

**The Partisan Pandemic: Applying the Reasoned Action Approach to Understand the Effects of Politicizing a Public Health Crisis**

**Short running title: Using RAA to understand the partisan pandemic**

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### Abstract

It is well-established that news outlets cater to audiences with particular political leanings and present news about important events, such as disease outbreaks, differently. However, the mechanisms through which selected media exposure influences behavior are not well established. Two surveys examined the roles of attitudes and social norms as pathways through which political predispositions (political ideology, partisanship) and news media choices influence health behavior decisions. Using early Covid-19 as a case study, both studies (a student sample [n=315]; an adult sample [n=518]) found liberal news viewing was related to positive attitudes and norms about health prevention and subsequently more enacted preventive behaviors among liberals but not conservatives. Interestingly, watching conservative news outlets was not associated with attitudes and norms about health prevention, nor was it related to behavior. Partisanship, but not political ideology, directly predicted participants' preventive behavior. These findings suggest that party identification serves as a heuristic for conservatives' and Republicans' attitudes and behavior, which are not influenced by news media choice. Partisan differences in media preferences influenced the adoption of preventive behavior via the reasoned action pathways for Democrats but not Republicans, suggesting distinct messaging strategies for health communication based on political leaning.

*Keywords:* health behavior; disease prevention; political ideology, partisanship, reasoned action approach, attitude, norm

**The partisan pandemic: Applying the reasoned action approach to understand the effects of politicizing a public health crisis**

**1. Introduction**

The politicization of science, or playing up the uncertainty inherent in the scientific process to serve personal or ideological objectives (Michaels, 2008), is not a new phenomenon. Efforts by the U.S. tobacco industry to sow doubts about the scientific consensus around the dangers of smoking began nearly seven decades ago and are often cited as an early example of politicization (Kanakia, 2007). What has changed in recent years, however, is the proliferation of partisan media outlets that operate primarily in service of ideological aims. When antiscientific claims suit the outlet's ideological objectives, these claims are often amplified at the expense of more reputable voices from the medical and scientific community (Feldman et al., 2012; Trumbo, 1996). And as audiences gravitate to sources of information consistent with their partisan bent (Hart et al., 2009; Jurkowitz & Mitchell, 2020; Stroud, 2008), evaluations of health-related threats and behaviors to cope with these threats have increasingly come to reflect partisan loyalties rather than scientific evidence. These trends have led some to argue that the politicization of news has entered a crisis phase, characterized by a significant rise in anti-science sentiment among citizens who watch these programs (e.g., Druckman, 2017).

Although concerns around the politicization of science are well established, we argue that the question of how politicization ultimately comes to shape the behaviors of citizens on health- and science-related topics requires a deeper exploration. Current explanations largely emphasize the role of motivated reasoning (Bolsen & Druckman, 2015; Han and Kim, 2020), suggesting that the presence of competing voices on matters where there is consensus among experts on best practices creates an environment where people will gravitate toward and more readily accept

information coming from their preferred side – thereby facilitating partisan divisions in attitudes toward these matters. Working from the reasoned action approach (RAA; Fishbein & Ajzen, 2011; Fishbein & Yzer, 2003), we consider an additional pathway by which politicization might create foster partisan divisions on scientific issues. Insofar as partisans prefer pro-attitudinal information sources – and these sources differ substantively in their coverage of health and science matters – disproportionate exposure to one perspective versus others might influence citizens' perceptions of the social value of these viewpoints, leading to divisions in norm perceptions with potential downstream consequences for behavioral intentions.

To test this possibility, we collected data using two U.S.-based surveys administered at different points during the highly politicized Covid-19 pandemic. A structural equation model derived from the RAA tested whether partisan media exposure served a dual role in shaping the adoption of Covid-19 prevention behaviors by both influencing respondent attitudes and norm perceptions.

### **1.1 Politicization and the Reasoned Action Approach**

Emerging from the theory of reasoned action (Fishbein, 1979), the RAA was developed to explain the psychological processes involved in behavior formation (Fishbein & Ajzen, 2011; Fishbein & Yzer, 2003). According to the RAA, human behavior can be explained as a function of someone's attitude toward a behavior as well as their subjective norm about that behavior (i.e., the perception that an individual's important others think they should or should not take action; see Ajzen, 2020). Abundant research has shown that both normative beliefs and attitudes contribute to behavioral decision-making across a range of contexts, and the model has been used to explain a wide variety of health behaviors. For example, in a recent meta-analysis focusing on general health-related behavior, small to medium effect sizes were found between attitudes and

enacted behavior as well as norms and behavior (Sheeran et al., 2016). In specific contexts such as physical activity, meta-analytic works testing the RAA mechanism found significant direct links between attitude, norm, and behavioral intention and significant links between attitude, norm, and enacted behavior (Hagger et al., 2002). In other health-related contexts such as condom use (Albarracín et al., 2001) and blood donation (Bednall et al., 2013), meta-analyses and systematic reviews revealed significant relationships between attitude, norm, and behavior with small to medium effect sizes.

RAA has been used to explain emerging health issues and crises. For example, in a study focusing on the 2009 H1N1 influenza pandemic, it was found that tourists' attitudes and subjective norms significantly predicted their desire to travel in the near future, which in turn predicted their intention to travel (Lee et al., 2012). Similarly, in a survey conducted during the 2015-2016 Zika virus outbreak, participants' attitudes toward information seeking and their perceived subjective norms of information seeking both significantly predicted the quality of their systematic processing of Zika information (Hubner & Hovick, 2020). Extensive research has found support for the RAA mechanisms within the newer epidemic of Covid-19 as well (e.g., Norman et al., 2020; Ackermann et al., 2021).

The present research extends prior literature by explicitly testing two background variables of RAA, namely political ideology and media use (news use in particular). Early RAA work focused on the role of attitudes toward and norms about a certain behavior on the possibility of enactment of this targeted behavior (Fishbein & Ajzen, 2003). The theory later evolved to also consider background variables such as individual's political leaning and their media use as predictive of behavioral intention or enactment (Fishbein & Ajzen, 2011). For example, the role of political leaning has been studied within the theoretical framework of RAA

in contexts of pro-environmental behaviors (Kim et al., 2012) and online political participation (Oni et al., 2017), and the role of media use has been studied in contexts such as vaccine intention (Xiao & Su, 2021). Limited research, however, has tested both background variables together as part of the RAA mechanism. There have been studies testing the predictive power of both political ideology and media use (e.g., Zhu et al., 2023; Manganello et al., 2023) on behavioral outcomes, however these studies are rarely deliberately housed in the RAA. In the present research, we tested the roles of political ideology and one particular kind of media use, news consumption, as part of the RAA process in a novel health context of Covid-19.

Additionally, existing research explaining the behavioral consequences of politicization has found extensive support for the relationship between attitudes and behavior (e.g., Druckman, 2017; Feldman, 2016). Less attention, however, has been paid to the potential impact of politicized social norms on behavioral outcomes. In the health context, partisan news content might provide a normative signal about how like-minded others view health-related behaviors when they amplify voices that undermine scientific findings (Duong & Liu, 2019), and the effects of politicization – and its amplification via partisan media – may not be limited to the attitude-behavior association. Indeed, partisan media exposure might foster individuals' normative perceptions by creating the impression that such doubts are expected and encouraged, especially among fellow partisans. Thus, in accordance with RAA, and to extend prior findings, we suggest an additional pathway by which politicization might influence health protective behaviors through shaping normative perceptions.

We consider this possibility within the context of the Covid-19 pandemic, an ideal case for assessing the influence of politicization on our outcomes of interest. Political elites in the U.S. – specifically on the political right - frequently challenged the guidance and suggestions of

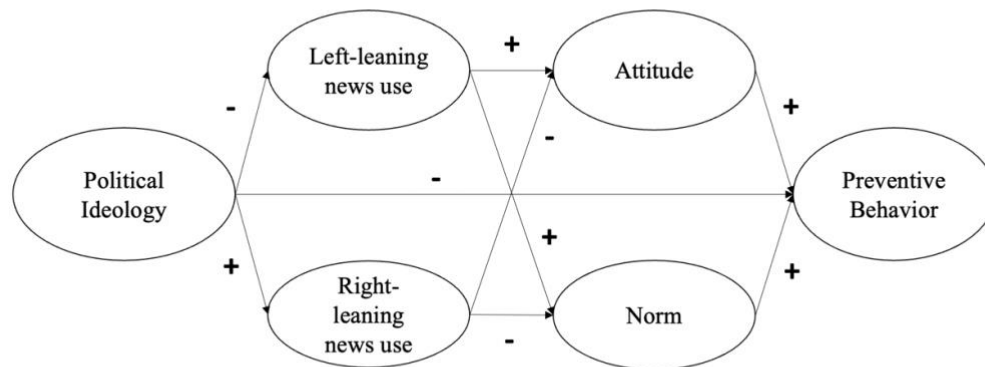
public health experts. Subsequently, news coverage came to reflect this ideological divide. Liberal and more centrist, mainstream outlets adopted a tone that was largely consistent with the recommendations of health experts, whereas conservative news media frequently challenged experts and downplayed the severity of the virus (Simonov et al., 2020; see also, Budak et al., 2021). These qualities match up closely with the existing definitions of politicization, as various actors challenged scientific evidence and expert recommendations largely in pursuit of political gains, with subsequent media coverage reflecting this divergence based on partisan bent (Druckman, 2017; Fowler and Gollust, 2015). Furthermore, while prior work has demonstrated clear partisan differences in Covid-related behaviors (e.g., Allcott et al., 2020), the emergent context of the Covid-19 pandemic provides us the opportunity to observe whether these differences can be attributed to attitudes toward these behaviors, norm perceptions, or both.

## **1.2 Predictions**

As politicization is thought to promote a tendency to view health issues through increasingly partisan lenses, we first considered whether political predispositions themselves have an independent, direct association with health preventive behaviors. Indeed, research in political science has demonstrated that political predispositions – such as political ideology and partisanship – are robust predictors of a wide range of preferences and judgments beyond voting-related behaviors (e.g., Hamilton et al., 2015; Baumgaertner et al., 2019). Because of this, we expected people who identify as liberal to show a stronger commitment to act upon the guidelines of Covid prevention than those who identify as conservative (see Figure 1 for hypothesized model).

Within the context of RAA, media use is an antecedent to both attitudes and norms as repeated exposure to media messages that are consistent with one's worldview contribute to their

belief formation regarding specific issues (Fishbein & Ajzen, 2011). These beliefs subsequently serve as the basis for individuals' judgments and behaviors around these issues. In this vein, people's news media choices during a period of crisis, such as the global Covid-19 pandemic, should correlate with their attitudes and perceived norms about Covid-19-related behaviors. Indeed, prior research has tested the roles of political ideology and media use as antecedent variables to attitudes, norms, and enacted behavior (or behavioral intention). For example, in one study targeting pro-environmental behavior, political ideology was found together with attitude and subjective norm to predict behavioral intentions (Kim et al., 2012). In another study, online political participation was found to be predicted by political awareness and political efficacy, as well as attitudes toward and norms about participating in political information and communication technologies (Oni et al., 2017). When considering media use, research has found that media exposure to content of alcohol use and sex was associated with attitudes toward and perceived norms, which subsequently influenced adolescents' intention to drink alcohol and have sex in the near future (Bleakley et al., 2017). In the present studies, we extend prior research by testing the roles of both political ideology and media use (news use in particular) on a novel health-related behavior.



**Figure 1. Conceptual Model in Study 1**

Extensive research on partisan selective exposure has shown a preference for news consistent with one's political predispositions, known as confirmation bias (e.g., Hart et al., 2009; Jurkowitz & Mitchell, 2020; Stroud, 2008). Given the disparate nature of news coverage across partisan outlets largely characterized by right-leaning sources adopting a more critical tone toward the recommendations of health experts (Simonov et al., 2020), the Covid-19 pandemic was ripe for politicization resulting from citizens' inclination toward politically like-minded news sources. Taken together, we therefore expected audiences to diverge in their attitudes toward preventative behavior because of these differences in coverage. In fact, some research has already indicated this possibility. Romer & Jamieson (2021), for example, demonstrated that conservative media use was associated with more conspiratorial attitudes around Covid-19 and strategies aimed to combat its spread. Extending this to the current study, we expected greater use of right-leaning sources to correlate with more negative attitudes toward the preventive behaviors suggested by health experts, whereas the use of left-leaning sources

would be expected to correlate with more positive attitudes toward these same behaviors.

Additionally, insofar as liberals and conservatives prefer information sources that are consistent with their political predispositions – and given the observed differences in coverage of the early Covid pandemic across liberal and conservative media (Budak et al., 2021; Simonov et al., 2020) – we anticipated that attitudes toward preventive behavior would be predicted by both political ideology and partisan news use.

As argued previously, partisan media exposure also has the potential to shape audiences' norm perceptions around Covid-19 preventive behavior – thereby suggesting another mechanism by which partisan media engagement might influence adoption of prevention strategies. Research on selective exposure research has also suggested that the way people engage with the information environment can influence their perceptions of the overall opinion climate (see Bosveld et al., 1994; Sude, et al., 2019; Wojcieszak, 2011). When engaging primarily with like-minded sources, these perceptions can lead to a false consensus effect whereby people exaggerate the extent to which others hold similar views to themselves. As right-leaning outlets have been shown to more frequently underplay the severity of Covid-19 and challenge expert recommendations aimed at Covid prevention, audiences of these media might therefore come to perceive these perspectives as more widespread than they actually are – which could subsequently influence perceptions of the extent to which others disapprove of or choose not to adopt the behavioral recommendations of health experts (e.g., Cialdini et al., 1990). Left-leaning and more centrist sources, by featuring content in greater accord with expert recommendations, would be expected to have the opposite effect. Thus, these differences in coverage among partisan outlets might serve to communicate either acceptance or rejection of expert recommendations within one's partisan group, thereby shaping one's own behaviors

insofar as one's political identity is a core component of their social identity (see Mason, 2018; Willis et al., 2020).

In sum, as proposed by RAA and validated in numerous studies (e.g., Starfelt et al., 2016), attitudes and norms are direct antecedents for intention and enacted behavior. In addition, more recent theoretical development within RAA has recognized the influence of background factors such as political ideology and media use on the adoption and implementation of a behavior (Fishbein & Ajzen, 2011). Bringing together the entire process suggested by RAA (Fishbein & Ajzen, 2010), we anticipate that individual's Covid-19 preventive behavior is predicted by their political ideology, partisan news use, and attitude and norm.

## Study 1

### 2.1 Method

#### 2.1.1 *Participants & Procedure*

In our initial test of these predictions, we recruited 375 undergraduate students from a large Midwestern university in the early weeks of the pandemic (between April 8 and April 24, 2020). Due to the novelty of the context, the desired sample size was determined by a general guideline of a minimum of 300 subjects for research using structural equation modeling (Worthington & Whittaker, 2006). Participants were recruited from a college-wide subject pool and offered course credit for their participation. Sixty participants who failed attention checks were removed from data analysis, resulting in a final sample of 315 (54% female;  $M_{age}=20.54$ ,  $SD_{age}=2.59$ ; racial breakdown: 69% White, 13% Asian; 10% Black; 3% Hispanic, 5% other). In addition to providing demographic information, participants reported political ideology, news media use, attitudes and perceived norms toward social distancing, and how much they have obeyed CDC guidelines to prevent infection, in addition to other questions that are not related to

the present hypotheses. For both studies all procedures were approved as exempt by the IRB. All data associated with the present research can be found on the Open Science Framework<sup>1</sup> (Yao, 2023).

### 2.1.2 Measures

*Political ideology* was measured with a single item: “What political orientation do you most identify with?” (1=very liberal, 7=very conservative;  $M=3.62$ ;  $SD=1.40$ ).

Higher numbers indicate identification with a more conservative ideology.

CNN and Fox News were used to capture participants’ left- and right-leaning *news use*, respectively. This selection was made due to the outlets’ high viewership and to be consistent with research into differences across sources in Covid-related news coverage (e.g., Ash et al., 2020; Simonov et al., 2020). One question assessed partisan news use: “Between the first Covid-19 death in the U.S. (February 28) and now, how often have you used \_\_\_ for getting news?”. Participants answered this question for both Fox News ( $M=4.09$ ;  $SD=3.51$ ) and CNN ( $M=4.84$ ;  $SD=3.44$ ) on an 11-point Likert scale from 0=*never* to 10=*all the time*. The order of two news outlets in the question was randomized.

*Attitude toward health preventive behavior* was operationalized as participants’ evaluation of social distancing. Attitudes were measured on the following semantic differentials on seven-point scales: bad/good, harmful/beneficial, and foolish/wise (“I believe the social distancing guideline to fight against Covid-19 are \_\_\_”;  $M=5.91$ ;  $SD=1.28$ ; Cronbach  $\alpha=.76$ ). Higher scores indicated more positive attitudes toward social distancing.

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<sup>1</sup> The present research was not preregistered.

*Subjective norm for health preventive behavior* was operationalized as perceived social approval regarding social distancing. Norms were measured with the question “how likely is it your\_\_ would approve of your adhering to social distancing guidelines?” on a 7-point Likert scale (1=extremely unlikely, 7=extremely likely). Participants rated the approval likelihood for four proximal social referents (i.e., older relatives, younger relatives, significant other, friends). The four items were randomized in the survey, with higher scores indicating stronger perceived approval ( $M=6.08$ ;  $SD=1.12$ ; Cronbach  $\alpha=.83$ ).

*Health preventive behavior* in the past week was measured by a list of behaviors from CDC’s Covid-19 guidelines to prevent infection. Participants were prompted “In the past week, I\_\_” and rated their agreement (1=strongly disagree, 7=strongly agree) on the following items: “have washed my hands frequently”, “would have stayed at home if I were sick”, “have covered my cough/sneeze”, and “have cleaned and disinfected frequently touched objects and surfaces”<sup>2</sup> ( $M=6.15$ ;  $SD=.92$ ; Cronbach  $\alpha=.77$ ). Higher scores indicated participants’ stronger prevention practices.

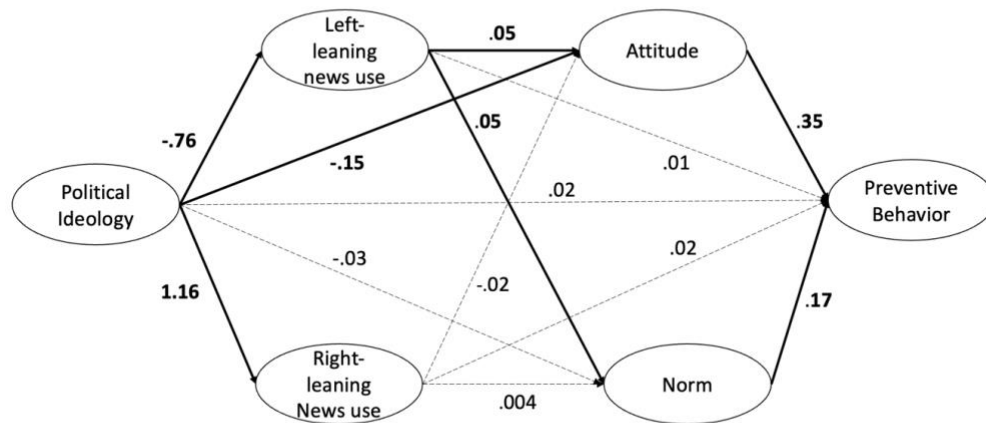
## 2.2 Results

Hypotheses were tested using structural equation modeling (SEM) with the Lavaan package (Version 06-3; Rosseel, 2012) in R (Version 1.1.463). Each measured item was treated as an indicator of the corresponding latent variable. Regression coefficients are unstandardized, and 95% confidence intervals (CIs) are reported with 5,000 bootstrap samples and bias-corrected estimators. Missing data was addressed with full information maximum likelihood (FIML) within SEM building (Enders & Bandalos, 2001). The model and path results can be found in

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<sup>2</sup> At the time of data collection, CDC guidelines did not include wearing a mask. To be consistent with the CDC guidelines, wearing a mask was not part of the current measure.

Figure 2. The results indicate good model fit, with  $\chi^2(65)=110.69, p=.00, RMSEA=.05, CFI=.97, TLI=.96,$  and  $SRMR=.04$ . The model accounted for 32% of the variance of participants' performed preventive behavior. See Table 1 for a summary of hypothesized indirect effects. See Table 2 for a correlation matrix of key variables in Study 1 & 2.



**Figure 2. Serial-Parallel Mediation Model Outcomes in Study 1**

Coefficients presented here are unstandardized. Coefficients that are outside of the sampling error of zero are represented with a solid line. Coefficients that are within the sampling error of zero are represented with a dotted line. Political ideology is scored such that higher numbers represent stronger conservative ideology and lower numbers represent stronger liberal ideology.

**Table 1**  
*Hypothesized Indirect Effects in Study 1 & 2*

	Study 1	Study 2	
	Coeff.	Coeff.	Coeff.
political ideology→left-leaning news use→attitude	<b>-.04 [-.09, .01]</b>	<b>-.03 [-.06, .01]</b>	-
partisanship→left-leaning news use→attitude	-	-	<b>-.07 [-.16, .02]</b>
political ideology→right-leaning news use→attitude	-.02 [-.08, .03]	-.01 [-.03, .003]	-
partisanship→right-leaning news use→attitude	-	-	-.03 [-.12, .05]
political ideology→left-leaning news use→norm	<b>-.04 [-.08, .01]</b>	<b>-.06 [-.10, .02]</b>	-
partisanship→left-leaning news use→norm	-	-	<b>-.13 [-.25, .05]</b>
political ideology→right-leaning news use→norm	.004 [-.04, .04]	.003 [-.02, .02]	-
partisanship→right-leaning news use→norm	-	-	.03 [-.08, .15]
left-leaning news use→attitude→preventive behavior	<b>.02 [.004, .04]</b>	<b>.02 [.01, .05]</b>	<b>.02 [.01, .05]</b>
left-leaning news use→norm→preventive behavior	<b>.01 [.001, .02]</b>	<b>.06 [.02, .10]</b>	<b>.06 [.03, .10]</b>
right-leaning news use→attitude→preventive behavior	.01 [-.03, .01]	-.01 [-.04, .01]	-.01 [-.03, .01]
right-leaning news use→norm→preventive behavior	.001 [-.01, .01]	.01 [-.03, .04]	.01 [-.02, .05]
political ideology→left-leaning news use→attitude→preventive behavior	<b>-.01 [-.04, .004]</b>	<b>-.01 [-.03, .004]</b>	-
partisanship→left-leaning news use→attitude→preventive behavior	-	-	<b>-.03 [-.07, .01]</b>
political ideology→left-leaning news use→norm→preventive behavior	<b>-.01 [-.02, .001]</b>	<b>-.03 [-.06, .01]</b>	-
partisanship→left-leaning news use→norm→preventive behavior	-	-	<b>-.07 [-.15, .03]</b>

political ideology→right-leaning news use→attitude→preventive behavior	<b>-.01</b> [-.03, .01]	<b>-.004</b> [-.01, .001]	-
partisanship→right-leaning news use→attitude→preventive behavior	-	-	<b>-.01</b> [-.05, .02]
political ideology→right-leaning news use→norm→preventive behavior	<b>.001</b> [-.01, .01]	<b>.002</b> [-.01, .01]	-
partisanship→right-leaning news use→norm→preventive behavior	-	-	<b>.02</b> [-.04, .09]

*Note.* Coeff. = coefficients. Coefficients presented here are unstandardized. 95% CI is presented in the square bracket next to each coefficient. Coefficients that are outside of the sampling error of zero are bolded. 0=Democrat.

**Table 2***Correlation Matrix in Study 1 & 2*

	1	2	3	4	5	6	7
1. political ideology	-	.51	-.28	.16	-.22	-.10	-.06
2. partisanship	-	-	-.12	.26	-.26	-.09	-.19
3. left-leaning news use	-.29	-	-	.42	.15	.20	.16
4. right-leaning news use	.46	-	.21	-	-.04	.10	.06
5. attitude	-.26	-	.22	-.12	-	.40	.48
6. norm	-.10	-	.21	.02	.36	-	.59
7. preventive behavior	-.06	-	.17	.07	.38	.34	-

*Note.* The corrections from Study 1 are shown below the diagonal. The correlations from Study 2 are shown above the diagonal.

Although we predicted a direct association between participants' political ideology and their preventive behavior, no significant relationship was found<sup>3</sup>. Our results supported our prediction that participants who reported watching left-leaning news frequently were more likely to have positive attitudes and subjective norms toward preventive behavior compared to those who reported not watching left-leaning news as often. Surprisingly, the use of right-leaning news did not significantly predict attitudes or subjective norms. Our results further indicated that liberals more often use left-leaning news sources and in turn exhibit more positive attitudes toward preventive behavior compared to conservatives, however the mediating effect of political ideology on health-prevention attitudes through right-leaning news use was nonsignificant.

<sup>3</sup> To test the relationship between participants' news consumption and their preventive behavior with alternative statistical specifications, in both Study 1 & 2 an OLS regression was performed with preventive behavior as the dependent variable and left- and right-leaning news use as the independent variable, controlling for political ideology (or partisanship) and attitude and norms toward preventive behavior. See OSF for detailed results.

Our findings established that the relationship between left-leaning news use and preventive behavior was significantly mediated by attitudes and norms. Individuals who watch more left-leaning news were more likely to exhibit positive attitudes and norms toward Covid-related preventive behavior and in turn more likely to perform those preventive practices. However, no significant mediation was found through either attitudes or norms with right-leaning news use.

The serial mediation of political ideology on preventive behavior through the mediators of left-leaning news use, attitudes, and norms were both significant. Individuals who self-identified as liberal watched more left-leaning news than conservatives, which correlated with more positive attitudes and norms toward preventive behavior and in turn was related to more compliance with CDC behavior guidelines to cope with the Covid-19 situation. The indirect paths through right-leaning news use and attitudes and norms were both nonsignificant.

### **2.3 Discussion**

The results of Study 1 provided evidence that ideological differences in the adoption of health behavior occurs through different patterns of news media use. This study extended prior work by suggesting a potential dual role of partisan media in shaping behavioral outcomes related to health prevention through both attitudes and norms toward preventive behavior. Interestingly, this relationship was unique to left-leaning sources; exposure to right-leaning news did not significantly contribute to attitudes, norms, or enacted behavior to prevent the disease.

Although earlier work has demonstrated a direct association between political ideology and behavior (e.g., Baumgaertner et al., 2019), we found no evidence for such a relationship in the current study after accounting for potential indirect pathways. One possible explanation for the inconsistency of this result with earlier evidence lies in the novelty of Covid-19 related issues

and the lack of any clear connection to one's underlying ideology so early in the pandemic. Unlike established health- and science-related issues that have become a frequent subject of political dispute (e.g., climate change), ideological predispositions likely offered little initial guidance to aid their decisions on whether to enact behavioral responses to a novel situation like Covid-19. Alternatively, this non-effect could be due to the nature of our sample. Although college students often adopt the ideological positions of their parents via political socialization (e.g., Healy & Malhotra, 2013), political perspectives during this age – characterized by little political awareness and knowledge – are often unconstrained (e.g., Keating & Bergan, 2017) and rife with inconsistencies (e.g., Pollock et al., 2015). As a result, we might not expect political ideology to serve as an important cue for this population for any issue except those where ideological divisions are most clearly defined.

In Study 1, the measures of attitudes and norms targeted social distancing while the measures of preventive behavior focused on several preventive behaviors recommended by CDC. This is because the data collection of the study happened right after the statewide shelter-in-place order, which strictly prohibited any activities that were not necessary to protect life. Thus, participants were expected to stay at home most of the time during data collection. Consequently, social distancing was not applicable to measure preventive behavior due to the expected low variance. To closely capture participants' preventive behavior with acceptable variance, we adopted CDC's recommended behaviors to prevent coronavirus infection. That said, there was a discrepancy in measures between attitudes, norms, and preventive behavior in Study 1. Thus in Study 2, we addressed this limitation by using social distancing as the target behavior for all attitude, norm, and preventive behavior measures.

## **2. Study 2**

Although Study 1 confirmed many of our expectations, we conducted a second study with a non-student sample to assess the robustness of our findings, explore whether certain relationships may have been sensitive to sample constraints, and extend our initial design in key ways. First, a national adult sample was recruited for Study 2 to assess whether the trends observed in Study 1 would be observed in a broader sample and at a later point in time (data were collected between August 25, 2020, and September 7, 2020). Results corroborating the insights from Study 1 should offer a greater degree of confidence in their robustness, while novel significant results in Study 2 might suggest that null results in Study 1 may have resulted from some unique circumstances or sample characteristics.

Second, Study 1 excluded social distancing from the behavioral measure of disease prevention as the state-wide quarantine during data collection made social distancing irrelevant. This resulted in a discrepancy between the attitude, norm, and behavioral measures. Study 2 offers a stronger test of RAA predictions as all attitude, norm, and behavioral measures were of social distancing, which is a salient behavior specific to Covid-19 prevention.

Third, Study 2 considered the potential impact of both political ideology and partisanship rather than ideology alone. While highly correlated and often treated interchangeably, subtle differences between ideology and partisanship warrant separate examination; political ideology largely reflects one's position regarding the proper role of government in society, whereas partisanship taps into one's psychological attachment to a political party (see Barber & Pope, 2019). As party attachment and identification have come to occupy a central place in the self-concepts of many partisans (see Mason, 2018), it may subsequently exert a stronger influence on psychological and behavioral outcomes than political ideology. Therefore, in Study 2 we accounted for the potential influence of political ideology and partisanship on preventive

behavior separately, and anticipated that Republicans would exhibit less preventive behavior than Democrats.

### **3.1 Method**

#### **3.1.1 *Participants & Procedure***

To determine the minimum number of participants, an *a priori* power analysis for SEM was conducted using the semPower package in R (Moshagen and Erdfelder, 2016). Based on the RMSEA (.0047) from Study 1, a total of 512 participants would be needed for 99% power at alpha at .01, two-tailed. Participants ( $n=538$ ) were recruited from Qualtrics Panels and compensated according to their agreement with Qualtrics. Quota sampling was used to ensure a sufficient number of participants who identified with one of the two major political parties in the U.S., resulting in approximately half of the sample identifying as Republican and half Democrat. Participants who failed at the attention check questions were removed from the sample ( $n=20$ ), leaving 518 participants (47% female;  $M_{\text{age}}=38.69$ ,  $SD_{\text{age}}=14.79$ ; age range=18 to 79). The racial breakdown was 53% White, 19% Hispanic, 14% Black, 6% Asian, 6% participants selected more than one race, and 2% indicated “other.” Sample characteristics by partisanship can be found in online supplemental material (Yao, 2023).

#### **3.1.2 *Measures***

Measures were nearly identical to those from Study 1, including political ideology ( $M=3.87$ ;  $SD=1.95$ ), use of left-leaning sources (i.e., CNN;  $M=4.87$ ,  $SD=3.86$ ), use of right-leaning sources (i.e., Fox News;  $M=4.60$ ,  $SD=3.79$ ), attitudes toward preventive behavior (social distancing;  $M=5.63$ ,  $SD=1.65$ ; Cronbach  $\alpha=.90$ ), perceived norms for preventive behavior (social distancing;  $M=7.60$ ,  $SD=2.28$ ; Cronbach  $\alpha=.85$ ), and self-reported preventive behavior in

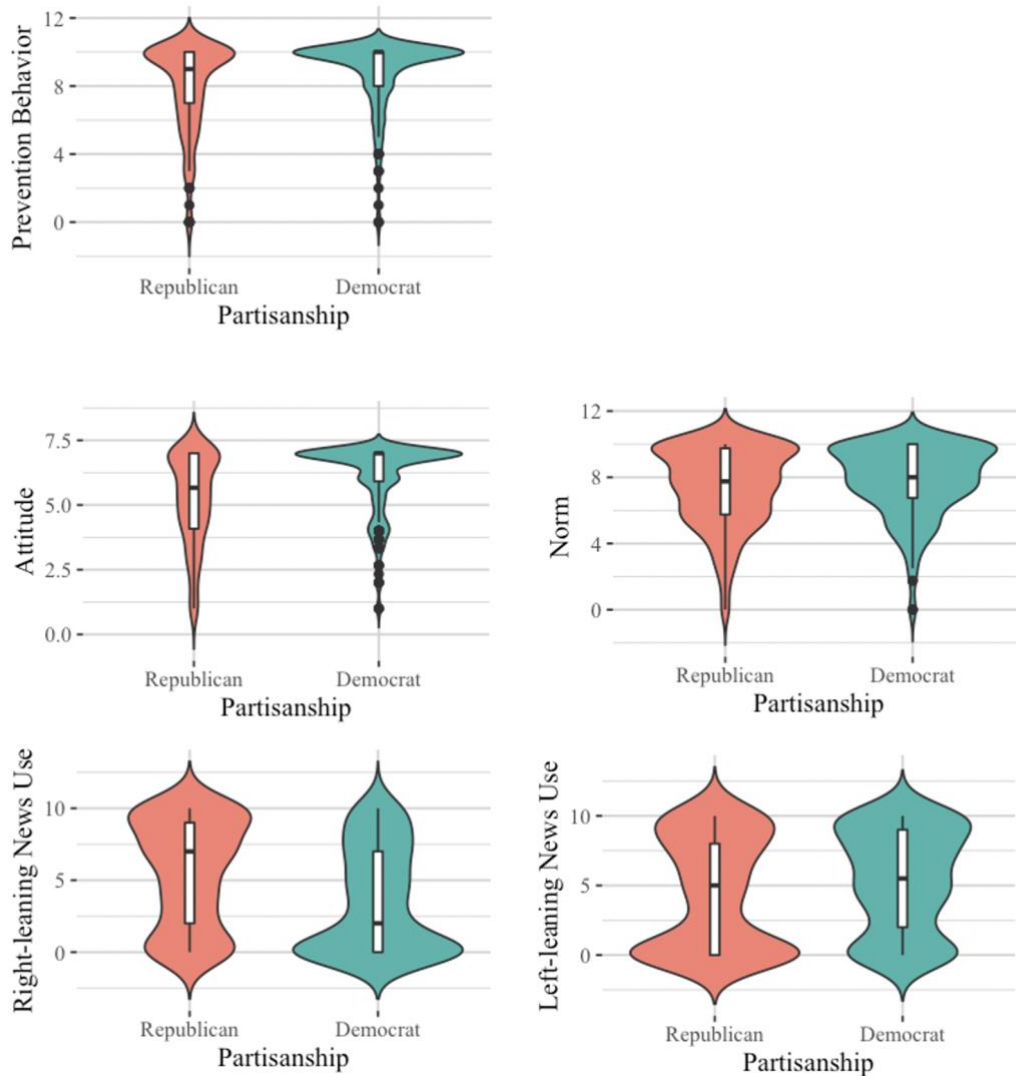
the past week (social distancing;  $M=8.39$ ,  $SD=2.39$ ). To assess the role of party affiliation, a dichotomous measure of partisanship was included (1=Republican; 0=Democrat; 53% Republican). Descriptive statistics of the measured variables by partisanship can be found in Table 3. See Figure 3 for distribution of each measure variable by partisanship.

**Table 3**

*Measured Variables by Partisanship in Study 2*

	Measurement scale	Republican	Democrat	Mean Difference
		<i>M(SD)</i>	<i>M(SD)</i>	
Left-leaning news use	0 = never, 10 = all the time	4.45(3.99)	5.35(3.65)	-.90**
Right-leaning news use		5.54(3.71)	3.55(3.62)	1.99***
Attitude	Seven-point semantic differential scale	5.21(1.75)	6.07(1.40)	-.86***
Norm	1 = extremely unlikely, 7 = extremely likely	7.40(2.40)	7.81(2.13)	-.41*
Preventive behavior	0 = strongly disagree, 10 = strongly agree	7.95(2.62)	8.84(2.03)	-.89***

*Note.* Two-sample t-tests were performed between Republicans and Democrats. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

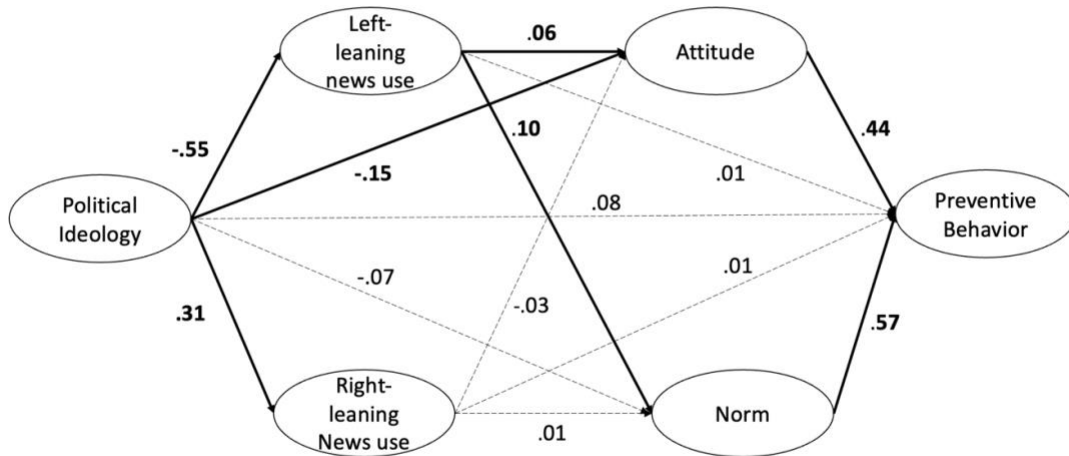


**Figure 3. Distribution of Measured Variables by Partisanship in Study 2**

### 3.2 Results

As in Study 1, all data analyses were conducted using SEM with the Lavaan package (Version 06-3; Rosseel, 2012) in R (Version 1.1.463). Unstandardized regression coefficients and 95% CIs are estimated with bias-correction and 5,000 bootstrap samples. Observed variables were used as indicators for their corresponding latent variables in the model. Missing data was addressed with FIML within model building (Enders & Bandalos, 2001). As with Study 1, our model indicated a strong fit with data from Study 2,  $\chi^2(33)=43.98, p=.10, RMSEA=.03,$

CFI=.995, TLI=.99, and SRMR=.02 (see Figure 4 for the model and path results). The model accounted for 46% of participants' Covid related preventive practice.

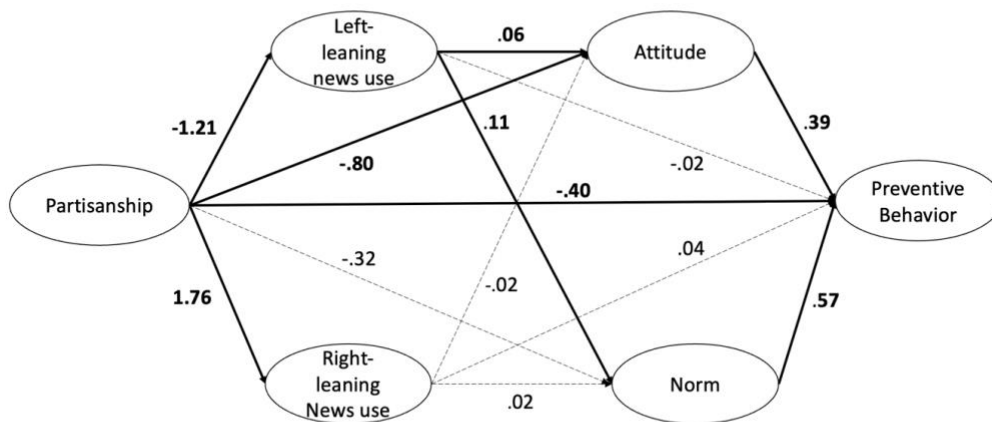


**Figure 4. Serial-Parallel Mediation Model Outcomes in Study 2 (Political Ideology as IV)** Coefficients presented here are unstandardized. Coefficients that are outside of the sampling error of zero are represented with a solid line. Coefficients that are within the sampling error of zero are represented with a dotted line. Political ideology is scored such that higher numbers represent stronger conservative ideology and lower numbers represent stronger liberal ideology.

Findings for Study 2 mirrored those from Study 1 (see Table 1). As in Study 1, political ideology had no direct relationship to preventive behavior. However, use of left-leaning news sources (CNN) was again associated with more positive attitudes and favorable norm perceptions, and the indirect effect of political ideology on each outcome through media use was again significant – confirming findings from Study 1. The mediated pathways between news use and preventive behavior through both attitudes and norms also replicated Study 1; use of left-leaning news had an indirect association with preventive behavior through attitudes and norms, whereas no such result was found for right-leaning news use. Lastly, there was a significant

serial mediation of political ideology through left-leaning news use and attitudes to social distancing behavior, though again the result was unique to left-leaning news use.

In addition, Study 2 allowed us to observe whether partisanship – rather than political ideology – may have played a role in this process, with results supporting our prediction (see Table 1). The model fit well with data ( $\chi^2(33)=40.93, p=.16, RMSEA=.02, CFI=.997, TLI=.995,$  and  $SRMR=.02$ ) and explained 46% of participants' Covid-preventive practices (see Figure 5 for the model and path results). Most notably, we observed a significant direct association between partisanship and preventive behavior whereby Democrats were more likely to engage in Covid-related prevention than Republicans. Aside from this, all remaining paths were similar to those observed when looking instead at political ideology as the antecedent variable. In short, partisanship had a direct and indirect association with health preventive behavior through differential media use patterns, which subsequently related to both attitudes and norms about Covid-19 preventive behavior; however, this relationship was unique to the use of left-leaning sources.



**Figure 5. Serial-Parallel Mediation Model Outcomes in Study 2 (Partisanship as IV)**

Coefficients presented here are unstandardized. Coefficients that are outside of the sampling error of zero are represented with a solid line. Coefficients that are within the sampling error of zero are represented with a dotted line. Partisanship is coded as 0 = Democratic and 1 = Republican.

### **3.3 Discussion**

Results from Study 2 fully replicated Study 1 using a national adult sample. Political ideology again only played an indirect role in preventive behavior, but partisanship had both a significant direct association with behavior as well as similar indirect relationships through media use, attitudes, and norms. Interestingly, as with Study 1, Study 2 again suggests that left-leaning news – specifically CNN – serves to mediate these relationships, suggesting that FOX News exposure played no role in shaping social distancing behavior either directly or indirectly.

## **4. General Discussion**

In the present research, we found evidence across two studies suggesting that partisans' engagement with news sources consistent with their political preferences is associated with differences in both the evaluative judgments around health prevention strategies (attitudes) and perceptions of social approval for these behaviors (social norms), which ultimately have implications for behavioral outcomes aimed at health prevention. Specifically, liberals' and Democrats' preferences for left-leaning news sources were linked with more positive attitudes and norms about Covid-related prevention behavior, which was associated with intention to increase the adoption of these behaviors. Interestingly, there was no downstream effect of the use of right-leaning news sources on attitudes, norms or behavior. Our findings extend those of prior research in this area by specifying the roles of partisan news use, attitudes, and subjective norms in the relationship between individuals' political dispositions and their enacted health behavior.

From a theoretical standpoint, the present studies add to existing scholarship on RAA (Fishbein & Ajzen, 2010) by applying the theory to understand the cognitive processes where the politicization of health issues shapes behavioral outcomes. Additionally, our research extends the theory by considering the explanatory power of background variables (e.g., political disposition, news use) on behavior. While prior versions of RAA have broadly suggested the potential importance of background variables to help explain how attitudes and norms influence behavior (Fishbein & Ajzen, 2011), our research empirically demonstrated the important role of two background variables, political disposition and media use, on the reasoned action process for behavior formation.

However, the differences in the relationship of partisan news media use and attitudes, norms, and behavior suggest that these background variables do not affect all individuals in the same way. Partisanship and political orientation had direct associations with attitudes that were not mediated by news consumption, and there was no mediating effect of conservative news use on attitudes, norms, or behavior. Thus, the reasoned action framework was only supported through liberal media use, suggesting that although conservatives and Republicans select Fox News, that exposure does not influence their attitudes and norms. Future research should confirm this pattern of findings. If replicated, these findings may suggest that conservatives' attitudes are less subject to change through media exposure.

These findings also have practical relevance for health communicators, illustrating the need to identify strategies to mitigate politicized perceptions of matters relating to health. Results of the present studies demonstrate how divergent attitudes, perceived norms, and behaviors can result from politicized media messages. Future health campaigns should seek to anticipate this possibility and implement effective approaches to reduce the potential for biased perceptions on

health-related issues due to politicization. Indeed, some existing work has already suggested strategies to combat politicization, such as using consensus messaging (van der Linden et al., 2018), identity interventions (Lyons, 2018), and framing or image-based tactics (Bolsen et al., 2019; Dan and Dixon, 2021). Presenting normative information that is specific to the political groups one identifies with, for example, highlighting the number of Democrats in a city or state who have been vaccinated, might help to counter normative beliefs in order to increase preventive behavior (McClaran et al., 2022). Finding ways to encourage Fox News watchers to switch to CNN may change behavior through modifying attitudes (Brookman & Kalla, 2022). Implementing these and additional evidence-based measures is vital to counter the negative effects of politicized messaging around health matters.

### **Partisanship, but not Ideology, Predicted Preventive Behavior**

Political ideology, when coherent and constrained, is often thought to serve as an important device in making sense of issues both within and beyond the realm of politics (e.g., Bolsen & Druckman, 2015). But here, we find no such effect for ideology in predicting Covid-19 preventive measures. In Study 1, we speculated that this non-effect might have been due to two potential causes: the timing of the study during the early days of the pandemic (perhaps prior to much of its politicization regarding the threat of and mitigation strategies to prevent Covid-19), and the use of a student sample, who are reliably unconstrained in their political ideologies (see Keating & Bergan, 2017). However, the persistence of this non-finding in Study 2 – which was conducted several months later with a national, diverse sample – seemingly eliminated these two explanations, suggesting a limited role for political ideology in directly shaping people’s behaviors. In contrast, evidence from Study 2 suggests a significant, direct effect of partisanship – defined as one’s psychological attachment to a political party – on preventive behavior.

Namely, self-identified Republicans engaged in relatively fewer preventive practices than self-identified Democrats, even after accounting for other potential predictors.

These disparate findings raise interesting questions regarding the predictive power of political predispositions in shaping behaviors when health-related issues become politicized. While we cannot speak specifically as to why partisanship, but not ideology, mattered for behavior in the present context, some work shines light on why these effects differed. For one, partisanship has been shown to be a particularly important heuristic in low-information or uncertain contexts (e.g., Schaffner & Streb, 2002); given the degree of uncertainty associated with the pandemic, a partisan heuristic might offer an easy strategy to help make decisions to navigate this uncertainty. Additionally, the politicization of Covid-19 often reflected ideological divides involving individual freedoms and government overreach in imposing mandates around certain behaviors rather than the effectiveness of the behaviors themselves (see Van Kessel & Quinn, 2020). As such, it might not be incompatible for a conservative to oppose a mask mandate on philosophical grounds while still recognizing the value of wearing a mask in accordance with CDC guidance, which could explain the non-significance of ideology. Lastly, the significant effect of partisanship might reflect the growing importance of partisan group attachment in decision-making. Party affiliation has become part of the core self-concept for many partisans (Mason, 2018), whereas ideology largely reflects underlying philosophical views regarding the proper role of government. When it comes to behavior, the importance of signaling one's adherence to the group and acting in accordance with their identity may simply carry more weight than any considerations of whether an action reflects what it means to be a conservative or liberal (see Gadarian et al., 2021; 2023, who also point to partisanship as the central factor in shaping pandemic-related behaviors). As concerns around politicization of health and science

matters grow (see Druckman, 2017), additional research exploring these and other explanations for the ways in which political predispositions might shape health behaviors are of increasing importance.

### **Behavior Outcomes of CNN and Fox News Viewership**

Across two studies we found all tested serial mediation paths through CNN were significant but all paths through Fox News were nonsignificant (see Table 3). This finding shows that the two news outlets' content indeed has a varied influence regarding preventive behavior. Watching CNN news helps viewers form positive attitudes and perceived norms for health prevention, which suggests that CNN's messaging around Covid-19 consistently aligns with health experts and scientists regardless of the different target audiences for each news program (Simonov et al., 2020). However, Fox News exposure had no effect – either directly or indirectly – on preventive behavior. This non-finding is inconsistent with some existing evidence which tends to find a negative association between watching Fox News and taking actions to prevent Covid-19 (e.g., Jamieson & Albarracin, 2020; Romer & Jamieson, 2021).

While the lack of a significant effect for Fox News is somewhat surprising, insights from other work has offered some reasoning into why this might have been the case. From a theoretical standpoint, this result could signal that identity considerations are more influential than specific media content when it came to decision-making processes during the Covid pandemic. Put simply, substantive differences in coverage of the pandemic across partisan outlets might have mattered less than the simple recognition that Covid had become a partisan issue, triggering differential reactions in citizens based on their partisan loyalties. Gadarian and colleagues (2021; 2023) offer some evidence supportive of this notion, indicating that partisanship was the central factor in shaping citizens' Covid response and – perhaps just as

importantly – that partisan media use was not a significant predictor after accounting for partisanship. The non-finding for conservative media use might reflect this conclusion, though it does not explain why exposure to liberal sources did have an effect when partisanship is included.

Another explanation for this inconsistency could be the heterogeneity of news content on Fox News. In the present research we measured consumption of Fox News as a whole in comparison to news use from other channels. However, such a measure may fail to capture the nuances of the content aired by Fox News. That is, two viewers who both score high on Fox News use in general may in fact be exposed to very different content. Indeed, one study tested the effect of two popular Fox News programs and found differed health behaviors among viewers – people who watched Hannity were significantly more likely to engage in behaviors such as social distancing and canceling travel plans versus those who primarily watched Tucker Carlson Tonight (Bursztyn et al., 2020). Overall, the nonsignificant effect of Fox News viewing may be a result of the idiosyncrasy of Fox News viewers' news use habits. We strongly encourage future research to consider these and other possibilities for why partisan media – and conservative media more specifically – did not have the anticipated effect in shaping Covid behavior.

### **Limitations and Future Research**

Some limitations across both studies bear noting. For one, our use of cross-sectional data did not allow us to make causal claims nor speak to the direction of the pathways specified by our model. One such possibility is that attitudes and norms toward Covid-19 might facilitate media choice as a form of confirmation-seeking behavior. However, research suggests that the novelty and uncertainty associated with the unfolding public health crisis may lead people to rely

on their trusted information sources, which often accords with the audience's political orientations (see Metzger et al., 2020). This would suggest that media use informed attitudes, norms, and behaviors rather than the other way around. Though we hesitate to make any causal claims, empirical trends such as these – along with theoretical precedent (RAA) – give us some confidence in the direction of our specified pathways and accord with the procedures used by similar work assessing nuanced processes with cross-sectional data (see Breakwell et al., 2021; Mahalik et al., 2021; Liang et al., 2020). Additionally, an alternative model was tested in both studies with the orders of the two sets of serial mediators (attitude and norm; left- and right-leaning news use) switched. Results showed that none of the tested indirect paths were statistically significant<sup>4</sup>. These results corroborate our original prediction that, with a novel virus and a novel preventive behavior, media use as a background variable (according to RAA) should be predictive of attitude toward and norm about the preventive behavior, rather than be predicted by already formed attitude and norm about the targeted behavior. Even so, research designs that provide greater insight into causal processes are recommended in future work. For example, researchers could design experiments where participants are exposed to hypothetical partisan news coverage of a new case spike due to a Covid-19 new variant, and then measure and analyze the impact of such exposure on an individual's behavioral intention responses.

Our lack of findings for the influence on social norms on behavior through conservative media use was consistent across both studies. We used a measure of injunctive norms that assessed expectations of social approval for one's actions. However, much of the work on norms has been focused on descriptive norms – one's perception that an action is prevalent within a referent group (Cialdini & Trost, 1998). Although these different norm constructs tend to be

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<sup>4</sup> See detailed results of the alternative model on OSF (Yao, 2023).

highly correlated, they have been found to be distinct constructs (Park & Smith, 2007) and to differentially predict behavior (Rhodes et al., 2020). Future work in this area might examine whether descriptive norms have effects in this context. Additionally, we used CNN to represent left-leaning news outlets and Fox News right-leaning news outlets which could be limiting. This could be a particular concern for the college student sample as they represent a young generation who tend to get information more from social media than cable news (e.g., Yao et al., 2023). Not only college students may use other news networks, but they may also be more likely to use other sources for their media diet (e.g., Facebook; X, formerly known as Twitter; Reddit). In Study 2, this limitation was addressed by using an adult sample, however we still do not know whether two news networks can effectively represent people's partisan news diet. Although using selected networks to measure an individual's overall news use has been common practice (e.g., Simonov et al., 2020), we encourage future research to use novel methods to model news consumption in its entirety (see Bleakly et al., 2017, for an example on entertainment media).

Further, data collection for both our studies took place during the early pandemic (April 2020 and August-September 2020), which cannot account for how news coverage of Covid-19 as well as how people's processing Covid-related information evolved as the pandemic progressed. Longitudinal panel studies with longer between-wave intervals and replications on other issues are recommended to fully capture how the processes observed here generalize across different contexts and stages of the life cycle of an issue. Finally, we relied on a self-report measure for a single media outlet to reflect the overall use of each of the partisan news sources. Self-report measures can be susceptible to serve as an unreliable indicator of media use (Slater, 2004; Slater 2016), though recent meta-analytic work found that such measures are moderately reliable among adult samples (Scharrow, 2019). Furthermore, while our decision to focus on Fox News

and CNN may be limiting, self-reported use of specific outlets has been shown to be more reliable than self-reported general media use (Scharnow, 2019). To more accurately reflect the nuanced role of partisan media on behavior formation, we suggest future research to replicate our work with a wider array of sources and measurement approaches.

## **5. Conclusion**

Across two studies, our results provided clarity to the processes by which the politicization of a public health matter – here, the Covid-19 pandemic – contributes to partisan divergence in the adoption of related behaviors. Consistent with the RAA approach, our findings indicate that partisan media contributed to differences in the adoption of health preventive behaviors via the dual process of shaping audience attitudes toward these behaviors as well as norm perceptions – which subsequently influenced respondents' choices to enact these behaviors. This research highlights the challenges health communicators face in promoting protection behaviors in societies with deep political divides when these issues become politicized. Not only must communicators contend with the damage done by politicization in nurturing skepticism of practices and behaviors deemed best by scientific research, they also must overcome the potential for politicization in creating norm perceptions unfavorable to the adoption of those behaviors.

## References

- Ackermann, C.-L., Sun, H., Teichert, T., Tercia, C., & Trivedi, R. (2021). Mask wearing as a prosocial consumption behaviour during the COVID-19 pandemic: an application of the theory of reasoned action. *Journal of Marketing Management*, 37(17-18), 1840-1865. <https://doi.org/10.1080/0267257X.2021.2005665>
- Ajzen I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*;2, 314–324. <https://doi.org/10.1002/hbe2.195>
- Albarracín, D., Johnson, B. T., Fishbein, M., & Muellerleile, P. A. (2001). Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. *Psychological Bulletin*, 127(1), 142–161. <https://doi.org/10.1037/0033-2909.127.1.142>
- Allcott H, Boxell L, Conway J, et al. (2020) Polarization and public health: Partisan differences in social distancing during the Coronavirus pandemic. *NBER Working Paper*. DOI: [https://ssrn.com/abstract=3574415.\(w26946\)](https://ssrn.com/abstract=3574415.(w26946)).
- Ash E, Galletta S, Hangartner D, et al. (2020) The Effect of Fox News on Health Behavior During COVID-19. Available at SSRN 3636762. DOI: <http://dx.doi.org/10.2139/ssrn.3636762>.
- Barbor, M., & Pope, J. (2019). Does Party Trump Ideology? Disentangling Party and Ideology in America. *American Political Science Review*, 113(1), 38-54. doi:10.1017/S0003055418000795
- Baumgaertner, B., Carlisle, J. E., & Justwan, F. (2018). The influence of political ideology and trust on willingness to vaccinate. *PloS one*, 13(1), e0191728. <https://doi.org/10.1371/journal.pone.0191728>

- Bolsen, T., & Druckman, J. N. (2015). Counteracting the politicization of science. *Journal of Communication*, 65(5), 745-769. <https://doi.org/doi.org/10.1111/jcom.12171>
- Bosveld. W., Koomen. W., & van der Pligt. J. (1994) Selective exposure and the false consensus effect: The availability of similar and dissimilar others. *British Journal of Social Psychology* 33(4): 457-466. <https://doi.org/10.1111/j.2044-8309.1994.tb01041.x>
- Breakwell, G. M., Fino, E., & Jaspal, R. (2021). COVID-19 preventive behaviours in White British and Black, Asian and Minority Ethnic (BAME) people in the UK. *Journal of Health Psychology*, 13591053211017208. <https://doi.org/10.1177/13591053211017208>
- Broockman, D., & Kalla, J. (2022, April 1). The manifold effects of partisan media on viewers' beliefs and attitudes: A field experiment with Fox News viewers. <https://doi.org/10.31219/osf.io/jrw26>
- Budak C, Muddiman A, & Stroud N (2021) How did television news networks cover the pandemic? Here's a scorecard. *The Washington Post*.  
<https://www.washingtonpost.com/politics/2021/02/03/how-did-different-us-television-news-networks-cover-pandemic-heres-scorecard/>
- Bursztyjn L, Rao A, Roth C, et al. (2020) Misinformation during a pandemic. *University of Chicago, Becker Friedman Institute for Economics Working Paper*.
- Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology*, 58(6), 1015-1026. Doi: 10.1037/0022-3514.58.6.1015
- Cialdini, R., & Trost, M. R. (1998). Social influence: Social norms, conformity, and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology*. Boston: Oxford University Press.

Dan, V., & Dixon, G. N. (2021). Fighting the Infodemic on Two Fronts: Reducing False Beliefs Without Increasing Polarization. *Science Communication*, 10755470211020411.

<https://doi.org/10.1177/10755470211020411>

Dixon, G., & Hubner, A. (2018). Neutralizing the Effect of Political Worldviews by Communicating Scientific Agreement: A Thought-Listing Study. *Science Communication*, 40(3), 393-415. <https://doi.org/10.1177/1075547018769907>

Dono, J., Miller, C., Ettridge, K., & Wilson, C. (2020). The Role of Social Norms in the Relationship between Anti-Smoking Advertising Campaigns and Smoking Cessation: A Scoping Review. *Health Education Research*, 35(3), 179–194. Doi:10.1093/her/cyaa008

Druckman JN (2017) The crisis of politicization within and beyond science. *Nature human behaviour* 1(9): 615-617. <https://doi.org/10.1038/s41562-017-0183-5>

Duong, H. T., & Liu, J. (2019). Vaping in the News: the Influence of News Exposure on Perceived e-Cigarette Use Norms. *American Journal of Health Education*, 50(1), 25–39. DOI: 10.1080/19325037.2018.1548315

Duong, H. T., & Liu, J. (2019). Vaping in the News: the Influence of News Exposure on Perceived e-Cigarette Use Norms. *American Journal of Health Education*, 50(1), 25–39. DOI: 10.1080/19325037.2018.1548315

Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural equation modeling*, 8(3), 430-457. [https://doi.org/10.1207/S15328007SEM0803\\_5](https://doi.org/10.1207/S15328007SEM0803_5)

Feldman L, Maibach EW, Roser-Renouf C, et al. (2012) Climate on cable: The nature and impact of global warming coverage on Fox News, CNN, and MSNBC. *The International Journal of Press/Politics* 17(1): 3-31. <https://doi.org/10.1177/1940161211425410>

- Fishbein M (1979). A theory of reasoned action: some applications and implications. *Nebraska Symposium on Motivation*, .(27): 65-116.
- Fishbein, M., & Ajzen, I. (1975). Belief; attitude, intention, and behavior: An introduction to theory and research. *Reading, MA: Addison-Wesley.*
- Fishbein M & Ajzen I (2011) *Predicting and changing behavior: The reasoned action approach.* Taylor & Francis.
- Fishbein, M., & Yzer, M. C. (2003). Using Theory to Design Effective Health Behavior Interventions. *Communication Theory*, 13(2), 164-183. <https://doi.org/https://doi.org/10.1111/j.1468-2885.2003.tb00287.x>
- Fowler, E. F., & Gollust, S. E. (2015). The Content and Effect of Politicized Health Controversies. *The ANNALS of the American Academy of Political and Social Science*, 658(1), 155-171.  
<https://doi.org/10.1177/0002716214555505>
- Gadarian, S. K., Goodman, S. W., & Pepinsky, T. B. (2021) Partisanship, health behavior, and policy attitudes in the early stages of the COVID-19 pandemic. *PloS one* 16(4): e0249596.  
<https://doi.org/10.1371/journal.pone.0249596>
- Gadarian, S. K., Goodman, S. W., & Pepinsky, T. B. (2023). *Pandemic politics: the deadly toll of partisanship in the age of COVID.* Princeton University Press.  
<https://doi.org/10.1515/9780691219004>
- Goldstein, A. (2020). Governor's political party is biggest favor in whether a state has imposed mask mandate, study finds. *The Washington Post*.  
[https://www.washingtonpost.com/health/coronavirus-masks-politics-study/2020/09/03/00c5d32a-edf3-11ea-b4bc-3a2098fc73d4\\_story.html](https://www.washingtonpost.com/health/coronavirus-masks-politics-study/2020/09/03/00c5d32a-edf3-11ea-b4bc-3a2098fc73d4_story.html)

- Gollwitzer A, Martel C, Brady WJ, et al. (2020) Partisan differences in physical distancing are linked to health outcomes during the COVID-19 pandemic. *Nature human behaviour* 4(11): 1186-1197. <https://doi.org/10.1038/s41562-020-00977-7>
- Hagger, M. S., Chatzisarantis, N. L.D., & Biddle, S. J.H. (2002). A meta-analytic review of the theories of reasoned action and planned behavior in physical activity: Predictive validity and the contribution of additional variables. *Journal of Sport & Exercise Psychology*, 24(1), 3–32. <https://doi.org/10.1123/jsep.24.1.3>
- Haidt, J., & Graham, J. (2007). When Morality Opposes Justice: Conservatives Have Moral Intuitions that Liberals may not Recognize. *Social Justice Research*, 20(1), 98-116. <https://doi.org/10.1007/s11211-007-0034-z>
- 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. <https://doi.org/10.1177/0963662520939315>
- Hamilton, L. C., Hartter, J., & Saito, K. (2015). Trust in Scientists on Climate Change and Vaccines. *SAGE Open*, 5(3). <https://doi.org/10.1177/2158244015602752>
- Hart, W., Albarracín, D., Eagly, A. H., Brechan, I., Lindberg, M. J., & Merrill, L. (2009). Feeling validated versus being correct: A meta-analysis of selective exposure to information. *Psychological Bulletin*, 135(4), 555-588. <https://doi.org/10.1037/a0015701>
- Healy, A. & Malhotra, N. (2013) Retrospective voting reconsidered. *Annual Review of Political Science* 16: 285-306. <https://doi.org/10.1146/annurev-polisci-032211-212920>
- Hubner, A.Y. & Hovick, S.R. (2020), Understanding Risk Information Seeking and Processing during an Infectious Disease Outbreak: The Case of Zika Virus. *Risk Analysis*, 40: 1212-1225. <https://doi.org/10.1111/risa.13456>

- Jamieson, K. H. & Albarracin, D. (2020) The Relation between Media Consumption and Misinformation at the Outset of the SARS-CoV-2 Pandemic in the US. *The Harvard Kennedy School Misinformation Review* 1(2). <https://doi.org/10.37016/mr-2020-012>
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009) Political ideology: Its structure, functions, and elective affinities. *Annual review of psychology* 60: 307-337.  
<https://doi.org/10.1146/annurev.psych.60.110707.163600>
- Jurkowitz M & Mitchell A (2020). *Cable TV and COVID-19: How Americans perceive the outbreak and view media coverage differ by main news source*. Pew Research Center.
- Kanakia R. Tobacco companies obstructed science, history professor says. 2007 Feb 13 [cited 1 April 2022]. In: Stanford News Service [Internet]. Available from:  
<https://news.stanford.edu/pr/2007/pr-proctor-021407.html>
- Keating, D. M., & Bergan, D. E. (2017). Mapping Political Attitudes: The Impact of Concept Mapping on Ideological Constraint. *Communication Studies*, 68(4), 439-454.  
<https://doi.org/10.1080/10510974.2017.1360925>
- Kim, J., Namkoong, K., & Chen, J. (2020). Predictors of Online News-Sharing Intention in the U.S and South Korea: An Application of the Theory of Reasoned Action. *Communication Studies*, 71(2), 315–331 Doi: 10.1080/10510974.2020.1726427
- Kim, S., Jeong, S.-H., & Hwang, Y. (2013). Predictors of Pro-Environmental Behaviors of American and Korean Students: The Application of the Theory of Reasoned Action and Protection Motivation Theory. *Science Communication*, 35(2), 168-188.  
<https://doi.org/10.1177/1075547012441692>

- Kim, M., Ham, C.-D., & Kim, S. (2017). Do you want me to watch this ad on social media?: The effects of norms on online video ad watching. *Journal of Marketing Communications*, 23(5), 456–472. Doi: 10.1080/13527266.2016.1232303
- Lee, C. K., Song, H. J., Bendle, L. J., Kim, M. J., & Han, H. (2012). The impact of non-pharmaceutical interventions for 2009 H1N1 influenza on travel intentions: A model of goal-directed behavior. *Tourism management*, 33(1), 89–99.  
<https://doi.org/10.1016/j.tourman.2011.02.006>
- Lee, J., Kim, M., Ham, C.-D., & Kim, S. (2017). Do you want me to watch this ad on social media?: The effects of norms on online video ad watching. *Journal of Marketing Communications*, 23(5), 456–472. Doi: 10.1080/13527266.2016.1232303
- Liang L, Gao T, Ren H, et al. Post-traumatic stress disorder and psychological distress in Chinese youths following the COVID-19 emergency. *Journal of Health Psychology*. 2020;25(9):1164-1175. doi:[10.1177/1359105320937057](https://doi.org/10.1177/1359105320937057)
- Liu, J., Siegel, L., Gibson, L. A., Kim, Y., Binns, S., Emery, S., & Hornik, R. C. (2019). Toward an Aggregate, Implicit, and Dynamic Model of Norm Formation: Capturing Large-Scale Media Representations of Dynamic Descriptive Norms Through Automated and Crowdsourced Content Analysis. *Journal of Communication*, 69(6), 563–588.  
Doi:10.1093/joc/jqz033
- Lyons B (2018) Reducing group alignment in factual disputes? The limited effects of social identity interventions. *Science Communication* 40(6): 789-807.  
<https://doi.org/10.1177/1075547018804826>

Mahalik JR, Bianca MD, Harris MP. Men's attitudes toward mask-wearing during COVID-19:

Understanding the complexities of mask-wearing. *Journal of Health Psychology*.

2022;27(5):1187-1204. doi:[10.1177/1359105321990793](https://doi.org/10.1177/1359105321990793)

Mason L (2018). *Uncivil agreement: How politics became our identity*. University of Chicago Press.

Metzger, M. J., Hartsell, E. H., & Flanagin, A. J. (2020). Cognitive Dissonance or Credibility? A Comparison of Two Theoretical Explanations for Selective Exposure to Partisan

News. *Communication Research*, 47(1), 3-28. <https://doi.org/10.1177/0093650215613136>

Manganello, J. A., Chiang, S. C., Cowlin, H., Kearney, M. D., & Massey, P. M. (2023). HPV and COVID-19 vaccines: Social media use, confidence, and intentions among parents living in different community types in the United States. *Journal of Behavioral Medicine*, 46(1), 212-228.

<https://doi.org/10.1007/s10865-022-00316-3>

Moshagen, M. & Erdfelder, E. (2016) A new strategy for testing structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal* 23(1): 54-60.

<https://doi.org/10.1080/10705511.2014.950896>

Norman, P., Wilding, S., & Conner, M. (2020). Reasoned action approach and compliance with recommended behaviours to prevent the transmission of the SARS-CoV-2 virus in the UK.

*British Journal of Health Psychology*, 25(4), 1006-1019.

<https://doi.org/10.1111/bjhp.12474>

Oni, A. A., Oni, S., Mbarika, V., & Ayo, C. K. (2017). Empirical study of user acceptance of online political participation: Integrating Civic Voluntarism Model and Theory of Reasoned Action. *Government Information Quarterly*, 34(2), 317-328.

<https://doi.org/10.1016/j.giq.2017.02.003>

- Park, H. S., & Smith, S. W. (2007). Distinctiveness and influence of subjective norms, personal descriptive and injunctive norms, and societal descriptive and injunctive norms on behavioral intent: a case of two behaviors critical to organ donation. *Human Communication Research*, 33(2), 194-218. <https://doi.org/10.1111/j.1468-2958.2007.00296.x>
- Piurko, Y., Schwartz, S. H., & Davidov, E. (2011). Basic Personal Values and the Meaning of Left-Right Political Orientations in 20 Countries. *Political Psychology*, 32(4), 537-561. <https://doi.org/https://doi.org/10.1111/j.1467-9221.2011.00828.x>
- Pollock, G., Brock, T., & Ellison, M. (2015) Populism, ideology and contradiction: mapping young people's political views. *The Sociological Review* 63: 141-166. <https://doi.org/10.1111/1467-954X.12266>
- Rhodes, N., Shulman, H., & McClaran, N. (2020). Changing Norms: A Meta-Analytic Integration of Research on Social Norms Appeals. *Human Communication Research*, 46 (2-3), 161-191. doi:10.1093/hcr/hqz023
- Romer, D., & Jamieson, K. H. (2021). Conspiratorial thinking, selective exposure to conservative media, and response to COVID-19 in the US. *Social Science & Medicine*, 291, 114480. <https://doi.org/10.1016/j.socscimed.2021.114480>
- Rosseel Y (2012) Lavaan: An R package for structural equation modeling and more. Version 0.5–12 (BETA). *Journal of statistical software* 48(2): 1-36. <https://doi.org/10.18637/jss.v048.i02>
- Schaffner, B. F., & Streb, M. J. (2002). The Partisan Heuristic in Low-Information Elections\*. *Public Opinion Quarterly*, 66(4), 559-581. <https://doi.org/10.1086/343755>

Scharkow, M. (2019). The reliability and temporal stability of self-reported media exposure: A meta-analysis. *Communication Methods and Measures*, 13(3), 198-211.

<https://doi.org/10.1080/19312458.2019.1594742>

Sheeran, P., Maki, A., Montanaro, E., Avishai-Yitshak, A., Bryan, A., Klein, W. M., ... &

Rothman, A. J. (2016). The impact of changing attitudes, norms, and self-efficacy on health-related intentions and behavior: A meta-analysis. *Health psychology*, 35(11), 1178.

Doi: 2016-28683-001

Simonov, A., Sacher, S., Dubé, J.-P., & Biswas, S. (2021). Frontiers: The Persuasive Effect of Fox News: Noncompliance with Social Distancing During the COVID-19 Pandemic. *Marketing Science*, 41(2), 230-242. <https://doi.org/10.1287/mksc.2021.1328>

Hart, P. S., Chinn, S., & Soroka, S. (2020). Politicization and Polarization in COVID-19 News

Coverage. *Science Communication*, 42(5), 679-697. <https://doi.org/10.1177/1075547020950735>

Starfelt Sutton, L. C., & White, K. M. (2016). Predicting sun-protective intentions and behaviours using

the theory of planned behaviour: a systematic review and meta-analysis. *Psychology & Health*,

31(11), 1272-1292. <https://doi.org/10.1080/08870446.2016.1204449>

Stroud, N. J. (2008). Media Use and Political Predispositions: Revisiting the Concept of Selective

Exposure. *Political Behavior*, 30(3), 341-366. <https://doi.org/10.1007/s11109-007-9050-9>

Sude, D. J., Knobloch-Westerwick, S., Robinson, M. J., & Westerwick, A. (2019). "Pick and choose"

opinion climate: How browsing of political messages shapes public opinion perceptions and attitudes. *Communication Monographs*, 86(4), 457-478.

<https://doi.org/10.1080/03637751.2019.1612528>

Thomas, C. L., & Allen, K. (2021). Investigating the Influence of COVID-Related Worry on

University Enrollment Intentions: An Application of the Reasoned Action Model. *Journal*

of College Student Retention: Research, Theory & Practice, 0(0).

<https://doi.org/10.1177/15210251211014812>

Trumbo C (1996) Constructing climate change: claims and frames in US news coverage of an environmental issue. *Public understanding of science* 5(3): 269. Doi: 10.1088/0963-6625/5/3/006

Turner JC, Hogg MA, Oakes PJ, et al. (1987) *Rediscovering the social group: A selfcategorization theory*. Basil Blackwell.

Linden, S. v. d., Leiserowitz, A., & Maibach, E. (2018). Scientific agreement can neutralize politicization of facts. *Nature Human Behaviour*, 2(1), 2-3.

<https://doi.org/10.1038/s41562-017-0259-2>

van Kessel, P. & Quinn, D., (2020) *Both Republicans and Democrats cite masks as a negative effect of COVID-19, but for very different reasons*, Pew Research Center. United States of America. Retrieved from <https://policycommons.net/artifacts/1426236/both-republicans-and-democrats-cite-masks-as-a-negative-effect-of-covid-19-but-for-very-different-reasons/2040635/> on 11 Nov 2023. CID: 20.500.12592/0926x9.

Weisel, O. (2021) Vaccination as a social contract: The case of COVID-19 and US political partisanship. *Proceedings of the National Academy of Sciences* 118(13).

<https://doi.org/10.1073/pnas.2026745118>

Willis, L., Lee, E., Reynolds, K.J., & Klik, K.A. (2020). The Theory of Planned Behavior and the Social Identity Approach: A New Look at Group Processes and Social Norms in the Context of Student Binge Drinking. *Europe's Journal of Psychology*, 16(3), 357–383.

<https://doi.org/10.5964/ejop.v16i3.1900>

- Wojcieszak, M. (2011). Deliberation and Attitude Polarization. *Journal of Communication*, 61(4), 596-617. <https://doi.org/10.1111/j.1460-2466.2011.01568.x>
- Worthington, R. L., & Whittaker, T. A. (2006). Scale Development Research: A Content Analysis and Recommendations for Best Practices. *The Counseling Psychologist*, 34(6), 806-838. <https://doi.org/10.1177/0011000006288127>
- Xiao, X., & Su, Y. (2021). Integrating Reasoned Action Approach and Message Sidedness in the Era of Misinformation: The Case of HPV Vaccination Promotion. *Journal of Health Communication*, 26(6), 371-380. <https://doi.org/10.1080/10810730.2021.1950873>
- Yao, S. X., McClaran, N., Ellithorpe, M. E., Ewoldsen, D., & Alade, F. (2023) Cultivating Adulthood Prejudice Toward Black Americans and Low-Income Individuals Through Childhood Social Media Use: A Retrospective Approach. *Journal of Broadcasting & Electronic Media*, 1-20. <https://doi.org/10.1080/08838151.2023.2268227>
- Yao, S. X. (2023, December 1). The Partisan Pandemic. Retrieved from [https://osf.io/qruxg/?view\\_only=db155d2150b04a2d85d4a8fd932b29aa](https://osf.io/qruxg/?view_only=db155d2150b04a2d85d4a8fd932b29aa)
- Zhu, Y., Fitzpatrick, M. A., & Bowen, S. A. (2023) Factors Related to Compliance with CDC COVID-19 Guidelines: Media Use, Partisan Identity, Science Knowledge, and Risk Assessment. *Western Journal of Communication*, 1-28. <https://doi.org/10.1080/10570314.2023.2219239>