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The behavioral immune system and conservatism as predictors of disease-avoidant attitudes during the COVID-19 pandemic

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ABSTRACT

The COVID-19 pandemic presents a unique opportunity to explore the relationships between the behavioral immune system (BIS), Political Ideology, and disease avoidant attitudes (e.g., attitudes toward vaccination and attitudes about COVID-19). The BIS (e.g., disgust) is believed to be the first line of defense against pathogens and has been linked to socially conservative values. Ironically, however, the BIS has also been associated with anti-vaccination attitudes. In the current study, American participants ($N = 139$) completed an online survey with self-report measures of the BIS (e.g., disgust sensitivity and perceived infectability), political ideology, COVID-19 attitudes, and anti-vaccination attitudes. Disgust sensitivity was positively correlated with anti-vaccination attitudes but not significantly correlated with attitudes toward COVID-19. Perceived infectability, however, was negatively correlated with anti-vaccination attitudes and positively correlated with anxiety and knowledge about COVID-19. Right-wing authoritarianism and support for Trump were negatively correlated with knowledge and anxiety about COVID-19 and positively correlated with anti-vaccination attitudes.

1. Introduction

The COVID-19 pandemic offers a unique opportunity to explore how variability in the behavioral immune system (BIS; e.g., disgust, perceived infectability) and political ideology relate to disease avoidant attitudes (e.g., attitudes toward vaccination and anxiety and knowledge about COVID-19). On March 11, 2020, WHO declared COVID-19 a pandemic (WHO, 2020b). COVID-19 is characterized as having flu-like symptoms including fever, cough, fatigue, runny nose, vomiting, and diarrhea as well as the loss of taste or smell (CDC, 2020b). As the BIS is theorized to be an evolved response to the threat of disease, in the midst of a disease threat (i.e., the pandemic), the BIS should promote attitudes and behaviors that mitigate the risk (i.e., disease-avoidant attitudes) of becoming infected (e.g., greater anxiety about COVID-19, more knowledge about COVID-19, negative attitudes toward the government's response to COVID-19; and less anti-vaccination attitudes). Additionally, as the pandemic has become highly politicized (e.g., President Trump and other conservative political figures refusing to wear masks), conservatives may be less likely to exhibit disease-avoidant attitudes.

1.1. The BIS and COVID-19

The BIS is believed to be an evolved solution to the adaptive challenge of infectious disease (Oaten et al., 2009; Schaller & Park, 2011). It acts as the first line of defense against parasites and pathogens (Schaller, 2006). The BIS reacts to stimuli that could present a disease threat (Schaller, 2006). A typical reaction is disgust (Schaller, 2006). Stimuli that elicit disgust cause a behavioral reaction (e.g., avoidance) that is intended to mitigate the spread of infectious disease (Schaller, 2006).

As it ostensibly evolved to keep individuals safe from infectious disease, the BIS could play a role in people's attitudes toward the COVID-19 pandemic. COVID-19 is reported to be a highly infectious virus and more deadly than the common flu. On average, each coronavirus-infected person spreads the disease to about 2.5 people (Center for Disease Control [CDC], 2020a). Globally, as of December 14th, 2020, there have been over 65 million confirmed cases and 1.5 million deaths (World Health Organization [WHO], 2020a). The infection fatality ratio ranges from 20 per million for those under 18 to 90,000 per million for those over 65 (CDC, 2020a). A severe seasonal influenza has a case fatality rate of approximately 0.1% (Fauci et al., 2020).

Behavioral immune strength (i.e., disgust sensitivity and germ

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aversion; Haidt et al., 1994; Duncan et al., 2009) varies from individual to individual. Some people are more sensitive to disgust and more germ averse than others. Likewise, individuals vary in the perceived infectability to infectious disease. As different components of the BIS (e.g., disgust, perceived vulnerability to disease) function in different ways, they may diverge in their connections to attitudes about the COVID-19 pandemic.

Some evidence has begun to illustrate how these measures are associated with attitudes and behaviors during the COVID-19 pandemic. However, these preliminary findings have been nuanced and inconsistent. Pathogen disgust and perceived infectability have been positively associated with anxiety and concern about COVID-19 as well as engagement in prophylactic behaviors (Makhanova & Shepherd, 2020; Shook et al., 2020; Stangier et al., 2021).

However, in another study, though perceived infectability significantly predicted opinions about the government's response to the pandemic, germ aversion more consistently predicted attitudes toward public health measures (De Coninck et al., 2020).

1.2. Political Ideology and the BIS

Some have suggested that disease-threat encourages people to adopt socially conservative values that promote avoidance of out-group members (Terrizzi & Shook, 2016). From this perspective, prejudicial attitudes (e.g., anti-immigration and prejudice toward sexual minorities) and the socially conservative values (e.g., right-wing authoritarianism; RWA) that promote them could operate, in part, as a crude means of mitigating the spread of infectious disease by discouraging contact with outgroup members. The BIS has been associated with a wide range of prejudicial attitudes and socially conservative values including anti-immigration, prejudice against gay men and lesbian women, RWA, and in-group favorability and out-group derogation (Hodson & Costello, 2007; Navarrete & Fessler, 2006; Patev et al., 2019; Terrizzi et al., 2010). Furthermore, Trump supporters' vaccination concerns increased after being exposed to Trump tweets that depicted his anti-vaccination beliefs (Hornsey et al., 2020).

1.3. COVID-19 and political ideology

Given that the BIS has been consistently associated with socially conservative values, some have suggested that such values may operate as culturally constructed disease avoidance strategies (Terrizzi et al., 2013). On the contrary, the COVID-19 pandemic has presented a different picture of how conservative values relate to disease avoidant attitudes and behavior. Conservatives report wearing masks less frequently; only 49% of conservative Republicans report wearing a mask all the time or most of the time in the past month, while liberal Democrats report 83% (Igielnik, 2020). In a Pew poll released in June 2020, 63% of Democrats and democratic-leaning independents say that masks should be worn always versus 29% of Republicans and Republican-leaning (Pew Research, 2020).

In a survey conducted between March 20–23, 2020, Republicans were less likely than Democrats to comply with CDC-recommended behavior, such as social distancing, and were less concerned about the pandemic (Gadarian et al., 2020). Political ideology correlated with social distancing compliance, mask-wearing compliance, and mask-wearing attitudes, with those more liberal having more positive attitudes toward masks and wore masks more often compared to conservatives (Xu & Cheng, 2021).

1.4. Vaccination attitudes and the ironic effects of the BIS

The BIS has also exhibited an inconsistent relationship with disease-avoidant attitudes. Though the BIS is believed to be an evolved solution to the adaptive challenge of infectious disease, people with higher sensitivity to disgust tend to have more negative attitudes about

vaccines (Clay, 2017). Additionally, anti-vaccination attitudes are higher in those that report higher levels of disgust toward needles and blood (Hornsey et al., 2018). Some data, however, suggest that although disgust sensitivity and germ aversion have an indirect negative effect on vaccine attitudes, they have a direct positive effect on vaccine uptake (Luz et al., 2019).

Pathogen disgust sensitivity is associated with greater belief that vaccines cause autism (Clifford & Wendell, 2016). Pathogen disgust sensitivity also predicts skepticism of the safety and efficacy of vaccines (Clifford & Wendell, 2016). Parents that are vaccine hesitant have less trust in physicians and greater sensitivity to both pathogen and sexual disgust (Reuben et al., 2020).

1.5. Purpose of the current study

The present aim is to explore how disgust and political ideology relate to disease avoidant attitudes in the time of COVID-19. It is expected that the BIS will be positively associated with COVID-19 relevant disease-avoidant attitudes (e.g., anxiety and knowledge about COVID-19). However, given the previous research linking disgust with negative attitudes toward vaccination, it is believed that the BIS will be positively associated with anti-vaccination attitudes. Though conservative values have been previously thought of as a strategy of disease avoidance, it is hypothesized that conservative ideology will be ironically inversely related to disease avoidant attitudes.

2. Method

G*Power (Version 3.1; Faul et al., 2007) was used to calculate minimum sample size. To detect a medium effect size using multiple regression with a power of 0.95 and 3 tested predictors, G*Power recommends a sample size of at least $n = 119$.

2.1. Participants

Participants were recruited through internet flyers. The study was conducted online through PsychData. A total of 200 responses were received to the questionnaire, with 61 responses discarded due to premature abandonment of the study or for being under 18, leaving 139 (106 female; median age = 30; 17 Republicans [12%], 60 Democrats [43%], 30 Independents [22%], 22 something else [16%], 10 no response [7%]). COVID-19 has negatively impacted 77 participants finances, caused loss of work for 36, and 10 had personally contracted the disease. Eighty-eight participants indicated a likelihood of voting for Joe Biden, while 24 participants supported Donald Trump.

2.2. Procedure and measures

An online survey was sent out between September 2 and October 28, 2020 to students and faculty at three college campuses and posted on various social media websites such as Facebook, Reddit, Tumblr, and Gab. Participants followed the link, read the consent form, and consented to participate.

2.3. BIS measures

2.3.1. Disgust sensitivity

The Disgust Scale (DS; Haidt et al., 1994) asks how much participants agree with questions on a scale of 1 to 4, 1 being *strongly disagree (or not disgusting at all)* and 4 being *strongly agree (or very disgusting)*. Sample items from the scale include "I might be willing to try eating monkey meat, under some circumstances." and "You see a man with his intestines exposed after an accident."

The Three Domain Disgust Scale (TDDS; Tybur et al., 2009) has 21 items measuring three domains of disgust: pathogen (TDDS-Pathogen), sexual (TDDS-Sexual), and moral (TDDS-Moral). Participant rate how

disgusting they find each item on a Likert scale of 1 (*not disgusting at all*) to 7 (*extremely disgusting*). A sample of a question from the pathogen subscale is “Stepping on dog poop;” from the sexual subscale, “Watching a pornographic video;” and from the moral subscale “Forging someone’s signature on a legal document.”

2.3.2. Perceived vulnerability to disease

Perceived vulnerability to disease (PVD; Duncan et al., 2009) measures a component of the BIS through 15 questions on a Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). It consists of two subscales: Perceived Infectability (PVD-PI), and Germ Aversion (PVD-GA). A sample question from the former subscale is “If an illness is ‘going around’, I will get it;” from the latter, “I prefer to wash my hands pretty soon after shaking someone’s hand.”

2.4. Political ideology measures

2.4.1. Right-wing authoritarianism (RWA)

The Very Short Authoritarianism Scale (Bizumic & Duckitt, 2018) consists of 6 questions. Participants responded to the items on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). One item is “It’s great that many young people today are prepared to defy authority” (reverse scored).

2.4.2. Left-wing authoritarianism (LWA)

The LWA Scale (Costello et al., 2020) has participants answer 39 items from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale consists of three subscales: Anti-hierarchical Aggression, Conventionalism, and Top-down Censorship. An example of an Anti-hierarchical Aggression item is “The rich should be stripped of their belongings and status.” An example of a Conventionalism item is “Anyone who opposes gay marriage must be homophobic.” Lastly, an example of an item from the Top-down Censorship subscale is “University authorities are right to ban hateful speech from campus.”

2.4.3. Trump support

Participants answered three questions on how supportive they are of Donald Trump on a scale of 1 (*not at all*) to 7 (*very much*). Sample items include “How supportive are you of Donald Trump?” and “How likely are you to vote for Donald Trump?”

2.4.4. Biden support

Participants answered three questions on how supportive they are of Joe Biden on a scale of 1 (*not at all*) to 7 (*very much*). Sample items include “How supportive are you of Joe Biden?” and “How likely are you to vote for Joe Biden?”

2.5. COVID-19 measures

2.5.1. Coronavirus anxiety

Anxiety about the coronavirus was measured using the Coronavirus Anxiety Scale (CAS; Lee, 2020). Participants were asked five questions to indicate how often they have experienced the scale item activities over the last 2 weeks from 0 (*not at all*), to 4 (*Nearly every day over the last 2 weeks*). An example item is “I felt nauseous or had stomach problems when I thought about or was exposed to information about the coronavirus.”

2.5.2. CDC approval

Opinions of pandemic response by public health officials and the CDC were measured with four statements on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Example items include “The Center for Disease Control (CDC) is doing a good job managing the pandemic,” and “I am satisfied with how U.S. public health officials are handling the pandemic.”

2.5.3. Government Perception Scale (GPS)

Participants answered 10 questions rating the U.S. government’s response to the pandemic on a 7-point Likert scale (1 being *strongly*

disagree and 7 being *strongly agree*). An example item is “overall, the U.S. has done a great job responding to the coronavirus pandemic.”

2.5.4. Trump administration pandemic response

Participants were asked how much they agree with four statements on the Trump administration’s pandemic response on a scale from 1 to 7; 1 being *strongly disagree* and 7 being *strongly agree*. Example items include “I am satisfied with how the Trump administration has responded to the pandemic” and “President Trump has taken appropriate actions to keep Americans safe.” Conceivably, participants might have different opinions on how the Trump administration, the government in general, and the CDC and public health officials have handled the pandemic. However, the data shows that opinions on how the government and how the Trump administration have handled the pandemic are very similar and highly correlated ($r = 0.77$), so they were combined into a single Government Perception Scale (GPS).

2.5.5. Covid knowledge

Participants were asked four questions on their coronavirus knowledge on a scale of 1 (*strongly disagree*) and 7 being (*strongly agree*). A sample of an item is “the coronavirus is more contagious than the flu.”

2.6. Anti-vaccination attitudes

Vaccination attitudes were measured with the VAX scale (Martin & Petrie, 2017). Participants indicated their agreement of 11 items on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). An example item is “Natural immunity lasts longer than a vaccination.”

2.7. Demographics

Demographic information collected includes age, region, education, political party affiliation, age, ethnicity, race, gender, religious affiliation, political orientation, and personal experience with the coronavirus. See Table 1 for means, standard deviations, and Cronbach’s alphas of measures.

3. Results

Data and measures can be found at doi.org/10.17605/OSF.IO/KZ3XE. Zero-order correlations between all measures are presented in Table 2.

Table 1
Means, standard deviations, and Cronbach’s alphas.

	M	SD	α
DS	2.38	0.42	0.89
TDDS-Moral	5.12	1.52	0.93
TDDS-Sexual	4.03	1.29	0.80
TDDS-Pathogen	4.69	1.03	0.78
PVD-GA	4.14	1.13	0.79
PVD-PI	3.59	1.42	0.93
CAS	1.41	0.63	0.85
GPS	2.29	1.73	0.97
COVID knowledge	5.46	1.49	0.83
RWA	2.90	1.43	0.88
LWA	3.59	1.16	0.96
Antivax	2.84	1.28	0.93
CDC approval	4.14	1.38	0.82
Trump Support	2.20	2.12	0.98
Biden Support	4.31	2.05	0.92

Note. DS = Disgust Scale, TDDS = Three Domain Disgust Scale, PVD = perceived vulnerability to disease, GA = germ aversion, PI = perceived infectability, RWA = right-wing authoritarianism, LWA = left-wing authoritarianism, Antivax = VAX scale, CAS = Coronavirus Anxiety Scale, GPS = Government Perceptions Scale, Covid knowledge = knowledge of the pandemic.

Table 2
Zero-order correlations for all measures.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 DS															
2 TDDS-Moral	0.15														
3 TDDS-Sexual	0.46**	0.29**													
4 TDDS-Pathogen	0.58**	0.11	0.42**												
5 PVD-PI	0.19*	-0.08	0.14	0.04											
6 PVD-GA	0.48**	0.16	0.12	0.36**	0.30**										
7 RWA	0.19*	0.38**	0.41**	0.11	-0.22**	0.00									
8 LWA	0.08	-0.28**	-0.27**	0.01	0.25**	0.18*	-0.66**								
9 Trump support	0.05	0.35**	0.30**	-0.01	-0.35**	-0.13	0.77**	-0.67**							
10 Biden support	-0.01	-0.27**	-0.22*	-0.01	0.18*	0.12	0.51**	0.47**	-0.72**						
11 CAS	0.16	0.01	0.10	0.00	0.28**	0.30**	-0.20*	0.23**	-0.19*	0.11					
12 GPS	0.04	0.30**	0.31**	0.02	-0.40**	-0.15	0.75**	-0.66**	0.93**	-0.68**	-0.23**				
13 CDC approval	-0.02	0.13	0.07	-0.02	0.06	0.08	0.08	-0.10	-0.07	0.14	-0.11	0.00			
14 Covid knowledge	-0.02	-0.18*	-0.09	-0.01	0.25**	0.14	-0.46**	0.43**	-0.65**	0.58**	0.17*	-0.64**	0.27**		
15 Antivax	0.17*	0.09	0.22*	0.21*	-0.21*	-0.02	0.48**	-0.37**	0.53**	-0.42**	-0.19*	0.51**	-0.32**	-0.49**	

Note. N = 138. DS = Disgust Scale, TDDS = Three Domain Disgust Scale, PVD = perceived vulnerability to disease, RWA = right-wing authoritarianism, LWA = left-wing authoritarianism, CAS = Coronavirus Anxiety Scale, GPS = Government Perception Scale, Covid knowledge = knowledge of the pandemic, Antivax = VAX scale.

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

3.1. BIS and disease-avoidant attitudes

Disgust measures were not consistently related to COVID-19 attitudes. Two disgust sensitivity measures (TDDS-Moral and TDDS-Sexual) were significantly positively correlated with GPS, none were significantly correlated with CAS, and TDDS-Moral was significantly negatively correlated with knowledge of COVID-19. Ironically, three measures of disgust sensitivity (DS, TDDS-Sexual, and TDDS-Pathogen) were significantly positively correlated with antivaccination attitudes (Antivax).

PVD-PI was the only measure of the BIS that was consistently associated with disease avoidant attitudes. It was negatively correlated with Antivax and positively correlated with CAS and knowledge of the pandemic.

3.2. Conservatism and disease-avoidant attitudes

Conservative measures (e.g., RWA and Trump support) were consistently negatively associated with disease-avoidant attitudes. Furthermore, they were consistently negatively associated with CAS and COVID-19 knowledge. Likewise, the measures of conservatism were positively correlated with GPS and Antivax.

3.3. Personal experience with the pandemic

Pearson's correlations were run on personal experience with the pandemic, BIS measures, and pandemic attitudes. Whether participants had personally contracted COVID-19 was significantly negatively correlated with knowledge of the pandemic ($r = -0.28, p < .01$) and approval of CDC and public health officials ($r = -0.20, p < .05$). Whether the pandemic had negative impact on finances was significantly positively correlated with LWA, and significantly negatively correlated with RWA, approval of the CDC and public health officials, and Trump support.

3.4. BIS and conservatism

Pearson's correlations were run on RWA, Trump Support, LWA, Biden Support, DS, TDDS-Moral, TDDS-Sexual, TDDS_Pathogen, PVD-PI, and PVD-GA. RWA was significantly positively correlated with general disgust sensitivity. Both measures of conservatism (RWA and Trump support) were significantly positively correlated with TDDS-Moral, TDDS-Sexual, and negatively correlated with PVD-PI. BIS measures that were not significantly correlated with conservative measures were TDDS-Pathogen and PVD-GA. Left-wing measures displayed the opposite relationship with BIS measures: they were negatively correlated with moral and sexual disgust and positively correlated with perceived infectability. Additionally, LWA positively correlated with germ aversion.

3.5. Multiple regression - COVID-19 attitudes

A series of multiple regression analyses were conducted with each disease avoidant measure as the dependent variable (e.g., CAS, knowledge of COVID-19, GPS, and antivaccination attitudes). Past research has shown disgust sensitivity and perceived vulnerability to disease are connected with increased anxiety and preventative behaviors in the context of COVID-19. Correlation analyses revealed PVD-PI to be the most consistent predictor of disease-avoidant attitudes but the other disease-avoidant measures showed inconsistent results. So, a composite variable of disgust was created by combining and averaging the means of the less consistent BIS traits that are specifically related to disease avoidance (DS, TDDS-Sexual, TDDS-Pathogen, and PVD-GA) A composite conservatism variable (Conservatism) was created by averaging the inverse of LWA, RWA, Trump support, and the inverse of Biden support. The only disease-mitigating attitudes disgust significantly

predicted were Antivax and CAS. Conservatism significantly predicted less knowledge of the pandemic, greater GPS, greater Antivax, and moderately predicted lower CAS ($p = .05$). While disgust was shown to be inconsistently related with disease avoidance, when controlling for political ideology and PVD-PI, disgust trends toward significance with knowledge of the pandemic ($p = .24$). Conservatism significantly predicts most disease avoidance measures, while both disgust and conservatism significantly predicted Antivax (Table 3).

4. Discussion

The aim of the present research was to better understand how the BIS and political ideology are related to disease avoidant attitudes during the COVID-19 pandemic. The measures of disgust sensitivity (e.g., DS, TDDS-Pathogen, and TDDS-Sexual) were not consistently correlated with COVID-19 relevant disease avoidant attitudes (e.g., CAS, knowledge and GPS). Likewise, consistent with previous research (e.g., Clay, 2017; Hornsey et al., 2018; Luz et al., 2019), disgust measures were ironically and consistently, positively related to antivaccination attitudes.

PVD-PI was the most consistent BIS measure at predicting disease-avoidant attitudes. PVD-PI correlated positively with coronavirus anxiety, knowledge of the pandemic, and negatively with antivaccination attitudes and attitudes toward the U.S. government's pandemic response. Other BIS measures such as disgust sensitivity were less consistent at predicting pandemic attitudes. A striking divergence for these two variables is that disgust sensitivity positively correlated with anti-vaccination attitudes, while PVD-PI negatively correlated with anti-vaccination attitudes.

Measures of conservatism were associated with disease avoidant traits; they correlated positively with some disgust sensitivity measures. However, they were negatively associated with disease avoidant attitudes, such as attitudes toward vaccines, knowledge of the coronavirus, and coronavirus anxiety.

In past research, disgust sensitivity has been connected to social conservatism (Shook, Ford, & Boggs, 2017). Additionally, sexual disgust sensitivity (Patev et al., 2019) and pathogen disgust sensitivity (Shook, Oosterhoff, et al., 2017) have been connected to RWA. The present study was able to replicate the findings that RWA was significantly correlated to sexual disgust sensitivity, but the correlation with pathogen disgust sensitivity did not reach statistical significance ($p = .20$). Past findings have suggested that conservative ideology may operate as strategy of

disease avoidance. However, the present study shows conservatism predicts less knowledge of the pandemic, more favorable opinions of the U.S. government's response to the pandemic (despite leading the world in total number of infections and deaths at the time), more negative attitudes toward vaccines, and moderately predicts less coronavirus anxiety. This suggests conservative ideology may not function as a disease-avoidance strategy.

4.1. Limitations

Disease avoidant attitudes were assessed via measures of knowledge and anxiety of COVID-19 and vaccination attitudes. Though these are prophylactic attitudes, they are indirect measures of disease-avoidance. Thus, the current study is limited in that there were no direct measures of disease-avoidant behavior or attitudes.

The bias toward left-leaning participants in the present sample may have limited the scope of the findings. Seventeen of 139 respondents (12%) identified as Republican. This produced a fairly substantial range restriction for the hypothesized interactions. If there were any interactions between the BIS and political ideology, the limited number of Republicans sampled could have prevented their detection.

Nineteen out of 139 (13.7%) respondents identified as male. The gender composition of the study could influence the results as past research has shown that women typically report higher sensitivity to disgust than men (Druschel & Sherman, 1999). The present results may be more exaggerated than would be expected from a more gender balanced sample. Males were similarly represented among Republicans (12%). Furthermore, there are inherit limitations associated with research conducted online. Individuals without internet access could not complete the study. Additionally, response fatigue could have influenced the data as there were 169 questions. Lastly, potential participants who are more skeptical of the pandemic and of research in general are less likely to fill out questionnaires about the pandemic, so they would be underrepresented in the sample.

5. Conclusion

The COVID-19 pandemic has presented a valuable opportunity to study how the BIS and political ideology are related to disease avoidant attitudes. The BIS should operate as a reliable disease avoidance mechanism, but attitudes toward disease avoidance were not consistently connected with disgust sensitivity in context of the pandemic.

Table 3
Regressions.^a

Dependent	Independent	R ²	B	β	p	95% CI	
						LL	UL
CAS	Disgust	0.10	0.15	0.17	.047	0.002	0.300
	PVD-PI		0.08	0.19	.031	0.008	0.161
	Conservatism		-0.07	-0.17	.051	-0.149	0.000
Covid knowledge	Disgust	0.41	0.17	0.08	.242	-0.117	0.372
	PVD-PI		0.05	0.05	.473	-0.094	0.201
	Conservatism		-0.66	-0.64	<.001	-0.803	-0.516
GPS	Disgust	0.81	0.05	0.02	.613	-0.141	0.238
	PVD-PI		-0.21	-0.17	<.001	-0.304	-0.109
	Conservatism		1.01	0.84	<.001	0.915	1.105
Antivax	Disgust	0.29	0.29	0.16	.038	0.016	0.558
	PVD-PI		-0.09	-0.10	.228	-0.224	0.054
	Conservatism		0.43	0.48	<.001	0.293	0.565

Note. R² = adjusted proportion of variance explained by the model; B = unstandardized regression coefficient; β = standardized regression coefficient; bolded values indicate $p < .05$; CAS = Coronavirus Anxiety Scale; GPS = Government Perception Scale; Covid knowledge = pandemic knowledge; Antivax = antivaccination attitudes.

^a Hypothesized interactions between disgust and conservatism were nonsignificant ($p > .05$).

Ironically, disgust sensitivity was connected to antivaccination attitudes. The only BIS measure that was consistently associated with disease avoidant attitudes was PVD-PI. Pandemic attitudes were clustered along partisan lines, possibly due to politicization. Those who identified more left-wing politically were more anxious about COVID-19, knew more about COVID-19, and lower opinions on the government's pandemic response. In contrast, those who identified as more conservative were less anxious about COVID-19, knew less about COVID-19, and had more favorable opinions on the government's pandemic response. Furthermore, conservatism was consistently correlated with antivaccination attitudes. These results suggest that conservatism does not operate as a disease avoidant strategy.

CRedit authorship contribution statement

JohnMark C. Kempthorne: Data curation, Formal analysis, Investigation, Methodology, Writing – original draft. **John A. Terrizzi:** Conceptualization, Supervision, Methodology, Writing – review & editing.

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