Polarization or Mainstreaming? How COVID-19 News Exposure Affects Perceived Seriousness of the Pandemic and the Susceptibility to COVID-19 Misinformation? Science Communication I-35 © The Author(s) 2023

Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/10755470231186396 journals.sagepub.com/home/scx



Jiyoung Han¹ and Eun-Ju Lee²

Abstract

Two surveys investigated whether the exposure to COVID-19 news widens (polarization) or narrows (mainstreaming) the partisan gap in perceived seriousness of the pandemic, and how the perception affects individuals' susceptibility to COVID-19 misinformation that either exaggerates or downplays its health risks. Overall exposure to COVID-19 news homogenized the partisans' otherwise divergent risk perceptions, but the partisan divide was wider among those selectively approaching like-minded news outlets. Perceived seriousness of COVID-19 subsequently altered participants' susceptibility to either fear-arousing or fear-suppressing COVID-19 misinformation in a belief-confirming manner. It is discussed how news media shape the public's reality perception amid the global crisis.

¹Korea Advanced Institute of Science and Technology, Deajeon, Republic of Korea ²Seoul National University, Seoul, Republic of Korea

Corresponding Author:

Eun-ju Lee, Department of Communication , Seoul National University, I Gwanak-ro Gwanak-gu, Seoul 00826, Republic of Korea. Email: eunju0204@snu.ac.kr

Keywords

COVID-19, confirmation bias, mainstreaming, misinformation, polarization, selective approach, selective avoidance

About a year after the first confirmed case had appeared in February 2020, one in five Americans reported they had lost someone close to them to COVID-19 (Neergaard et al., 2021). As of May 2023, more than one million people have lost their lives due to the coronavirus in the United States (Centers for Disease Control and Prevention, 2023). Despite such catastrophic consequences, there also emerged a deep partisan divide as to how people perceived the threat, with Republicans being much less concerned about the personal COVID-19 risks and the seriousness of the pandemic, as compared with Democrats (Allcott et al., 2020). According to a U.S. survey, 59% of Democrats and Democratic-leaning independents said the outbreak was a major threat to the health of the U.S. population, whereas only 33% of Republicans and Republican-leaning independents reported the same (Funk & Tyson, 2020). An analysis of over 1.1 million responses revealed that partisanship was a 27 times more powerful predictor of Americans' willingness to stay at home and reduce social mobility than the number of COVID-19 cases in the region (Clinton et al., 2021).

Political leaders, including the former U.S. President Trump and Democratic leaders, played pivotal roles in providing information about the pandemic to the public (Green et al., 2020; Grossman et al., 2020). Furthermore, whenever they delivered contradicting messages about COVID-19, news media featured the conflict prominently, which highlighted the partisan rivalries (Hart et al., 2020). Moreover, partisan news outlets in the highly polarized U.S. media environment devoted substantial day-to-day news coverage to such conflicts and elevated the partisan angles. For example, conservative media such as Fox News and Breitbart more frequently endorsed COVID-19 misinformation that downplayed or denied the threat of the virus and regularly claimed that the virus was a hoax or was not lethal (Motta et al., 2020). As a result, it stands to reason that partisan media's disparate portrayals of the pandemic might have imbued the public with conflicting views of the pandemic along party lines.

However, an alternative possibility is that repeated exposure to COVID-19 news could have instead induced *mainstreaming* à la cultivation theory (Gerbner et al., 1980). Focusing on television viewing, cultivation theory posits that media exposure fosters a perception of the real world that is aligned with the most pervasive and recurrent media portrayals of the world. As a result, heavy media exposure dilutes individual differences stemming from other factors, such as political ideology (Morgan & Shanahan, 2017), gender (Calzo & Ward, 2009), race and income (Gerbner et al., 1980), age, and education (Morgan et al., 2015). Although its original formulation centered on TV as the dominant medium, more recent studies extended it to other media or genres, such as video games (Chong et al., 2012) and Facebook use (Tsay-Vogel et al., 2018). If so, heavy exposure to the daily news coverage of COVID-19 might have cultivated relatively homogeneous perceptions of the seriousness of the pandemic, thereby reducing, if not completely closing, the existing gap between the Democrats' and Republicans' assessments of the pandemic.

Once formed, individuals' reality perceptions can subsequently guide their information processing. In particular, the current research aimed to investigate how perceived seriousness of the pandemic affected individuals' susceptibility to COVID-19 misinformation. Amid the global crisis, unverified or even clearly falsified COVID-19 information spread as fast and wide as the virus itself, often countering collective efforts to fight the pandemic. Although prior studies reported that Republicans are more prone to believe false claims about COVID-19 than are Democrats (Motta et al., 2020), susceptibility to COVID-19 misinformation might vary depending on its specific content, as people tend to trust information that confirms, rather than disconfirms their existing beliefs (i.e., confirmation bias; Nickerson, 1998). That is, those who believe that the disease is deadly are more likely to fall for misinformation that exaggerates, rather than downplays, its dangers, whereas the opposite would be true for those who find the disease less serious. We thus examined how perceived seriousness of COVID-19 influences individuals' susceptibility to feararousing and fear-suppressing COVID-19 misinformation, respectively.

Polarization Versus Mainstreaming: How COVID-19 News Shapes Risk Perceptions?

Polarization has characterized American politics in recent years. Democrats and Republicans now express more divergent views than ever on a wide array of social issues and associated policies. During the pandemic, an exceptionally high number of Americans (77% vs. a median of 47% in 13 other countries including the United Kingdom, France, and Germany) found the nation more divided than before the COVID-19 outbreak (Dimock & Wike, 2020). National surveys repeatedly indicated a partisan divide in individuals' assessments of risks posed by the pandemic (Allcott et al., 2020), the government's handling of the situation (Mitchell et al., 2021), and the necessity of social distancing (Clinton et al., 2021; Gollwitzer et al., 2020).

Communication scholarship has highlighted what role news media play in the changing dynamics of public opinion. Two competing possibilities exist as to how exposure to COVID-19 news coverage affects partisans' perceptions of the pandemic, either widening or narrowing the existing gap. First, news media could exacerbate the polarized perceptions of the pandemic, for example, by emphasizing partisan conflicts. Hart and colleagues' (2020) analysis of mainstream newspapers and network television uncovered that (a) politicians' appearances outnumbered scientists' in COVID-19 news stories and (b) politicians' voices featured in the news were highly contested along party lines. The media's pursuit of partisan rivalry encourages both Democrats and Republicans to endorse more extreme positions concerning issues such as tax policies (Han & Federico, 2018), immigration and border control (van Klingeren et al., 2017), and climate change (Han & Kim, 2020). As such, COVID-19 media coverage that is devoted to partisan messaging (Hart et al., 2020) might foster even more polarized perceptions of the pandemic among partisans. Given the highly partisan news coverage of COVID-19, we propose that:

Hypothesis 1 (H1a): Exposure to COVID-19 news widens the partisan gap in perceived seriousness of the COVID-19 pandemic.

Alternatively, consistent with cultivation theory, exposure to COVID-19 news coverage could cultivate a shared view about the global crisis. The COVID-19 outbreak triggered an explosion of news and continued to make front-page headlines. Research suggests that about 91% of American COVID-19 news in early 2020 was negative, compared with 54% in the non-U.S. COVID-19 news stories in English, and such negativity was particularly prevalent in major U.S. media outlets (Sacerdote et al., 2020). Moreover, the negativity of COVID-19 news remained virtually unaltered, regardless of the number of new cases or the ideological slant of the news outlets. Similarly, an analysis of the network news clips available on Google Videos showed that death and death rates were the most consistent themes (43.6%) in American news stories of COVID-19, followed by approximately 37% covering pandemic-related anxiety (Basch et al., 2020).

Given this noteworthy commonality in American COVID-19 news coverage, with recurrent themes of death and mortality, those repeatedly exposed to such devastating portrayals of reality might come to embrace corresponding beliefs about the pandemic, taking it more seriously than would light news users. Just as cultivation theory postulates, COVID-19 news stories that center around common themes might facilitate a mainstream perception of the pandemic among heavy news users who would otherwise hold different worldviews (for a recent review, see Busselle & van den Bulck, 2019). The partisan gap in COVID-19 perceptions would then be lessened among those who follow COVID-19 news more closely. Therefore, the following rival hypothesis to *H1a* was proposed.

Hypothesis 1 (H1b): Exposure to COVID-19 news narrows the partisan gap in perceived seriousness of the COVID-19 pandemic.

Perceived Seriousness of COVID-19 and Susceptibility to COVID-19 Misinformation

Perceived seriousness of COVID-19 can then affect individuals' vulnerability to COVID-19 misinformation. At the onset of the outbreak, the World Health Organization (WHO) declared an "infodemic" to warn of the dangers of COVID-19 misinformation that spreads faster than the virus itself (WHO, 2023). For instance, hundreds of Iranians who erroneously believed bogus cures of methanol ingestion died from alcohol poisoning (Associated Press, 2020) and accidental poisonings from disinfectant have also increased in the United States (Cook & Brooke, 2021). The likelihood that individuals believe such false information, however, is likely to vary as a function of perceived seriousness of COVID-19.

Two related yet distinct explanations seem relevant. First, individuals might process incoming information in a defensive manner to hold up their "desired conclusion" (Kunda, 1990, p. 480). Not only do they actively seek information that confirms their existing beliefs (i.e., selective exposure) but they also evaluate belief-confirming evidence more positively (Nickerson, 1998) and process such information less critically (Ditto & Lopez, 1992). Second, even if people are not particularly motivated to defend their existing beliefs and opinions, belief-reinforcing information is processed with greater fluency by virtue of familiarity, and is thus more likely to be perceived as true (Lee, 2020). Research on the illusory truth effect has demonstrated that repeated statements garner higher truth ratings (Vogel et al., 2020) than new ones by inducing stronger feelings of familiarity (Begg et al., 1992), coherence in the memory references (Unkelbach et al., 2019), and more pleasant affective responses (Winkielman et al., 2012). Taken together, people might accept COVID-19 misinformation that confirms (vs. disconfirms) their beliefs about its seriousness more readily, because they are either motivated to preserve their existing beliefs or more familiar with belief-congruent information, or both. To assess this possibility, we systematically varied the content of false information, either exaggerating or minimizing the dangers of COVID-19, and tested if false information that confirms one's beliefs about the pandemic is indeed considered more credible.



Figure I. Conceptual Model.

Hypothesis 2 (H2a-b): Perceived seriousness of COVID-19 (a) positively predicts perceived credibility of false claims that overplay the threat of COVID-19 and (b) negatively predicts perceived credibility of false claims that downplay the threat of COVID-19.

The Current Research

To test the hypotheses (see Figure 1 for our research model), we conducted two online surveys and evaluated the robustness of the findings, especially in light of the ever-changing pandemic situation. Study 1 (N = 857) was fielded from October 25 to 28 in 2020 when the COVID-19 outbreak continued with a steady increase in new cases. Study 2 (N = 1,106) was conducted from January 10 to 14 in 2022 when the new COVID-19 cases soared due to the Omicron variant (see Figure 2). For ecological validity, Studies 1 and 2 utilized a different set of fear-arousing and fear-suppressing COVID-19 misinformation available at the time of data collection. Moreover, Study 2 took a more nuanced approach to better understand how the exposure to different media coverage of the pandemic contributes to partisans' reality perception, by taking into account their reliance on ideologically congruent outlets and avoidance of ideologically incongruent ones.

Both studies recruited participants from Prolific (https://www.prolific.co) with a cash incentive of GBP 1.70 and GBP 1.80, respectively. Participants in Study 1 were not allowed to take part in Study 2. Prolific is a crowdsource platform launched in 2014 whose samples provide high-quality data in terms of attention, comprehension, honesty, and reliability compared with other platforms including Qualtrics and Amazon's Mechanical Turk (Eyal et al., 2022).



Figure 2. Number of New COVID-19 Cases and Data Collection Timelines of Studies 1 and 2.

Source. Reprinted from "Covid in the U.S.: Latest Maps, Case and Death Counts" (2022). Note. New cases: the number of new COVID-19 cases for the day. Daily average: the 7-day rolling average of new cases.

Study I

Method

Participants. A total of 857 U.S. citizens participated in a web-based survey (50.5% women, 76.0% Caucasian). The mean age was 33.94 years (SD = 12.50). The median household income was between US\$50,000 and US\$59,999. We purposefully balanced the number of Republicans and Democrats, and ended up with 45.2% Republicans or Republican-leaners (n = 387), 47.1% Democrats or Democratic-leaners (n = 404), and 7.7% pure Independents (n = 66, see Table 1 for sample characteristics).

Measures. For party identification, we used a modified version of the standard American National Election Studies (ANES) measure (available at https://electionstudies.org/). Participants first indicated which party they would consider themselves a supporter of: Republican, Democratic, Independent, or other. Those who supported either the Republican or the Democratic party were then asked how strong a Republican/Democrat they considered themselves to be (1 = Republican/Democrat, 2= Strong Republican/Democrat, 3 = Extremely strong Republican/Democrat). Participants who identified themselves as Independent or supported other parties were

Demographics	Study I	Study 2	2020 census
N	857	1,106	_
Women	50.5%	50.5%	50.8%
18–24 years	26.5%	12.0%	12.1%
25–34 years	34.3%	23.1%	17.9%
35–44 years	20.4%	20.8%	16.4%
45–54 years	10.3%	17.5%	16.4%
55–64 years	5.8%	16.9%	16.6%
65 years and over	2.7%	9.7%	21.6%
Median age (years)	31.0	41.0	38.2
Caucasian	76.0%	76.7%	74.3%
African American	8.9%	8.2%	13.3%
Asian	9.7%	7.4%	5.9%
American Indian and Alaska Native	1.1%	0.6%	0.8%
Other	9.8%	7.0%	5.6%
Bachelor's degree or higher	N/A	58.9%	32.9%
Median income	US\$50,000–US\$59,000	US\$60,000–US\$69,000	US\$64,994

Table I. Demographics of Studies 1 and 2.

asked whether they would feel closer to Republicans, Democrats, or neither. For analyses, we recoded the responses into a single score ranging from -4 (*Extremely strong Republican*) to +4 (*Extremely strong Democrat*). Republican-leaning Independents were coded as -1 and Democratleaning Independents were assigned +1, while the Independents leaning in neither direction were given 0. Considering that individuals with stronger partisan identity tend to hold more extreme beliefs and attitudes that align with their party's views (Han & Federico, 2018; Iyengar & Westwood, 2015) and be more selective in their news sources (Garrett, 2009; Stroud, 2010), we defined party identification as a continuous variable for a more nuanced approach.

Exposure to COVID-19 news was assessed using Morgan and Shanahan's (2017) measure of news viewing: "How closely do you follow news on the COVID-19 outbreak?" (1 = hardly ever, $2 = once \ a \ week$, $3 = two \ or \ three \ times \ a \ week$, $4 = once \ a \ day$, $5 = more \ than \ once \ a \ day$). For perceived

seriousness of the COVID-19 pandemic, participants indicated how serious they thought the COVID-19 pandemic was (1 = not at all serious, 5 = very serious).

To capture the participants' susceptibility to COVID-19 misinformation, four false claims about COVID-19 were presented, two overplaying and two downplaying its health risks. Participants indicated how scientifically credible they considered each statement to be (1 = not at all scientifically credible, 5 = very much scientifically credible). The two fear-arousing statements were: "Even if completely cured, COVID-19 patients suffer from lifelong lung damage¹" and "Most COVID-19 patients experience serious brain disorders." The two fear-suppressing statements were: "Coronavirus is less deadly than the seasonal flu" and "US coronavirus death count is inflated." Due to low reliability scores (*Spearman-Brown coefficient* = .32 for fear-arousing items, .56 for fear-suppressing items), each item was treated separately in our analyses.

For control variables, we measured personal susceptibility to COVID-19 by asking participants how likely they thought they would get infected with the coronavirus (1 = not at all likely, 5 = very much likely). Demographic variables, such as gender, age, race, and family income, were also controlled in the analyses.

Results

Prior to hypothesis tests, we computed the inter-correlations among the key variables (see Table 2). Notably, (a) party identification (i.e., higher scores indicate stronger Democratic [vs. Republican] identity) was marginally associated with the overall exposure to COVID-19 news (r = .06, p = .08) and (b) party identification and COVID-19 news exposure each significantly predicted perceived seriousness of the pandemic (r = .41, p < .001; r = .32, p < .001, respectively).

Hypothesis Tests. An OLS regression model tested the two competing hypotheses concerning the effects of COVID-19 news exposure on perceived seriousness of the pandemic, *H1a* (polarization) and *H1b* (mainstreaming), with party identification as an independent variable, COVID-19 news exposure as a moderator, and perceived seriousness of COVID-19 as a dependent variable. The independent variable and moderator were mean-centered and the interaction term was computed by multiplying them. Results showed a significant interaction between party identification and COVID-19 news exposure on perceived seriousness of the pandemic (b = -.03, SE = .01, t = -2.90, p = .004, see Model 1 in Table 3).

	I	2	3	4	5	6	7
-	Party identification	News exposure	Perceived seriousness	Trust in Claim I	Trust in Claim 2	Trust in Claim 3	Trust in Claim 4
2	.06	_					
3	.41***	.32***					
4	.24***	.15***	.35***	_			
5	10**	.15***	.12***	.33***	_		
6	33***	09**	37***	07*	.30***	_	
7	43***	12***	46***	 4 ***	.22***	.55***	—
Range	– 4 to 4	l to 5	l to 5	l to 5	l to 5	l to 5	l to 5
М	.03	3.64	4.10	3.15	1.74	1.93	2.20
SD	2.64	1.14	1.04	1.25	1.05	1.23	1.34

 Table 2. Descriptive Statistics and Bivariate Correlations of Focal Variables (Study 1, N

 = 857).

p < .05. p < .01. p < .01.

Supporting the mainstreaming hypothesis (*H1b*), simple slopes analyses showed that although strong Democrats perceived the COVID-19 outbreak to be more serious than strong Republicans did, such a partisan gap was narrower among heavy (M + 1SD: b = .11, SE = .02, t = 6.41, p < .001) COVID-19 news users, as compared with moderate (M: b = .14, SE = .01, t = 11.34, p < .001) and light (M - 1SD: b = .19, SE = .02, t = 9.18, p < .001) news users (see Figure 3). Alternatively, as the exposure to COVID-19 news increased, participants perceived the pandemic to be more serious, but such an association was more evident among those with stronger Republican identity (M - 1SD: b = .32, SE = .04, t = 8.24, p < .001) than those with stronger Democratic identity (M + 1SD: b = .15, SE = .04, t = 3.69, p < .001).

H2a and *H2b* predicted that perceived seriousness of the COVID-19 pandemic would differentially affect individuals' susceptibility to COVID-19 misinformation that either exaggerates or downplays the COVID-19 health risks in a belief-confirming manner. Supporting both hypotheses, the more serious the participants judged the COVID-19 pandemic to be, the more likely they fell for the false claims that COVID-19 causes lifelong lung damage (see Model 2 in Table 3) and brain disorder (see Model 3). By contrast, perceived seriousness of COVID-19 negatively predicted perceived credibility of fear-suppressing false claims that COVID-19 is less deadly than seasonal flu (see Model 4) and that the U.S. death toll is inflated (see Model 5).

	Demosional	Susceptil fear-arc misinfor	oility to ousing mation	Suscepti fear-supp misinfor	bility to pressing mation
	seriousness of COVID-19	Trust in claim I	Trust in claim 2	Trust in claim 3	Trust in claim 4
	Model I	Model 2	Model 3	Model 4	Model 5
	b (SE)	b (SE)	ь (SE)	<i>b</i> (SE)	b (SE)
Constant	3.45*** (.14)	l.42*** (.23)	.64** (.20)	3.33*** (.22)	3.77*** (.22)
Party Identification (PartyID)	.15*** (.01)	.06* (.02)	06*** (.02)	10*** (.02)	14*** (.02)
News Exposure (NewsExp.)	.23*** (.03)				
PartyID $ imes$ NewsExp.	03** (.01)				
Perceived Seriousness		.35*** (.04)	.16*** (.04)	35*** (.04)	49*** (.04)
Gender (men $= 1$)	07 (.06)	05 (.08)	.23** (.07)	03 (.08)	02 (.08)
Age	0002 (.003)	005 (.003)	01* (.003)	005 (.003)	001 (.003)
Race (Whites=1)	19** (.07)	.33*** (.10)	.11 (.09)	.04 (.09)	.003
Income	.02*	01	.02* (.01)	.02	.03**
Personal Susceptibility	.26*** (.03)	.11** (.04)	.11** (.04)	.02 (.04)	.09* (.04)
R ²	.340	.157	.078	.180	.292

Table 3. Effects of News Exposure on Perceived Seriousness of the Pandemic and Susceptibility to COVID-19 Misinformation (Study 1, N = 857).

p < .05. p < .01. p < .01.

Finally, we tested if the indirect effects of party identification on the susceptibility to COVID-19 false claims via perceived seriousness of the pandemic vary as a function of COVID-19 news exposure using Hayes' (2017) PROCESS macro (Model = 7, see Table 4). Those identifying more with Republicans (M– 1SD) perceived the COVID-19 pandemic to be less serious than those identifying more with Democrats (M + 1SD), and subsequently, judged fear-suppressing COVID-19 misinformation as more credible, whereas the opposite was true for fear-arousing misinformation. Such indirect effects of party identification, however, were attenuated among heavy COVID-19 news users.



Figure 3. Perceived Seriousness of COVID-19 by Party Identification and Exposure to COVID-19 News (Study 1). Note. Error bars denote standard errors.

Discussion

Overall, the results supported the mainstreaming effect of COVID-19 news exposure, as the partisan gap in perceived seriousness of the pandemic became narrower among those who followed COVID-19 news more closely. Put differently, partisans came to embrace more similar perceptions of the pandemic as they consumed more of COVID-19 news. Decomposition of the interaction revealed that the heavy exposure to COVID-19 news heightened perceived seriousness of the pandemic among those with stronger Republican identity, while the effect was less pronounced among their Democratic counterparts who considered the pandemic to be highly serious, regardless of news consumption (i.e., ceiling effect). Perceived seriousness, in turn, predicted how credible they found fear-arousing or fear-suppressing COVID-19 misinformation in a belief-confirming manner, suggesting the robust operation of confirmation bias.

Although the findings support the classical mainstreaming effect, with increased news exposure narrowing the partisan gap in reality perception, the lack of evidence for polarizing effects of COVID-19 news exposure might have to do with the way news exposure was operationalized in Study 1. Specifically, a single-item measure was employed to capture the overall frequency of COVID-19 news exposure, without considering the partisan

	Indirect effect	Boot SE	LLCI	ULCI
Party Identification → Perceived Serio Misinformation	usness → Su	sceptibility	to COVID-	19
Fear-arousing false claim 1: Lung dan	nage			
Light news exposure	.067	.01	.0459	.0917
Moderate news exposure	.047	.01	.0346	.0610
Heavy news exposure	.038	.01	.0248	.0505
Moderated Mediation Index	010	.004	0181	0028
Fear-arousing false claim 2: Brain dis	order			
Light news exposure	.031	.01	.0165	.0479
Moderate news exposure	.022	.01	.0120	.0324
Heavy news exposure	.017	.005	.0090	.0268
Moderated Mediation Index	005	.002	0090	0012
Fear-suppressing false claim 3: Less of	deadly than f	lu		
Light news exposure	067	.01	0909	0456
Moderate news exposure	047	.01	063 I	0328
Heavy news exposure	037	.01	0538	0230
Moderated Mediation Index	.010	.004	.0029	.0172
Fear-suppressing false claim 4: Inflate	ed death toll			
Light news exposure	095	.01	1236	0691
Moderate news exposure	067	.01	0852	0502
Heavy news exposure	053	.01	0739	0348
Moderated Mediation Index	.014	.005	.0038	.0243

Table 4. Conditional Indirect Effects of Party Identification on Susceptibility to COVID-19 Misinformation via Perceived Seriousness of the Pandemic (Study 1, N = 857).

Note. Standard errors and 95% bias-corrected confidence intervals were computed based on 10,000 bootstrap resamples.

leaning of news channels the respondents relied on. Especially given the highly polarized media environment (Jurkowitz & Mitchell, 2020), Study 1 might have failed to uncover the real effects of COVID-19 news by focusing on the total news exposure, while overlooking the divergent portrayals of reality by partisan news media.

As stated earlier, media selectivity, which refers to both selective approach to attitude-consistent information and selective avoidance of attitude-inconsistent information (Garrett, 2009; Garrett & Stroud, 2014), has been found to facilitate political polarization in America. For instance, Levendusky (2013) demonstrated that after like-minded news exposure (i.e., Republicans' exposure to Fox News and Democrats' exposure to MSNBC), partisans' public issue preferences diverged further. Similarly, research has linked Republicans' skepticism toward the COVID-19 pandemic and reluctance to adhere to social distancing to their exposure to Fox News (Clinton et al., 2021; Gollwitzer et al., 2020). Therefore, Study 2 was conducted to investigate if, and if so, how news users' selectivity moderates the effects of COVID-19 news exposure on their reality perception, and subsequently their susceptibility to COVID-19 misinformation.

Study 2

While empirical evidence attests to the preference for congenial news media use among partisans (Garrett & Stroud, 2014; Iyengar & Hahn, 2009; Knobloch-Westerwick & Meng, 2011; Stroud, 2010), research using web tracking technologies has nonetheless found a significant amount of crosscutting news consumption and reported that mass-mediated news exposure through the internet, broadcast TV news, or local/national newspapers is much less politically segregated than face-to-face interactions with neighbors, coworkers, and family members (Gentzkow & Shapiro, 2010; see also Flaxman et al., 2016). According to Prior's (2013) extensive review, exposure to ideologically one-sided news was largely limited to a small group of heavy cable news viewers, which comprised around 10% to 15 % of the U.S. population.

More recent studies, however, indicate a stronger propensity toward partisan media exposure. Based on three surveys conducted from November 2019 to December 2020, each utilizing nationally representative panels consisting of more than 9,000 U.S. adults, Mitchell et al. (2021) found that 25% of both Republicans and Democrats exclusively consumed news from ideologically congruent sources. Fox News and CNN were the most popular news sources among political conservatives and liberals, respectively Notably, these trends appeared during the COVID-19 pandemic, a time when partisan news websites recorded stagnant or falling viewership (Koeze & Popper, 2020).

Indeed, the partisan news outlets' COVID-19 news coverage revealed significant discrepancies in their pandemic coverage. Right-wing sources, such as Fox News and Breitbart, extensively featured information that minimized the severity of the new coronavirus (Motta et al., 2020), whereas left-leaning newspapers (e.g., the New York Times, the Washington Post) offered a wider variety of stories, concerning the risk of the virus, the emergence of misinformation, as well as fact-check stories (Mach et al., 2021). As such, the lower levels of concern about the pandemic and reduced participation in social distancing efforts among the Republicans were attributed to the consumption of conservative news media (Clinton et al., 2021; Gollwitzer et al., 2020). By incorporating user selectivity in the polarized media environment, Study 2 attempted to reconcile the two conflicting predictions of media effects—partisan polarization and mainstreaming. Possibly, COVID-19 news exposure cultivates relatively homogeneous perceptions of the pandemic among those who do not actively seek ideologically congenial news outlets nor avoid ideologically uncongenial ones (mainstreaming), but amplifies the partisan divide among those who selectively expose themselves to likeminded news sources and/or shun cross-cutting ones (partisan polarization). Based on the findings that people pursued information in support of their political predispositions (selective approach) without systematically avoiding challenging voices (selective avoidance; Garrett, 2009; Garrett & Stroud, 2014), we measured both facets of selectivity and examined how news users' engagement in each respective behavior moderates the effects of news exposure on the partisan gap in risk perceptions, as observed in Study 1.

Hypothesis 3 (H3a-b): The more partisans engage in either (a) selective approach or (b) selective avoidance, the weaker the mainstreaming effect of the COVID-19 news exposure on perceived seriousness of COVID-19.

Method

Participants. We recruited a total of 1,106 adults (50.5% women, 76.7% Caucasian) eligible to vote in the United States whose demographic make-up was largely comparable to the 2020 U.S. Census data (see Table 1). The mean age was 43.11 years (SD = 15.21) and the median household income was between US\$60,000 and US\$69,999. The number of Republicans and Democrats were balanced, with 51.1% Republicans or Republican-leaners (n = 565), 48.6% Democrats or Democrat-leaners (n = 537), and 0.4% pure Independents (n = 4).

Measures. Both party identification and the exposure to COVID-19 news were measured using the same questions as in Study 1. Consistent with Clinton et al. (2021), selective approach was assessed by the participant's exposure to ideologically congenial news sources and selective avoidance was by reverse-coding the participant's exposure to cross-cutting news sources. Specifically, participants ranked order up to five channels they used most frequently to get COVID-19 news from a list of 15 news outlets across the ideological spectrum: 4 right-leaning (Fox News, Breitbart, Sean Hannity Show, and Rush Limbaugh Show²), 6 left-leaning (the HuffPost, the New York Times, NPR, the Washington Post, MSNBC, and CNN), and 5 centrist (USA Today, Wall Street Journal, NBC, ABC, and CBS) news outlets.

selection of these outlets was based on Pew's study on the political leanings of 30 American media (see Gramlich, 2020 for the full list of 6 right-leaning, 7 centrist, and 17 left-leaning news media). About 62% of the participants ranked five channels in full (M = 4.17, SD = 1.23).

We then assigned differential weights to each chosen option by reversecoding the rank order. Then we added up the weights of given news sources, either congenial (for selective approach) or uncongenial (for selective avoidance) to participants' party identification. Selective approach and selective avoidance scores were computed as follows, such that if one chose only likeminded sources, both the selective approach and selective avoidance scores would be 1.

Selective approach = $\frac{\text{sum of weights assisting d to congenial news channels}}{\text{sum of weights assigned to all channels ranked}}$ Selective avoidance = 1 - $\frac{\text{sum of weights assinged to uncongenial news channels}}{\text{sum of weights assinged to all channels ranked}}$

For example, if a Republican rank-ordered Fox News, CNN, USA Today, and Breitbart from 1 to 4, her selective approach score was 0.5 (4 for Fox News and 1 for Breitbart whose sum was divided by 10) and her selective avoidance score was 0.7 (3 for CNN divided by 10, which was subtracted from 1).³

Perceived seriousness of the COVID-19 pandemic was measured by asking participants how strongly they agreed or disagreed that the COVID-19 pandemic was a major threat to the health of the U.S. population (1 = strongly*disagree*, 5 = strongly agree). Like Study 1, susceptibility to COVID-19 misinformation was measured with four false statements that either overplay or downplay the health risks of the Omicron variant. Participants indicated how credible they considered each statement to be (1 = not at all credible, 5 = very much credible). The two fear-arousing statements were: "Half of the world's population will be getting infected with the Omicron variant" and "The Omicron variant is more severe for children." The two fear-suppressing statements were: "The Omicron variant is not deadlier than the seasonal flu" and "The Omicron variant is a political hoax." Due to the low reliability scores (*Spearman-Brown coefficient* = .24 for fear-arousing items, .30 for fear-suppressing items), each item was analyzed separately.

Along with demographic variables, we controlled for participants' direct and indirect experiences with COVID-19, as well as their vaccination records. Participants marked whether (a) they had been infected with COVID-19 or (b) someone in their family had been infected with COVID-19 (0 = no, 1 = yes).

They also indicated if they had been vaccinated against COVID-19 (1 = no, I have not, 2 = yes, I got my first shot, 3 = yes, I got my second shot, 4 = yes, I got or will get a booster shot).

Results

Inter-correlations and descriptive statistics of focal variables are presented in Table 5. First, participants in Study 2 (M = 3.28, SD = 1.03) reported a lower level of COVID-19 news exposure than those in Study 1 (M = 3.64, SD = 1.14, t[1,961] = 7.34, p < .001). They also considered the pandemic as less of a threat (M = 3.88, SD = 1.21 vs. M = 4.10, SD = 1.04, t[1,961] = 4.24, p < .001). Second, participants engaged more in selective avoidance (M = .87, SD = .22) than selective approach (M = .51, SD = .33), paired t(1,101) = 43.72, p < .001. Third, the stronger the respondent identified with the Democratic Party (vs. the Republican Party), the more likely they opted for both selective approach (r = .31, p < .001) and selective avoidance (r = .45, p < .001).

Hypothesis Tests. Consistent with Study 1, we first tested whether COVID-19 news exposure would widen (H1a) or narrow (H1b) the partisan gap in perceived seriousness of the pandemic. We then examined if such effects are moderated by news users' selective approach to like-minded news sources (H3a) and/or selective avoidance of cross-cutting news sources (H3b). Finally, we examined how perceived seriousness of the pandemic predicts individuals' susceptibility to fear-arousing (H2a) and fear-suppressing (H2b) COVID-19 misinformation.

The independent variable (i.e., party identification) and the moderators (i.e., COVID-19 news exposure, selective approach, and selective avoidance) were mean-centered. The interaction terms were computed by multiplying them.

Replicating Study 1, an OLS regression analysis yielded a significant interaction between party identification and COVID-19 news exposure for perceived seriousness of the pandemic (b = -.03, SE = .01, t = -2.69, p = .007, see Model 1 in Table 6). Supporting the mainstreaming hypothesis (*H1b*), simple slopes analyses revealed that the partisan gap in perceived seriousness of the pandemic was attenuated among heavy (M + 1 SD: b = .13, SE = .01, t = 9.89, p < .001), as compared with moderate (M: b = .16, SE = .01, t = 12.30, p < .001) and light (M - 1 SD: b = .18, SE = .02, t = 9.79, p < .001) COVID-19 news users (see Figure 4). Alternatively, as the exposure to COVID-19 news increased, participants found the pandemic to be more serious, but such an association was more evident among those with

Table 5.	Descriptive Stat	istics and Bivar	iate Correlatior	is of Focal Varic	ables (Study 2, N	= 1,106).			
	_	2	3	4	5	6	7	8	6
	Party identification	News exposure	Selective approach	Selective avoidance	Perceived seriousness	Trust in claim I	Trust in claim 2	Trust in claim 3	Trust in claim 4
2	.22***								
e	.31***	.07*							
4	.45***	.07*	.57***						
5	.52***	.35***	02	*** .					
6	.09**	.26***	02	04	.18***				
7	.22***	.22***	05	*90 [.]	.34***	.28***			
8	37***	04	10.	09**	42***	.10**	I3***		
6	27***	16***	.03	03	35***	06*	06	.31***	
range	-4 to 4	I to 5	0 to I	0 to	I to 5	I to 5	I to 5	I to 5	I to 5
R	04	3.28	.5I	.87	3.88	2.54	2.08	2.36	1.31
SD	2.75	I.03	.33	.22	1.21	1.12	1.07	1.22	.79
Note. Four attitude-in *p < .05.	- pure independen consistent news a $p_{p} < 01$. *** $p < 0$	ts were exclude s they had no p .001.	d from the mea olitical predispo	isures of selectiv isitions.	e approach to atti	itude-consistent	t news and sel	ective avoidan	ce of

Table 6.Effects of News Export= 1,098).	sure on Percei	ived Seriousne	ss of the Pan	demic and Su	isceptibility to COVI	D-19 Misinfor	mation (Study 2, N
				Suscepti arousing r	bility to fear- nisinformation	Suscep suppressir	tibility to fear- ng misinformation
	Perceiv	red seriousne COVID-19	ess of	Trust in Claim I	Trust in Claim 2	Trust in Claim 3	Trust in Claim 4
	Model	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)
Constant	3.34***	3.37***	3.31***	1.25***	.99*** 000	3.28***	2.43***
Party Identification (PartyID)	.15***	.17***		.004	(01) 10.	08***	03***
	(10.)	(10.)	(.02) 0.2 detector	(10.)	(10.)	(10.)	(10.)
News Exposure	.26*** (.03)	.24*** (.03)	.23*** (.04)				
PartyID $ imes$ NewsExp.	03** (.01)	02* (.01)	03* (.01)				
Selective Approach		55*** (.09)					
PartyID $ imes$ SApproach		.17*** (.03)					
$NewsExp. \times SApproach$		09 (09)					
		()					

19

(continued)

				Suscepti arousing r	bility to fear- nisinformation	Suscep suppressi	tibility to fear- ng misinformation
	Percei	ved seriousne COVID-19	ess of	Trust in Claim I	Trust in Claim 2	Trust in Claim 3	Trust in Claim 4
	Model	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)
PartylD \times NewsExp. \times		.03					
SApproach		(50.)					
Selective Avoidance			66** (.24)				
PartylD $ imes$ SAvoidance			90.				
NewsExp. imes SAvoidance			10				
PartyID $ imes$ NewsExp. $ imes$			(97.) 60.				
SAvoidance			(.10)				
Perceived Seriousness				.16**	.26***	28***	15***
				(.03)	(.03)	(.03)	(.02)
Gender (men=I)	10	10	13*	.04	-0.08	0.14*	0.002
	(90.)	(90.)	(90.)	(.07)	(90)	(.07)	(.04)
Age	004*	003	003	*I0:	0.002	0.003	0.001
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
							(continued)

Table 6. (continued)

Table 6. (continued)							
				Suscepti arousing 1	bility to fear- nisinformation	Suscep suppressi	ntibility to fear- ng misinformation
	Perceiv	/ed seriousne COVID-19	ess of	Trust in Claim I	Trust in Claim 2	Trust in Claim 3	Trust in Claim 4
	Model I	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	b (SE)	b (SE)	b (SE)	b (SE)	b (SF)	b (SE)	b (CE)
	()	()	()	()	()		(-1-)
Race (Whites=1)	.04	.04	90.	.16	-0.13	0.11	-0.10*
	(.07)	(.07)	(.07)	(.08)	(80)	(80)	(.05)
Education	04	04	04	10.–	-0.04	0.02	-0.01
	(:03)	(:03)	(:03)	(:03)	(:03)	(:03)	(.02)
Income	02*	03**	02**	.003	-0.001	-0.004	-0.02**
	(10.)	(10.)	(10)	(10.)	(10.)	(10.)	(10.)
Direct COVID-19	15*	- 13	16*	.21*	0.02	0.21*	0.02
Experience	(.07)	(.07)	(.07)	(60.)	(80)	(.08)	(90)
Indirect COVID-19	01	03	01	Ξ	0.10	0.004	0.03
Experience	(90.)	(90.)	(90.)	(.07)	(.07)	(.07)	(.05)
Vaccination Records	.46***	.40***	.44***	.07	0.10*	-0.09*	-0.14***
	(.04)	(.04)	(.04)	(:05)	(.04)	(:05)	(.03)
R ²	.420	.454	.435	.054	.132	.225	.167

Note. Eight participants were excluded from the analysis due to missing responses to the education demographic question. Three more were excluded when testing user selectivity as they had no political predispositions. *p < .05. *p < .05. **p < .01. **p < .01.

21



Figure 4. Perceived Seriousness of COVID-19 by Party Identification and Exposure to COVID-19 News (Study 2).

Note. Error bars denote standard errors.

stronger Republican identity (b = .34, SE = .04, t = 8.51, p < .001) than those with stronger Democratic identity (b = .18, SE = .04, t = 4.14, p < .001).

To see if the results survive when user selectivity is taken into account, selective approach or selective avoidance was added to Model 1 as a second moderator. H3a and H3b predicted that the preference for congenial news sources (H3a) and the avoidance of uncongenial news sources (H3b) would suppress the gap-narrowing effects of COVID-19 news exposure. However, there was no three-way interaction involving selective approach (Model 2 in Table 6) or selective avoidance (Model 3 in Table 6). Therefore, neither H3a nor H3b was supported.

Instead, a two-way interaction between party identification and selective approach to like-minded news sources emerged (b = .17, SE = .03, t = 4.77, p < .001, see Model 2). Simple slopes analyses showed that the partisan difference in COVID-19 risk assessments was more pronounced among those high (M + 1SD) in selective approach (b = .22, SE = .02, t = 13.35, p < .001) than those moderate in selective approach (M: b = .17, SE = .01, t = 13.59, p < .001) and those low in selective approach (M - 1SD: b = .09, SE = .02, t = 4.54, p < .001; see Figure 5). No corresponding interaction was found for selective avoidance of cross-cutting news sources (b = .06, SE = .10, t = .67, p = .50, see Model 3).



Figure 5. Perceived Seriousness of COVID-19 by Party Identification and Selective Approach to Congenial News Outlets (Study 2). Note. Error bars denote standard errors.

Perceived seriousness of the COVID-19 pandemic positively predicted the participants' susceptibility to fear-arousing misinformation about the hyper-transmissibility of the Omicron variant (Model 4 in Table 6) and its increased harm to children (Model 5). Conversely, perceived seriousness of COVID-19 negatively predicted perceived credibility of fear-suppressing misinformation that the Omicron variant is less deadly than seasonal flu (Model 6) and that the variant is a political hoax (Model 7). Replicating Study 1, both *H2a* and *H2b* were supported.

Finally, we tested the conditional indirect effects of party identification on perceived credibility of COVID-19 misinformation via COVID-19 risk perceptions, as a function of COVID-19 news exposure (Hayes, 2017, Model 7, see Table 7). Strong Republicans underestimated the seriousness of COVID-19, and subsequently, were more likely to accept fear-suppressing COVID-19 misinformation, but less likely to believe fear-arousing misinformation than strong Democrats. Such indirect effects of party identification, however, were attenuated as the amount of COVID-19 news exposure increased, as in Study 1.

Discussion

Replicating Study 1, Study 2 confirmed the mainstreaming effect of COVID-19 news exposure. Heavy COVID-19 news users exhibited a smaller partisan gap

	Indirect effect	Boot SE	LLCI	ULCI
Party Identification → Perceived	Seriousness -	Susceptibil	ity to COVID.	.19
Misinformation				
Fear-arousing false claim 1: hyp	per-transmissil	oility		
Light news exposure	.030	.01	.0165	.0439
Moderate news	.025	.01	.0142	.0368
exposure				
Heavy news exposure	.021	.005	.0116	.0306
Moderated	004	.002	0084	0012
Mediation Index				
Fear-arousing false claim 2: mc	ore dangerous	to children		
Light news exposure	.047	.01	.0338	.0613
Moderate news	.040	.01	.0293	.0514
exposure				
Heavy news exposure	.033	.01	.0232	.0437
Moderated	007	.003	0122	0020
Mediation Index				
Fear-suppressing false claim 3:	less deadly the	an flu		
Light news exposure	05 I	.01	0694	0348
Moderate news	044	.01	0588	0299
exposure				
Heavy news exposure	036	.01	0504	0236
Moderated	.008	.003	.0021	.0135
Mediation Index				
Fear-suppressing false claims 4	: a political ho	ax		
Light news exposure	027	.01	0385	0161
Moderate news	023	.005	0321	0140
exposure				
Heavy news exposure	019	.004	0270	0114
Moderated	.004	.002	.0010	.0075
Mediation Index				

Table 7. Conditional Indirect Effects of Party identification on Susceptibility to COVID-19 Misinformation via Perceived Seriousness of the Pandemic (Study 2, N = 1,098).

Note. Standard errors and 95% bias-corrected confidence intervals were computed based on 10,000 bootstrap resamples.

in the pandemic risk perception. Perceived seriousness, in turn, modulated individuals' susceptibility to fear-arousing or fear-suppressing COVID-19 misinformation in a belief-confirming manner. Despite substantial changes in the pandemic situation between Studies 1 and 2, the findings that exposure to COVID-19 news nonetheless had the same effect of homogenizing the partisans' otherwise divergent perceptions of reality attests to the robust mainstreaming effect of news exposure, as well as the confirmation bias in individuals' processing of misinformation.

To elucidate the potential boundary condition for the mainstreaming effect observed in Study 1, Study 2 investigated if user selectivity suppresses or even reverses the gap-narrowing effect of the COVID-19 news exposure among partisans. However, neither selective approach nor selective avoidance mitigated the mainstreaming effects. Instead, partisans who selectively tune in to like-minded news sources exhibited a wider gap in COVID-19 risk assessments along party lines than those with more balanced media diets.

Given the null interaction between selective approach and COVID-19 news exposure, we cannot interpret this finding as evidence for the polarizing "effect" of news exposure. Rather, it seems to suggest that even among the partisans, those with a stronger proclivity to actively pursue ideologically congenial news sources are more likely to see the world along party lines. Put differently, selective approach, as operationalized herein, might serve as a proxy measure of defensive motivation, the desire to preserve one's own beliefs, values, and opinions. After all, not all partisans are equally motivated to defend their existing beliefs and preferences, and it is those with stronger defensive motivation, as reflected in their media choice, that exhibited more polarized perceptions of the pandemic aligned with their party identification.⁴

General Discussion

Theoretical and Practical Implications

The current research tested two competing hypotheses as to whether exposure to COVID-19 news would widen or narrow the partisan gap in perceived seriousness of COVID-19, thereby subsequently affecting the likelihood of falling for COVID-19 misinformation. Rather than fanning the flames of the partisan divide, increased COVID-19 news exposure cultivated shared perceptions of the global health crisis, by alerting news users, especially Republicans, to the threats posed by the coronavirus. Although increases in the COVID-19 news exposure heightened perceived seriousness of COVID-19, such an effect was more pronounced among Republicans who tended to underestimate COVID-related risks to begin with. This pattern resembles the mainstreaming effect that emerged in early cultivation research wherein the fear of crime was amplified by TV viewing, but to a greater extent among those with high (vs. medium) income who otherwise expressed lower levels of fear (Gerbner et al., 1980).

Both Studies 1 and 2 yielded the identical pattern of the mainstreaming effect, bespeaking of its robustness.

As cultivation theory postulates, the presence of recurring themes in the American news coverage of COVID-19 across ideologically divergent news outlets, such as the number of new cases and death tolls (Basch et al., 2020; Sacerdote et al., 2020), seems to have contributed to homogenizing partisans' perceptions of the health crisis. Despite the ever-increasing public concerns about a fragmented and polarized media environment, our finding suggests that news media can foster a shared understanding of reality that is necessary to tackle various threats to our society. Moreover, Americans' media diets might not be as divided along ideological lines as many have suspected. According to Mitchell et al. (2021), for instance, a substantial proportion of Democrats (48%) and Republicans (34%) still chose to expose themselves to news sources with politically balanced or opposing views, rather than solely to like-minded sources (about 25% each). A recent network analysis also revealed the dominance of traditional mainstream broadcast news channels in spreading COVID-19 information on social media, as compared with conservative media like Fox News (Zhang et al., 2023). In fact, Study 2 showed that only 12.2% of Republicans and 17.3% of Democrats were exclusivly exposed to ideologically congenial news media (selective approach score of 1) while the remaining Republicans and Democrats included, on average, 1.20 (SD = 1.08) and .11 (SD = .31) cross-cutting media in their most used news outlets, respectively. These findings underscore the importance of treating selective exposure as a variable, rather than a constant, in explaining the effects of news media.

At the same time, the effect of COVID-19 news exposure occurred asymmetrically along party lines. Relative to their Democratic counterparts, Republicans' perceptions of COVID-19 changed more substantially as a function of their news exposure. This suggests that the amount of total news exposure might explain why Republicans are less concerned about the coronavirus than Democrats-perhaps Republicans consume less COVID-19 news in the first place. Indeed, nationally representative surveys of more than 5,000 American adults (Mitchell & Liedke, 2022) found that Republicans' interest in COVID-19 news has declined sharply between March 2020 and January 2022 (48% to 30%), albeit being lower than Democrats' to begin with (53% to 45%). Likewise, Republicans in our samples were less likely to stay tuned to COVID-19 news than Democrats. Considering that voluntary exposure to news itself reflects how important an individual considers the topic is, by avoiding COVID-19 news altogether, some partisans might have been able to preserve their potentially biased and inaccurate worldview. At the very least, the current findings resonate with the core premise of cultivation theory-perhaps it is not

so much about *what* they read and watch about the global crisis, but *how much* they read and watch about it. The very fact that neither selective approach nor selective avoidance altered the effects of news exposure (Study 2) supports this interpretation.

Interestingly, those with stronger Democratic identity exhibited a stronger tendency for both selective approach and selective avoidance than their Republican counterparts.⁵ Considering that selective avoidance was often associated with Republicans (Garrett, 2009; Garrett & Stroud, 2014) and that political conservatives reported stronger reactance to aversive or threatening stimuli than political liberals (Jost & Amodio, 2012), these findings demand an explanation. First, this may have to do with the asymmetric media ecosystem comprised of fewer right-wing media outlets (7 out of 30 news organizations, Gramlich, 2020) than left-wing ones (17 out of 30). As such, Jurkowitz and Mitchell (2020) found that Republicans heavily rely on Fox News (34%) as their primary news source, while Democrats' main news sources are more varied, including CNN (18%), NPR (8%), and MSNBC (7%). In light of this imbalance, Study 2 participants were presented with more left-wing (6) than right-wing (4) outlets, which possibly made it easier for Democrats (vs. Republicans) to find more like-minded sources, thereby inflating the selectivity score. Although we computed the proportion of like-minded and crosscutting sources, rather than counting the sheer number of news outlets chosen, these results might reflect the methodological choice. Second, it might be because conservative media, such as Fox News and Breitbart, were widely accused of spreading misinformation about the coronavirus (Motta et al., 2020). When right-wing media were frequently denounced as a source of COVID-19 fake news, it could have legitimized and reinforced Democrats' selective avoidance. Then one could argue that it is information utility, rather than ideological (in)congeniality per se, that led them to avoid cross-cutting media. These possibilities need further scrutiny to better understand the motivational and cognitive bases for selective exposure.

Extending research on confirmation bias, we considered the differential susceptibility to false information as a potential consequence of differing levels of risk perception. To test if people more readily accept misinformation that resonates with their beliefs about COVID-19, we systematically varied the content of false information to either exaggerate or downplay the health risks of COVID-19. As predicted, perceived seriousness of the COVID-19 pandemic significantly altered how credible people judged false COVID-19 claims to be. Specifically, the more serious an individual perceived COVID-19 to be, the more credible they found fear-arousing misinformation, whereas the opposite was true for fear-suppressing misinformation.

Two implications can be derived from the findings. First, these findings validate the operation of confirmation bias and highlight the polarizing potential of false information. After all, individuals' judgments of information credibility are tainted by their existing perceptions and beliefs, rendering it all the more difficult to correct misbeliefs and ill-informed opinions. Second, the results remain unaltered when prior exposure to the false claims (No = 0 vs. Yes = 1) was added as a covariate. That is, it is not because those who had previously seen and believed the false claims reported corresponding levels of risk perception that we found the significant associations between perceived seriousness of COVID-19 (mediator) and the susceptibility to COVID-19 misinformation (DV).

Limitations and Future Directions

Some limitations of the current research deserve attention. First, we used a single-item measure for key variables such as COVID-19 news exposure and perceived seriousness of the pandemic, which in general is not recommended (Diamantopoulos et al., 2012; see Bowling, 2005 for benefits of single-item measures). By replicating the key findings employing a different set of COVID-19 misinformation, at an approximately 15-month interval during which the COVID-19 situation changed considerably, we demonstrated that the current findings are sufficiently reliable. Still, given the significance of news exposure in our theorizing, future research would benefit by examining the mainstreaming hypothesis with different measures of news reading/viewing/ listening. In this regard, although we focused only on legacy news media, it would be interesting to see how using social media for daily news feed might alter the conclusion drawn here.

Second, our samples were not representative. As compared with the 2020 U.S. Census data, Study 1 participants are younger with less household income (U.S. Census Bureau, 2021), while participants in Study 2 were better matched to the make-up of the population. Although it is not clear if, how, and to what extent such discrepancies might have affected the findings, replication research with a representative sample is called for to validate (or challenge) our findings. In so doing, cross-national comparisons might also reveal country-level differences in the role of news media amid the pandemic, either polarizing or mainstreaming the divided public. For instance, overall trust in news media, known to vary across countries, might also affect partisans' media choice as well as their responses to news coverage.

Finally, we examined the differential susceptibility to COVID-19 misinformation as a key consequence of news exposure. However, there could be other consequences of significant theoretical and social implications. For example, as the world is slowly transitioning into the post-pandemic era, it has become the government's highest priority to promote individuals' support for and willingness to engage in restrictive measures, such as maskwearing and vaccine mandates. It would be interesting to document how partisan news media cover the latest development of the pandemic and how their COVID-19 coverage affects news users' attitudes toward and intention to perform preventive and protective behaviors, independently and in conjunction with their partisanship.

Conclusion

In sum, the current research sheds light on the role of news media in times of the unprecedented global crisis. As repeatedly confirmed in national surveys, there exists a partisan gap in perceived seriousness of the pandemic, and yet, heavy exposure to COVID-19 news reduced the gap to some degrees. Possibly, previously documented within-party variations among Republicans related to the COVID-19 perceptions and participation in social distancing (Funk & Tyson, 2020) might have to do with their news consumption. On the one hand, considering that a shared perception of reality is pivotal to set priorities and exert concerted efforts to overcome any societal challenges and crises, it is reassuring that increased news exposure narrows the partisan divide. On the other hand, heightened risk perceptions made partisans more vulnerable to fear-arousing false information, potentially inducing unwarranted fear and anxiety, which presents another source of concern.

Although the current scholarship on partisan media use tends to highlight the biased content of polarized news outlets, our findings suggest that overall news exposure might nonetheless cultivate a common higherlevel cognition, the seriousness of COVID-19, akin to issue salience in agenda-setting theory (McCombs & Shaw, 1972). Moreover, not only did such mainstreaming effects emerge in both studies, but user selectivity did not attenuate such effects in Study 2. Moving beyond reality perception, future research should extend the current work by examining if mainstreaming occurs in the realms of attitudes and preferences, which involve topics other than public health.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Institute of Communication Research at Seoul National University, Korea Advanced Institute of Science and Technology (KAIST), and the Ministry of Education and the National Research Foundation of the Republic of Korea (NRF-2020S1A5B5A16083698).

ORCID iDs

Jiyoung Han D https://orcid.org/0000-0002-4177-2889 Eun-Ju Lee D https://orcid.org/0000-0002-8752-248X

Notes

- 1. COVID-19 is an evolving health crisis. Some of the falsified claims may later turn out to be accurate or partially true. These items were chosen because they were judged to be false at the time of data collection ("No Lasting Lung Damage After Full Recovery From COVID-19," 2021).
- 2. At the time of data collection, Rush Limbaugh was no longer available as the host died. 76 participants chose the show.
- 3. We also asked participants to indicate how often they obtained information from (a) conservative media outlets (e.g., Fox News, Breitbart News, and Rush Limbaugh Show) and (b) liberal media outlets (e.g., CNN, NPR, and MSNBC) in random order (1 = *never*, 5 = *very often*). Next, we determined participants' exposure to either congenial or uncongenial media based on their party identification. Regression analyses yielded consistent results, except that the partisan divide also emerged among those who avoided cross-cutting news outlets, suggesting the robustness of the findings.
- 4. In response to an anonymous reviewer's suggestion, we conducted additional analyses to test whether selective approach and avoidance moderated the relationship between perceived seriousness and susceptibility to COVID-19 misinformation (Hayes, 2017, Model 21). Our results yielded no significant interaction between perceived seriousness and selective approach/selective avoidance across four false claims.
- 5. The selective approach score was higher among Democrats (M = .63, SD = .29) than Republicans (M = .40, SD = .33), paired t(1,091.49) = 12.59, p < .001. So was for the selective avoidance score (M = .98, SD = .07 vs. M = .76, SD = .25), paired t(655.90) = 19.60, p < .001.

References

Allcott, H., Boxell, L., Conway, J., Gentzkow, M., Thaler, M., & Yang, D. (2020). Polarization and public health: Partisan differences in social distancing during the coronavirus pandemic. *Journal of Public Economics*, 191, 104254.

- Associated Press. (2020, April 27). False belief poison cures virus kills over 700 in Iran. *AP News*. https://apnews.com/article/health-virus-outbreak-alcohol-poisoning-iran-poisoning-fece5d0e017849911aa86c0c07799e6b
- Basch, C. H., Hillyer, G. C., Erwin, Z. M., Mohlman, J., Cosgrove, A., & Quinones, N. (2020). News coverage of the COVID-19 pandemic: Missed opportunities to promote health sustaining behaviors. *Infection, Disease & Health*, 25(3), 205–209.
- Begg, I. M., Anas, A., & Farinacci, S. (1992). Dissociation of processes in belief: Source recollection, statement familiarity, and the illusion of truth. *Journal of Experimental Psychology: General*, 121(4), 446–458.
- Bowling, A. (2005). Just one question: If one question works, why ask several? Journal of Epidemiology and Community Health, 59(5), 342–345.
- Busselle, R., & van den Bulck, J. (2019). Cultivation theory, media, stories, processes, and reality. In M. B. Oliver, A. A. Raney, & J. Bryant (Eds.), *Media effects: Advance in theory and research* (4th ed., pp. 69–82). Routledge.
- Calzo, J. P., & Ward, L. M. (2009). Media exposure and viewers' attitudes toward homosexuality: Evidence for mainstreaming or resonance? *Journal of Broadcasting & Electronic Media*, 53(2), 280–299.
- Centers for Disease Control and Prevention. (2023). *CDC COVID data tracker*. https://covid.cdc.gov/covid-data-tracker/#datatracker-home
- Chong, Y. M. G., Teng, K. Z. S., Siew, S. C. A., & Skoric, M. M. (2012). Cultivation effects of video games: A longer-term experimental test of first- and secondorder effects. *Journal of Social and Clinical Psychology*, 31(9), 952–971.
- Clinton, J., Cohen, J., Lapinski, J., & Trussler, M. (2021). Partisan pandemic: How partisanship and public health concerns affect individuals' social mobility during COVID-19. *Science Advances*, 7(2), eabd7204.
- Cook, M. A., & Brooke, N. (2021). Event-based surveillance of poisonings and potentially hazardous exposures over 12 months of the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 18(21), 11133.
- Covid in the U.S.: Latest maps, case and death counts. (2022, April 6). *The New York Times*. https://www.nytimes.com/interactive/2021/us/covid-cases.html
- Diamantopoulos, A., Sarstedt, M., Fuchs, C., Wilczynski, P., & Kaiser, S. (2012). Guidelines for choosing between multi-item and single-item scales for construct measurement: A predictive validity perspective. *Journal of the Academy of Marketing Science*, 40(3), 434–449.
- Dimock, M., & Wike, R. (2020, November 13). America is exceptional in the nature of its political divide. *Pew Research Center*. https://www.pewresearch.org/facttank/2020/11/13/america-is-exceptional-in-the-nature-of-its-political-divide/
- Ditto, P. H., & Lopez, D. F. (1992). Motivated skepticism: Use of differential decision criteria for preferred and nonpreferred conclusions. *Journal of Personality and Social Psychology*, 63(4), 568–584.
- Eyal, P., David, R., Andrew, G., Zak, E., & Ekaterina, D. (2022). Data quality of platforms and panels for online behavioral research. *Behavior Research Methods*, 54, 1643–1662.

- Flaxman, S., Goel, S., & Rao, J. M. (2016). Filter bubbles, echo chambers, and online news consumption. *Public Opinion Quarterly*, 80(1), 298–320.
- Funk, C., & Tyson, A. (2020, June 3). Partisan differences over the pandemic response are growing. *Pew Research Center*. https://www.pewresearch.org/science/2020/06/03/partisan-differences-over-the-pandemic-response-are-growing/
- Garrett, R. K. (2009). Politically motivated reinforcement seeking: Reframing the selective exposure debate. *Journal of Communication*, 59(4), 676–699.
- Garrett, R. K., & Stroud, N. J. (2014). Partisan paths to exposure diversity: Differences in pro-and counter-attitudinal news consumption. *Journal of Communication*, 64(4), 680–701.
- Gentzkow, M., & Shapiro, J. M. (2010). What drives media slant? Evidence from U.S. daily newspapers. *Econometrica*, 78(1), 35–71.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1980). The "mainstreaming" of America: Violence Profile No. 11. *Journal of Communication*, 30(3), 10–29.
- Gollwitzer, A., Martel, C., Brady, W. J., Pärnamets, P., Freedman, I. G., Knowles, E. D., & Van Bavel, J. J. (2020). Partisan differences in physical distancing are linked to health outcomes during the COVID-19 pandemic. *Nature Human Behaviour*, 4(11), 1186–1197.
- Gramlich, J. (2020, January 24). How we evaluated Americans' trust in 30 news sources. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2020/01/24/qahow-pew-research-center-evaluated-americans-trust-in-30-news-sources/
- Green, J., Edgerton, J., Naftel, D., Shoub, K., & Cranmer, S. J. (2020). Elusive consensus: Polarization in elite communication on the COVID-19 pandemic. *Science Advances*, 6(28), eabc2717.
- Grossman, G., Kim, S., Rexer, J. M., & Thirumurthy, H. (2020). Political partisanship influences behavioral responses to governors' recommendations for COVID-19 prevention in the United States. *Proceedings of the National Academy of Sciences* of the United States of America, 117(39), 24144–24153.
- Han, J., & Federico, C. M. (2018). The polarizing effect of news framing: Comparing the mediating roles of motivated reasoning, self-stereotyping, and intergroup animus. *Journal of Communication*, 68(4), 685–711.
- Han, J., & Kim, Y. (2020). Defeating merchants of doubt: Subjective certainty and self-affirmation ameliorate attitude polarization via partisan motivated reasoning. *Public Understanding of Science*, 29(7), 729–744.
- Hart, P. S., Chinn, S., & Soroka, S. (2020). Politicization and polarization in COVID-19 news coverage. *Science Communication*, 42(5), 679–697.
- Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (2nd ed.). Guilford Press.
- Iyengar, S., & Hahn, K. S. (2009). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of Communication*, 59(1), 19–39.
- Iyengar, S., & Westwood, S. J. (2015). Fear and loathing across party lines: New evidence on group polarization. *American Journal of Political Science*, 59(3), 690–707.
- Jost, J. T., & Amodio, D. M. (2012). Political ideology as motivated social cognition: Behavioral and neuroscientific evidence. *Motivation and Emotion*, 36(1), 55–64.

- Jurkowitz, M., & Mitchell, A. (2020, March 4). A fifth of democrats, republicans get news only from outlets with like-minded audiences. *Pew Research Center*. https://www.pewresearch.org/journalism/2020/03/04/about-one-fifth-of-democrats-and-republicans-get-political-news-in-a-kind-of-media-bubble/
- Knobloch-Westerwick, S., & Meng, J. (2011). Reinforcement of the political self through selective exposure to political messages. *Journal of Communication*, 61(2), 349–368.
- Koeze, E., & Popper, N. (2020, April 7). The virus changed the way we internet. *The New York Times*. https://www.nytimes.com/interactive/2020/04/07/technology/ coronavirus-internet-use.html
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480–498.
- Lee, E.-J. (2020). Authenticity model of (mass-oriented) computer-mediated communication: Conceptual explorations and testable propositions. *Journal of Computer-mediated Communication*, 25(1), 60–73.
- Levendusky, M. (2013). Why do partisan media polarize viewers? *American Journal* of *Political Science*, *57*(3), 611–623.
- Mach, K. J., Salas Reyes, R., Pentz, B., Taylor, J., Costa, C. A., Cruz, S. G., Thomas, K. E., Arnott, J. C., Donald, R., Jagannathan, K., Kirchhoff, C. J., Rosella, L. C., & Klenk, N. (2021). News media coverage of COVID-19 public health and policy information. *Humanities and Social Sciences Communications*, 8(1), 1–11.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36(2), 176–187.
- Mitchell, A., Jurkowitz, M., Oliphant, B., & Shearer, E. (2021, February 22). How Americans navigated the news in 2020: A tumultuous year in review. *Pew Research Center*. https://www.pewresearch.org/journalism/2021/02/22/howamericans-navigated-the-news-in-2020-a-tumultuous-year-in-review/
- Mitchell, A., & Liedke, J. (2022, January 27). Small increase in attention to COVID-19 news; Fewer republicans now say U.S. controlled pandemic well enough. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2022/01/27/attentionto-covid-19-news-increased-slightly-amid-omicron-surge-partisans-differ-inviews-about-the-outbreak/
- Morgan, M., & Shanahan, J. (2017). Television and the cultivation of authoritarianism: A return visit from an unexpected friend. *Journal of Communication*, 67(3), 424–444.
- Morgan, M., Shanahan, J., & Signorielli, N. (2015). Yesterday's new cultivation, tomorrow. *Mass Communication and Society*, 18(5), 674–699.
- Motta, M., Stecula, D., & Farhart, C. (2020). How right-leaning media coverage of Covid-19 facilitated the spread of misinformation in the early stages of the pandemic in the U.S. *Canadian Journal of Political Science*, 53(2), 335–342.
- Neergaard, L., Fingerhut, H., & Renault, M. (2021, November 29). AP-NORC poll: 1 in 5 in U.S. lost someone close in pandemic. *AP-NORC*. https://apnorc.org/apnorc-poll-1-in-5-in-us-lost-someone-close-in-pandemic/
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2(2), 175–220.

- No lasting lung damage after full recovery from COVID-19. (2021, August 20). U.S. News. https://www.usnews.com/news/health-news/articles/2021-08-20/no-lasting-lung-damage-after-full-recovery-from-covid-19
- Prior, M. (2013). Media and political polarization. Annual Review of Political Science, 16, 101–127.
- Sacerdote, B., Sehgal, R., & Cook, M. (2020, November). Why is all COVID-19 news bad news? (Working Paper No. w28110). National Bureau of Economic Research. https://Ssrn.Com/Abstract=3735677
- Stroud, N. J. (2010). Polarization and partisan selective exposure. *Journal of Communication*, 60(3), 556–576.
- Tsay-Vogel, M., Shanahan, J., & Signorielli, N. (2018). Social media cultivating perceptions of privacy: A 5-year analysis of privacy attitudes and self-disclosure behaviors among Facebook users. *New Media & Society*, 20(1), 141–161.
- Unkelbach, C., Koch, A., Silva, R. R., & Garcia-Marques, T. (2019). Truth by repetition: Explanations and implications. *Current Directions in Psychological Science*, 28(3), 247–253.
- U.S. Census Bureau. (2021). https://data.census.gov/cedsci/table?tid=ACSDP5Y2020. DP05
- van Klingeren, M., Boomgaarden, H. G., & de Vreese, C. H. (2017). Will conflict tear us apart? The effects of conflict and valenced media messages on polarizing attitudes toward EU immigration and border control. *Public Opinion Quarterly*, 81(2), 543–563.
- Vogel, T., Silva, R. R., Thomas, A., & Wänke, M. (2020). Truth is in the mind, but beauty is in the eye: Fluency effects are moderated by a match between fluency source and judgment dimension. *Journal of Experimental Psychology: General*, 149(8), 1587–1596.
- Winkielman, P., Huber, D. E., Kavanagh, L., & Schwarz, N. (2012). Fluency of consistency: When thoughts fit nicely and flow smoothly. In B. Gawronski & F. Strack (Eds.), *Cognitive consistency: A fundamental principle in social cognition* (pp. 89–111). Guilford Press.
- World Health Organization. (2023). Infodemic. https://www.who.int/health-topics/ infodemic#tab=tab_1
- Zhang, Y., Chen, F., & Lukito, J. (2023). Network amplification of politicized information and misinformation about COVID-19 by conservative media and partisan influencers on Twitter. *Political Communication*, 40(1), 24–47.

Author Biographies

Jiyoung Han (PhD, University of Minnesota, Twin Cities) is an EWon assistant professor in the Graduate School of Future Strategy at Korea Advanced Institute of Science and Technology (KAIST). Her research focuses on the cognitive and emotional mechanisms that underlie media effects on public opinion. She is also interested in the politicization of science in the context of global health concerns such as climate change and the COVID-19 pandemic. **Eun-Ju Lee** (PhD, Stanford University) is a professor in the Department of Communication at Seoul National University, Republic of Korea. Her research has focused on social cognition and social influence in computer-mediated communication and human–computer interaction. She has co-edited *Media Psychology* and served as the Editor-in-Chief of *Human Communication Research*. She is a fellow of International Communication Association (ICA) and serves as its current President (2023–2024).