as intolerant as conservatives (Brandt et al., 2014), or that rather than the right end of the political spectrum, it is the extremes on both sides of the spectrum that are dogmatic and intolerant (van Prooijen & Krouwel, 2017; see also Harris & Van Bavel, 2020). According to the "ideological symmetry" perspective, one should not expect to find any ideological differences in our studies. Yet other work has found greater dogmatism among people endorsing conservative views than among people endorsing liberal views, but greater belief superiority among people at both ideological extremes (Brandt et al., 2015; Toner et al., 2013).

Limitations

There are two important limitations to the generalizability of our results. First, our sample and stimuli are specific to the U.S. two-party system. Indeed, our stimuli from Experiment 1 and partially from Experiment 2 are about Clinton and Trump, who are infamous and atypical members of their political parties (although Experiment 3 featured unfamiliar party members). Future work is needed to determine the utility of the identity-based model of belief in other countries, with other stimuli and group identities. Another limitation is that our measures are self-reported. Although prior work has found that intentions to share are highly correlated with actual sharing on social media (Mosleh et al., 2020), future work should investigate actual online sharing behavior (e.g., Brady et al., 2017). Moreover, because our measures are self-reported, we cannot identify where in the processing stream partisan bias might be occurring. For example, we cannot exclude the possibility that partisan differences reflect a motivated expression of belief, rather than an actual belief. Another possibility is that the differences we observed reflect a deeper bias such as biased memory or implicit differences (Van Bavel & Pereira, 2018).

Conclusion

It is an irony of our modern world that when so much of human knowledge is readily accessible in most people's pockets, misinformation remains such a critical issue. One reason this abundance of information has not promoted a greater sense of shared reality is due to elements of human psychology (Van Bavel et al., 2021). For instance, the current research finds evidence of partisan identity on the belief and dissemination of (real and false) news. Partisans who filter information through the lens of their identity are likely to come to different conclusions (Van Bavel & Pereira, 2018).

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Authors' contribution

A. P. and J. V. B. conceptualized the research question and designed the experiments. A. P. collected and analyzed the data with guidance from J. V. B.; A. P. drafted the article. E. H. and J. V. B. provided critical revision of the article.

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Notes

- There is some overlap between Schwartz's value theory and the moral foundation theory (Graham et al., 2013). Moral foundation theory suggests the moral domain can be reduced to several moral values (e.g., care, fairness, authority, etc.), and liberals and conservatives endorse these moral values to differing degrees (Graham et al., 2012).
- 2. We want to acknowledge that we have implicitly assumed all these values are positive in the

current context; however, we agree that they can be reframed in a negative way (e.g., border security can be reframed as xenophobia towards refugees). This motivated us to create our own carefully controlled fake news in Experiment 3 to provide a more stringent test of identity outside the constraints of these complex issues.

- Completion time: Experiment 1: M = 14.99 minutes; Experiment 2: M = 9.12 minutes; Experiment 3: M = 10.35 minutes.
- 4. One thousand and seventy-four participants followed the link to the online experiment but some participants were excluded before starting the survey because they did not self-categorize as either Democrat or Republican (257 independents, 25 other, and 33 no party), and/or had no intention to vote (65), or had already voted (352). Political affiliation and voting intention are not mutually exclusive categories. We decided a priori to recruit only people who intended to vote but had not done so yet, in order to maximize the relevance of the quotes for all participants.
- 5. Participants also differed as a function of political identification on openness values (Democrats endorsed openness values to a higher extent than Republicans), F(1, 427) = 10.63, p = .001, d = 0.32, and on self-enhancement values (Republicans endorsed self-enhancement values to a higher extent than Democrats), F(1, 416) = 8.65, p = .003, d = 0.29.
- 6. In Experiment 1, we additionally measured the extent to which participants thought the news were congruent/incongruent with their personal values, participants' general positive attitude towards Hillary Clinton and Donald Trump, their voting intentions, and a follow-up memory task related to the news stories. As these variables are not central to understanding belief in fake news, which is the focus of this paper, we chose not to report these findings here, but we are happy to make the data available to other scholars upon request.
- Four hundred and twenty-nine participants completed our survey. We excluded participants who did not self-categorize as Democrat or Republican (21 independents, two other, and one no party).
- 8. In Experiment 2, we additionally measured the extent to which participants thought the news were congruent with their personal values and the extent to which they would be willing to read more about this. Due to space limitations, we chose not to report these findings here.

- Six hundred and forty-three participants completed the survey. We excluded participants who did not self-categorize as Democrat or Republican (53 independents, two other, and six none) or failed an attention check (n = 31: 12 Democrats, 13 Republicans, five independents, one other). Results were nearly identical when analyses were conducted on this whole sample.
- We describe the marginal three-way interaction on belief in fake news and willingness to share fake news in the supplemental material.

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