

# Political Ideology Predicts Perceptions of the Threat of COVID-19 (and Susceptibility to Fake News About It)

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## Abstract

The present research examined the relationship between political ideology and perceptions of the threat of COVID-19. Due to Republican leadership's initial downplaying of COVID-19 and the resulting partisan media coverage, we predicted that conservatives would perceive it as less threatening. Two preregistered online studies supported this prediction. Conservatism was associated with perceiving less personal vulnerability to the virus and the virus's severity as lower, and stronger endorsement of the beliefs that the media had exaggerated the virus's impact and that the spread of the virus was a conspiracy. Conservatism also predicted less accurate discernment between real and fake COVID-19 headlines and fewer accurate responses to COVID-19 knowledge questions. Path analyses suggested that presidential approval, knowledge about COVID-19, and news discernment mediated the relationship between ideology and perceived vulnerability. These results suggest that the relationship between political ideology and threat perceptions may depend on issue framing by political leadership and media.

## Keywords

political ideology, threat perception, COVID-19, fake news

Ideological conservatives are generally more sensitive to threats than liberals, viewing the world as a more dangerous place (e.g., van Leeuwen & Park, 2009). However, Republican leadership in the United States initially downplayed the threat of COVID-19, and some even attributed its prominence in the media to political motivations (Halon, 2020). The resulting framing of the COVID-19 threat by Republican leadership was the opposite of that typically associated with ideological conservatism (although Republicans are the more conservative party). Motivated by this counterintuitive framing of the COVID-19 threat, the current research examines the association between political ideology and perceptions of COVID-19.

Among the various cognitive differences between ideological conservatives and liberals (e.g., Jost, 2017) is that conservatives tend to have greater sensitivity to threat. For example, conservatives score higher in death anxiety (Jost et al., 2003) and have stronger startle-blink responses (Oxley et al., 2008). Additionally, right-wing authoritarianism is associated with seeing the world as dangerous (Perry et al., 2013), and support for Republican President George W. Bush increased when the national security threat level rose (Willer, 2004). Furthermore, longitudinal studies have shown that people who perceive more threats are subsequently more conservative (Matthews et al., 2009), supporting the view that ideology is linked to perceptions of threat and danger (Jost & Amodio, 2012). This

association is particularly clear with respect to physical (rather than ideological) threats (Crawford, 2017). These differences in threat sensitivity may help explain differences among liberals and conservatives on policy issues such as immigration (Aarøe et al., 2017) and gun control (Celinska, 2007).

There are some threats, however, to which liberals are more sensitive. For example, more Democrats than Republicans believe that climate change is a threat (Hamilton, 2011), and this difference has increased across time (Dunlap et al., 2016). Despite scientific consensus about anthropogenic climate change, many Republicans do not believe that global warming is mostly human-caused and do not support renewable energy standards or regulation of carbon dioxide as a pollutant (Mildenberger et al., 2017). It has been argued that partisan media coverage may be responsible for the differences in sensitivity to the threat of climate change among Republicans and Democrats (Carmichael et al., 2017). (It should be

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noted that, at this time in the United States, party membership serves as a proxy for political ideology.) The tendency for conservatives to be more threat-sensitive can reverse, then, when driven by political leaders' framing or partisan media coverage of an issue.

Similar to climate change, the threat of the coronavirus pandemic (COVID-19) has been covered differently by conservative- and liberal-leaning media platforms. While liberal-leaning media outlets criticized the Trump administration's downplaying of the risks of COVID-19 and its response to the growing pandemic (Drezner, 2020), members of the Trump administration stated through conservative-leaning media that Democrats were using COVID-19 to scare people for political gain (Halon, 2020). Furthermore, a conservative talk show host even claimed that the liberal media was using COVID-19 as an attempt to impeach the president (Steib, 2020). As a result, we decided to examine perceptions of the threat of COVID-19 after the virus began receiving partisan media coverage in March 2020.

Beliefs about the threat of COVID-19 are likely associated with aspects of the contemporary media landscape. For example, the prevalence of "fake news" presents an additional mechanism by which people may have formed beliefs about COVID-19. Fake news is a form of misinformation that resembles news stories but is fabricated and is intended to mislead (Lazer et al., 2018). There is evidence to suggest that Republicans may be less accurate than Democrats at discerning real from fake news headlines (Pennycook & Rand, 2019b). Although previous studies of fake news have tended to focus on political news, fake news about health-related topics is widespread (Waszak et al., 2018), and fake news was prevalent on social media during the COVID-19 pandemic of 2020 (Scott, 2020). Thus, we examined how political ideology was related to assessments of real and fake headlines about COVID-19.

In the current studies, participants rated the threat of COVID-19 and the accuracy of news headlines. We examined relations between political ideology and perceptions of threat, conspiracy beliefs, perceived media exaggeration of COVID-19, and perceived accuracy of real and fake news headlines about COVID-19.

## Study 1

We predicted that conservatism would predict lower perceived vulnerability to COVID-19 (Hypothesis 1), less perceived severity of COVID-19 (Hypothesis 2), more agreement with a conspiracy statement (Hypothesis 3) and a media exaggeration statement (Hypothesis 4), and estimates of fewer confirmed cases and deaths from COVID-19 (Hypothesis 5). We also predicted that conservatism would be associated with less accuracy in discerning between real and fake news headlines (Hypothesis 6). We made similar predictions about the relationship between participants' party membership and our measured variables (reported in Supplementary Materials).

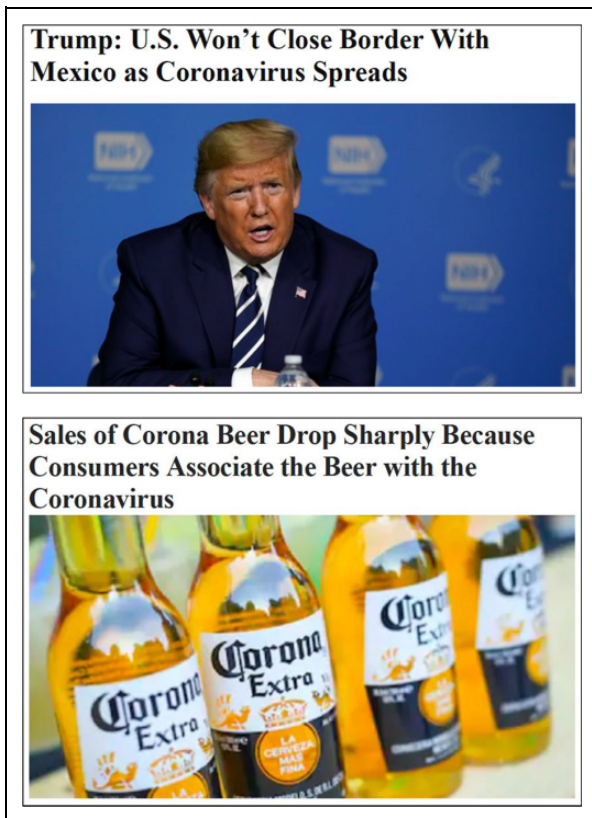
## Method

**Preregistration.** We preregistered our hypotheses, data collection plan, and analysis plans on the Open Science Framework (OSF, available at: [https://osf.io/hs9jk/?view\\_only=f58a02a7c104460eae1036d1a3487ae4](https://osf.io/hs9jk/?view_only=f58a02a7c104460eae1036d1a3487ae4)). Materials and data are also available on the OSF page.

**Sample.** We conducted a power analysis to determine our sample size. For our examination of conservatism, we decided that the smallest relationship that would be interesting was  $r = .15$ . Using G\*Power (Faul et al., 2007), we found that to have a power of .80 with two-tailed  $\alpha$  of .05 for correlational analyses, we needed 346 participants. We were also interested in group differences between Republicans and Democrats. To have a power of .80 to detect an effect of  $d = .30$ , we needed 176 Republicans and 176 Democrats. Therefore, we decided to collect data in batches until we had at least 346 participants that included at least 176 Republicans and 176 Democrats.

A total of 587 Mechanical Turk workers completed the study. There were two honesty check questions (described in the next section); 61 participants failed at least one and were excluded from our analyses. Of the 526 participants in the final sample, 232 identified as Democrats, 178 as Republicans, and 116 as neither (mean conservatism = 3.76 on a scale from 1 to 7). There were 262 women and 262 men; one participant selected "other," and one declined to respond. Participants ranged in age from 18 to 78 (median = 39.5) years.

**Materials and Procedure.** Participants completed one item about participants' vulnerability and one about the virus's severity, adapted from Ort and Fahr (2018). There was also an item about conspiracy ideation adapted from Brotherton et al. (2013) and a media exaggeration item adapted from Prati et al. (2011). Participants responded to these four items on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*). Participants then estimated how many confirmed cases of and deaths from COVID-19 there had been worldwide and in the United States at the time at which they completed the study. Participants also rated a series of headlines. The headlines consisted of eight real headlines taken from USNews.com and eight fake headlines taken from Snopes.com and Factcheck.org, and were edited to be similar in style, in the same font, and with accompanying pictures identical in size. An example of a real and a fake headline are shown in Figure 1; all headlines are presented in Supplemental Material. Participants rated the 16 headlines on a scale of 1 (*not at all accurate*) to 4 (*very accurate*); the headlines appeared in a random order for each participant. For each participant, discernment was calculated by subtracting mean accuracy ratings of fake headlines from mean accuracy ratings of real headlines. Finally, participants stated their political party (Democrat, Republican, or neither), rated their political attitudes on a scale of 1 (*extremely liberal*) to 7 (*extremely conservative*), rated their approval of Donald Trump's handling of his job as president on a scale of 1 (*strongly approve*) to 4 (*strongly disapprove*), and reported their age, gender, and level



**Figure 1.** Examples of real (top) and fake news headlines (bottom).

of education. The two honesty check questions asked participants whether they responded randomly to any items or looked up any of the study information. We preregistered the exclusion of any participants who responded yes to either question. We used CloudResearch to conduct this study (Litman et al., 2016), and participants completed it on March 8, 2020.

**Results**

To test our hypotheses about how political conservatism related to threat perception and news discernment, we conducted correlational analyses. The correlation matrix is presented in Table 1. Supporting Hypotheses 1, 2, 3, 4, and 6, political conservatism was negatively correlated with ratings of vulnerability ( $p < .001$ ), ratings of severity ( $p = .002$ ), and news discernment ( $p < .001$ ) and positively correlated with ratings of conspiracy ( $p < .001$ ) and media exaggeration ( $p < .001$ ).<sup>1</sup> Hypothesis 5 was not supported; conservatism was not significantly correlated with estimates of the number of COVID-19 confirmed cases worldwide ( $p = .178$ ) or in the United States ( $p = .307$ ) or COVID-19-related deaths worldwide ( $p = .865$ ) or in the United States ( $p = .694$ ). Table 1 also shows other significant correlations that were not part of our hypotheses.

We also present differences between Republicans and Democrats in Table 2 (full analyses in Supplemental Material).

To explore the mechanisms by which political ideology was linked to threat perception, a path model (exploratory; not

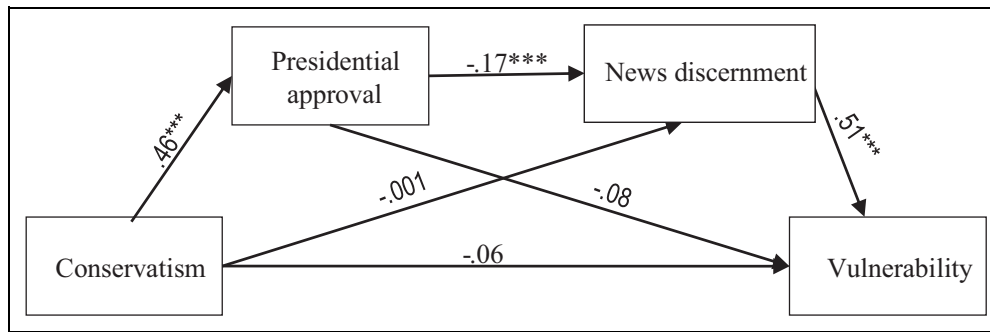
**Table 1.** Correlation matrix for conservatism; ratings of vulnerability, severity, conspiracy beliefs, and media exaggeration; estimates of the number of confirmed cases and deaths worldwide and in the United States; and discernment in Study 1.

Measure	2	3	4	5	6	7	8	9	10
1. Conservatism	<b>-.22</b>	<b>-.14</b>	<b>.18</b>	<b>.31</b>	-.06	.05	-.01	-.02	<b>-.22</b>
2. Vulnerability	—	<b>.12</b>	<b>-.21</b>	<b>-.13</b>	.06	<b>-.10</b>	-.04	-.02	<b>.33</b>
3. Severity		—	<b>.11</b>	<b>-.41</b>	.06	-.05	.07	-.01	.05
4. Conspiracy			—	.05	-.08	<b>.09</b>	-.01	<b>.12</b>	<b>-.46</b>
5. Media exaggeration				—	<b>-.09</b>	.01	-.06	.04	<b>-.21</b>
6. Cases worldwide					—	.03	<b>.38</b>	.08	.07
7. Cases United States						—	<b>.24</b>	<b>.30</b>	-.08
8. Deaths worldwide							—	<b>.26</b>	-.05
9. Deaths United States								—	<b>-.17</b>
10. News discernment									—

Note. Significant correlations are in bold.

**Table 2.** Mean ratings of vulnerability, severity, conspiracy, and media exaggeration; estimates of cases and deaths worldwide and in the United States; and mean news discernment for Democrats, Republicans, and Others in Study 1.

Measure	Democrats (n = 232)		Republicans (n = 178)		Others (n = 116)	
	M	[95% CI]	M	[95% CI]	M	[95% CI]
Vulnerability	3.52	[3.37, 3.67]	3.10	[2.91, 3.28]	3.48	[3.28, 3.68]
Severity	3.67	[3.52, 3.81]	3.38	[3.20, 3.57]	3.45	[3.22, 3.67]
Conspiracy	2.04	[1.88, 2.20]	2.52	[2.32, 2.72]	2.04	[1.83, 2.26]
Media exaggeration	2.82	[2.64, 2.99]	3.69	[3.52, 3.86]	3.14	[2.92, 3.37]
Cases worldwide	121,276	[75,245, 167,306]	76,530	[40,284, 112,776]	84,755	[53,102, 116,407]
Cases United States	4,891	[-4, 9,786]	1,697	[339, 3,057]	1,161	[276, 2,046]
Deaths worldwide	10,946	[5,316, 16,574]	4,667	[2,707, 6,627]	18,743	[-2,502, 39,987]
Deaths United States	619	[56, 1,181]	119	[59, 181]	71	[27, 115]
News discernment	1.11	[1.03, 1.19]	0.79	[0.69, 0.89]	1.06	[0.96, 1.17]



**Figure 2.** Serial-multiple mediation of presidential approval and news discernment in the relationship between conservatism and vulnerability. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

preregistered) was fit to the data (Figure 2). Because conservatives typically perceive more threat, but did not in this case, we posited that those conservatives higher in presidential approval would perceive less threat from COVID-19, given the president's framing of the issue. We reasoned that, as the president cast doubt on the mainstream media's coverage of COVID-19 and himself promoted dubious news during the crisis (e.g., the effectiveness of hydroxychloroquine in treating COVID-19; Crowley et al., 2020), news discernment might in turn link presidential approval and threat perception. However, this approach is speculative; mediational analyses in cross-sectional designs cannot provide evidence of causation.

The path analysis was performed using the Lavaan package in R (Rosseel, 2012) with standard errors calculated using 1,000 bootstrapped samples. We found serial-multiple mediation of presidential approval and news discernment on the relationship between conservatism and perceived vulnerability ( $b = -.04$ ,  $SE = .01$ , 95% CI  $[-.06, -.02]$ ,  $p < .001$ ).<sup>2</sup> We also found mediation of conservatism to news discernment through presidential approval ( $b = -.08$ ,  $SE = .02$ , 95% CI  $[-.11, -.05]$ ,  $p < .001$ ) and mediation of presidential approval to vulnerability through news discernment ( $b = -.09$ ,  $SE = .02$ , 95% CI  $[-.13, -.04]$ ,  $p < .001$ ). Last, direct effects were found from conservatism to presidential approval ( $b = .46$ ,  $SE = .02$ , 95% CI  $[.43, .49]$ ,  $p < .001$ ), presidential approval to news discernment ( $b = -.17$ ,  $SE = .04$ , 95% CI  $[-.23, -.10]$ ,  $p < .001$ ), and news discernment to vulnerability ( $b = .51$ ,  $SE = .08$ , 95% CI  $[.36, .65]$ ,  $p < .001$ ).

Because older adults engaged more with fake news than younger adults during the 2016 U.S. presidential election (Grinberg et al., 2019), we examined (exploratory; not preregistered) the relationship between age and accuracy ratings of real and fake headlines. Age was negatively correlated with erroneously rating fake headlines as accurate ( $r = -.26$ ,  $p < .001$ ) and positively correlated with accuracy ratings of real headlines ( $r = .17$ ,  $p < .001$ ), which led to the positive correlation between age and headline discernment ( $r = .32$ ,  $p < .001$ ). Thus, in the context of COVID-19, there was no evidence that older adults are more susceptible to fake news; on the contrary, susceptibility to fake news decreased with age.

Study 1 found that Republicans perceived COVID-19 as less threatening than Democrats. This pattern is counter to that

typically observed in the threat perception literature; conservatives are usually *more* likely to perceive threats (Crawford, 2017). Given the mediational results, our findings suggest that this reversal may, at least with respect to personal vulnerability, be explained by Republican leadership's framing of the threat and Republicans' less accurate assessments of truth in media. However, knowledge about COVID-19, which was not measured in Study 1, could be influencing some of these relationships. Therefore, we assessed COVID-19 knowledge to test a more complete model in Study 2.

## Study 2

Study 1 provided evidence that Republicans perceived COVID-19 as less of a threat, perhaps driven in part by the framing provided by Republican leadership and the issue's presentation in the media. To further clarify these relationships, Study 2 also included measures of media consumption, cognitive reflection, and COVID-19 knowledge. In addition, information about COVID-19 was proliferating rapidly at this time, along with politicians' communication about it; indeed, on March 13, 2020, a national emergency was declared in the United States. Thus, it may be that the relation between political orientation and COVID-19 threat perception may have shifted as political rhetoric evolved. Conversely, it is possible that attitudes about COVID-19, once formed, would be relatively resistant to change over this time period. Study 2 was conducted on March 17, 2020, and thus also examined the trajectory of perceptions of the threat. Hypotheses 1, 2, 3, 4, and 6 were the same as in Study 1.<sup>3</sup> We omitted the estimates of cases and deaths, so Hypothesis 5 was not tested in Study 2. For clarity, we keep the same numbering of hypotheses that we used in Study 1. We also predicted that conservatism would be negatively correlated with scores on the cognitive reflection (Hypothesis 7; Jost, 2017) and COVID-19 knowledge measures (Hypothesis 8).

## Method

**Preregistration.** The preregistration, materials, and data are available on OSF ([https://osf.io/hs9jk/?view\\_only=f58a02a7c104460eae1036d1a3487ae4](https://osf.io/hs9jk/?view_only=f58a02a7c104460eae1036d1a3487ae4)).

**Sample.** We conducted a power analysis to determine sample size. We preregistered the smallest effect size of interest,  $r = .13$  (based on Study 1 and another study, reported elsewhere, conducted at the same time), and found that to have power of .80 with two-tailed  $\alpha$  of .05 to detect that effect, we needed 462 participants (per G\*Power; Faul et al., 2007). We collected data in batches until we had at least 462 who passed the honesty checks.

A total of 609 Mechanical Turk workers completed the study. Participants responded to the same two honesty check questions as in Study 1; 144 participants failed at least one and were excluded from our analyses. Of the 464 participants in the final sample, 196 identified as Democrats, 161 as Republicans, and 107 as neither (mean conservatism = 3.75). There were 235 women and 226 men; one participant selected “other” and two declined to respond. Participants ranged in age from 18 to 76 (median = 35) years.

**Materials and Procedure.** Materials were similar to those used in Study 1. They included the same vulnerability, severity, conspiracy ideation, and media exaggeration items, and the same 16 headlines. We omitted the estimates of COVID-19 cases and deaths, but added a COVID-19 knowledge questionnaire and a cognitive reflection test (CRT). The knowledge questionnaire included 10 questions (Cronbach’s  $\alpha = .579$ ); five were specific to COVID-19 (e.g., risk factors; World Health Organization, 2020) and five were about epidemiology in general (O’Neil, 2005). The CRT contained nine items ( $\alpha = .735$ ) taken from several sources (Baron et al., 2015; Oldrati et al., 2016; Primi et al., 2016; Thomson & Oppenheimer, 2016; Toplak et al., 2014). The knowledge and CRT questions are available on the OSF page. Participants then answered the same questions about their political views as in Study 1 (party, political beliefs, and presidential approval). Next, participants answered questions about their consumption of news media. First, they considered all the ways they get news about political events and selected the sources from which they get news in a typical week (from a set of 35). These were taken from a study that reported sources with which at least 33% of Mechanical Turk workers were familiar (Pennycook & Rand, 2019a) and a Pew Research Center poll assessing Americans’ trust of news media (Jurkowitz, Mitchell, Shearer, & Walker, 2020). Next, participants indicated how much of their news they get from each source using the labels: none, very little, some, majority, most, and all. Last, participants reported their age, gender, level of education, and answered the honesty check questions.

## Results

To test our hypotheses about political conservatism and threat perception, news discernment, COVID-19 knowledge, and CRT performance, we conducted correlational analyses. The correlation matrix is presented in Table 3. Supporting our hypotheses, political conservatism was negatively correlated with ratings of vulnerability ( $p < .001$ ), ratings of severity ( $p$

**Table 3.** Correlation matrix for conservatism; ratings of vulnerability, severity, conspiracy beliefs, and media exaggeration; news discernment, COVID-19 knowledge, and CRT in Study 2.

Measure	2	3	4	5	6	7	8
1. Conservatism	<b>-.12</b>	<b>-.28</b>	<b>.31</b>	<b>.49</b>	<b>-.26</b>	<b>-.17</b>	-.08
2. Vulnerability	—	<b>.18</b>	<b>-.26</b>	<b>-.23</b>	<b>.36</b>	<b>.29</b>	<b>.28</b>
3. Severity	—	—	<b>.11</b>	<b>.41</b>	<b>.15</b>	-.05	-.04
4. Conspiracy	—	—	—	<b>.38</b>	<b>-.58</b>	<b>-.42</b>	<b>-.31</b>
5. Media exaggeration	—	—	—	—	<b>-.34</b>	<b>-.24</b>	<b>-.18</b>
6. News discernment	—	—	—	—	—	<b>.48</b>	<b>.32</b>
7. COVID-19 knowledge	—	—	—	—	—	—	<b>.38</b>
8. CRT	—	—	—	—	—	—	—

Note. Significant correlations are in bold. CRT = cognitive reflection test.

< .001), news discernment ( $p < .001$ ), and COVID-19 knowledge ( $p < .001$ ) and positively correlated with ratings of conspiracy ( $p < .001$ ) and media exaggeration ( $p < .001$ ).<sup>4</sup> The correlation between political conservatism and CRT performance, however, was not statistically significant ( $p = .069$ ). Table 3 also shows other significant correlations that were not part of our hypotheses.

We also present differences between Republicans and Democrats in Table 4 (full analyses in Supplemental Material).

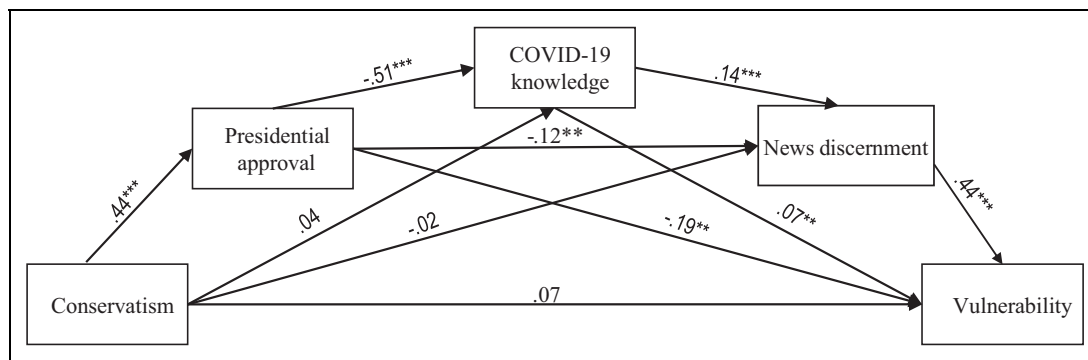
In Study 1, we found suggestive evidence that both presidential approval and fake news discernment mediated the relationship between conservatism and vulnerability. However, it may be that presidential approval predicts knowledge of COVID and epidemiology, which in turn predicts worse news discernment and less perceived vulnerability, rather than directly predicting these variables. To explore these potential relationships, we again used a path analysis, with the full model presented in Figure 3.

We found serial-multiple mediation of presidential approval, news discernment, and COVID-19 knowledge on the relationship between conservatism and vulnerability ( $b = -.01$ ,  $SE = .004$ , 95% CI  $[-.02, -.01]$ ,  $p = .001$ ).<sup>5</sup> We further found significant indirect effects of conservatism to vulnerability through presidential approval ( $b = -.08$ ,  $SE = .03$ , 95% CI  $[-.14, -.03]$ ,  $p = .004$ ) and COVID-19 knowledge to vulnerability through news discernment ( $b = .06$ ,  $SE = .01$ , 95% CI  $[.04, .09]$ ,  $p < .001$ ). Last, direct effects were found from conservatism to presidential approval ( $b = .44$ ,  $SE = .02$ , 95% CI  $[.40, .47]$ ,  $p < .001$ ), presidential approval to COVID-19 knowledge ( $b = -.51$ ,  $SE = .10$ , 95% CI  $[-.70, -.31]$ ,  $p < .001$ ), news discernment ( $b = -.12$ ,  $SE = .03$ , 95% CI  $[-.18, -.05]$ ,  $p < .001$ ), and vulnerability ratings ( $b = -.19$ ,  $SE = .07$ , 95% CI  $[-.32, -.07]$ ,  $p = .004$ ), COVID-19 knowledge to news discernment ( $b = .14$ ,  $SE = .01$ , 95% CI  $[.11, .16]$ ,  $p < .001$ ) and vulnerability ratings ( $b = .07$ ,  $SE = .03$ , 95% CI  $[.01, .12]$ ,  $p = .018$ ), and news discernment to vulnerability ratings ( $b = .44$ ,  $SE = .08$ , 95% CI  $[.27, .61]$ ,  $p < .001$ ).

**Table 4.** Mean ratings of vulnerability, severity, conspiracy, and media exaggeration and mean news discernment, COVID-19 knowledge, and CRT performance for Democrats, Republicans, and Others in Study 2.

Measure	Democrats (n = 193)		Republicans (n = 161)		Others (n = 107)	
	M	[95% CI]	M	[95% CI]	M	[95% CI]
Vulnerability	3.95	[3.80, 4.09]	3.52	[3.34, 3.71]	3.79	[3.59, 3.98]
Severity	4.35	[4.23, 4.48]	3.70	[3.51, 3.89]	3.84	[3.62, 4.06]
Conspiracy	1.92	[1.75, 2.10]	2.73	[2.52, 2.95]	2.12	[1.90, 2.34]
Media exaggeration	2.25	[2.07, 2.44]	3.67	[3.49, 3.86]	2.80	[2.54, 3.07]
News discernment	1.23	[1.14, 1.33]	0.89	[0.78, 1.00]	1.20	[1.10, 1.30]
Knowledge	6.21	[5.93, 6.49]	5.49	[5.18, 5.80]	6.36	[6.00, 6.71]
CRT performance	2.37	[2.06, 2.67]	1.87	[1.57, 2.17]	2.92	[2.47, 3.36]

Note. CRT = cognitive reflection test.

**Figure 3.** Serial-multiple mediation of presidential approval, COVID-19 knowledge, and news discernment in the relationship between conservatism and vulnerability. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Next, we examined the relationship between participants' age and accuracy in evaluation of news headlines. The results were consistent with those of Study 1. Age was negatively correlated with erroneously rating fake headlines as accurate ( $r = -.24, p < .001$ ), but not significantly correlated with accurately identifying real headlines ( $r = .07, p = .139$ ). Discernment was again positively correlated with age ( $r = .23, p < .001$ ). Consistent with Study 1, susceptibility to fake COVID-19 news decreased with age in Study 2.

Finally, we conducted our exploratory media consumption analyses, focusing on three sources: Cable News Network (CNN), the *New York Times*, and Fox News. These sources were accessed the most frequently and had the largest partisan differences. In the sample, 48% of participants obtained some of their news from CNN, including 32% of Republicans and 63% of Democrats (correlation between consumption of CNN and conservatism,  $r = -.22, p < .001$ ); 35% of participants obtained news from the *New York Times*, including 20% of Republicans and 50% of Democrats ( $r = -.21, p < .001$ ); and 30% of participants obtained news from Fox News, including 51% of Republicans and 14% of Democrats ( $r = .35, p < .001$ ).

We conducted a series of regression analyses to examine how media viewing predicted ratings of vulnerability, severity, conspiracy belief, and media exaggeration. Each regression

included how much of participants' news they obtain from Fox News, the *New York Times*, and CNN as predictors. For vulnerability ratings, the amount of news obtained from Fox News was a significant negative predictor ( $b = -.11, SE = .04, 95\% CI [-.18, -.04], p = .003$ ). For severity ratings, the amount of news obtained from the *New York Times* ( $b = .08, SE = .04, 95\% CI [.00, .15], p = .049$ ) and from CNN ( $b = .14, SE = .03, 95\% CI [.08, .21], p < .001$ ) were positive predictors. For conspiracy belief, the amount of news obtained from Fox News was a significant positive predictor ( $b = .12, SE = .04, 95\% CI [.04, .21], p = .006$ ). For media exaggeration ratings, the amount of news obtained from Fox News was a significant positive predictor ( $b = .23, SE = .05, 95\% CI [.14, .32], p < .001$ ) and the amount of news obtained from the *New York Times* ( $b = -.11, SE = .05, 95\% CI [-.20, -.02], p = .020$ ) and CNN ( $b = -.17, SE = .04, 95\% CI [-.25, -.09], p < .001$ ) were negative predictors.

We explored the possibility that the relationships between conservatism and our COVID-19 measures decreased from Study 1 to Study 2, as Republican leadership's response to COVID-19 changed between these two studies, and this change in framing might have influenced Republicans' perceptions. We compared the correlations found in Study 1 to those in Study 2 with a series of  $z$  tests (relevant correlations appear in Tables 1 and 3). The correlation between conservatism and

vulnerability did not significantly differ from Study 1 to Study 2,  $z = 1.61, p = .107$ , whereas the correlations between conservatism and severity ( $z = 2.30, p = .021$ ), conservatism and conspiracy beliefs ( $z = 2.17, p = .030$ ), and conservatism and media exaggeration ( $z = 3.37, p < .001$ ) were larger in Study 2. These results demonstrate that relationship between conservatism and perceptions of COVID-19 did not decrease between Studies 1 and 2; in fact, ratings of severity, conspiracy, and media exaggeration were *better* predicted by conservatism in Study 2 than they were before the national emergency declaration.

## Discussion

The central purpose of the present studies was to examine the relationship between political ideology and perceptions of the threat of COVID-19. Because of the pandemic's politicization in the United States (Drezner, 2020; Halon, 2020), we predicted that conservatives would rate COVID-19 as less threatening than liberals. These predictions were supported: In both studies, conservatism was associated with perceiving less personal vulnerability, rating the virus as less severe, and agreeing more that COVID-19 was the result of a conspiracy and that the media had exaggerated the risks of the virus. Conservatism also predicted less accuracy at discerning between real and fake headlines. These findings are consistent with contemporaneous polling data; for example, a March 19 report from the Pew Center revealed that 59% of Democrat-leaning respondents thought that the outbreak was a major threat, whereas only 36% of Republican-leaning respondents endorsed this view (Pew Research Center, 2020).

These findings contrast with much of the threat perception literature; conservatives are generally more sensitive to a range of threats. The exceptions to this tendency occur when an issue is portrayed in a partisan manner by media, as is the case with climate change (Carmichael et al., 2017). Similarly, our analyses of news media consumption demonstrate that obtaining news from more partisan sources predicts participants' perceptions of vulnerability, severity, conspiracy, and media exaggeration of COVID-19. The more news participants got from Fox News, the less vulnerable they felt, and the more they agreed that the pandemic is a result of a conspiracy and that the media is exaggerating the threat. The more news participants got from CNN, the more severe they believed COVID-19 was, and the less they agreed that the media is exaggerating the threat. This suggests that, while there is likely a general disposition among conservatives toward greater threat perception, it is a tendency that can be overcome with sufficient intergroup pressure, political leadership, or media influence. Examining the relative importance of these influences (and degree of interdependence among them) is a promising topic of future research.

The headline discernment results were consistent with others that used headlines that were not about COVID-19 (Pennycook & Rand, 2019b) and, more generally, with the finding that conservatives shared more fake news during the 2016 U.S.

election (Grinberg et al., 2019). We also replicated previous research showing that CRT performance predicts news discernment (e.g., Pennycook & Rand, 2019b, 2020).

Conservatives' higher levels of presidential approval (and, likely, the president's framing of the threat) predicted relatively less knowledge about COVID-19 and epidemiology, which predicted greater susceptibility to fake news, and in turn predicted perceptions of less vulnerability. Although this ordering of variables is logically plausible and consistent with the largest serial-multiple mediational effect, this analysis cannot provide evidence for this specific sequence or for causality. Nevertheless, these relationships suggest the importance of both political leadership and media in forming perceptions of threat.

One surprising finding was that older participants were better at discerning between real and fake headlines about COVID-19. This contrasts with archival studies of social media, which have found that older participants are particularly prone to engage with fake news on social media (Grinberg et al., 2019). We speculate that, because COVID-19 is especially threatening to older adults (World Health Organization, 2020), they may have paid more attention to news related to this virus. This is consistent with polling data (Jurkowitz & Mitchell, 2020). This could also be an artifact of our sample. Mechanical Turk workers may have greater internet skills (Shen et al., 2019) that could make them less susceptible to fake news. Relatedly, although Mechanical Turk workers may be more representative in political characteristics than in-person convenience samples, they are clearly less representative than national probability samples (Berinsky et al., 2012), which limits the generalizability of our findings.

Data were collected in March 2020, several days before and several days after Donald Trump gave a prominent speech about the virus (Alcindor, 2020) and others in the administration began to publicly recognize that it was a threat (Aratani, 2020). However, conservatives continued to characterize the virus as less threatening than liberals did (Daniller, 2020), perhaps because of greater concern about the economy or greater tendency toward skepticism of the recommendations made by epidemiological scientists. Thus, although one possibility was that, as the administration and conservative media began to acknowledge that COVID-19 was a threat, the relationship between conservatism and perceived threat might have decreased, this did not occur during the observed time period. It may be that intergroup polarization was strong enough that people became entrenched in their views, that the shift in presentation of the threat by conservative leadership and media was too modest to have an impact, that confirmation bias led people to perceive later information through the lens of their initial opinion, or simply that the observation period was insufficiently long to observe a change in perceptions.

The current findings demonstrate the impact that political leadership and media framing can have on perceptions of threats. Once a threat becomes politicized, the polarization induced by the current political environment may shape the

way it is perceived. In the case of COVID-19, conservatives with higher levels of presidential approval were less knowledgeable about the virus, less accurate in discerning real from fake news, and in turn saw it as less of a threat. These polarized perceptions may well inhibit collective action and threat responses that require significant levels of community-level coordination.

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### Supplemental Material

The supplemental material is available in the online version of the article.

### Notes

1. These results also held after controlling for population density (see Supplemental Material).
2. Serial-multiple mediation was not found on the relationship between conservatism and perceived severity; path models for severity are presented in Supplemental Material.
3. As in Study 1, we made similar predictions about party membership and report these analyses in Supplementary Material.
4. Again, these results also held after controlling for population density (see Supplemental Material).
5. This was the strongest serial-multiple mediation effect; we test alternatives in Supplemental Material.

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