The Conditional Effects of Authoritarianism on COVID-19 Pandemic Health Behaviors and Policy Preferences

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Abstract
A large literature contends that conservatives differ from liberals in their dispositional sensitivity to threat and needs for social order and security. Thus, a puzzle emerged during the COVID-19 pandemic when American conservatives, despite their purported threat sensitivity, responded to the pandemic in ways that evinced little concern toward the risks posed by COVID-19. Threat tolerant liberals present an equally interesting case, having fervently masked, isolated, and advocated for stringent public health restrictions when facing down COVID-19. Why did so many Americans adopt health behaviors and policy preferences at odds with their dispositional orientations toward threat and needs for security during the COVID-19 pandemic? In this paper, I analyze three national surveys to evaluate how psychological dispositions affected Americans’ responses to COVID-19. I find that authoritarianism, a common measure of dispositional threat sensitivity and needs for security, conditionally affected Americans’ responses to the pandemic. Directly, authoritarianism was associated with greater concern over COVID-19 and, in turn, increased willingness to engage in protective health behaviors, support restrictive public health measures, and support economic interventions amidst the pandemic-induced downturn. Indirectly, however, authoritarianism promoted identification with and cue-taking from right-wing elites who frequently downplayed the severity of COVID-19; attention to such rhetoric reduced politically engaged authoritarians’ concern over COVID-19 and, in turn, their willingness to adopt protective health behaviors and support public health restrictions or economic interventionism. Attention to political discourse thus appears to have countervailed Americans’ dispositional orientations toward threat and security during the COVID-19 pandemic.

Keywords Authoritarianism · Personality · Political psychology · Political engagement · Public opinion · Health behavior · COVID-19 pandemic

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A vast literature has explored the ways in which stable psychological traits shape socio-political attitudes and behaviors (for reviews, see Jost et al., 2003, 2017). Among the most well-studied of these traits has been authoritarianism, a disposition rooted in individuals’ orientations toward threat and uncertainty. Authoritarians are thought to experience threat more persistently and aversively than non-authoritarians and, in turn, prioritize order, safety, and predictability in their lives and from their environment (Feldman, 2015). Authoritarianism is often theorized as underlying right-wing (or conservative) political orientations, which work to manage perceived threats by helping to maintain a stable, hierarchical social order (Altemeyer, 1981, 1996; Jost et al., 2003). On the other end of the spectrum, those with non-authoritarian dispositions (also sometimes referred to as “libertarian” dispositions; e.g., Stenner, 2005) are thought to prioritize novelty, diversity, and autonomy, while also exhibiting lower levels of threat sensitivity. Non-authoritarianism is thus often associated with left-wing (or liberal) political orientations that allow for social change and innovation, even perhaps at the expense of stability and security.

Given this account of authoritarianism, one might expect that authoritarian Americans would exhibit greater concern over the threats posed by COVID-19 than their dispositionally libertarian peers. The COVID-19 pandemic has been the deadliest to reach U.S. shores in over a century, having caused over one million deaths as of 2022. The threat and turmoil of COVID-19 was further heightened by a crushing economic downturn, which produced mass layoffs and business closures throughout 2020. Faced with these undeniable threats to social stability, not to mention personal health and financial well-being, authoritarians should, in theory, have been eager to adopt health behaviors intended to protect themselves against COVID-19, support public health restrictions to control COVID-19’s spread, and support government interventions into the economy as a means of safeguarding against the severe downturn caused by COVID-19.

Over the course of the pandemic, however, studies seem to have mostly failed to produce these theorized relationships. While few studies have included the personality measures necessary to directly assess the relationship between authoritarianism and responses to COVID-19, many surveys have asked respondents to report their partisan and ideological self-identifications, which are highly correlated with authoritarianism in the U.S. (Hetherington & Weiler, 2009, 2018). Since the pandemic’s outset, conservatives and Republicans (relative to liberals and Democrats) have reported less concern about the health threat posed by COVID-19 (Gadarian et al., 2021; Makridis & Rothwell, 2020; van Holm et al., 2020), less willingness to social distance (Allcott et al., 2020), greater resistance to mask-wearing (Fan et al., 2020), and lower levels of COVID-19 vaccination. Indeed, in a review of 141 estimates from 44 studies, conservativism was related with reduced COVID-19 health behavioral uptake in 112 cases (Geana et al., 2021). Given U.S. authoritarians

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1 All reproduction files can be found in the Political Behavior Dataverse; see https://doi.org/10.7910/DVN/ST2ONR.

2 The Kaiser Family Foundation tracks COVID-19 vaccine uptake across partisan groups: https://www.kff.org/coronavirus-covid-19/dashboard/kff-covid-19-vaccine-monitor-dashboard/
generally identify as conservatives and Republicans, these studies seem to suggest authoritarians were among the least concerned by COVID-19, and that these threat perceptions spurred laissez faire health behaviors and policy preferences in a situation where political psychologists would expect authoritarians to have clamored for safety and security. Thus, two unresolved questions emerged during the COVID-19 pandemic: (1) why did conservatives and Republicans, despite their dispositional sensitivities to threat and social instability, adopt behaviors and policy preferences which likely exacerbated the risks they faced from COVID-19; and (2) why did liberals and Democrats, despite their non-authoritarian dispositions, dutifully sequester and adorn masks to avoid COVID-19, while also forcefully advocating for restrictions on personal autonomy for the sake of public health?

In the present article, I resolve these puzzles by drawing on recent psychological theories of mass politics which contend the relationships between dispositions and political behavior are conditioned by individuals’ level of attention to polarized elite discourse (Johnston et al., 2017). I argue attention to elite discourse counter-vailed the direct effects of authoritarianism on Americans’ responses to COVID-19 by sorting politically engaged citizens into partisan-ideological camps whose elites offered messages at odds with liberals’ and conservatives’ respective dispositional orientations towards threat. Specifically, I contend the associations between authoritarianism and Americans’ level of concern toward COVID-19, their willingness to adopt protective health behaviors, their support for public health restrictions, and their support for economic interventionism are conditioned (or moderated) by political engagement. For politically disengaged citizens, I expect authoritarianism to be related to greater concerns regarding COVID-19, greater protective health behavior adoption, support for health restrictions, and support for economic interventionism. However, due to contra-dispositional elite cues in these domains, I expect authoritarianism among the politically engaged to be associated with reduced concerns regarding COVID-19 and health behavior adoption, as well as opposition to public health restrictions and economic interventionism.

I test these expectations using three national surveys fielded during the pandemic. My findings affirm that, in 2020, authoritarianism was associated with greater concern over COVID-19 among politically disengaged Americans, but reduced concerns among politically engaged Americans. Similarly, authoritarianism among the politically disengaged was associated with greater mask-wearing and social distancing in 2020 and COVID-19 vaccination uptake in 2021, but negatively associated with adoption of these behaviors among politically engaged citizens. Authoritarianism was also associated with greater support for public health restrictions among disengaged citizens in 2020 and 2021, but reduced support for these policies among the politically engaged. Finally, authoritarianism was consistently associated with support for economic interventionism among politically disengaged citizens, but opposition to economic interventionism among engaged citizens.

This study makes several important contributions. My findings support recent accounts of mass political behavior which contend psychological traits exert heterogeneous effects (Federico & Malka, 2018; Johnston et al., 2017; Malka et al., 2014). Authoritarianism, a common measure of threat sensitivity and needs for certainty and security, conditionally affected Americans’ responses to the COVID-19
pandemic. Directly, authoritarianism promoted attitudes and behaviors that evinced concern for the threat posed by COVID-19. Indirectly, though, dispositional sorting and partisan-ideological cue-taking—processes that are pronounced among politically engaged Americans—cut against authoritarians’ and non-authoritarians’ dispositional proclivities toward COVID-19. Attention to polarized elite-level discourse thus countervailed authoritarianism’s direct impacts on the American public’s responses to COVID-19.

These findings have further implications for understanding how political elites affect the public’s response to severe crises including, but likely not limited to, pandemics. Elite discourse appears to have increased the uptake of potentially life-saving protective health behaviors for non-authoritarians, but decreased uptake of such health behaviors for authoritarians. Had right-wing political elites been more consistent advocates on behalf of public health recommendations, attentive authoritarians likely would have undertaken health behaviors more consistent with their threat sensitive dispositions. To put it bluntly, my findings suggest right-wing elites’ disregard for public health recommendations is partially responsible for the United States’ disastrous experience managing COVID-19, because political discourse has downstream consequences for health behaviors among politically engaged citizens.

**Authoritarianism and Its Conditional Relationship to Political Behavior**

Research across several fields has converged in highlighting the importance of threat sensitivity and aversion to uncertainty as important determinants of political behavior. Perhaps the most influential work in this area revolves around the study of the “authoritarian personality” (Adorno et al., 1950; Altemeyer, 1981, 1996; Duckitt et al., 2002; Feldman & Stenner, 1997; Hetherington & Weiler, 2009, 2018; Stenner, 2005). In these accounts, authoritarianism is theorized as capturing a dispositional aversion to threat and uncertainty, and an underlying need for collective order and security. In turn, authoritarianism is thought to promote hierarchy-enhancing outlooks which serve to manage threat and maintain social stability, though at the possible expense of individual freedom and autonomy. Thus, in the motivated social cognition account of political ideology forwarded by Jost et al. (2003), dispositional sensitivities to threat and uncertainty produce conservative political orientations, while tolerance of (or perhaps a taste for) risk and social change spurs liberalism.

Recent psychological theories of mass politics amend the motivated social cognition account by contending at least two dimensions—one socio-cultural, the other economic—are necessary to capture the full array of ideological orientations in the U.S. public (Feldman & Johnston, 2014; Treier & Hillygus, 2009), and that psychological traits are more consistently associated with socio-cultural ideologies than economic ones (for reviews, see Federico & Malka, 2018 and Johnston & Ollerenshaw, 2020). Indeed, the connection between threat sensitivity and economic conservatism is arguably theoretically unclear (Crawford, 2017), and empirical studies frequently find authoritarianism is directly associated with liberal economic preferences (Arikan & Sekercioglu, 2019; Jedinger & Burger, 2019; Johnston et al., 2017; Malka et al., 2019;...
Ollerenshaw & Johnston, 2022). This literature suggests authoritarianism, rooted in threat sensitivity and the dispositional need for certainty and security, is closely associated with social conservatism and right-wing political identification in the U.S., but inconsistently related to economic preferences.

To explain why dispositional traits like authoritarianism are so inconsistently related to economic attitudes, Johnston et al. (2017) put forth the “reversal hypothesis.” In their account, Johnston et al. begin by noting that Americans are increasingly well-sorted along dispositional lines, with authoritarians sorting into the Republican Party and non-authoritarians into the Democratic Party (see also Hetherington & Weiler, 2009), but that this sorting is only evident among politically engaged citizens. Johnston et al. contend mass sorting, coupled with the extant alignment of U.S. elites along a single left–right ideological dimension, leads authoritarianism to exert indirect effects on economic preferences. Directly, authoritarianism is associated with left-wing views on redistribution and social insurance, given such policies mitigate the downside risks present in market economies; indirectly, however, authoritarianism promotes identification with conservative and Republican elites who promote economic conservatism. Conversely, non-authoritarianism is directly associated with pro-market views, but identification with left-wing elites who promote economic liberalism. Since politically engaged citizens are better sorted as a function of dispositions and more attentive to elite discourse (Zaller, 1992), Johnston et al. find politically engaged Americans adopt economic views in line with partisan-ideological elites, but at odds with their own psychological dispositions (see also Ollerenshaw & Johnston, 2022).

The key implication of Johnston et al.’s account is that the effects of authoritarianism can reverse for politically engaged citizens when these citizens sort in ways that cause elite discourse to exert pressure in the opposite direction of dispositions. Crucially, if conditional associations between authoritarianism (non-authoritarianism) and right-wing (left-wing) orientations were present amidst the COVID-19 pandemic, this would open an indirect channel through which authoritarianism could affect citizens’ responses to COVID-19—a channel mediated via partisan-ideological sorting and elite cue-taking among politically engaged citizens. I thus begin my analysis by replicating Johnston et al.’s (2017) finding that authoritarianism is conditionally associated with partisan-ideological orientation. Specifically, I test the following hypothesis

**(H1)** Authoritarianism will be unassociated with partisanship and ideology among politically disengaged citizens, but associated with Republican partisanship and conservative ideology among politically engaged citizens.

In the following section, I outline a theory for how authoritarianism should affect Americans’ responses to COVID-19, accounting for the effects of authoritarianism as a direct dispositional motivation and its indirect effects via sorting and attention to polarized elite-level discourse (i.e., political engagement).
The Conditional Effects of Authoritarianism on COVID-19 Responses

COVID-19 Concern and Health Behaviors

In theory, authoritarians should have been particularly concerned with the health threat posed by COVID-19 and, in turn, willing to adjust their personal behavior to pursue safety. As such, a straightforward account linking authoritarianism to behavior might expect authoritarians to have strictly adhered to behaviors like masking, social distancing, and vaccination during the pandemic. However, psychological dispositions rarely act in a vacuum; other forces certainly influenced Americans’ perceptions of COVID-19’s risks, as well as their beliefs regarding the necessary behavioral responses to the virus. Specifically, I argue Americans’ attention to elite discourse affected their levels of concern regarding COVID-19 and, in turn, their willingness to adopt protective health behaviors.

Since early in the pandemic, Democratic elites have been vocal supporters of masking and social distancing to control the spread of COVID-19 (Green et al., 2020; Grossman et al., 2020). Republican elites, on the other hand, have sent far more equivocal messages regarding the efficacy and necessity of these behaviors. Donald Trump, for example, frequently downplayed the need to wear face masks, even mocking then Democratic-nominee Joe Biden’s mask-wearing habits at a presidential debate watched by over 73 million Americans. President Trump’s view of masks was perhaps best captured in a statement he made on August 13th, 2020: “Maybe they’re great, maybe they’re just good. Maybe they’re not so good.” Republican elites further ridiculed “Sleepy Joe” for running a virtual campaign from his Delaware home’s basement, while Trump traveled the country to host live rallies. Republican elites’ rather blatant disregard for distancing and masking even produced a widely-publicized “super-spreader” event at the September 26th, 2020, White House Rose Garden Party, where the Chair of the Republican National Committee, three Republican senators, and President Trump himself were infected with COVID-19. In short, politically attentive citizens would have received conflicting signals from Democratic and Republican elites during the pandemic regarding the necessity of masking and social distancing.

In addition to masking and distancing, on December 11th, 2020, a new means of reducing the risk posed by COVID-19 became available when the first COVID-19 vaccine was approved. By March 2021, every single Democratic member of Congress reported having received at least one dose of a COVID-19 vaccine. By contrast, just 95 of 212 House Republicans and 46 of 50 Republican Senators reported being vaccinated at this point. Although it would be unfair to characterize Republican elites as wholly “anti-vax”, it is inarguable that the stronger pro-vaccine consensus emerged among Democrats.

To summarize, authoritarians should have been among the most concerned by the health threat posed by COVID-19 and, for that reason, more likely than

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3 Data from https://www.cnn.com/2021/05/14/politics/democrats-vaccination-rates-house-mask-rules/index.html.
non-authoritarians to alter their behavior to avoid the deadly disease. However, Americans attentive to politics received mixed messages from partisan elites regarding the severity of COVID-19 and the necessity of masking, distancing, and vaccination. For authoritarian Republicans and conservatives, elite discourse should cut against their dispositional need to mitigate threat and discourage health behavioral uptake. Conversely, for non-authoritarian Democrats and liberals, elite cues should cut against their dispositional threat tolerance and encourage the adoption of mask-wearing, distancing, and COVID-19 vaccination. Thus, the indirect effects of authoritarianism should cut against its direct effects, especially among politically engaged citizens. To summarize, I derive two hypotheses:

**H2** Authoritarianism will be associated with greater concern for the threat posed by COVID-19 among politically disengaged citizens, but less concern among politically engaged citizens.

**H3** Authoritarianism will be associated with greater adoption of masking, social distancing, and COVID-19 vaccination among politically disengaged citizens, but reduced uptake of these health behaviors among politically engaged citizens.

**Public Health Restrictions**

Authoritarianism has long been theorized as tapping an individual’s willingness to submit to those who impose order onto an otherwise dangerous, unpredictable world (Altemeyer, 1981; Fromm, 1941). Authoritarians should thus be more willing to cede their freedoms to centralized powers, such as the state, in exchange for collective security. Put succinctly by Hetherington and Weiler (2009), “[w]hen presented with trade-offs that might limit certain civil liberties to buttress safety, those who are more authoritarian will tend to choose safety.”

In the midst of the COVID-19 pandemic, abstract debates regarding the appropriate balance between state authority and personal autonomy came into sharp relief. As cases surged in March 2020, U.S. policymakers acted swiftly to prevent healthcare systems from being overwhelmed. Public health officials urged social isolation and distancing, calling on Americans to eliminate non-essential travel and remain six or more feet apart in public settings. In addition, health officials (after some delay) endorsed mask-wearing to reduce COVID-19’s spread. These recommendations, however, led to considerable elite-level disagreement as to whether masking and distancing should be government-enforced. Compared to Democratic governors, Republican governors were less likely to declare stay-at-home orders and implement restrictions on business operations early in the pandemic. Similarly, by October 2020, every Democratic governor had implemented a statewide mask mandate, while fifteen Republican governors opted not to issue mask mandates. Some

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4 For an overview of governors’ early responses to COVID-19, see: [http://theconversation.com/democratic-governors-are-quicker-in-responding-to-the-coronavirus-than-republicans-135599](http://theconversation.com/democratic-governors-are-quicker-in-responding-to-the-coronavirus-than-republicans-135599).
Republicans went even further in their opposition to mask mandates; Gov. Ron DeSantis, for example, barred Florida cities from assessing fines for non-compliance with local mask mandates, and Gov. Brian Kemp banned local Georgia governments from instituting mask mandates altogether until August 2020.

Democratic elites were willing to implement coercive public health restrictions to enforce compliance with public health recommendations, whereas Republican elites were uneager to use state authority toward these ends. Thus, although authoritarianism likely directly spurred support for public health restrictions during the COVID-19 pandemic as means of enhancing safety, the indirect effects of authoritarianism via partisan-ideological sorting and attention to elite discourse will have exerted pressure in the opposite direction. From this account, I draw a fourth hypothesis:

**H4** Authoritarianism will be associated with support for public health restrictions among politically disengaged citizens, but opposition to such measures among politically engaged citizens.

**Economic Interventionism**

Finally, the COVID-19 pandemic offers an opportune case study to reexamine the relationship between authoritarianism and economic ideology. Recent work in this area has pointed in various directions, arguing authoritarianism spurs economic conservatism (Azevedo et al., 2019); economic liberalism (Arikan & Sekercioglu, 2019; Malka et al., 2019); and both economic conservatism and liberalism, conditional on political engagement (Jedinger & Burger, 2019; Johnston et al., 2017; Malka et al., 2014; Ollerenshaw & Johnston, 2022). To help resolve this conflicting literature, I use the pandemic as a case study to test how authoritarianism affected support for government economic interventionism during an unprecedented crisis.

Alongside the public health threat, COVID-19 caused an acute economic downturn in the U.S. The U.S. experienced two successive quarters of GDP declines in the first half of 2020, and the unemployment rate spiked to a staggering 14.7% in April 2020. In response to these events, the federal government passed the largest economic relief bill in American history—the Coronavirus Aid, Relief and Economic Security (CARES) Act. Key spending in the CARES Act included $300 billion for individual stimulus payments, $260 billion for enhanced unemployment benefits, and $349 billion for forgivable loans to businesses that maintained their employees via the Paycheck Protection Program (PPP).

Though the CARES Act garnered bipartisan support, Congressional Republicans rebuffed calls for significant post-CARES economic spending. Undeterred, the Democratic-controlled House of Representatives passed a $3 trillion relief bill which would have extended enhanced unemployment benefits, sent out additional stimulus payments, and refilled the PPP. Every House Republican present but for one voted against the HEROES Act, and the bill was declared dead-on-arrival to

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5 Data from the Bureau of Economic Analysis and Bureau of Labor Statistics.
the Republican-controlled Senate. In July 2020, Senate Republicans introduced an alternative relief package that would have included funding for a second round of stimulus checks, but slashed unemployment benefits—a non-starter for Democrats. While a small relief bill ultimately passed within an omnibus spending bill, negotiations for a major relief package stalled until Democrats regained full control of the federal government in January 2021. On March 11th, 2021, the American Rescue Plan—a $1.9 trillion intervention into the economy—was signed by President Biden after passing through Congress without a single Republican vote in support.

In sum, after the passage of the CARES Act, Democratic elites continued pushing for unprecedented government interventions into the economy, while Republican elites sought fiscal restraint. Though authoritarianism should have directly increased public support for government intervention into the U.S. economy given the safety net such policies could provide during the pandemic-induced downturn, attention to elite discourse likely cut against these direct effects. I thus draw my fifth and final hypothesis:

**H5** Authoritarianism will be associated with support for economic interventionism among politically disengaged citizens, but opposition to economic interventionism among politically engaged citizens.

**Data**

To test these hypotheses, I use data from three national surveys. To test H2, I examine the probability-based American National Election Study-General Social Survey 2020 Joint Study (ANES-GSS). The ANES-GSS includes 806 respondents who completed both the 2020 ANES post-election survey and the 2020 GSS Panel Study. All analyses of the ANES-GSS utilize the sampling weights provided by the ANES. To test H3-H5, I fielded two surveys through Lucid in October 2020 and September/October 2021 (hereafter, the Lucid 2020 and Lucid 2021 samples) which include health behavior and policy preference measures absent on the ANES-GSS. Both Lucid samples use quotas to draw Census-balanced samples along age, gender, race, and region.6 Past research suggests carefully drawn Lucid samples track well with national benchmarks, and that Lucid samples are well-suited for testing many social scientific research questions (Coppock & McClellan, 2019).7 The Lucid 2020 and Lucid 2021 samples had a total of 1,032 and 2,117 respondents, respectively. All three surveys have the partisanship and ideology items needed to test H1. Additional

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6 The exact Lucid quotas are provided in Online Appendix 1.
7 Scholars have raised concerns regarding rates of inattentiveness among Lucid respondents (Aronow et al., 2020). I applied two attention checks in each survey to screen out inattentive respondents. First, respondents completed a CAPTCHA-style check where they were required to correctly identify pictures with stop signs. Later, respondents were told: “Many people are busy and do not have time to closely follow what goes on in the government. We are interested in whether people read survey questions. To show that you have read this question, please select both “Very interested” and “Somewhat interested” below.” Respondents who failed either attention check are excluded.
details regarding the sampling methodologies of each survey are offered in Online Appendix 1.

**Methodology**

In this section, I outline the key variables used in my analyses. All question wordings are provided in Online Appendix 2.

**Authoritarianism**

To assess authoritarianism, respondents in the ANES-GSS completed a four-item authoritarian childrearing values measure, respondents in the Lucid 2020 sample completed a five-item childrearing values measure, and respondents in the Lucid 2021 sample completed the eight-item measure from Engelhardt et al. (2021). Childrearing values are the most widely employed measure of authoritarianism among political psychologists today (Feldman & Stenner, 1997; Hetherington & Weiler, 2009; Stenner, 2005). Each item asks respondents to choose between two traits that would be good for children to have. Respondents choosing more authoritarian traits (e.g., “obedience” over “self-reliance”) are taken to have more authoritarian dispositions. The benefits of this particular measure are numerous for political science research: its items lack explicit political content (cf. Altemeyer, 1981); it does not suffer acquiescence bias (cf. Adorno et al., 1950); and it is plausibly exogenous to political attitudes (cf. Altemeyer, 1981; Engelhardt et al., 2021; but see Bakker et al., 2021 for recent evidence of political attitudes’ reciprocal influence on personality). Each authoritarianism measure ranges from 0 (non-authoritarian) to 1 (authoritarian) with Cronbach’s alpha internal reliabilities of 0.66, 0.74, and 0.75 in the ANES-GSS, Lucid 2020, and Lucid 2021 samples, respectively.

**Political Engagement**

To assess an individual’s level of political engagement, respondents in both Lucid samples were asked to report their interest in politics, the average number of days per week they spend watching political news, and the answers to a set of factual political knowledge questions. Lucid 2020 respondents were asked six political knowledge questions and Lucid 2021 respondents were asked five. For both samples, the two subjective items (interest in politics and attention to news) were combined, equally weighted, to produce half of respondents’ overall political engagement scores ($\alpha_{2020} = 0.83$, $\alpha_{2021} = 0.83$). The other half of respondents’ engagement scores were assessed by taking the proportion of correct responses to the political knowledge items ($\alpha_{2020} = 0.75$, $\alpha_{2021} = 0.76$). This measure of political engagement is most similar to that used by Johnston et al. (2017). In the ANES-GSS, I use a five-item political knowledge battery as a measure of political engagement since, unfortunately, the ANES political interest items were asked in the pre-election wave, and
thus are not included as part of the ANES-GSS. The political engagement measures range from 0 (disengaged) to 1 (engaged).

**Political Orientation**

To assess left–right political orientation, I create a two-item additive index that combines the standard seven-point partisanship and ideological identity measures ($\alpha_{\text{ANES-GSS}} = 0.83$, $\alpha_{\text{Lucid2020}} = 0.67$, $\alpha_{\text{Lucid2021}} = 0.77$). The ANES-GSS includes an additional response option for those who have not thought much about their liberal-conservative ideological identity; these individuals are recoded to the ideology measure’s midpoint (i.e., “Moderate”). The left–right political orientation index ranges from 0 (left-wing) to 1 (right-wing).

**COVID-19 Concern**

The first COVID-19 dependent variable, personal concern over COVID-19, was assessed in the ANES-GSS with a single item on a five-point scale recoded to range from 0 (not at all concerned) to 1 (extremely concerned).

**Health Behaviors Index**

To assess individuals’ adherence to health behaviors, respondents in both Lucid samples were asked to report how often they wore face masks in public and socially distanced from others.\(^8\) Responses to the masking and distancing items were combined, equally weighted, into indices ranging from 0 (low uptake) to 1 (high uptake) with reliabilities of 0.81 and 0.83 in the 2020 and 2021 samples, respectively. Notably, the means of the health behavior indices in 2020 (0.85) and 2021 (0.65) suggest Americans were less consistent about masking and distancing during the pandemic’s second year.

**COVID-19 Vaccination Status**

Respondents in the Lucid 2021 sample were asked to report their COVID-19 vaccination status. Vaccination status is operationalized as a binary variable taking the values of 0 (unvaccinated) or 1 (fully or partially vaccinated).\(^9\) 71% of respondents in the Lucid 2021 sample reported having been partially or fully vaccinated, a slightly higher rate than the 65% COVID-19 vaccination rate recorded by the Center for Disease Control during the first week of October 2021.

\(^8\) Self-reported health behaviors during the pandemic appear to correspond with real-world behavior (Gollwitzer et al., 2020; Larsen et al., 2020).

\(^9\) The results are near-identical if vaccination status is operationalized as a three-level ordinal variable.
Public Health Restrictions Index

To assess preferences regarding public health restrictions aimed at controlling COV-ID-19’s spread, respondents in both Lucid surveys reported their attitudes toward four policies: (1) restricting business operations; (2) mask mandates; (3) city-wide lockdowns; and (4) allowing state agencies to track cell geolocations to enforce social distancing. In the Lucid 2021 survey, respondents also offered their preferences for (5) COVID-19 vaccine mandates. Responses to these four or five items were combined, equally weighted, into additive indices ranging from 0 (opposition) to 1 (support) with reliabilities of 0.81 and 0.89, respectively.

Economic Intervention Index

To assess preferences toward government economic interventions, respondents in the Lucid 2020 sample were asked about their support for three policy proposals based on provisions of the 2020 CARES Act: (1) extending enhanced unemployment benefits; (2) sending out additional stimulus payments; and (3) refilling the Paycheck Protection Program. Responses to these items were combined, equally weighted, into an index ranging from 0 (opposition) to 1 (support) (α = 0.68). For the 2021 survey, I ask revised questions tailored to the 2021 economic situation, i.e., (1) whether unemployment insurance levels should be increased, decreased, or kept the same; (2) whether government spending should increase to help rebuild the economy or decrease to curb inflation; and (3) whether the government should assist renters given the lapsed eviction moratorium. Responses to these items were combined, equally weighted, into an index ranging from 0 (opposition) to 1 (support) (α = 0.65).

Controls

In all analyses, I control for age, ethnicity, gender, education, region, income, and unemployment. For analyses of the Lucid 2021 sample, I also control for whether respondents reported having had a confirmed or suspected COVID-19 case. Notably, I do not control for partisanship or ideology when testing H2–H5. Consistent with prior research that has tested for the conditional effects of personality on political behavior (Jedinger & Burger, 2019; Johnston et al., 2017; Malka et al., 2014, 2019; Ollerenshaw & Johnston, 2022), my theory assumes authoritarianism’s indirect effects are mediated through partisan-ideological sorting and attention to elite discourse among politically engaged citizens. Including partisanship and ideology in the regression models would thus introduce bias onto the interactions between authoritarianism and political engagement (Baron & Kenny, 1986).

10 These items were not included on the Lucid 2020 survey.
11 In Online Appendix 4, I show that controlling for partisanship and ideology attenuates the interaction of authoritarianism and political engagement, but that the constituent authoritarianism terms are largely unchanged. This is what we would expect to see if mediation via political identities was occurring for politically engaged, but not disengaged, Americans.
Results

My central theoretical claim is that authoritarianism influenced Americans’ responses to the COVID-19 pandemic directly through dispositional threat sensitivities and needs for stability, but also indirectly through dispositional sorting and attention to political discourse. To sustain this claim, the association between authoritarianism and right-wing political orientation would have to be markedly strengthened by political engagement (Johnston et al., 2017; Ollerenshaw & Johnston, 2022). I thus begin my empirical analysis by assessing whether authoritarianism was, in fact, conditionally associated with right-wing political orientation during the pandemic (H1). I perform moderated regression analysis, interacting authoritarianism with political engagement while controlling for the aforementioned covariates. In Fig. 1, I plot the predicted conditional marginal effects of authoritarianism on right-wing political orientation (i.e., Republican and conservative identifications). Point estimates indicate percentage point changes in right-wing orientation at given levels of political engagement.

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12 In Online Appendix 5, I confirm two assumptions of multiplicative interaction models—linearity and common support—hold (Hainmueller et al., 2019).
political engagement. Similar findings emerge across each sample: authoritarianism is unrelated to political orientation among politically disengaged citizens, but strongly associated with right-wing orientation among politically engaged citizens. Indeed, at the highest level of political engagement, authoritarianism has 49-point, 29-point, and 37-point associations with right-wing orientation in the ANES-GSS, Lucid 2020, and Lucid 2021 samples, respectively (all p < 0.001). These results confirm that politically engaged Americans were well-sorted along dispositional lines during the COVID-19 pandemic (i.e., H1).

Having verified that authoritarianism was conditionally related to right-wing orientation during the pandemic, I can now test the consequences of this dispositional sorting for citizens’ responses to COVID-19 (H2-H5). I again use moderated regression, interacting authoritarianism with political engagement while controlling for the aforementioned covariates. Figures 2, 3, 4 and 5 plot the conditional marginal effects of authoritarianism as functions of political engagement for each dependent variable associated with its respective hypothesis.\(^\text{13}\)

**Concern Over COVID-19**

I begin by testing H2 using the ANES-GSS. I hypothesized that authoritarianism would be associated with greater concern over COVID-19 among politically disengaged citizens, but reduced concerns among politically engaged citizens. As can be seen in Fig. 2, I find support for these theoretical expectations. At the lowest level of political engagement, authoritarianism is associated with 19-points greater concern toward COVID-19. At the highest level of engagement, however, authoritarianism is associated with 35-points less concern toward COVID-19. Overall, I find a 53-point difference in the effect of authoritarianism on COVID-19 concerns

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**Fig. 2**: Conditional effects of authoritarianism on concern regarding COVID-19—points are conditional marginal effects of authoritarianism as a function of political engagement with 95% confidence intervals. *Source*: ANES-GSS

\(^{13}\) In Online Appendix 6, I present alternative figures depicting predicted values when authoritarianism is held at 0 and 1 to show both authoritarians and non-authoritarians exhibit different behaviors and preferences as functions of political engagement.
from the minimum to maximum levels of political engagement (p < 0.001). Looking at predicted changes for authoritarians vs. non-authoritarians, I find this reversal effect is driven by decreasing concern regarding COVID-19 among authoritarians and increasing concern among non-authoritarians as a function of political engagement (Online Appendix 6).

**Health Behaviors**

Having established that Americans are differentially concerned by COVID-19 as functions of authoritarianism and political engagement, I next test H3 regarding their health behavior uptake during the pandemic. As shown in Fig. 3, in 2020, authoritarianism was associated with greater adoption of masking and social distancing, but only among politically disengaged citizens. At the lowest level of engagement, authoritarianism is associated with 17-points greater uptake of these behaviors. As expected, however, this association reverses with political engagement. Indeed, at the highest level of engagement, authoritarianism is associated with a 7-point reduction in health behavior uptake. Overall, I estimate a 24-point difference in the effect of authoritarianism on masking and distancing uptake as a function of political engagement in 2020 (p = 0.006). This reversal is driven both by decreased health behavior uptake among authoritarians and increased uptake among non-authoritarians as engagement increases.

In the Lucid 2021 sample, I examine two health behavioral indicators: the first akin to the Lucid 2020 measure of masking and distancing, the second related to COVID-19 vaccination. As can be seen in Fig. 3, authoritarianism was not significantly related to masking and distancing for the politically disengaged in 2021, and authoritarianism was only weakly related to reduced masking and distancing for the politically engaged. Contrary to H3, political engagement did not significantly moderate the association between authoritarianism and masking/distancing in 2021 (p = 0.404). However, as shown in Fig. 3, authoritarianism was conditionally associated with COVID-19 vaccination status—an especially crucial protective health behavior at this stage of the pandemic. Among the least politically engaged Americans, authoritarianism is associated with a 15-point greater likelihood of having been at least partially vaccinated for COVID-19. At the highest level of engagement, however, authoritarianism is associated with an 18-point reduced likelihood of having been vaccinated for COVID-19. This 33-point difference taken from the minimum to maximum values of political engagement is substantively and statistically significant (p = 0.011). Interestingly, this result is mostly driven by drastically higher vaccination rates among non-authoritarians who are politically engaged versus disengaged. Thus, though the conditional link between authoritarianism and protective behaviors like masking and distancing waned in the pandemic’s second year,

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14 This relationship is modeled using logistic regression.
authoritarianism was a powerful predictor of COVID-19 vaccination uptake. With the exception of the masking/distancing result in 2021, these results support H3.

**Public Health Restrictions**

Next, I test H4, the hypothesis regarding public health restrictions. In Fig. 4, I plot the conditional marginal effects of authoritarianism on support for public health restrictions as functions of political engagement. In the Lucid 2020 sample, at the lowest level of political engagement, authoritarianism is associated with 20-points greater support for public health restrictions. This association, however, reverses sign with increased political engagement; indeed, authoritarianism is associated with 13-points less support for public health restrictions at the highest level of political engagement. Overall, I find a 33-point difference in the effect of authoritarianism on preferences towards COVID-19 public health restrictions as a function of political engagement in the Lucid 2020 sample (p = 0.001). This result offers support for H4.

Turning to the Lucid 2021 sample, the reversal pattern observed in the 2020 sample is largely replicated. At the lowest level of political engagement, authoritarianism is associated with 10-points greater support for public health restrictions. At
the highest level of engagement, however, authoritarianism is associated with an 18-point reduction in support for such measures. From the minimum to maximum levels of political engagement, there is a 28-point difference in the effect of authoritarianism on support for public health restriction (p = 0.001). Notably, for both the 2020 and 2021 analyses, these reversals are driven by reductions in support for public health restrictions among authoritarians and increases in support for health restrictions among non-authoritarians as a function of political engagement. Thus, I find support for H4 in both surveys.

**Economic Interventions**

Finally, I examine H5 regarding the conditional associations of authoritarianism to preferences for government economic interventionism during the COVID-19 pandemic. In Fig. 5, I plot the conditional marginal effects of authoritarianism on support for economic interventionism as functions of political engagement. For the 2020 Lucid sample, I find authoritarianism is associated with 10-points greater support for the CARES-style economic policies among the least engaged citizens. However, this association is attenuated with political engagement, eventually reversing sign among highly engaged Americans. Indeed, at the highest level of political engagement, authoritarianism is associated with 7-points less support for CARES-style economic interventionism. Taken from the minimum to maximum levels of engagement, there is an estimated 17-point difference in the effect of authoritarianism on support for CARES-style economic interventions (p = 0.036). While the estimated effects are smaller here than those found in the other domains, they are not dissimilar to those found in a recent study that used Lucid samples to assess the conditional associations of personality traits to economic preferences (i.e., Ollershaw & Johnston, 2022). Here, the reversal effect is driven by a large increase in

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Fig. 4 Conditional effects of authoritarianism on support for COVID-19 public health restrictions—points are conditional marginal effects of authoritarianism as a function of political engagement with 95% confidence intervals. **Source** Lucid 2020, Lucid 2021

15 Breaking out the 2020 economic intervention index, the relationship between authoritarianism and support for government interventions is strongly moderated when looking at support for enhanced unemployment insurance (β = -0.369, SE = 0.111, p = 0.001), weakly moderated for the Paycheck Protection Program (β = -0.137, SE = 0.093, p = 0.139), and unmoderated for stimulus payments (β = 0.005,
Turning to the Lucid 2021 sample, I again find a highly contingent relationship between authoritarianism and preferences for economic intervention. Here, authoritarianism is associated with 11-points greater support for economic interventionism among the least politically engaged citizens, but 24-points less support for interventionism among the most engaged citizens. From the minimum to maximum levels of political engagement, I find a substantial 35-point difference in the effect exerted by authoritarianism on support for economic interventionism in the Lucid 2021 sample (p < 0.001). Unlike in 2020, the reversal in 2021 is the product of shifts in economic preferences for both authoritarians and non-authoritarians as a function of political engagement. Further, in both 2020 and 2021, authoritarianism was associated with greater support for economic interventionism among low-income respondents who are politically disengaged, but opposition to economic interventionism among low-income respondents who are politically engaged (Online Appendix 7). These results demonstrates that a subset of economically insecure, but politically engaged Americans are willing to eschew their dispositional and material interests in order to maintain attitudinal, identity-based resonance with partisan-ideological elites. Overall, these results support H5.

Footnote 15 (continued)
SE = 0.095, p = 0.958). This in line with the theoretical expectation that policies with less bipartisan support (e.g., unemployment benefits) would see the most substantial indirect effects of dispositions via attention to elite discourse relative to bipartisan policies (e.g., stimulus checks).

![Fig. 5 Conditional effects of authoritarianism on support for COVID-19 economic interventions—points are conditional marginal effects of authoritarianism as a function of political engagement with 95% confidence intervals. Source Lucid 2020, Lucid 2021](image-url)
Discussion

In this paper, I sought to clarify how authoritarianism related to Americans’ responses to the COVID-19 pandemic. Analyzing three national U.S. surveys fielded during the pandemic, I found that authoritarianism was conditionally associated with concerns, health behaviors, and policy preferences related to COVID-19. For politically disengaged Americans, authoritarianism was generally associated with greater concern over COVID-19, the adoption of protective health behaviors, support for public health restrictions, and support for economic interventionism amid the pandemic-induced downturn. For citizens highly engaged with politics, however, authoritarianism had the exact opposite effects in each of these domains. My analyses thus demonstrate that the direct effects of authoritarianism were countervailed by its indirect effects mediated through partisan-ideological sorting and attention to polarized elite discourse.16 These indirect effects are weak for politically disengaged Americans, who are neither well-sorted nor particularly attuned to political discourse, but quite strong among politically engaged Americans who are well-sorted dispositionally and highly attentive to polarized elite-level cues. In this way, many Republicans/conservatives and Democrats/liberals ended up responding to COVID-19 in ways entirely at odds with their dispositional orientations toward threat and social instability.

Before proceeding further, it is worth noting that the Lucid studies should not be taken as providing unbiased estimates of authoritarianism’s overall effects on Americans’ COVID-19 responses. Based on my results, the overall estimated effect of authoritarianism will depend upon the distribution of political engagement in the sample. The distributions of political engagement in the Lucid studies likely do not mirror that of the U.S. populace since non-probability samples often include more politically engaged respondents than national benchmarks suggest should be present (Kennedy et al., 2016). Thus, authoritarianism’s net estimated effects likely would have differed had probability-based samples like the ANES-GSS been available for the entire analysis. However, though the non-probability samples are inappropriate for estimating authoritarianism’s overall effects on Americans’ responses to COVID-19, these samples are well-suited for testing whether authoritarianism exerted conditional effects as a function of political engagement.

In addition, it is worth directly addressing the issue of causality. A central contention of this study is that Americans sort into partisan-ideological camps based on their dispositions and, in turn, align their behaviors and attitudes to comport with ingroup elites (or, alternatively, to distinguish themselves from their outgroup’s elites; Nicholson, 2012). Most political psychology research has assumed that personality unidirectionally influences political attitudes, identities, and behavior. However, Bakker et al. (2021) challenge this foundational assumption and argue that psychological traits, including authoritarianism, are at least partially endogenous to

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16 In Online Appendix 8, I demonstrate that estimating the unconditional effects of authoritarianism would lead one to incorrectly conclude that authoritarianism had very weak associations with Americans’ COVID-19 responses.
political attitudes. Looking at panel surveys, Bakker et al. find lagged cultural policy preferences and ideological identity predict authoritarianism. Further, in experiments, Bakker et al. show that political identity primes cause liberals and Democrats to report lower levels of authoritarianism. These results suggest a possible reciprocal influence of political attitudes on authoritarianism—an issue of reverse causality.

The key threat to assessing causality in the present study is the possibility that Americans adopt authoritarian dispositions based on their political attitudes and identities. However, there are good reasons to believe reverse causality is not a major threat to inference in these cases. In the Lucid surveys, respondents completed the authoritarian childrearing values measures before answering any questions about political attitudes or identities—an ideal design for attenuating any political priming effects on personality self-reports. Bakker et al. (2021) also report that the effects of political attitudes on personality reports are not conditioned by political sophistication (though they caveat this by noting that their tests may simply lack statistical power). That I find such drastically different effects of authoritarianism as a function of political engagement likely cannot be reduced down to biased self-reporting of authoritarianism alone. Finally, while Bakker et al. make an extremely valuable contribution, Engelhardt et al. (2021) offer similar tests and conclude that authoritarianism is, in fact, exogeneous to political attitudes. Examining ten political attitudes/identities across two panel surveys, Engelhardt et al. find every lagged item fails to predict authoritarianism except for one incorrectly signed case (i.e., Tea Party support predicting decreased authoritarianism). Grappling with the possibility of reverse causality is long overdue for political psychologists; however, the best evidence to date remains equivocal on whether authoritarianism measured using childrearing values is endogenous to political attitudes and identities.

Conclusion

Amidst a raging pandemic, an apparent challenge to a longstanding political psychology literature emerged as American conservatives, despite their well-established dispositional threat sensitivity, adopted behaviors and policy preferences which likely exacerbated the health and financial risks they faced during the COVID-19 pandemic. Conversely, liberals, despite their non-authoritarian, threat tolerant dispositions, emerged as enthusiastic supporters of protective health behaviors and public health restrictions aimed at quelling the spread of COVID-19. I resolve this puzzle by identifying the contingent link between authoritarianism and Americans’ responses to the COVID-19 pandemic, one predicated on partisan-ideological sorting along dispositional lines and differential attention to elite discourse.

This analysis makes important contributions to several active areas of research across the political and psychological sciences. Centrally, the present study speaks to ongoing debates regarding the role of psychological dispositions in shaping mass political attitudes and behavior. One significant contribution of this study is that it extends the reversal hypothesis, originally derived by Johnston et al. (2017) to explain economic preference formation, into three previously untested domains: concern over COVID-19, health behavioral uptake, and support for public health
restrictions. I find the effects of authoritarianism reverse as a function of political engagement in all three cases, which suggests dispositions also exert heterogenous effects beyond the economic domain where the reversal hypothesis was initially forwarded. My findings also support Johnston et al.’s original, but contested (Azevedo et al., 2019), claim that the relationship between authoritarianism and economic ideology in the U.S. is maintained by the sorting of citizens into partisan-ideological camps whose elites espouse economic views at odds with their supporters’ dispositional preferences. Analyzing Americans’ preferences toward government interventions into the tumultuous COVID-19 economy, I twice conceptually replicate the findings of Johnston et al. (2017). Taken altogether, these results offer support for recent theoretical accounts which posit that dispositions and political context jointly influence political behavior (Federico & Malka, 2018; Johnston & Ollerenshaw, 2020; Malka et al., 2014).

Additionally, my findings may offer some insight into comparative responses to COVID-19. Conditional relationship between dispositions and political attitudes are not exclusive to the U.S., though extant studies outside of the U.S. have largely been aimed at understanding economic preference formation (e.g., Arikan & Sekercioglu, 2019; Jedinger & Burger, 2019; Malka et al., 2019). Applying similar theories towards explaining responses to COVID-19, the U.S. provides an ideal test case for what is likely a cross-national phenomenon. While I cannot provide direct evidence on this point, my findings suggest authoritarianism will be conditionally associated with public responses to COVID-19 in non-U.S. contexts where (1) the public is dispositionally well-sorted and (2) political elites are polarized in ways that places them at odds with sorted citizens’ dispositional orientations toward threat and social instability. To offer a specific example, I would expect for authoritarianism to have exerted conditional effects on the Brazilian public’s responses to COVID-19 because right-wing authoritarians are supportive of President Jair Bolsonaro, a leader who engaged in concerted efforts to downplay COVID-19’s severity and opposed even modest public health restrictions (Canineu & Muñoz, 2021). A potentially fruitful avenue for future research in this area would involve assessing how authoritarianism affected public responses to COVID-19 in political contexts characterized by different levels and configurations of elite- and mass-level political polarization.

Finally, and perhaps most importantly, this study has implications for understanding how political discourse affects the public’s responses to national crises. My results suggest elite-level political discourse simultaneously spurred the uptake of protective health behaviors like masking and vaccination among politically engaged non-authoritarians, but reduced the adoption of these potentially life-saving behaviors among politically engaged authoritarians. Similarly, elite-level discourse seems to have spurred support for public health restrictions among politically engaged non-authoritarians, but reduced support for such measures among engaged authoritarians. While it is beyond the scope of this paper to determine whether, on net, elite discourse produced a more or less optimal public response to the COVID-19 pandemic in the U.S., these results do suggest that stronger bipartisan advocacy on behalf of public health recommendations may have reduced recalcitrance among some segments of the U.S. public toward effective means of controlling the COVID-19 pandemic. Had such a consensus been maintained, the U.S. may have been able.
to avoid some portion of the more than one million and counting COVID-19 deaths the country has experienced since the pandemic’s outset.

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Declarations

Conflict of interest  The author declares they have no financial or non-financial conflict of interest.

Ethical Approval  The questionnaire and methodology for this study was approved by the Institutional Review Board of Duke University (IRB #: 2021-0112).

Informed Consent  Informed consent was obtained from all participants included in the study.

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