

WHERE MOTIVATED REASONING WITHERS AND LOOMS LARGE: FEAR AND PARTISAN REACTIONS TO THE COVID-19 PANDEMIC

Isaac D. Mehlhaff*
Graduate Student
Department of Political Science
The University of North Carolina at Chapel Hill
mehlhaff@live.unc.edu

Timothy J. Ryan
Associate Professor of Political Science
Department of Political Science
The University of North Carolina at Chapel Hill
tjr@email.unc.edu

Marc Hetherington
Raymond Dawson Distinguished Bicentennial Professor
Department of Political Science
The University of North Carolina at Chapel Hill
marcj@email.unc.edu

Michael MacKuen
Distinguished Professor of Political Science
Department of Political Science
The University of North Carolina at Chapel Hill
mackuen@email.unc.edu

WHERE MOTIVATED REASONING WITHERS AND LOOMS LARGE: FEAR AND PARTISAN REACTIONS TO THE COVID-19 PANDEMIC

Abstract

Contemporary American politics has been largely characterized by hyper-partisanship and polarization, with partisan motivated reasoning a thematic concern. Theories of emotions in politics suggest that anxiety might interrupt partisan heuristics and encourage citizens to reason more evenhandedly—but in what domains and to what extent? We use original panel data to assess how anxiety about becoming seriously ill from Covid-19 interacted with partisan attachments to shape political judgment during the Covid-19 pandemic. The structure of our data allows us to assess large-scale implications of politically relevant emotions in ways that so far have not been possible. We find large effects on policy attitudes: Republicans who were afraid of getting sick rejected signals from co-partisan leaders by supporting mask mandates and the like. Effects on vote choice were muted in comparison, but, in a race as close as the 2020 presidential election, were potentially large enough to have been pivotal.

Under the right conditions, Americans can make leaders feel their wrath. Public exasperation with the Hoover administration's apparent indifference to economic suffering during the Great Depression brought about one of the great electoral landslides in American history. However, political fallout from the 1918 Spanish Flu pandemic, which killed well over half a million Americans, was minimal. Timing is surely one reason for the difference; Spanish Flu deaths reached their peak two years before the 1920 election, and the pandemic itself ended seven months in advance of it. In addition, Achen and Bartels (2016) argue that political accountability has an indispensable ingredient: competing parties must politicize the disruption. Because Americans 100 years ago did not believe political leaders could slow a pandemic, the party out of power did not cast aspersions, and the crisis had little electoral effect.

The Covid-19 pandemic would seem to have more in common with the Great Depression than the Spanish Flu. It was timed exquisitely for political effect: the first Covid-related deaths in the United States were reported during the same week that Joe Biden vanquished Bernie Sanders in Super Tuesday primaries, marking a start to the general election season. And there is no question that the pandemic was politicized. President Trump and the government officials he oversaw appeared in daily televised pandemic briefings, and the quality of the government's response—the availability of testing, guidelines for whether and how businesses and schools could operate, and masking guidance, among other topics—became the focus of endless jousting and recrimination. Joe Biden's keynote speech at the Democratic National Convention identified the pandemic as one of four historic crises that his presidency would address.

Yet despite often disastrous performance in handling Covid-19, the incumbent barely lost. Perhaps that is because the pandemic also occurred during a century's high in political polarization. As many others have noted, Americans are grievously divided with respect to the

media they consume (Prior 2007), the social groups with which they affiliate (Mason 2018), and their feelings toward people aligned with the other political party (Iyengar et al. 2019). These patterns have the potential to shape the information citizens receive and to aggravate partisan motivated reasoning, the tendency to uncritically accept congenial political messages while dismissing uncongenial messages (e.g. Lodge and Taber 2000; Stroud 2011; Zaller 1992), dampening political accountability.

Here, we work to characterize how partisan motivated reasoning played out in the context of the Covid-19 pandemic. We theoretically ground our investigation in a literature on the role of emotions in politics. As we discuss below, anxiety can attenuate usual patterns of motivated reasoning. It has the potential to elevate citizens' accuracy goals relative to directional goals (Kunda 1990), thereby inducing them to carefully consider and perhaps even reject nonsense being promulgated by co-partisan elites. Because the Covid-19 pandemic was a genuine—possibly mortal—threat for millions of Americans and because it remained so for months, the legitimate fears it spawned might have interrupted partisan motivated reasoning in particularly impressive fashion.

The pattern of influence we uncover reveals where motivated reasoning withers under pressure—and where it looms large. Using panel survey data that were collected between April 2020 and Election Day, we characterize the role that anxiety played in bringing about departures from partisan habits. After validating our measure of anxiety by tracing it to pandemic-related events and a variety of individual differences, we examine the extent to which the emotion is associated with Republicans breaking from the party line on policies designed to mitigate the pandemic. Here we find a substantial relationship: Republicans who were worried about getting sick endorsed (in droves, and *contra* plentiful party messaging) mask mandates, stay at home

orders, business closures, mandatory testing, and the like. Anxiety was also associated with increases in self-reported information search about Covid-19 and more accurate knowledge about it, including a fact (whether Covid-19 is more dangerous than the flu) that was subject to politicized dispute. These patterns demonstrate that, at least in this dire circumstance, party influence has its limits.

Next, we examine the extent to which anxiety influenced vote choice in the 2020 Presidential election. We show that widespread fear and fundamental policy disagreement with President Trump on Covid-19 punctured the party loyalty of only a small percentage of Republicans. In this realm, partisan habits held firm. That is not to say that anxiety had no influence on voting, however. Exit polls revealed that Biden won independent voters by 13 percentage points, the largest advantage a candidate enjoyed among this group in 40 years, not to mention a dramatic swing compared to 2016 when Trump won independents by four points.¹ Our investigation suggests why: Independents expressing the highest level of fear of Covid-19 were a staggering 50 percentage points less likely to vote for Trump compared to those expressing the lowest level of fear.

With the Electoral College result so close, pandemic-driven anxiety might well have been pivotal in the outcome. Along with Biden's remarkable showing among independents, our results indicate that concerns about becoming seriously ill from Covid-19 may have been responsible for enough Republican defections to underwrite his razor-thin victories in Arizona, Georgia, and Wisconsin, the combination of states that decided the winner. At the same time, our findings

¹ This is based on analysis conducted by the authors of presidential election exit poll data from 1980-2020 archived at the Roper Center.

elucidate why trouncings of Rooseveltian proportions are a thing of the past: Even in singularly dire circumstances—a pandemic that has, to date, slain more than 700,000 Americans—citizens’ abilities to assess accountability and mete out electoral reward or punishment remain befouled by partisanship.

Partisanship and its Emotional Limits

Most individuals’ political opinions—we are hardly the first to note—are deeply rooted in their sense of partisan identity. Citizens unthinkingly endorse policies favored by co-partisan leaders (Prior 2007). They express more economic optimism and spend more money when their party is in control (Gerber and Huber 2010). They presume negative information about out-partisan politicians to be true, while meeting similar information about co-partisan politicians with skepticism (Guay and Johnston forthcoming; Ryan and Aziz forthcoming). Not only does the psychology of partisanship seep into almost every facet of the political sphere, but levels of affective polarization—feelings of hostility toward the political outgroup—are at historically high levels (Iyengar et al. 2019; Pew Research Center 2019). Many partisans are even willing to engage in outright discrimination against citizens who belong to the competing political party (Iyengar and Westwood 2015; Lelkes and Westwood 2017; McConnell et al. 2018).²

While it is normal for partisanship to influence political opinions and preferences, researchers have elucidated conditions that induce citizens to depart from habit and place more

² These patterns break down for some people on some issues (Bullock 2011; Arceneaux and Vander Wielen 2017) and appear to depend to some extent on features of the broader political system, such as parties’ ideological coherence (Brader, Tucker, and Duell 2013).

weight on current information. An important factor appears to be the emotions that circumstances cause citizens to feel. Emotions are widely regarded as serving a directive function, orienting people toward contextually appropriate adaptive behavior (Tooby and Cosmides 2008). As Albertson and Gadarian write, “Not only do emotions make us feel something, they also encourage us to *do something*” (2015, 5). In the nonpolitical world, smelling rotten meat might, for example, cause a person to experience disgust, which in turn would induce them to avoid eating or touching the meat (Rozin, Haidt, and McCauley 2008). To flesh out political significance of emotions, Marcus, Neuman, and MacKuen (2000) developed the theory of Affective Intelligence. The extent to which citizens experience combinations of enthusiasm and fear (posited to be associated with mental “disposition” and “surveillance” systems, respectively) determine the extent to which they rely on habit or engage in effortful thinking about current events.

Although subsequent work contested some specifics of the Affective Intelligence model, including whether it is better to conceptualize emotions discretely rather than as the output of two overarching systems (Lerner and Keltner 2001), the precise consequences of anger (Ryan 2012; Valentino et al. 2011), and the exact conditions that induce specific emotions (Steenbergen and Ellis 2006), these studies affirmed that emotions aroused by political messaging and events have the capacity to shape the processes by which citizens arrive at their political judgments.³

³ See Brader and Marcus (2013) for a broad review of this literature.

The clearest point of convergence concerns the role of anxiety.⁴ Anxiety is conceptualized as an unpleasant, aversive emotional state—the emotional response to threat—that causes people to take protective measures (Eysenck [1992] 2014). Numerous experiments corroborate that anxiety can heighten attention and motivate people to seek information relevant to coping with a threat. For instance, Valentino et al. (2009) use a writing task to induce anxiety and document large increases in subjects’ propensity to visit a political candidate website to gather more information. MacKuen et al. (2010) show that presenting participants with counter-attitudinal information induces anxiety and causes them to read more deeply (see also Redlawsk, Civettini, and Lau (2007) for a similar study). Brader, Valentino, and Suhay (2008) find that exposing participants to news stories about economic costs of Latino immigration induces anxiety and, in turn, heightens desire for information about immigration.⁵

⁴ Previous authors on this topic frequently use the words “anxiety,” “fear,” “worry,” and “concern” interchangeably, (see, among others, Marcus et al. 2006; Marcus, Neuman, and MacKuen 2017; Watson 1988). “Anxiety” is most common when referring to underlying psychological processes, but survey items measuring anxiety commonly use the other words, since they are more common and since “anxiety” can sometimes (unintentionally) connote a kind of nervous, eager excitement (e.g. “I was anxious to get to the dance.”). We refer to “fear” as the operationalization of anxiety in this case.

⁵ We note two departures from the broader trend. In an online field experiment, Ryan (2012) finds null effects of an anxiety treatment on information-seeking. Brader (2006, ch. 4) finds induced enthusiasm—but not anxiety—to stimulate interest in a political campaign.

A finding that has particular relevance for our present undertaking is that the shift in processing style associated with anxiety has the potential to interrupt partisan habits (Marcus and MacKuen 1993). In a landmark essay on motivated reasoning, Kunda (1990) distinguishes between accuracy goals (using the best available information to reason one's way toward a correct answer) and directional goals (using information to corroborate a preferred, likely partisan, conclusion). Scholars have found that anxiety promotes accuracy goals, as it reflects the need to respond to a threat with high-quality information. In this vein, adding anxiety-inducing scary music to a campaign advertisement decreases the impact of long-held predispositions on participants' vote choices and increases their reliance on current issue evaluations (Brader 2006, ch. 5). Anxiety can also buttress trust in policy actors responsible for addressing a problem. In an especially prescient pair of studies, Albertson and Gadarian (2015, ch. 4) induce anxiety about a breakout of H1N1 (swine flu) and a new smallpox variant. They find that trust in relevant experts (e.g. doctors and the Centers for Disease Control and Prevention) increased substantially.

Although there is a substantial evidence base linking anxiety to heightened attention and decreased partisan motivated reasoning, it bears notice that it draws almost entirely from randomized experiments. This methodological pattern results in some ambiguity about how the political effects of anxiety will scale to a real-world context (see Barabas and Jerit 2010 for a related discussion). In particular, ethical considerations restrict experiments to inducing a *small* degree of anxiety, generally delivered in the course of a single experimental sitting (often just a few minutes).⁶ But anxiety's political effects might mount if the dose is larger (Silverman,

⁶ Thus, at least some researchers explicitly limit their theoretical predictions to the "low levels of uneasiness associated with typical public policy debates" (MacKuen et al. 2010, fn. 3),

Kaltenthaler, and Dagher forthcoming), or endures over a longer period of time (Redlawsk, Civettini, and Emmerson 2010). Additionally, although many experiments examine anxiety in conjunction with partisanship, it is difficult to mimic in a laboratory context the extreme volume and intensity of partisan messaging that occurs during a presidential election. Simply put, the emotions in politics literature might benefit from some methodological pluralism, particularly work that helps characterize how emotions shape responses to real political events.

Few naturally occurring events afford researchers the opportunity to study the effects of anxiety using observational data. Hurricanes and financial depressions might cause widespread anxiety, but in a way correlated with confounding factors such as socioeconomic status. The Covid-19 pandemic has certain advantages vis-à-vis understanding anxiety in politics. It presented an acute threat to nearly *all* Americans—from city dwellers to indigenous people living in the most remote Alaskan hamlets (Baker and Kovalski 2020). It also swelled and waned idiosyncratically for more than a year. These properties make it an especially revealing case, as we elaborate below.

Hypotheses

Broadly speaking, we expect anxiety to promote citizens' accuracy goals at the expense of partisan directional goals. We examine such relationships in three separate domains: policy support, information acquisition, and vote choice. In the policy domain, the Republican Party, led by Donald Trump, actively argued against mitigation measures such as mask mandates and business closures (Summers 2020), even though these measures had widespread support from public health experts (Berman 2020). Naturally, we expect fear to predict support for mitigation measures. But moreover, we expect this relationship to be stronger for Republicans (for whom

accuracy and directional goals would be in conflict) than for Democrats (for whom they run in the same direction). Because Democrats' support for mitigation was very high across time, moreover, the effect of fear will encounter ceiling effects among Democrats that it will not among Republicans.

Searching for information about the pandemic and developing knowledge about it are distinct from policy support, though they might be conceptualized as mechanisms undergirding policy support. During the summer and fall of 2020, Republican leaders, eager to revitalize the American economy before the November presidential election, attempted to downplay the danger of Covid-19, for instance by arguing that it was no more dangerous than the flu (Specht 2020). We expect fear to predict resistance to this messaging, particularly for Republicans, again because fear will be most efficacious where accuracy and directional goals are in tension.

Finally, we examine fear as a predictor of vote choice in the 2020 presidential election. This a hard test. There is arguably no more quintessential expression of partisan identity than presidential vote choice, since the volume of political messaging and overall salience of political considerations are at their absolute peak; motivated reasoning should be at its strongest here. But it is also a critical test, as it provides a window on the robustness of political accountability. As we write above, the crisis was incredibly disruptive, highly politicized, and the federal government's crisis management was woefully inadequate (e.g. Wright 2021). If even these circumstances result in few defections from a party standard bearer, as exit polls seemed to suggest, we must conclude that anxiety's capacity to countervail troubling trends toward deeper electoral polarization is limited in at least one important sense.

A remaining question is what the political effects of anxiety should be among political independents. We expect anxiety to be particularly efficacious among independents, since in this

group there is no partisan heuristic for anxiety to overcome or ceiling of support to run into. This has the potential to be particularly important in the context of presidential vote choice. Not rooted by partisanship, independents' negative emotional reactions to an issue as ubiquitous as Covid-19 was in 2020 may have contributed to Biden's strong showing among this group.

Data and Methods

To examine how pandemic-induced anxiety shaped opinions and modified partisan habits, we turn our attention to survey data collected during the Covid-19 pandemic. In April of 2020, we contracted with Qualtrics to collect a sample of American adults, targeted to meet Census benchmarks for race, gender, education level, and income. We conducted follow-up interviews in June, September, and October. For each follow-up, Qualtrics began by inviting individuals who had completed one or more prior waves. Typically, approximately half of these individuals responded. Next, Qualtrics attempted to minimize attrition bias by replenishing the sample, again with attention to our Census targets (see Deng et al. 2013; Hirano et al. 2001 on using refreshment samples to handle attrition). We use the separate cross-sections to provide descriptive evidence supporting our hypotheses.

Although each cross-section aligns with our Census targets, differential attrition may cause our panel sample to diverge from those targets.⁷ Our goal in utilizing a panel design, however, is not necessarily to estimate population average treatment effects. Rather, we are primarily concerned with estimating credible in-sample treatment effects among a group of

⁷ See the Supplementary Information for distributions of all demographic and dependent variables among both cross-sectional and panel samples.

panelists that is diverse across a wide range of variables, including partisanship (see Franco et al. 2017 on population versus in-sample effect estimates). Table 1 clarifies how many participants in each wave had participated in prior waves. Together, the four waves provided an unbalanced panel of 2,318 verified respondents, including 469 who participated in all four surveys.

Table 1: Field Dates and Observations in Panel Survey

	Completed wave 1 (April)	Completed wave 2 (June)	Completed wave 3 (September)	Completed wave 4 (October)	Completed all waves after initial enrollment
Started in wave 1	2,194	1,330	874	706	469
Started in wave 2		512	230	162	126
Started in wave 3			1,294	557	557
Started in wave 4				1,016	1,016
Total	2,194	1,842	2,398	2,441	2,168

We examine support for five pandemic-relevant policies: mask mandates, stay-at-home orders, lockdowns requiring businesses to close, monitoring of public spaces by police, and mandatory Covid-19 testing even for asymptomatic individuals.⁸ Next, we assess the influence of anxiety on information search and knowledge about Covid-19 based on analysis of survey waves 1 and 2. Finally, we use our wave 4 sample to examine respondents' vote intentions in the 2020 presidential election. These data were collected from October 22 through November 3, 2020, with collection ending the day of the election.

⁸ See the Supplementary Information for full item wordings.

Validating a Measure of Anxiety

Critics of survey-based emotions in politics studies argue that a strong correlation between expressed emotions and party identification undermines the endeavor (Ladd and Lenz 2008).⁹ Before proceeding, we must establish that our measure of fear depends on factors other than politics. To measure fear of getting sick from Covid-19, we ask respondents, “How concerned are you that you will become seriously ill from the coronavirus outbreak?” with four ordered response options ranging from “not at all concerned” to “very concerned.” We estimate variation in anxiety as a function of partisanship as well as several other potential antecedents: social characteristics reflecting groups hit particularly hard by Covid-19, including age and race; personality traits like neuroticism and perceived vulnerability to disease (Duncan, Schaller, and Park 2009); personal experiences such as knowing someone who died from Covid-19; and contextual factors such as cases and deaths per capita in a respondent’s home county (The New York Times 2020).

The results appear in Table 2. The four columns on the left include estimates for all respondents. The four columns on the right reflect an analysis of Republicans only. Starting with the full sample models, we find that although party identification is consistently associated with fear of Covid-19, so too are knowing someone who has died from it, being older, and being either Hispanic or Asian American relative to being white. When personality items are available in specific survey waves, they are strongly associated with fear. People who score higher on neuroticism and agreeableness traits express more fear, while those who score higher in

⁹ Anxiety is indeed correlated with our measure of party identification. The association, however, is not especially strong, ranging from $r = -0.147$ in Wave 1 to $r = -0.29$ in Wave 4.

conscientiousness express less. Those who perceive they are more vulnerable to getting sick in general also express much more fear about Covid-19 specifically. In waves 2 and 3, the number of per capita deaths in the respondent's home county is positively associated with fear of Covid-19. In short, partisanship matters, but it is far from the only thing that matters.

Table 2: Determinants of Fear among Republicans and All Respondents

	<u>Full Sample</u>				<u>Republicans Only</u>			
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 1	Wave 2	Wave 3	Wave 4
Extraversion	0.039 (0.044)				0.009 (0.068)			
Agreeableness	0.196* (0.052)				0.255* (0.077)			
Conscientiousness	-0.187* (0.051)				-0.216* (0.080)			
Neuroticism	0.269* (0.052)				0.497* (0.087)			
Openness	0.036 (0.047)				0.138 (0.075)			
Perceived vulnerability		0.625* (0.053)				0.716* (0.092)		
Independent	-0.581* (0.147)	-0.629* (0.153)	-0.816* (0.144)	-0.475* (0.146)				
Republican	-0.392* (0.097)	-0.689* (0.113)	-0.853* (0.100)	-1.033* (0.099)				
Party strength					-0.127 (0.529)	0.586 (0.666)	-1.251* (0.551)	-0.099 (0.527)
Know victim	0.635* (0.135)	0.566* (0.177)	0.494* (0.139)	0.470* (0.144)	0.717* (0.212)	0.614* (0.302)	0.869* (0.243)	0.348 (0.259)
Cases per capita	0.037 (0.068)	0.031 (0.122)	-0.034 (0.071)	0.016 (0.044)	0.227 (0.118)	-0.287 (0.237)	-0.077 (0.099)	0.013 (0.079)
Deaths per capita	0.021 (0.041)	0.476* (0.154)	0.382* (0.148)	0.052 (0.161)	-0.048 (0.067)	0.484* (0.244)	0.492* (0.204)	-0.054 (0.227)
Asian	0.688* (0.188)	0.602* (0.176)	0.770* (0.195)	0.291 (0.193)	0.344 (0.352)	1.070* (0.340)	0.985* (0.349)	1.085* (0.384)
Black	0.189 (0.184)	0.245 (0.144)	0.001 (0.132)	0.230 (0.132)	0.447 (0.620)	0.914* (0.453)	0.477 (0.422)	1.127* (0.406)
Latinx/Hispanic	0.401* (0.184)	1.008* (0.144)	0.728* (0.132)	0.822* (0.132)	0.929* (0.132)	1.619* (0.453)	1.049* (0.422)	1.269* (0.406)

	(0.191)	(0.237)	(0.128)	(0.126)	(0.394)	(0.530)	(0.237)	(0.256)
Female	0.092 (0.103)	-0.004 (0.104)	0.162 (0.087)	0.254* (0.090)	0.070 (0.155)	-0.128 (0.169)	-0.082 (0.144)	0.298* (0.151)
Age: 35-54	0.484* (0.129)	0.295* (0.144)	0.470* (0.115)	0.301* (0.114)	0.370 (0.207)	-0.457 (0.270)	0.400* (0.196)	0.487* (0.190)
Age: 55-74	0.345* (0.140)	0.325* (0.145)	0.608* (0.119)	0.484* (0.117)	0.280 (0.224)	-0.231 (0.270)	0.754* (0.193)	0.609* (0.193)
Age: 75+	0.155 (0.212)	0.207 (0.224)	0.192 (0.189)	0.208 (0.186)	0.151 (0.309)	0.022 (0.362)	0.497 (0.298)	0.824* (0.299)
HS or less	0.087 (0.119)	0.033 (0.122)	0.127 (0.102)	-0.000 (0.102)	-0.121 (0.181)	0.210 (0.206)	-0.026 (0.166)	-0.073 (0.169)
Some college	0.054 (0.132)	-0.043 (0.148)	0.016 (0.118)	-0.084 (0.116)	-0.166 (0.220)	-0.022 (0.267)	-0.246 (0.201)	-0.269 (0.202)
<i>Observations</i>	1763	1364	1863	1966	773	521	688	714

Note: * $p < 0.05$, standard errors in parentheses. Democrat is baseline category for party. 18-34 is baseline category for age. College degree is baseline category for education. All non-categorical variables, including all dependent variables and the key explanatory variable, fear, are scaled to be distributed standard normal. All models fit as ordered logits.

It is especially important to assess whether expressions of fear are based in nonpartisan factors among Republicans, as our study is animated by whether anxiety about Covid-19 attenuates the impact of Republicans' partisanship in particular. To do this, we estimate these models using Republican respondents only, replacing the categorical party identification variables with strength of Republican identity. The results on the right side of Table 2 make clear that fear of serious illness is based in a wide range of factors for Republicans. Of even greater consequence, the effect of party ID strength varies widely across waves and only achieves statistical significance in wave 3, when fear was at its lowest point in our panel. In short, we find that Republicans' worries about getting sick are rooted in their personalities, their social characteristics, their personal experiences, and sometimes their local conditions, but likely *not* in the strength of their party ties.

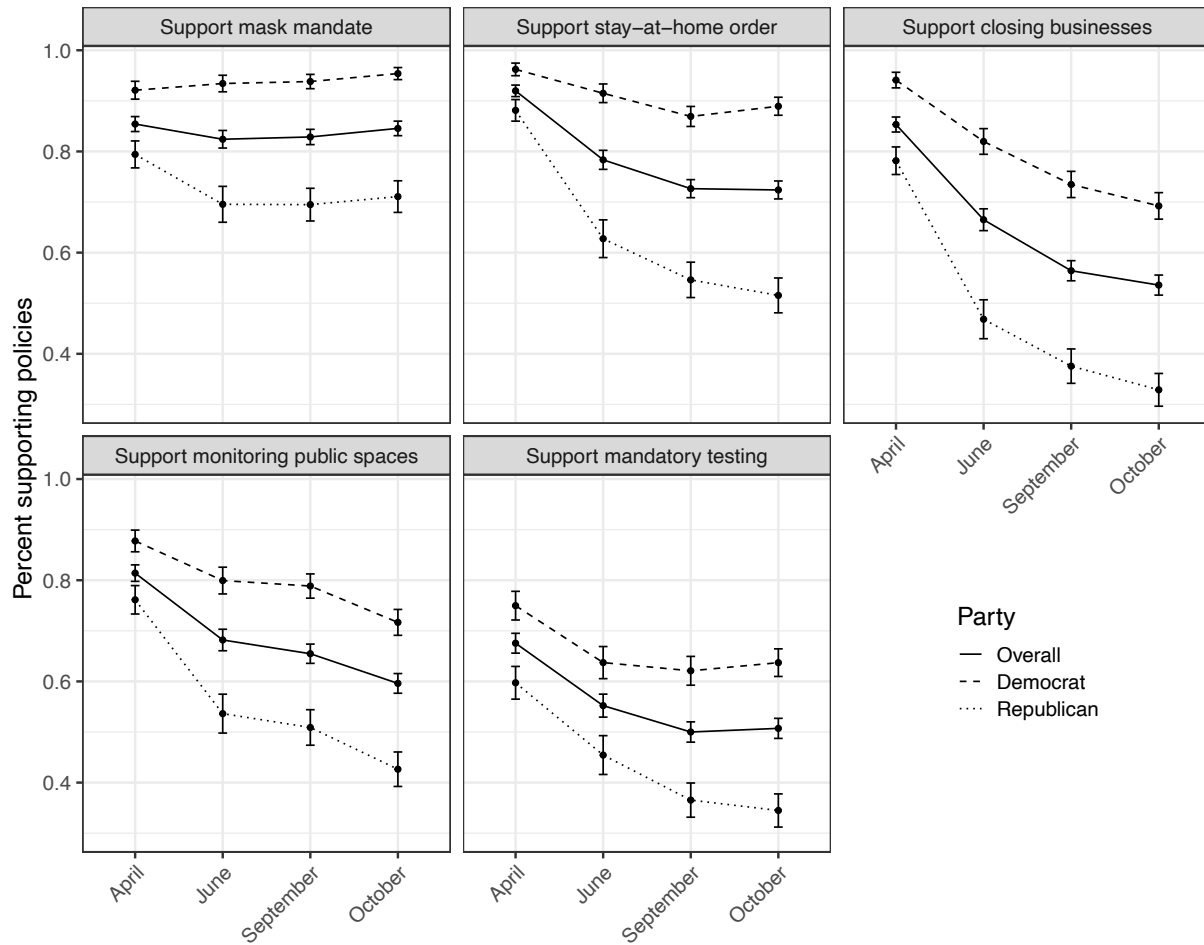
Expanding Divides in the Mass Public

Having validated our measure of anxiety, we begin our analysis of the politicization of Covid-19 and the degree to which anxiety moderated the impact of party. Elite messaging about Covid-19 became increasingly divided between April and October, with President Trump and many Republican officeholders minimizing the threat while Democratic elites expressed fear about the virus and support for mitigation (see Boussalis, Coan, and Holman 2021). To what extent were these developments associated with partisan differences in fear about the novel coronavirus in the general public and support for governmental efforts to mitigate the pandemic?

The amount of fear that people express about becoming seriously ill reflects these differences in elite messaging to some degree. Even though Covid-19 was mostly ravaging large Democratic-dominated cities in April 2020, 62.6 percent of Republicans expressed being “somewhat” or “very concerned” about becoming seriously ill—only 15 percentage points less than Democrats. By November, the gap had grown to 27 points. The widening gap was driven almost entirely by a 10 point drop in anxiety among Republicans. Nevertheless, a majority of Republicans (53 percent) still expressed being at least somewhat concerned about becoming seriously ill from Covid-19 despite persistent cues from their party leaders that its dangers were overblown.

Figure 1 shows support for specific policies related to the pandemic: mask mandates, stay-at-home orders for non-essential activities, closing non-essential businesses, police enforcement of park and beach closures, and mandatory Covid-19 testing. We track the percent who reported strongly supporting or supporting them and break down the results by partisanship while examining trends over time.

Figure 1: Change Policy Support over Time



Note: Error bars represent 95% confidence intervals. “Overall” measure includes independents. Estimates calculated using cross-sectional samples targeted to meet Census benchmarks.

As with fear of getting sick, the gap between Democratic and Republican citizens on mitigation preferences widens over time. On mask mandates, Republicans and Democrats were 13 points apart in the April survey but 26 points apart in October, a change driven mostly by decreasing support among Republicans. For the other four policies, both Republican and Democratic support waned over time, with the rate of change much faster among Republicans. In April, partisan differences on these policies were never larger than 15 points but, when wave 4

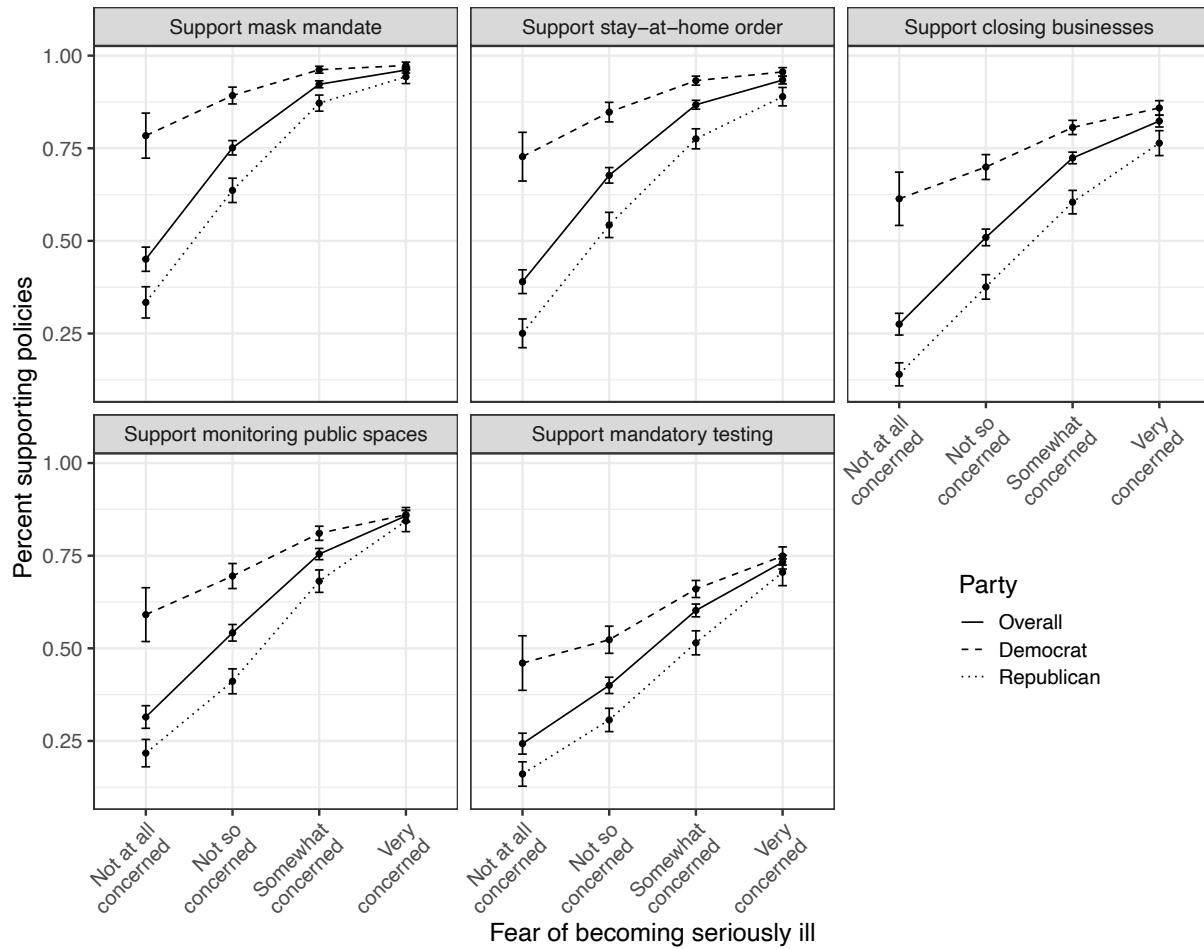
was fielded in October, Democrats and Republicans differed by 30 to 40 points. Still, on the two mitigation policies that received the most attention—mask mandates and stay at home orders—Republican support remained consistently above 50 percent and approximately 70 percent for mask mandates.

Does Anxiety Temper the Effects of Partisanship?

Much analysis to date has focused on these widening partisan differences (Camobreco and He forthcoming; Clinton et al. 2021; Gadarian, Goodman, and Pepinsky 2021). At least as remarkable, however, is that so many Republicans continued to support Covid-19 mitigation strategies despite the elite cues they were receiving. Which Republicans departed from the party line?

Figure 2 begins to elucidate the role of anxiety. It depicts how fear of becoming seriously ill correlates with mitigation policy support among Democrats, Republicans, and the full sample. We calculate these estimates by pooling observations across all four waves. Results show a clear, positive relationship between fear and each dependent variable. As expected, this relationship is especially strong among Republicans; across all five variables, lines representing Republican support display steeper slopes than lines representing Democratic support.

Figure 2: Policy Support by Level of Fear



Note: Error bars represent 95% confidence intervals. Estimates calculated using observations pooled across all survey waves.

Take support for government-imposed stay-at-home orders, for example. Among Republicans declaring they were “very concerned” about becoming seriously ill, about 88 percent supported stay-at-home orders, compared to just 25 percent who were “not at all concerned”—a difference of over 60 percentage points. Indeed, Republicans and Democrats who expressed high anxiety were almost statistically indistinguishable in their support for stay-at-home orders, while partisans who expressed no anxiety differed by nearly 50 points. Across all

these policies and behaviors, party differences shrink as anxiety increases. While low-anxiety Republicans adopt party messaging and policy preferences in line with their partisanship, high levels of fear appear to sever that link, driving high-anxiety Republicans to embrace more critical processing strategies.

The analyses above document a strong association between fear and mitigation policies. Of course, some of the relationship could arise from unexamined confounders. Next, we use multivariate analysis to more fully examine the relationship between fear, partisanship, and behavior during the pandemic. In several cases, we employ our panel design to go beyond past evidence, characterizing how pandemic judgments change as fear rises and falls.

We begin with the two-way random effects model where the effect of fear is conditional on party and a vector of demographic covariates X :

$$\tilde{Y}_i = \alpha + \beta_1 \tilde{F}_i + \beta_2 P_i + \beta_3 \tilde{F}_i P_i + \beta_4 \tilde{X}_i + \eta_i. \quad (1)$$

Assuming unit and time effects are independent of all covariates, the compound error term η_i takes the form $\eta_i = U_i + \theta_t + \varepsilon_i$ and terms are defined as:

Y_{it} := individual i 's position on policy Y at time t

F_{it} := individual i 's fear of virus at time t

P_i := individual i 's party identification

X_{it} := vector of covariates observed for individual i at time t

U_i := unit effect of individual i

θ_t := time effect of time t

ε_{it} := random error for individual i at time t .

One benefit of this modeling approach is that it draws inferential leverage from over-time, within-subject changes in fear. As others have correctly noted (e.g. Ladd and Lenz 2008),

cross-sectional inferences about political emotions are vulnerable to endogeneity concerns. An unexamined factor, such as population density in a respondent's locality, might explain away effects attributed to anxiety. Because a random effects model assumes individuals differ in their baseline level of fear and models these baseline differences directly, the approach we use here goes far in addressing this concern (we discuss some remaining vulnerabilities below).

The results from the random effects models appear in Table 3. The main effect associated with Republican identity, which represents the effect of Republican identity when respondents are "not at all concerned," is consistently negative and statistically significant, suggesting that unfearful GOP identifiers are less likely to support mitigation policies than Democrats (the reference category). The main effect of fear, which reflects fear's impact among Democrats, is positive and significant: Those more fearful are more likely to support mitigation policies.

The key test for our purposes, however, is the interaction between Republican identification and fear since these terms represent anxiety's capacity to moderate motivated reasoning. Here we expect positive effects. That combination would indicate the expected negative effect of Republican identity on support for mitigation policies is offset by being afraid of getting seriously ill. It would also indicate that the effect of fear is significantly larger among Republicans than Democrats. As we hypothesized, the results indicate that these interactions are consistently positive and statistically significant. Fear of becoming seriously ill reduces Republican identity's negative impact on all our dependent variables and increases fear's positive impact on them.¹¹

¹¹ A growing literature emphasizes the differential impacts of fear and anger, distinct emotional manifestations that are often jointly triggered by social and political threats and are rooted in

Table 3: Two-Way Random Effects Model Results

	Mask Mandate	Stay-at- Home Order	Close Businesses	Monitor Public Spaces	Mandatory Testing
Fear	0.159* (0.016)	0.189* (0.016)	0.186* (0.016)	0.163* (0.017)	0.192* (0.018)
Independent	-0.359* (0.039)	-0.340* (0.039)	-0.354* (0.039)	-0.236* (0.041)	-0.225* (0.043)
Republican	-0.536* (0.026)	-0.552* (0.026)	-0.547* (0.026)	-0.401* (0.027)	-0.404* (0.029)
Fear*Independent	0.261* (0.033)	0.178* (0.033)	0.165* (0.033)	0.173* (0.035)	0.114* (0.036)
Fear*Republican	0.325* (0.022)	0.248* (0.022)	0.212* (0.022)	0.245* (0.024)	0.141* (0.024)
Female	0.086* (0.024)	0.138* (0.024)	0.085* (0.025)	0.127* (0.026)	-0.013 (0.027)
Age: 35-54	0.006 (0.030)	-0.023 (0.030)	0.020 (0.030)	0.075* (0.032)	-0.068* (0.033)
Age: 55-74	0.187* (0.031)	0.065* (0.031)	0.110* (0.031)	0.130* (0.033)	0.007 (0.034)
Age: 75+	0.329* (0.053)	0.150* (0.053)	0.130* (0.054)	0.237* (0.056)	0.128* (0.059)
HS or less	-0.111* (0.027)	-0.069* (0.027)	-0.063* (0.027)	-0.039 (0.029)	-0.067* (0.030)
Some college	-0.104* (0.027)	-0.068* (0.027)	-0.057 (0.027)	-0.099* (0.029)	-0.094* (0.030)

similar neurological processes (Maratos et al. 2012; Valentino et al. 2008; Vasilopoulos et al. 2019). Therefore, if anger also drives changes in our dependent variables, our results could be suspect. We re-fit all random effects models presented in Table 3 with a measure of self-reported anger about the pandemic. Results are presented in the Supplementary Information. We find that the effects of anger are mixed and that coefficient estimates associated with the fear variables are virtually unchanged. Respondents may have been angry about the pandemic and how the government responded to it, but it is the fear of getting sick that is driving their attitudes and behaviors.

	Mask Mandate	Stay-at-Home Order	Close Businesses	Monitor Public Spaces	Mandatory Testing
	(0.032)	(0.031)	(0.032)	(0.033)	(0.035)
Intercept	0.186* (0.034)	0.672* (0.034)	0.727* (0.034)	0.442* (0.036)	0.550* (0.037)
<i>Observations</i>	7366	7366	7366	7366	7366

Note: * $p < 0.05$, standard errors in parentheses. Democrat is baseline category for party. 18-34 is baseline category for age. College degree is baseline category for education. All non-categorical variables, including all dependent variables and the key explanatory variable, fear, are scaled to be distributed standard normal. Estimates calculated using panel data.

One limitation of a random effects approach is that, although it accounts for baseline differences in fear, it does so by assuming that these are uncorrelated with regressors in the model. A more conservative approach is to employ fixed effects models, which rely exclusively on within-subject variation in the explanatory variables and thus exclude confounders that are constant over time (party ID, race, education, personality traits, and many other things generally meet this condition). However, they have lower statistical power, and it is not possible to estimate interactions that include stable traits such as partisanship. In the Supplementary Information, we present a parallel fixed effects approach to estimating the relationships above. It leads us to the same conclusion: Fear of getting sick increased support for mitigation policies, especially among Republicans.

Can anxiety overcome partisan motivated reasoning? Insofar as policy opinions are concerned, the answer is yes. Substantial proportions of Republican identifiers supported mitigation policies, contrary signals from party leaders notwithstanding. Fear about what the virus might do to them appears to be a key reason.

Information-Seeking and Knowledge Accuracy

To recapitulate, we have thus far argued that anxiety induced by real-world events—in this case, fear of getting sick with Covid-19—can reduce the influence of party cues on citizens’ policy positions. A complementary test of anxiety’s capacity to promote accuracy goals relative to directional goals would be to examine the knowledge that citizens seek and retain during the pandemic. We expect anxiety to be associated with higher propensity to search for accurate information, in addition to the possession of more pandemic-specific knowledge. When it comes to believing facts, specifically, we also expect anxiety to moderate the impact of partisanship. Republicans’ directional goals will promote a desire to accept their leaders’ cues, leading them to believe, for instance, that Covid-19 is no more dangerous than the seasonal flu. Anxiety ought to be especially important in encouraging Republicans to reject these inaccurate beliefs.

Our dataset affords an opportunity to examine anxiety as a predictor of the information that citizens seek out. Scholars using survey and lab experiments to study emotions in politics commonly find that anxiety encourages individuals to search for information (e.g. Valentino et al. 2009). Here, we replicate this finding in a real-world context. We asked respondents in waves 1 and 2 how often, in the previous three days, they had checked a news source *that was different from what they normally read*. We designed this question specifically to capture the degree to which people have recently engaged in the type of information search that might reveal new facts and details (consulting a source *different from normal*), rather than relying on their usual sources,

which are more likely to reinforce existing (mis)information. Responses ranged from “never” to “very often” on a four-point scale.¹²

The first column in Table 4 presents the results of a random effects model on information-seeking. Here we expect anxiety will motivate information seeking among partisans to an approximately equal degree. Directional goals do not imply that Republicans would necessarily seek less information than Democrats or independents overall, *ceteris paribus*, only that they might be less likely to accept information that runs counter to party cues. Examining the coefficient estimates on party ID, it does not appear to be strongly associated with propensity to seek information from a novel source. Fear, however, does have a positive, statistically significant effect. Individuals who experienced a great deal of anxiety were, as expected, more likely to seek out news sources different from the sources they would typically check.

Table 4: Anxiety Influences Information-Seeking and Knowledge Accuracy

	<u>Random Effects,</u> <u>Waves 1 and 2</u>	<u>Ordered Logit,</u> <u>Wave 1</u>
	Checked Different News Source	Knowledge Accuracy
Fear	0.147* (0.028)	0.389* (0.102)
Independent	0.074 (0.063)	-0.434* (0.191)
Republican	0.076 (0.048)	-0.412* (0.150)
Fear*Independent	-0.099	0.018

¹² We also asked respondents which national news sources they checked for trustworthy information about Covid-19, allowing us to control for variation in the source and ideological slant of respondents’ news sources. Full model results are presented in the Supplementary Information.

	(0.056)	(0.180)
Fear*Republican	-0.017 (0.038)	0.264* (0.129)
Asian	-0.056 (0.078)	-0.061 (0.262)
Black	-0.003 (0.064)	-0.054 (0.251)
Latinx/Hispanic	0.041 (0.065)	-0.509* (0.224)
Female	-0.105* (0.040)	0.313* (0.128)
Age: 35-54	-0.060 (0.052)	0.227 (0.161)
Age: 55-74	-0.348* (0.055)	0.459* (0.178)
Age: 75+	-0.333* (0.086)	0.568* (0.274)
HS or less	-0.215* (0.048)	-0.294 (0.157)
Some college	-0.033 (0.054)	-0.505* (0.165)
Intercept	0.159* (0.063)	
<i>News source controls</i>	Yes	Yes
<i>Observations</i>	3381	1933

Note: * $p < 0.05$, standard errors in parentheses. All non-categorical variables scaled to be distributed standard normal.

Partisanship should, however, inform the degree to which people *accept* facts about Covid-19 as opposed to just searching for information. We also expect that fear could mitigate the tendency of Republicans to reject factual information running counter to their directional goals. To test our thinking, we turn to our Census-benchmarked wave 1 sample, which posed a series of factual statements about Covid-19. They were designed to reflect readily accessible information supported by scientific consensus: “coronavirus is more deadly than the flu,” “coronavirus is more contagious than the flu,” “you can be infected with coronavirus and not show symptoms for up to 12-14 days,” and “getting the flu shot does not make you less likely to

get the coronavirus.” Respondents ranked the accuracy of each statement on a four-point scale. We coded “very accurate” and “somewhat accurate” responses as accurate and “not so accurate” and “not at all accurate” responses as inaccurate. We then counted how many statements respondents correctly identified as accurate.¹⁴

The second column in Table 4 presents the results from an ordered logit model where the dependent variable is the number of statements correctly identified as accurate. Two findings are immediately evident. First, the main effects of fear and party are statistically significant, and all carry the expected signs. Fear for one’s health is strongly associated with more accurate content knowledge. By contrast, independents and Republicans both appear to be less well-informed than Democrats. The politicization of scientific information has consequences—Republicans were much less likely to be well-informed on basic facts related to Covid-19.

The positive interaction between fear and Republican party ID suggests that anxiety moderates the association between party and knowledge accuracy—a pattern that mirrors the results in the previous section. Having one wave of data makes us more cautious in construing this relationship as causal, but it suggests that anxiety does indeed encourage individuals to pursue accuracy-motivated reasoning as opposed to relying on directional motivations, even on a highly politicized issue.

The results in this section build on the policy results we report above: anxiety encourages individuals to seek out new information and process it with the goal of achieving accuracy, rather

¹⁴ We again included the battery about which news sources individuals typically turned to for trustworthy information about Covid-19.

than rationalizing partisan talking points. We next turn to the broader electoral ramifications of pandemic-related anxiety.

Anxiety and the Vote

One normative foundation of democracy is that voters who disagree with their leaders on the policies of the day will vote them out of office in favor of alternatives who better reflect voter preferences. With respect to mitigation policies, we have documented a substantial amount of disagreement with Trump among Republicans.¹⁵ But merely expressing support for a policy typically carries fewer consequences than acting on those preferences. In addition, the allure of party identification is likely to be even stronger, and reliance on it more ironclad, when considering citizens' behavior in the voting booth. Can anxiety also decouple vote choices from party cues, even in a polarized political environment? According to exit polls, only six percent of Republicans voted against Trump, the lowest Republican defection rate for an incumbent presidential candidate since 1984.

To examine the extent to which anxiety induced Republicans to defect from President Trump, we turn to our Census-benchmarked wave 4 sample to estimate a binomial logit model of

¹⁵ If we dichotomize the five mitigation preferences into support and oppose categories, 18.5 percent of Republicans in wave 4 disagreed with Trump's stance *on all five items* and another 14.9 percent disagreed on four of the five.

vote choice among those who voted for the two major-party candidates, Donald Trump and Joe Biden.¹⁶ This model takes the form:

$$Y_i = \alpha + \beta_1 F_i + \beta_2 P_i + \beta_3 F_i P_i + \beta_4 X_i + \varepsilon_i, \quad (2)$$

where Y_i takes a value of 1 if individual i intended to vote for Donald Trump and a value of 0 if they intended to vote for Joe Biden. The other terms are defined as in (1). As in previous models, we account for a range of social characteristics—gender, education, age, religion, income, and whether the respondent lives in the South. We also control for respondent’s level of racial resentment and their self-reported ideology, as both of these measures explain substantial variance in the dependent variable.¹⁷

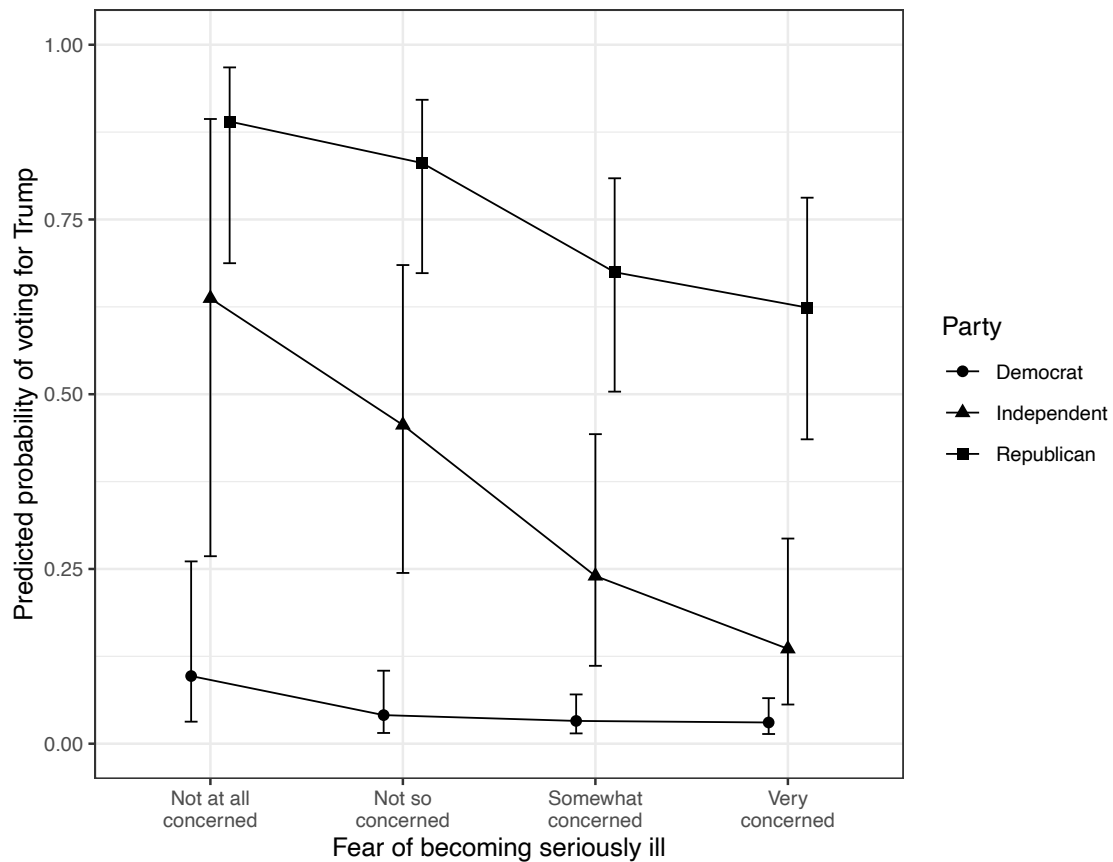
Figure 3 presents the predicted probability of voting for Donald Trump given the respondent’s level of fear, broken down by party. At the lowest levels of fear, respondents’ vote intentions were strongly associated with their party ID. Republicans and Democrats both toed the party line, with overwhelming majorities intending to vote for their party’s nominee. At higher levels of fear, the picture began to change. Democrats remained steadfast in their opposition to Trump, indicated by the nearly flat line at the bottom of the figure. On the other hand, the predicted probability that Republicans would vote for Trump dips somewhat, indicated by the

¹⁶ We also estimate a multinomial logit and ordered logit in the Supplementary Information. Results are consistent across all models.

¹⁷ In the Supplementary Information, we consider alternative specifications, including models with only demographic controls and whether the respondent prioritizes the economy or public health. We plot the effect of anxiety for each model specification. Substantive results remain consistent throughout these analyses.

sloping line at the top of the figure. The magnitude of this effect, however, was relatively mild compared to the previously documented effect of anxiety on Republicans' policy preferences. Even at the highest level of fear, we calculate a predicted probability of voting for Trump over 60 percent. While this does represent a decrease of about 20 percentage points compared to the least fearful Republicans, it still suggests strong loyalty to the president despite large swaths of high-anxiety Republicans fundamentally disagreeing with him on policies designed to mitigate the Covid-19 crisis. From this perspective, the potential for anxiety to break the bonds of partisanship and urge voters to hold politicians accountable appears discouragingly slim.

Figure 3: Effect of Fear on Predicted Probability of Voting for Trump



Note: Predicted probabilities estimated from binomial logit model of vote choice between Trump and Biden. Error bars represent 95% confidence intervals. Estimates calculated using wave 4 sample targeted to meet Census benchmarks. Full model results are reported in the Supplementary Information.

Examining non-partisans, however, suggests a more encouraging conclusion for political accountability in polarized democracies. Unencumbered by partisan motivated reasoning and less vulnerable to party messaging, pure independents could allow anxiety to guide their decision-making to a greater degree than could dedicated partisans. Our results suggest they did just that. Independents expressing the highest level of fear were about 50 percentage points less likely to vote for Trump compared to independents expressing the lowest level of fear. This is a substantial effect size, and it was reflected in final vote tallies in our sample; 60 percent of wave 4 independents expressed being “somewhat” or “very concerned” about becoming seriously ill, and Biden enjoyed the support of these fearful voters by a margin of 70-30. It seems that fear likely contributed mightily to the much-larger-than-usual advantage Biden had in the exit polls among independent voters, a group that Trump won by four percentage points four years before. In that sense, anxiety about Covid-19 may have had a pivotal impact on the election, despite the strong pull of partisanship.

Discussion and Conclusion

Policy attitudes and vote choices among Republicans were in tension in 2020. Large chunks, sometimes even majorities, disagreed with the policy approach Donald Trump endorsed to combat Covid-19, the election year’s most salient issue. Yet few voted against him in the

election.¹⁹ Here, we elucidate how the Covid-19 pandemic did and did not interrupt Americans' political habits. In some contexts, we document large and consistent departures. Although Republican leaders consistently downplayed the pandemic's severity and spoke against public health measures, great numbers of Republican citizens discounted these messages. They were afraid of getting sick; they sought out independent information; they learned true facts about the pandemic and how to stay safe; and they supported specific policy measures endorsed by Democrats. These deviations matter. For instance, we suspect they gave Republican governors of states like Ohio the leeway they needed to break from Donald Trump and enact mask mandates and business closures. In turn, they saved lives.

And yet, for the political acid test—voting for the other guy—partisanship continued to loom as large as it ever has. Parties seldom cede control of the presidency after a single term, which means Biden's victory was far from routine. But it likely owes more credit to political independents than Republican defections. Even with nearly a quarter million Americans dead on Election Day 2020, Joe Biden improved on Hillary Clinton's proportion of the two-party vote by a mere 1.1 percentage points, a modest net gain for the Democratic candidate and not large enough to induce a landslide rebuke. Roosevelt would not be impressed.

Our results also offer something new for the study of emotions in politics. As we discuss above, the literature on emotions in politics relies heavily on lab- and survey-based experiments,

¹⁹ To put Republican loyalty in some perspective, the presidential exit polls archived at the Roper center reveal that Trump's 94 percent is the highest percentage ever recorded. The 2012, 2004, and 1984 elections checked in at 93 percent Republican loyalty. Republicans supported Trump at the same rate that they did Ronald Reagan when it was "morning in America."

which leave open questions about the extent to which genuine national calamities can induce emotions that interfere with partisan reflexes. Because it palpably influenced life for so long, the Covid-19 pandemic examines the influence of political emotions in circumstances under which they are most likely to have an effect. And they do have an effect—though one that, as we have argued, diminishes amid the fanfare of a presidential campaign.

Our conclusions also raise several questions that future research should address. We have argued that anxiety brought about by the Covid-19 pandemic encouraged citizens to reassess their political attitudes and render more reasoned judgments than those proceeding from partisan motivated reasoning, but the pandemic was a rare event that posed novel challenges for most Americans. Do smaller-scale, more common occurrences also induce anxiety sufficient for encouraging opinion change? What role does the media play in instigating anxiety in the citizenry? How do political elites stoke and respond to anxiety among their constituents, and what effect, if any, does it have on mass polarization? Answering these questions with data both inside and outside a controlled experimental environment is important for defining scope conditions for the effects of emotions on politics.

Finally, the studies herein add new brush strokes to the portrait of an American public that is deeply divided. Even when they take a dreadful human toll, national tragedies can lead a nation to rediscover its shared identity, shared values, and shared sense of purpose (e.g. Levendusky 2018). So it was with the Great Depression, Pearl Harbor, and the terrorist attacks of September 11. So it might have been with Covid-19. In another version of history, one can imagine facemasks and vaccine cards becoming the modern-day analogs to victory gardens and American flag lapel pins. Instead, the nation remains mired in disputes over matters of ground

truth, not to mention the legitimacy of its political leadership. It is a testament that much has changed, and that an acute threat to democratic order remains.

References

- Achen, Christopher H., and Larry M. Bartels. 2016. *Democracy for Realists: Why Elections Do Not Produce Responsive Government*. Princeton, NJ: Princeton University Press.
- Albertson, Bethany, and Shana Kushner Gadarian. 2015. *Anxious Politics: Democratic Citizenship in a Threatening World*. New York: Cambridge University Press.
- Arceneaux, Kevin, and Ryan J. Vander Wielen. 2017. *Taming Intuition: How Reflection Minimizes Partisan Reasoning and Promotes Democratic Accountability*. New York: Cambridge University Press.
- Baker, Mike, and Serge F. Kovalski. 2020. “Alaska’s Remote Villages Race Against Time and History.” *The New York Times*. March 7, 2020.
<https://www.nytimes.com/2021/03/07/us/alaska-villages-covid-deaths-vaccines.html>.
- Barabas, Jason, and Jennifer Jerit. 2010. “Are Survey Experiments Externally Valid?” *American Political Science Review* 104 (2): 226–42.
- Berman, Russell. 2020. “Facing a COVID-19 Resurgence and Unable to Act.” *The Atlantic*. June 18, 2020. <https://www.theatlantic.com/politics/archive/2020/06/covid-resurgence-governors/613171/>.
- Boussalis, Constantine, Travis Coan, and Mirya R. Holman. 2021. “Masking Concern about COVID: Congressional Communication about COVID on Social Media.” In . Seattle.
- Brader, Ted. 2006. *Campaigning for Hearts and Minds: How Emotional Appeals in Political Ads Work*. Chicago: The University of Chicago Press.

- Brader, Ted, and George E. Marcus. 2013. "Emotion and Political Psychology." In *The Oxford Handbook of Political Psychology*, edited by Leonie Huddy, David O. Sears, and Jack S. Levy, 2nd ed., 165–204. New York: Oxford University Press.
- Brader, Ted, Joshua A. Tucker, and Dominik Duell. 2013. "Which Parties Can Lead Opinion? Experimental Evidence on Partisan Cue Taking in Multiparty Democracies." *Comparative Political Studies* 46 (11): 1485–1517.
- Brader, Ted, Nicholas A. Valentino, and Elizabeth Suhay. 2008. "What Triggers Public Opposition to Immigration? Anxiety, Group Cues, and Immigration Threat." *American Journal of Political Science* 52 (4): 959–78.
- Bullock, John G. 2011. "Elite Influence on Public Opinion in an Informed Electorate." *American Political Science Review* 105 (3): 496–515.
- Camobreco, John F., and Zhaochen He. forthcoming. "The Party-Line Pandemic: A Closer Look at the Partisan Response to COVID-19." *PS: Political Science & Politics*.
- Clinton, Joshua D., Jon Cohen, John Lapinski, and Marc Trussler. 2021. "Partisan Pandemic: How Partisanship and Public Health Concerns Affect Individuals' Social Mobility during COVID-19." *Science Advances* 7 (2).
- Cohen, Geoffrey L. 2003. "Party Over Policy: The Dominating Impact of Group Influence on Political Beliefs." *Journal of Personality and Social Psychology* 85 (5): 808–22.
- Deng, Yiting, D. Sunshine Hillygus, Jerome P. Reiter, Yajuan Si, and Siyu Zheng. 2013. "Handling Attrition in Longitudinal Studies: The Case for Refreshment Samples." *Statistical Science* 28 (2): 238–56.

- Duncan, Lesley A., Mark Schaller, and Justin H. Park. 2009. "Perceived Vulnerability to Disease: Development and Validation of a 15-Item Self-Report Instrument." *Personality and Individual Differences* 47 (6): 541–46.
- Eysenck, Michael W. (1992) 2014. *Anxiety: The Cognitive Perspective*. East Sussex, UK: Psychology Press.
- Franco, Annie, Neil Malhotra, Gabor Simonovits, and L. J. Zigerell. 2017. "Developing Standards for Post-Hoc Weighting in Population-Based Survey Experiments." *Journal of Experimental Political Science* 4 (2): 161–72.
- Gadarian, Shana Kushner, Sara Wallace Goodman, and Thomas B. Pepinsky. 2021. "Partisanship, Health Behavior, and Policy Attitudes in the Early Stages of the COVID-19 Pandemic." *PLoS ONE* 16 (4).
- Gerber, Alan S., and Gregory A. Huber. 2010. "Partisanship, Political Control, and Economic Assessments." *American Journal of Political Science* 54 (1): 153–73.
- Guay, Brian, and Christopher Johnston. forthcoming. "Ideological Asymmetries and the Determinants of Politically Motivated Reasoning." *American Journal of Political Science*.
- Hirano, Keisuke, Guido W. Imbens, Geert Ridder, and Donald B. Rubin. 2001. "Combining Panel Data Sets with Attrition and Refreshment Samples." *Econometrica* 69 (6): 1645–59.
- Iyengar, Shanto, Yphtach Lelkes, Matthew Levendusky, Neil Malhotra, and Sean J. Westwood. 2019. "The Origins and Consequences of Affective Polarization in the United States." *Annual Review of Political Science* 22.

- Iyengar, Shanto, and Sean J. Westwood. 2015. "Fear and Loathing across Party Lines: New Evidence on Group Polarization." *American Journal of Political Science* 59 (3): 690–707.
- Kunda, Ziva. 1990. "The Case for Motivated Reasoning." *Psychological Bulletin* 108 (3): 480–98.
- Ladd, Jonathan McDonald, and Gabriel S. Lenz. 2008. "Reassessing the Role of Anxiety in Vote Choice." *Political Psychology* 29 (2): 275–96.
- Lelkes, Yphtach, and Sean J. Westwood. 2017. "The Limits of Partisan Prejudice." *The Journal of Politics* 79 (2): 485–501.
- Lenz, Gabriel S. 2012. *Follow the Leader? How Voters Respond to Politicians' Policies and Performance*. Chicago: The University of Chicago Press.
- Lerner, Jennifer S., and Dacher Keltner. 2001. "Fear, Anger, and Risk." *Journal of Personality and Social Psychology* 81 (1): 146–59.
- Levendusky, Matthew S. 2018. "Americans, Not Partisans: Can Priming American National Identity Reduce Affective Polarization?" *The Journal of Politics* 80 (1): 59–70.
- Lodge, Milton, and Charles Taber. 2000. "Three Steps toward a Theory of Motivated Political Reasoning." In *Elements of Reason: Cognition, Choice, and the Bounds of Rationality*, edited by Arthur Lupia, Mathew D. McCubbins, and Samuel L. Popkin, 183–213. New York: Cambridge University Press.
- MacKuen, Michael, Jennifer Wolak, Luke Keele, and George E. Marcus. 2010. "Civic Engagements: Resolute Partisanship or Reflective Deliberation." *American Journal of Political Science* 54 (2): 440–58.

- Maratos, Frances A., Carl Senior, Karin Mogg, Brendan P. Bradley, and Gina Rippon. 2012. "Early Gamma-Band Activity as a Function of Threat Processing in the Extrastriate Visual Cortex." *Cognitive Neuroscience* 3 (1): 62–68.
- Marcus, George E., and Michael B. MacKuen. 1993. "Anxiety, Enthusiasm, and the Vote: The Emotional Underpinnings of Learning and Involvement During Presidential Campaigns." *American Political Science Review* 87 (3): 672–85.
- Marcus, George E., Michael B. MacKuen, Jennifer Wolak, Luke Keele, and David P. Redlawsk. 2006. "The Measure and Mismeasure of Emotion." In *Feeling Politics: Emotion in Political Information Processing*, 31–45. New York: Palgrave Macmillan.
- Marcus, George E., W. Russell Neuman, and Michael MacKuen. 2000. *Affective Intelligence and Political Judgment*. Chicago: The University of Chicago Press.
- Marcus, George E., W. Russell Neuman, and Michael B. MacKuen. 2017. "Measuring Emotional Response: Comparing Alternative Approaches to Measurement." *Political Science Research and Methods* 5 (4): 733–54.
- Mason, Lilliana. 2018. *Uncivil Agreement: How Politics Became Our Identity*. Chicago: The University of Chicago Press.
- McConnell, Christopher, Yotam Margalit, Neil Malhotra, and Matthew Levendusky. 2018. "The Economic Consequences of Partisanship in a Polarized Era." *American Journal of Political Science* 62 (1): 5–18.
- Pew Research Center. 2019. "Partisan Antipathy: More Intense, More Personal." October 19, 2019. <https://www.pewresearch.org/politics/2019/10/10/partisan-antipathy-more-intense-more-personal/>.

- Prior, Markus. 2007. *Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections*. New York: Cambridge University Press.
- Redlawsk, David P., Andrew J. W. Civettini, and Karen M. Emmerson. 2010. "The Affective Tipping Point: Do Motivated Reasoners Ever 'Get It'?" *Political Psychology* 31 (4): 563–93.
- Redlawsk, David P., Andrew J. W. Civettini, and Richard R. Lau. 2007. "Affective Intelligence and Voting: Information Processing and Learning in a Campaign." In *The Affect Effect: Dynamics of Emotion in Political Thinking and Behavior*, edited by W. Russell Neuman, George E. Marcus, Ann N. Crigler, and Michael MacKuen, 152–79. Chicago: The University of Chicago Press.
- Rozin, Paul, Jonathan Haidt, and Clark R. McCauley. 2008. "Disgust." In *Disgust and Its Disorders: Theory, Assessment, and Treatment Implications*, edited by Bunmi O. Olatunji and Dean McKay, 9–29. New York: Guilford Press.
- Ryan, Timothy J. 2012. "What Makes Us Click? Demonstrating Incentives for Angry Discourse with Digital-Age Field Experiments." *The Journal of Politics* 74 (4): 1138–52.
- Ryan, Timothy J., and Amanda Aziz. forthcoming. "Is the Political Right More Credulous? Experimental Evidence Against Asymmetric Motivations to Believe False Political Information." *The Journal of Politics*.
- Silverman, Daniel, Karl Kaltenthaler, and Munqith Dagher. forthcoming. "Seeing Is Disbelieving: The Depths and Limits of Factual Misinformation in War." *International Studies Quarterly*.

- Specht, Paul. 2020. “No, the Flu Hasn’t Killed More People than Coronavirus.” PolitiFact. May 6, 2020. <https://www.politifact.com/factchecks/2020/may/06/dan-forest/no-flu-hasnt-killed-more-people-coronavirus/>.
- Steenbergen, Marco R., and Christopher Ellis. 2006. “Fear and Loathing in American Elections: Context, Traits, and Negative Candidate Affect.” In *Feeling Politics*, edited by David P. Redlawsk, 109–33. New York: Palgrave Macmillan.
- Stroud, Natalie Jomini. 2011. *Niche News: The Politics of News Choice*. New York: Oxford University Press.
- Summers, Juana. 2020. “Timeline: How Trump Has Downplayed The Coronavirus Pandemic.” National Public Radio. October 2, 2020. <https://www.npr.org/sections/latest-updates-trump-covid-19-results/2020/10/02/919432383/how-trump-has-downplayed-the-coronavirus-pandemic>.
- The New York Times. 2020. “Coronavirus (Covid-19) Data in the United States.” GitHub data repository. 2020. <https://github.com/nytimes/covid-19-data>.
- Tooby, John, and Leda Cosmides. 2008. “The Evolutionary Psychology of the Emotions and Their Relationship to Internal Regulatory Variables.” In *Handbook of Emotions*, edited by Michael Lewis, Jeannette M. Haviland-Jones, and Lisa Feldman Barrett, 3rd ed., 114–37. New York: Guilford Press.
- Valentino, Nicholas A., Antoine J. Banks, Vincent L. Hutchings, and Anne K. Davis. 2009. “Selective Exposure in the Internet Age: The Interaction between Anxiety and Information Utility.” *Political Psychology* 30 (4): 591–613.

- Valentino, Nicholas A., Ted Brader, Eric W. Groenendyk, Krysha Gregorowicz, and Vincent L. Hutchings. 2011. "Election Night's Alright for Fighting: The Role of Emotions in Political Participation." *The Journal of Politics* 73 (1): 156–70.
- Valentino, Nicholas A., Vincent L. Hutchings, Antoine J. Banks, and Anne K. Davis. 2008. "Is a Worried Citizen a Good Citizen? Emotions, Political Information Seeking, and Learning via the Internet." *Political Psychology* 29 (2): 247–73.
- Vasilopoulos, Pavlos, George E. Marcus, Nicholas A. Valentino, and Martial Foucault. 2019. "Fear, Anger, and Voting for the Far Right: Evidence From the November 13, 2015 Paris Terror Attacks." *Political Psychology* 40 (4): 679–704.
- Watson, David. 1988. "The Vicissitudes of Mood Measurement: Effects of Varying Descriptors, Time Frames, and Response Formats on Measures of Positive and Negative Affect." *Journal of Personality and Social Psychology* 55 (1): 128–41.
- Wright, Lawrence. 2021. *The Plague Year: American in the Time of COVID*. New York: Alfred A. Knopf.
- Zaller, John R. 1992. *The Nature and Origins of Mass Opinion*. New York: Cambridge University Press.