

Are face masks a partisan issue during the COVID-19 pandemic? Differentiating political ideology and political party affiliation

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Popular press articles have asserted that those with certain political orientations are less likely to wear face masks during the COVID-19 pandemic. We propose that this relation is due to differential information shared by political parties rather than values associated with face mask wearing. We further propose that, when assessed together, political party affiliation (e.g., Republican, Democrat) but not political ideology (e.g., conservative, liberal) predicts face mask wearing, and this effect is mediated by perceptions of efficacy doubts but not perceptions that face masks infringe upon the wearer's independence. We performed a three-wave, time-separated survey study with 226 participants. Each proposal was supported. When assessed together, political party affiliation but not political ideology significantly predicted face mask wearing, and a significant indirect effect was observed via perceptions of efficacy doubts but not independence. Our results support that face mask wearing is a unique preventative action, which should be understood using political theory.

Keywords: COVID-19; Coronavirus; Face Masks; Political Orientation; Face Mask Perceptions;

Face masks are an effective method to reduce the spread of COVID-19 (Feng et al., 2020; Howard, 2020), but popular press articles assert that those with certain political orientations are less likely to wear face masks. This reluctance to wear face masks has been seen for Republicans in the United States, the context of the current article (Bender, 2020; McKelvery, 2020), but it has also been seen for Conservatives in the United Kingdom, the People's Party in Spain, and members of other conservative political parties (Keeley, 2020; Walsh, 2020). We propose that these relations are more nuanced than typically assumed, and face mask wearing cannot be effectively promoted until these effects are better understood.

Political orientation can be separated into political ideology and political party affiliation (Cruz, 2017; Diemer et al., 2019). Political ideology (e.g., conservative, liberal) is reflective of values, which emerge early in life and are shaped by both personal characteristics (e.g., personality) and cultural influences (Van Bavel & Pereira, 2018). Political affiliation (e.g., Republican, Democrat) is reflective of political ideologies, but it is also determined by many additional factors including family history, religious affiliation, and in-group formations

(Van Bavel & Pereira, 2018). People often begin to perceive a political party more favourably by exposed to positive information regarding that party (Colleoni et al., 2014). Over time, they may begin to identify with that party and develop in-group perceptions, such that they perceive themselves as a party member. This not only results in the person associating more often with other party members and actively seeking out positive information regarding the party (Lazer et al., 2018; Zhang & Ghorbani, 2020), but research has also shown that people are less capable at perceiving and remembering negative information regarding their political party (Van Bavel & Pereira, 2018). This creates a self-reinforcing cycle wherein individuals continuously reaffirm their affiliations based on their selective exposure to information. This information can be accurate reflections of social issues, but it may also be misinformation intended to sway opinions (which is more common in recent years; Lazer et al., 2018; Zhang & Ghorbani, 2020).

Because political affiliation is associated with in-group formation and differential exposure to information whereas political ideology is not, these differences are believed to cause political ideology and political

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affiliation to produce differing relations with outcomes (Diemer et al., 2019; Kannan & Veazie, 2018). For instance, conservatives may be opposed to welfare programmes because of their values regarding personal responsibility and independence, whereas Republicans may be *strongly* opposed to welfare programmes because they are also exposed to more information regarding abuses to these systems. This may then cause Republicans to be more likely to vote against these programmes, among other behavioural differences, due to their additional differential exposure to information. Despite this theoretical rationale, however, current research designs struggle to provide empirical support for these differences, as studies often produce similar relations for both political ideology and political affiliation (Cruz, 2017; Diemer et al., 2019; Kannan & Veazie, 2018). For example, Cruz (2017) found meta-analytic correlations of .27 for political ideology and .22 for political affiliation regarding the outcome of environmental concern, whereas Kannan and Veazie (2018) found similarly comparable relations for the outcome of healthy eating habits. We suggest, by applying the resonance model (Iyengar & Simon, 2000), that difficulties with identifying sizable differences between political ideology and political affiliation are due to the studied outcomes.

The resonance model proposes that political information works “in concert with voters’ prevailing predispositions and sentiments” (Iyengar & Simon, 2000, p. 158), and effective political information reinforces values to transform moderates into partisans (Schneider, 2014). For this reason, shared political information often reflects the values espoused by party members. Environmental concerns are notoriously underdiscussed in political discourse relative to the devastating impact of climate change (Bernauer, 2013; Vogler, 2016). This dearth is likely because environmental concerns are less central to political values than more prominent political issues (e.g., racism, taxes), and political parties have less incentive to discuss this issue to sway voters (Iyengar & Simon, 2000). Similarly, healthy eating habits are less central to political values and thereby less often discussed in political dialogue (Kannan & Veazie, 2018). Political ideology and political policy affiliation would be expected to have similar relations with these outcomes, as the effects of values and differential exposure to information would be concordant.

We argue that political orientation and political affiliation produce differing relations with behaviours in which the information shared by political parties is notably greater than expected due to the behaviours’ associations with values, and we propose that face mask wearing in the United States satisfies this criterion. Face mask wearing is somewhat reflective of values, akin to other health behaviours (e.g., diet; Kannan & Veazie, 2018). Conservatives could be expected to wear

face masks less often because they prefer familiarity and independence (Jost et al., 2003; Jost et al., 2009; Kannan & Veazie, 2018), and face masks are foreign and imposing in the United States. At the same time, face masks have become politicised in the United States (Bender, 2020; McKelvey, 2020). While many justifications for this politicisation have been proposed, authors have asserted that face mask wearing is a prominent symbol of poor public health management by the former Republican administration, and Republicans have incentives to downplay the severity of the COVID-19 pandemic by discouraging face mask wearing (Bender, 2020; Madhani, 2020). Former President Trump himself said, “some Americans w[ear] facial coverings not as a preventive measure but as a way to signal disapproval” (Bender, 2020, para. 8). Regardless of whether this justification is accurate, it is widely supported that Republican-oriented media is more likely to spread negative information regarding face masks (Lizza & Lippman, 2020). Thus, differing information shared by political parties regarding face masks is notably greater than would be expected from associations with values alone.

Together, political ideology reflects values alone, political affiliation reflects values as well as differential exposure to information, and Republicans in the United States are believed to share more negative information regarding face masks. We argue that both political ideology and political affiliation predict face mask wearing when studied independently, but, when assessed together, political affiliation, but not political ideology, predicts face mask wearing due to the additional influence of exposure to differential information.

H1: When assessed together, (a) political party affiliation but (b) not political ideology predicts face mask wearing.

We further support these proposals by assessing the role of face mask perceptions. Howard (2020) recently developed the face mask perceptions scale (FMPS), which includes two dimensions of particular relevance. Among the most common negative information shared regarding face masks is their inefficacy (Feng et al., 2020; Howard, 2020). We argue that perceptions of efficacy doubts mediate the relation between political affiliation and face mask wearing, as Republicans are more likely to be exposed to negative information regarding the inefficacy of face masks. Alternatively, the value most closely associated with the refusal to wear face masks is likely personal independence (Jost et al., 2003; Jost et al., 2009; Kannan & Veazie, 2018), which arose in Howard’s (2020) qualitative coding of common face mask perceptions. Because we suggest that exposure to information rather than values is more strongly associated with face mask wearing, we argue that perceptions of independence do not mediate our proposed relations when assessed alongside perceptions of efficacy doubts.

H2: (a) Perceptions of efficacy doubts but (b) not perceptions of independence mediate the effect of political party affiliation beyond political ideology on face mask wearing.

By testing these hypotheses, we provide benefits for psychological research on both health behaviours and politics. Regarding health behaviours, the current results provide insights into face mask wearing that may be generalised to future politicised health behaviours. Novel theories may be necessary to understand these health behaviours, such as those involving political communication. Regarding politics, we can explain and support differences between political ideology and political affiliation, indicating that two constructs are not interchangeable.

METHOD

Participants

Participants ($M_{\text{age}} = 37.34$, $SD_{\text{age}} = 12.52$, 45% female; 100% United States; 53% Democrat; 33% Republican; 14% Other) were recruited via Amazon's MTurk and provided monetary compensation. We only included participants with more than 50 completed MTurk tasks and greater than a 95% lifetime approval rate. All statistics, including the reported sample sizes below, reflect the sample after excluding participants who failed any attention checks.

To ensure maximum anonymity and confidentiality with our online survey, no written informed consent was obtained. Participants were provided an information sheet, and they were asked to indicate whether they agreed to participate by selecting Yes or No.

Procedure

Initially, 508 participants enrolled into the study via MTurk on 10 August 2020. The first survey was taken immediately, which solely included items regarding political ideology, political affiliation, and demographics. One week after the first survey, 289 participants completed the second survey, which solely included the FMPS (Howard, 2020). One week after the second survey, 226 participants completed the third survey, which solely included items on face mask wearing.

We include as many participants as possible in conducting our analyses. For instance, the correlation of political ideology and political affiliation was calculated with 508 participants, whereas the correlation of political ideology and face mask wearing was calculated with 226 participants. Our analysis with the greatest sensitivity to sample size was our bootstrapped estimates of indirect effects, and a sample size of 226 has been shown to produce sufficient statistical power ($>.80$) for this analysis (Fritz & MacKinnon, 2007; MacKinnon, 2012).

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee of the primary author (Educational and Behavioural Research IRB) and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Measures

Political ideology

Political ideology was assessed via a single item that asked participants, "Regarding your political orientation, would you consider yourself to be..." Participants could respond on a scale from "1 – Strongly Conservative" to "9 – Strongly Liberal". Prior research has supported the use of this single item as an indicator of political ideology (Brandt, 2017; Federico & Ekstrom, 2018; Tankard & Paluck, 2017).

Political party affiliation

Political affiliation was also assessed via a single item that asked participants, "Regarding your political orientation, would you consider yourself to be..." The options were Republican, Democrat, and Other. We coded Republican as 0, and Democrat as 1. Other responses were removed from analyses. Prior research has supported the use of this single item as an indicator of political affiliation (Effron & Raj, 2020; Fessler et al., 2017; Pennycook et al., 2020).

Face mask perceptions

Face mask perceptions was assessed via the 32-item FMPS of Howard (2020). This scale includes four items for each of eight dimensions. The scale instructions read:

"Please indicate the extent to which you disagree to agree with the following statements regarding face masks, which refers to cloth coverings worn on the face typically intended to prevent the spread of disease and illness. Answer each of the following items as if they began with: When I do not wear a face mask in public, it is because..." (p. 11).

Example items are, "Face masks provide few health benefits" (Efficacy Doubts), and, "I want to prove a point against authority" (Independence). Howard (2020) provided sufficient psychometric and validity evidence during the creation of the scale.

Face mask wearing

Face mask wearing was assessed with four items that are analysed separately. These items provided the instruction, "Please indicate the frequency that you performed

the following behaviors in the specified timespan.” The four items then read, “Within the past [six months / three weeks / two weeks / one week], how often did you wear a face mask when going into public?” Participants could respond on a scale from “1 – Never” to “7 – Every Time”. Prior studies have supported the validity of very similar items to assess other health behaviours (Iwai et al., 2001; Loftfield et al., 2015; Milton et al., 2011).

RESULTS

Correlations and Cronbach’s alphas are included in Table S1; regression results are included in Table 1; and estimates of indirect effects are included in Table S2. All data is provided in Appendix S1. On our 1 (Strongly Conservative) to 9 (Strongly Liberal) scale of political ideology, Republications had an average of 3.44 (*SD* = 2.33), Independents had an average of 5.51 (*SD* = 1.86), and Democrats had an average of 6.81 (*SD* = 2.08). The Republican and Democrat values were 1.56 and 1.81 from the centre of the scale, respectively, whereas Independents were 0.51 above the centre of the scale (Figure 1).

We conducted a series of regression analyses wherein political ideology and political affiliation jointly predicted face mask wearing (Table 1). Political affiliation (all $\beta \geq .27$, all $p < .01$) but not political ideology (all $\beta \leq .13$, all $p > .05$) significantly predicted all face mask wearing items. We then performed relative weights analyses to assess whether the difference in these relations are statistically significant (Tonidandel & LeBreton, 2015). For three of four face mask wearing items, the confidence interval excluded zero, and the fourth closely approached statistical significance (95% CI [-.07, .01]). These results support both H1a and H1b.

To test H2a and H2b, we conducted a series of analyses using Hayes’s PROCESS macro (Model 4; Hayes, 2017). In our analyses, we included either political ideology or political affiliation as the focal predictor with the other as a covariate. By doing so, we could assess indirect effects of one beyond the other. Further, we also assessed the mediating effect of all eight face mask perceptions together. When studied individually, the dimensions could be significant mediators because they, in part, reflect negative perceptions towards face masks. When studied together, the estimates of indirect effects more closely represent the precise nature of the face mask perception dimensions, rather than general negative perceptions.

Our results supported that political affiliation had a significant indirect effect on all four face mask wearing items via perceptions of efficacy doubts (all $ab \geq .32$, all 95% CI exclude 0) but not independence (all $ab \leq .03$, all 95% CI include 0), which supports H2a and H2b. Political affiliation’s total indirect effect was also significant in each of these analyses (all $ab \geq .47$, all 95% CI exclude 0),

TABLE 1
Regression results of political party and political ideology predicting face mask perceptions and wearing

	Efficacy		Accessibility	Compensation	Inconvenience	Appearance	Attention	Independence	Worn within			
	Comfort	Doubts							6 months	3 weeks	2 weeks	1 week
1. Political Party	-.16	-.28**	-.13	-.00	-.27**	-.34**	-.18	-.15	.27*	.39**	.34**	.33**
2. Political Ideology	-.20*	-.27**	-.06	-.01	-.14	-.11	-.24**	-.18	-.03	.07	.11	.13
R ²	.11	.26	.03	.00	.15	.18	.15	.09	.06	.20	.18	.19
RWA	-.04, .06	-.11, .05	-.05, .01	-.00, .02	-.11, .02	-.12, .03	-.07, .07	-.06, .04	-.07, .01	-.15, -.02	-.14, -.02	-.13, -.01

RWA = Relative weights analysis results. * $p < .05$; ** $p < .01$.

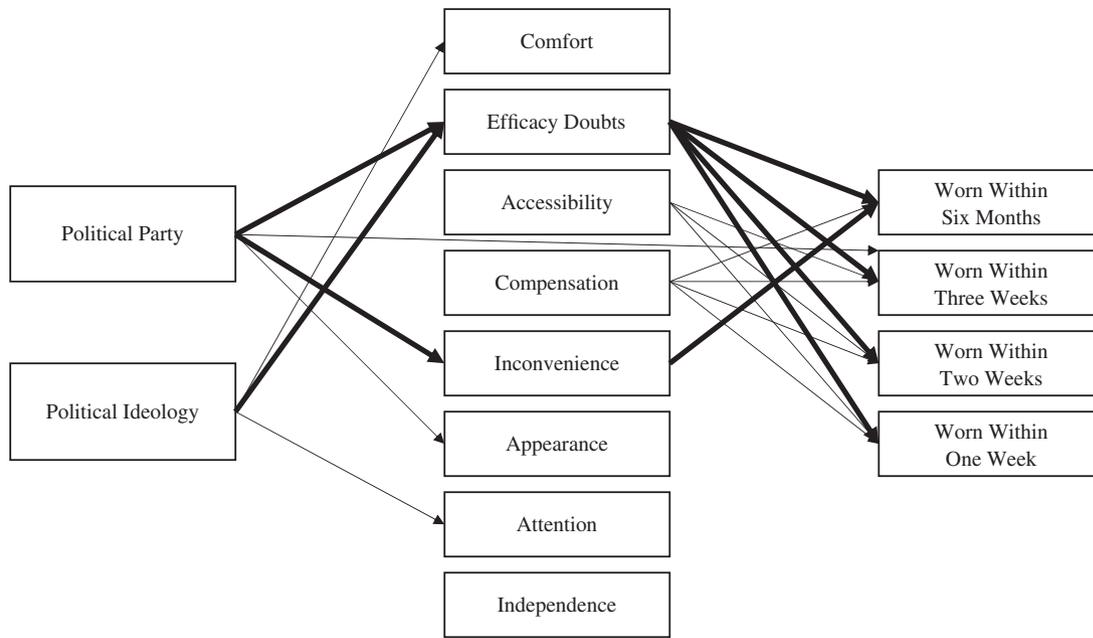


Figure 1. Visual representation of study results. *Note:* Thin lines represent significant direct effects observed in regression analyses. Thick lines represent significant direct effects observed in regression analyses as well as paths involved in significant indirect effects observed in bootstrapped estimates. Efficacy doubts were significant in seven of eight possible indirect effects, inconvenience was significant in one of eight possible indirect effects, and no other dimension was involved in any significant indirect effects.

and the direct effect was significant in only one of these four analyses (one of four 95% CI exclude 0). These results indicate that face mask perceptions, particularly efficacy doubts, mediate the relation of political affiliation and face mask wearing.

Lastly, we replicated all analyses while including a dummy-code that represented whether the participants' state had a face mask ordinance at the time of the third survey. All tests of hypotheses were consistent between our primary analyses and these alternative analyses. The alternative analyses can be found in Tables S3 and S4.

DISCUSSION

The goal of the current article was to support that, when assessed together (a) political affiliation but not political ideology predicts face mask wearing and (b) this effect is mediated by perceptions of efficacy doubts but not independence. Our results supported both proposals, which provides many implications for the psychology of both health behaviours and politics.

Theoretical implications and future research directions

Because face mask wearing more closely relates to shared political information, face masks should be seen as inextricably linked to political discourse. The relations of political affiliation with face mask perceptions and

wearing exceeded the relations Howard (2020) observed between perceptions of personal health risks and these outcomes. A person's political affiliation may have a stronger influence on their face mask wearing perceptions and behaviours than feelings regarding their own safety and well-being. Future researchers should therefore turn to political communication theories in investigating face mask wearing. For instance, Stroud (2017) discusses five theoretical perspectives to understand selective exposure and the differential information shared by political parties, which could be applied to further model the effects of political affiliation on face mask perceptions and wearing. Several of these perspectives are rooted in psychological theory, such as the theory of motivated reasoning (Kunda, 1990), which can be readily integrated with the study of face masks. A number of models also explain how political information shapes perceptions, and each model includes nuances that can provide even further research directions (Iyengar & Simon, 2000; Schneider, 2014). We specifically recommend the model of Shah et al. (2017) because it revised and extended prior models to account for modern trends in political communication, such as the "growing convergence of media and conversation" (p. 491) in the shape of social media.

Similarly, a large difference between political ideology and political affiliation is the former's association with in-group formation. As mentioned, not only do people actively seek positive information regarding their political party, but people are less capable at perceiving and remembering negative information regarding their

party (Van Bavel & Pereira, 2018). Future research should study the relation of political affiliation and face mask wearing via the lens of social identity theory (Stets & Burke, 2000). In-groups are a strong source of self-esteem, and people may be reluctant to go against their party's stances on face masks because doing so would significantly reduce their self-esteem. To encourage face mask wearing, researchers may need to identify how psychological strains can be alleviated for members of these parties.

The current results also stress the importance of studying face mask perceptions from a multidimensional perspective. The FMPS's (Howard, 2020) dimensions have differing relations with both antecedents (e.g., political affiliation, political ideology) and face mask wearing, which indicates that studying face mask perceptions in a unidimensional manner would obfuscate the dynamics of these dimensions. Studying a multidimensional perspective can more robustly test applications of theory for understanding face mask wearing, as done in the current article. Likewise, Howard (2020) identified the most common perceptions associated with face mask wearing (or lack thereof), and the author's scale was meant to be a comprehensive measure of face mask perceptions. The current article assumed that perceptions not included in this measure would have little influence on face mask wearing, but this cannot be guaranteed. Future researchers should assess whether other values predict face mask wearing, such as value for authority. If supported, then researchers should also test whether these values mediate the relation of political ideology and face mask wearing, which could provide a contradictory perspective against the non-significance of values in the current article.

Further, researchers should investigate whether the current results generalise to other preventive behaviours. Authors have recognised that vaccination is becoming increasingly politicised, and the refusal to receive the COVID-19 vaccine has significantly hampered public health responses to the pandemic (Dror et al., 2020; Murphy et al., 2021). It is possible, if not probable, that incentives for political parties to downplay the importance of pandemic responses and subsequent political messaging is a cause for this vaccine hesitancy, and political party affiliation may have a stronger relation with vaccine hesitancy than political ideology. Thus, the current observations may be an important lens to understand other preventative behaviours, even after face mask wearing is no longer recommended by public health organisations.

Regarding research on politics, some authors consider political ideology and political affiliation to be interchangeable (Calvillo et al., 2020; Suedfeld et al., 1994; Van Hiel et al., 2000). Our results supported that this is not the case, and the two can have differing relations with other variables. Future research should reassess prior results in light of our findings and assess whether they

differ when political ideology and political affiliation are studied separately.

Practical implications

We provide evidence that political parties should be extremely careful regarding their messaging associated with health behaviours. While their messages may sway the opinions of voters, they indeed have real-world impacts that may cause people to cease the health behaviour. It may be necessary for public health organisations to provide counter messaging to combat appeals to perform unsafe behaviours. Also, the current results can guide future intervention development. By showing that efficacy doubts is a key predictor of face mask wearing, our results indicate that future interventions should target this perception to improve face mask behaviours by creating intervention components that are targeted towards specific perceptions. In creating these interventions, researchers should apply advanced methodological designs, such as the multiphase optimization strategy to identify components that are most effective and sequential multiple assignment randomised trials to assess the proper sequencing of components for maximum behavioural change (Collins et al., 2007; Howard & Jacobs, 2016).

Limitations and replication opportunities

Our sample was skewed towards being more liberal. Recent trends in political polling indicate that Americans are more likely to report being Democrat and liberal, and our political skew is not drastically different than prior observations (Gallup, 2021). Nevertheless, political measurement is notoriously difficult, especially in the United States, and future researchers should use more robust methodologies to obtain balanced samples. Researchers could apply stratified sampling techniques to ensure that all portions of the political spectrum are sampled.

Likewise, understanding the relation between political orientation and face mask wearing requires an in-depth perspective regarding the context of interest, which was the United States in the current article. Future researchers should perform studies with similar in-depth perspectives regarding other contexts. Popular press articles have observed that Conservatives in the United Kingdom, the People's Party in Spain, and members of other conservative political parties are likewise reluctant to wear face masks (Keeley, 2020; Walsh, 2020). Future researchers should determine whether these political parties would have additional incentives to downplay the importance of face masks, and then they should assess whether political party affiliation predicts face mask wearing beyond political ideology. Our arguments would propose that instances in which the political parties do

not have additional incentives would result in similar relations, whereas instances in which political parties have additional incentives would result in differential effects. For instance, conservative parties in power during the inception of the COVID-19 pandemic may have greater incentives, and the relation of political party affiliation and political ideology in these countries may differ. Such investigations could provide support for the generalizability of our current results, but they could also provide strong support regarding whether the resonance model is a valid lens to understand face mask wearing.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1. Correlations and Cronbach's alphas of study variables

Table S2. Process results for indirect effects of political party and ideology on face mask wearing via face mask perceptions

Appendix S1. supporting information

Table S3. Regression results of political party, political ideology, and dummy code representing state mask mandate predicting face mask perceptions and wearing

Table S4. Process results for indirect effects of political party and ideology on face mask wearing via face mask perceptions while controlling for dummy code representing state mask mandate

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