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Learning from Experience? COVID-19 Conspiracy Theories and Their Implications for Democratic Discourse

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In a survey fielded on March 7, 2020, more than three times as many Democrats as Republicans (61 and 20 percent, respectively) agreed that the United States was concealing the true scale of SARS-CoV-2 deaths. Republicans were nearly 20 percentage points more likely than Democrats (57 and 38 percent, respectively) to agree that the coronavirus is a man-made epidemic. With fewer than 300 confirmed COVID-19 cases in the United States (CDC 2020), pandemic beliefs with no clear basis in fact were already flourishing, and were already colored by Americans' partisan lenses.

This case points to large questions. Although research shows that "basically all Americans hold conspiracy beliefs" (Smallpage et al. 2020, 264), we do not know enough about adherence to these beliefs and consequences for American politics. The very concept is contested—one person's plausible hypothesis or praise for imaginative thinking is another's conspiracy theory. But at least for those who see conspiracy theories as a threat to democratic governance, definitions share a few features. Karen Douglas and coauthors define them as "attempts to explain the ultimate causes of significant social and political events and circumstances with claims of secret plots by two or more powerful actors" (Douglas et al. 2019, 4). Joseph Uscinski and his colleagues, who are among the most influential political scientists writing on this topic, similarly define a conspiracy theory as "a proposed explanation of events

that cites as a main causal factor a small group of persons (the conspirators) acting in secret for their own benefit, against the common good" (Uscinski, Klofstad, and Atkinson 2016, 58).

Such theories are not new to American politics. Richard Hofstadter set their pejorative framework by "borrowing a clinical term for other purposes" in describing conspiracism as a mental illness ([1964] 2008, 3). Although some argue that conspiracy theories should be analyzed neutrally or even favorably in some circumstances (Butter and Knight 2020a), most analysts of democracy agree with Hofstadter in fearing and condemning them. They worry that conspiracy theories are gaining importance in our era of partisan polarization, hyperpartisan media, disdain for norms of civility and facticity among some political elites, and digital networks' capacity to create "a global network of village idiots" (Lenny Pozner, in Kolbert 2019).

Adherence to conspiracy theories might even be deadly. Early in the COVID-19 pandemic, exposure to misinformation was associated with increased cases and deaths, most likely by discouraging individuals from wearing masks, socially distancing, and minimizing travel (Ash et al. 2020; Bursztyn et al. 2020). By March 2022, Americans over age 12 who were not vaccinated, sometimes due to acceptance of theories about vaccines' harms to one's body, were 17 times more likely to die from COVID-19 than were those who had received primary vaccines and a booster dose (CDC 2022).

Coronavirus-related conspiracy narratives may also undermine democratic discourse and practice. Furious encounters between people with opposing views on COVID-19 are commonplace on- and offline. Patients and their families who deny the disease's existence have spit on and threatened medical staff, and some public health experts feel under threat (McKay et al. 2020; Mole 2021). Belief in a connection between COVID-19 and 5G telecommunications

technology was positively associated with state anger and greater justification for violence now or perhaps in the future (Jolley and Paterson 2020). More generally, as one scholar summarizes, "conspiracy theories … have been linked to climate denial, vaccine refusal, political apathy, apathy in the workplace, prejudice, crime, and violence…. Conspiracy theories about COVID-19 are no exception" (Douglas 2021, 271).

Despite the fact that some beliefs arguably endanger public health, democratic polities must be cautious about restraining conspiracy narratives. Commitments to freedom of speech and assembly, along with protections for privacy, civil liberty, and freedom from surveillance, make it difficult to balance the need for effective governance and public safety against the imperative of individual freedom. And disagreement about how to attempt the balance itself adds another layer of challenge to democracy. In the survey that we describe and analyze below, 54 percent of self-labeled conservative American citizens, compared with 16 percent of liberals, agreed in April 2020 that it is more important for the government to respect civil liberties, even at a risk to public safety, than the reverse. Over the subsequent six weeks, up to 48 percent of conservatives (compared with 10 percent of liberals) agreed that stay-at-home orders violate their civil liberties. By mid-November, polarization had increased: 69 percent of conservatives, but only 4 percent of liberals, agreed that a federal mask mandate violated their civil liberties. While not conspiracy theories, these views reveal the complexities of a democratic polity in which a policy aimed at benefiting all residents is perceived as violating the liberty of some.

Media dynamics add another layer of complexity and contestation. Although they serve essential public functions, almost all American media, from the traditional press to online platforms, are privately held. Whether and how to regulate private institutions, even when they disseminate conspiracy theories across the "global network of village idiots," is not at all clear,

especially when the institutions and their messages become entwined with electoral campaigns, citizens' vote choices, and controversial policy decisions.

It would surely be preferable to reduce the dispersion of, communities' consensus about, and virulence of potentially dangerous conspiracy narratives than to strive to lessen their impact after they are widely accepted. That of course is not easy. Nonetheless, some leverage can be gained through learning whether there are conditions that can be taken advantage of, or even created, to lessen the likelihood of accepting beliefs to which one has been exposed. That, at any rate, is the justification for and logic of this paper.

We use the COVID-19 pandemic as a case study. Our focus is the degree to which people reject conspiracy narratives in the face of disconfirming evidence. We link individual-level responses from 15 weekly polls of American citizens in 2020 to data on local coronavirus incidence as of the polling dates. Our goal is to see in what, if any, conditions conspiracy narratives are countered by circumstances; if Americans subscribe less to conspiracy theories when faced with the effects of COVID-19 in their community, that implies at least the possibility of using factual information to blunt the spread of inaccurate theories.

We find evidence that some Americans do in fact respond to pandemic conditions around them. Overall, setting aside complexities that we discuss below, the greater the impact that COVID-19 had on a survey respondent's congressional district, the less likely he or she is to endorse a set of conspiracy theories. This result varies by party identification: independent citizens' attitudes are more responsive to COVID-19 cases and deaths in their community than are partisans' attitudes. The fact that independents are *both* the most responsive to external evidence *and* the least engaged with political discourse raises a troubling paradox for democratic polities.

<A>WHO BELIEVES CONSPIRACY THEORIES?

Explanations for why some people accept theories that are not based in demonstrated fact can usefully start with the question of why some do not, given the American electorate's low levels of factual political knowledge (Delli Carpini and Keeter 1996; Achen and Bartels 2016), tendency toward innumeracy (Lawrence and Sides 2014), and shaky understanding of the conduct of scientific research (Miller 2004).[1] Political ignorance may not always be problematic. Low-information voters can follow shortcuts—e.g., "vote Red [Blue]"—to act as if they are well-informed (Lupia and McCubbins 1998), or through the "miracle of aggregation" the public "as a collective body" may be "capable of holding sensible opinions and processing the information made available to it" (Page and Shapiro 1992, 3). But at some times, or for some people, these heuristics fail -- in which case ungrounded beliefs may come to the fore.

Researchers seek to identify individual psychological correlates, as well as group contexts, that predispose some people to ungrounded theories. For example, researchers have focused attention on traits such as lack of interpersonal trust (Goertzel 1994; Brotherton, French, and Pickering 2013), weak social ties (Freeman and Bentall 2017), and attraction to Manichean narratives (Oliver and Wood 2014), though the research has produced little consensus to date and psychological correlates may vary depending on the theory in question. In short, as a recent review concludes, "conspiracist ideation cannot be described simply in terms of the Big Five dimensions or the maladaptive variants, thus some caution is warranted when regarding the inner worlds of conspiracy theory believers primarily in the context of their personality traits"

[1] These conditions obtain in many countries, as do flourishing conspiracy theories. More comparative analysis is a high priority (Butter and Knight 2020b) but is beyond the compass of this paper.

(Lantian, Wood, and Gjoneska 2020, 158).

If the impact of psychological traits can be fluid, the impact of partisan identity seldom is. Conspiracy thinking appears to be present among partisans of all stripes, but political ideologies influence *which* theories people are attracted to since they contain strong political cues (Uscinski and Parent 2014). Most generally, conspiracy theories are subject to the same biases in information processing that political scientists have studied in other contexts. Apparent reasoning about empirical issues is often in actuality driven by emotions and attachments; "it feels like we're thinking" (Achen and Bartels 2016, 267). More precisely, two motivations shape information processing: reaching an accurate conclusion and reaching a desired conclusion (Kunda 1990). When people need to justify their decisions to others, they are motivated to reach an accurate conclusion (Bolsen, Druckman, and Lomax Cook 2014). But when issues are affectively charged (Flynn, Nyhan, and Reifler 2017) or "suffused with culturally divisive meanings" (Kahan et al. 2013, 57), the motivation to reach a *desired* conclusion is especially strong. Partisans may be more apt to adopt new beliefs when doing so bolsters their preferred party or its leader (Pasek et al. 2015; Schaffner and Roche 2017). The tendency to endorse conspiracy theories is thus likely to be highest among "people who 1) have a particular ideological worldview to which the [theory] can be linked … [and] 2) have the motivation to protect that worldview and the ability to see how endorsing the conspiracy would serve that purpose" (Miller, Saunders, and Farhart 2016, 825).

From the early days of the pandemic, some political leaders seemed to encourage false coronavirus narratives that reinforced their particular ideological worldview or their competitive position. President Donald Trump described the coronavirus as "the Democrats' … new hoax" in February 2020 and repeatedly equated the pandemic with a seasonal flu. Senator Tom Cotton (R-

Arkansas) mused that the Chinese government developed the pandemic as a bioweapon. Governor Andrew Cuomo (D-New York) questioned the validity of epidemiological models for guiding coronavirus policy (Kreps and Kriner 2020). In short, many Americans were primed through partisanship to accept coronavirus conspiracy theories in 2020.

Even in a context favorable to it, however, partisan motivated reasoning can be countered in various ways. Most relevant here are findings that repeated provision of new and disquieting information can lead a receiver to seek accurate information rather than remaining in accord with a partisan group; more simply, anxiety can lead people to seek, or at least to use, unbiased information (Redlawsk, Civettini, and Emmerson 2010; Weeks 2015; Kuklinski et al. 2000). These findings seem applicable to the COVID-19 pandemic. As in Redlawsk and his colleagues' experiment, Americans repeatedly received disconcerting, even frightening, information over the course of the year.[2] The existential health threat of infection, images of overwhelmed hospitals, and the loss of social contact due to lockdowns exacerbated anxiety (COVID-19 Mental Disorders Collaborators 2021); information about local COVID-19 trajectories may have ratcheted it up even further. At some point, the need for accurate information could be expected to overwhelm some partisans' commitment to a predetermined conclusion.[3]

A simpler, but powerful, line of argument reinforces the possibility that local COVID-19 conditions can induce anxiety that in turn leads to a search for accurate information: facts matter. After decades of research on public attitudes, James Stimson concludes that "opinion is not infinitely malleable. When people are feeling prosperous, you can't convince them that they

[2] Four-fifths of the respondents in our surveys reported following pandemic news "very closely" or "somewhat closely."

[3] Imhoff and Lamberty (2020) found different responses to two sets of conspiracy theories; we follow their lead in disaggregating similar clusters of COVID narratives.

should be depressed. When depressed, messages of economic good cheer fall flat" (2004, 108). People who are only weakly attached to a political party, hold conflicting policy views or moral commitments, or are committed to updating beliefs in response to new information may be especially suited to withstanding partisan motivated reasoning.

We refine this argument by focusing on local phenomena, which, as evidence shows, do influence views and behaviors. Despite party loyalty, "the electorate … hold[s] rulers responsible [even] for calamities and disasters that are clearly beyond their control"—including coastal communities suffering from shark attacks (Achen and Bartels 2016, 117–18), localities with high casualty levels from wars in Vietnam or Iraq (Gartner, Segura, and Wilkening 1997; Gartner 2008), and communities harmed by the effects of trade globalization (Autor et al. 2020) or violent racial unrest (Wasow 2020). Most relevantly: "states and local areas with higher levels of COVID-19 fatalities [in the summer of 2020] are less likely to support President Trump and Republican candidates" than are areas with fewer fatalities (Warshaw, Vavreck, and Baxter-King 2020, 1).

We confront, then, two countervailing forces with very different implications for democratic politics. On the one hand, partisan motivated reasoning and cues from prominent leaders encourage some Americans to accept unfounded COVID-19 theories. On the other hand, the impact of anxiety and its associated urge toward accurate information, and the impact of local conditions, lead some Americans to disavow conspiracy narratives—at least when they can be expected to be anxious because COVID-19 incidence is high or trending upward in their community. Our survey evidence enables us to evaluate whether and how much "facts matter" in such a case, and whether we can therefore place some reliance on expertise, the flow of information, and democratic discourse as counters to conspiracy theories.

<A>EVIDENCE

Our principal evidence comes from weekly public opinion polls of 1,500 adult American citizens throughout 2020, of which 15 include relevant items. They were conducted by the survey firm YouGov on behalf of the *Economist*; respondents were selected from YouGov's opt-in internet panel[4]. The relevant polls include 22,500 respondents geolocated to their congressional district.[5] We focus on nine questions, asked at irregular intervals through the year, that gauge agreement with several coronavirus-related theories. They comprise our outcome variables; we describe them in the next section.

Our main explanatory variable is COVID-19 cases and fatalities, also geolocated to congressional districts. These data come from MicrosoftAI for Health, which relied on information from the World Health Organization and the *New York Times*. The dataset provides incremental daily counts for each day of 2020 for each congressional district, from which we constructed daily measures of COVID-19 cumulative cases and cumulative fatalities. These measures varied across both time and space over the course of the year. By the end of the year, for instance, the congressional district with the fewest COVID-19 cases (VT-1, with 7,403 cases) had only 7.6 percent as many cases as the congressional district with the most (SD-1, with 97,237 cases).

[4] For more details about the data, see the online appendix, available at https://www.socres.org/online-supplements.

[5] More granular data, such as county or ZIP code level, would be preferred, as congressional districts have low salience. Furthermore, if COVID-19 incidence varies significantly *within* a congressional district, that would make this an unreliable measure of local context. However, we lack the data needed for a more precise measure of locality.

Finally, to explore the national political rhetoric around COVID-19 conspiracy theories, we collected all 2020 broadcast transcripts from the two most popular (Johnson 2020) cable television programs on Fox News (*Tucker Carlson Tonight* [*n* = 232] and *Hannity* [*n* = 211]) and MSNBC (*The Rachel Maddow Show* [*n* = 200] and *The Last Word with Lawrence O'Donnell* [*n* = 192]) that mentioned the pandemic[6]. We use this material in the discussion that follows.

<A>RESULTS

<B>*Descriptive Analyses*

For a first look at Americans' adherence to conspiracy theories, figure 1 shows the weighted proportions of Democrats and Republicans who endorse each survey item. While in most cases, Republicans are more likely than independents or Democrats to endorse the item, agreement varies across questions—and in a few cases the opposite pattern obtains.[7]

Taken at face value, the nine theories cluster in three narrative groups. One set ("Move on—nothing to see here, folks") implies that for nefarious reasons, some set of actors, such as Democrats or officials in the "deep state," is exaggerating the extent or even existence of COVID-19. It comprises four items: "the coronavirus is a hoax," it is a "fraud perpetrated by the deep state," the "threat of the coronavirus is being exaggerated for political reasons," and the

[6] We used Factiva to search for all transcripts that included "COVID," "pandemic," or "coronavirus."

[7] Political theorists such as Russell Muirhead and Nancy Rosenblum posit partisan asymmetry in conspiracism marked by an "alliance of conspiracists and radical conservatives" (2019, 96). However, empirical research is mixed on the subject (Uscinski and Parent 2014; van der Linden et al. 2021)—and in any case, the YouGov items are not a comprehensive or representative sample of all plausible theories. So it would be a mistake to attribute Republicans' greater tendency toward conspiracy theorizing in our sample to a heightened psychological predisposition.

government is overreporting the number of COVID-19 deaths[8]. We label this *conspiracy index 1*. A second set ("They are out to get us," labeled *conspiracy index 2*) implies that the coronavirus was developed or released deliberately in order to do harm. It includes three items: COVID-19 is a "foreign plot to attack the world," the coronavirus was released "on purpose as a weapon," and it was "a man made epidemic." A third set ("What aren't they telling us?," labeled *conspiracy index 3*) implies that for political reasons, the federal government is refusing to take COVID-19 seriously enough. Its two items are: the "U.S. is concealing the true scale of its coronavirus deaths," and the government is underreporting the number of COVID-19 deaths.

We constructed each index by adding responses to the items asked on a given week and dividing by the number of items asked that week, so that the indices range between 0 and 1 for each week, even if the number of items asked in different weeks varies. The mean value for Republicans (Democrats) on the first index is 0.45 (0.07), on the second index 0.45 (0.25), and on the third index 0.16 (0.66).

[8] See the appendix for question wording, and results using an alternative formulation for constructing indices.

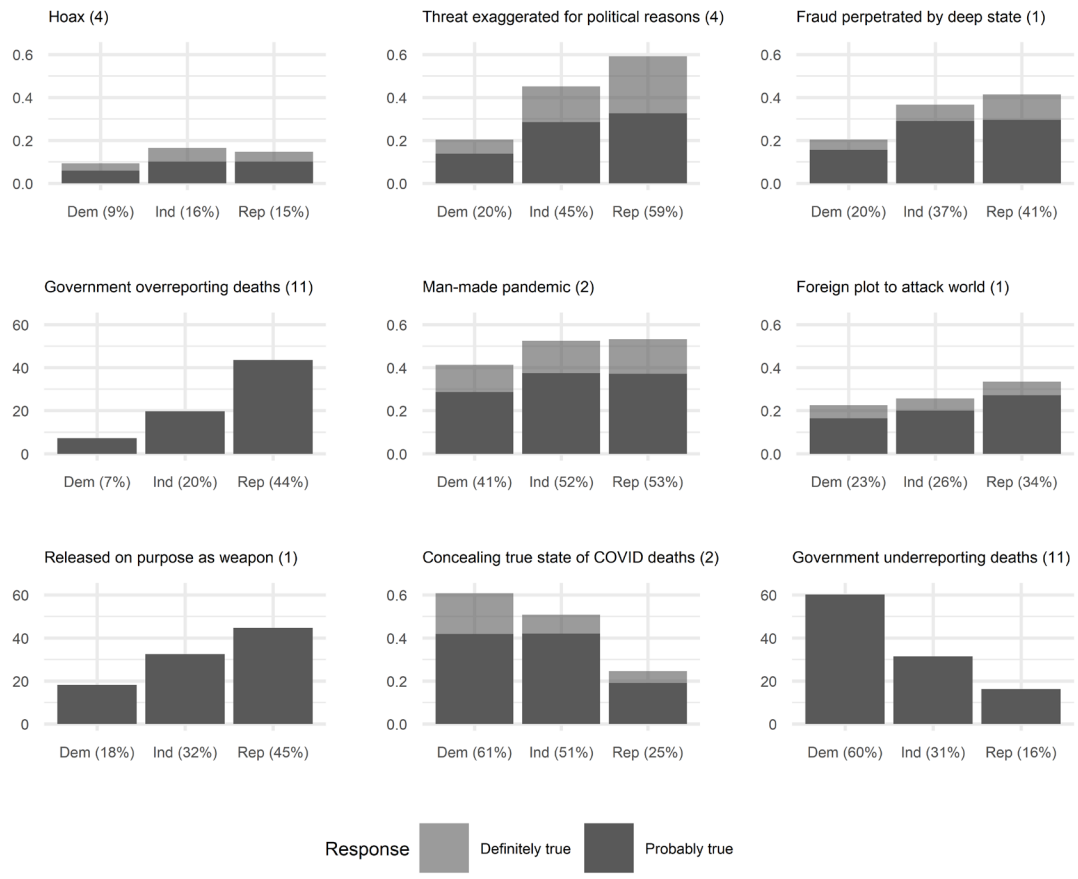

Figure 1. Percent agreeing that theories are "definitely" or "probably" true, by party identification, YouGov polls, March–November 2020.

Note: "Government overreporting/underreporting deaths" and "Released on purpose as weapon" were asked in a different format from the other items and thus are only one solid color. The number in parentheses after each title is the number of survey waves in which the item was asked. Responses are weighted using weights from YouGov.

If we take these items as evidence of endorsing a specific explanation of events, rather than of expressive survey responding (Berinsky 2018), we would expect the items in index 1 ("Nothing to see here") *not* to correlate positively with those in index 2 ("They are out to get us") or 3 ("What aren't they telling us?"). Empirically, however, that expectation partly fails.

On the one hand, index 3 items tend to correlate negatively with index 1 and 2 items, in

accord with our expectation. For example, agreement that coronavirus deaths are underreported correlates negatively with agreement that it was released as a bioweapon ($r = -0.263$)[9], and agreement that the government is concealing the true scale of the pandemic correlates negatively with belief that the coronavirus threat is exaggerated ($r = -0.207$).

On the other hand, however, items on the seemingly conflicting indices 1 and 2 sometimes correlate positively. For example, agreement that COVID-19 is a deep state fraud correlates strongly ($r = 0.635$) with agreement that it is a foreign plot to attack the world. Similarly, concurrence that COVID-19 is a hoax correlates positively with agreement that it is man-made ($r = 0.359$). These nonrational patterns may indicate a predisposition toward conspiracism among some respondents (Miller 2020). They resemble, for example, Wood and his colleagues' demonstration of belief in mutually incompatible conspiracy theories swirling around the death of Princess Diana. Those conflicting beliefs are united by the conviction that in one way or another authorities were involved in a cover-up (Wood, Douglas, and Sutton 2012). The association of conspiracy indices 1 and 2 appears to have the same quality.

Despite this intriguing suggestion of generalized conspiracism, we analyze the three indices separately because we have different expectations about the relationship between local COVID-19 incidence and adherence to each. Our clearest expectation rests with index 1 ("Nothing to see here"). It seems logical that increased exposure to local COVID-19 cases and fatalities would reduce belief that the pandemic is a hoax or a fraud, or is artificially exaggerated by maleficent political actors. However, that expectation does not hold for indices 2 ("They are out to get us") and 3 ("What aren't they telling us?"). In fact, as one perceives increased COVID-

[9] Correlations are calculated using the raw variables, not the binarized items. See appendix for full correlation matrix.

19 incidence in one's community, it could plausibly be taken as either further evidence of a foreign plot's success or of government concealment. Therefore, we do not have well-defined expectations about the effect of COVID-19 incidence on these indices.

<B>*Statistical Analyses*

We performed weighted logistic regressions in order to examine how endorsement of the three conspiracy indices varies in relation to local COVID-19 incidence. As a reminder: the outcome variable is levels of agreement with a given conspiracy index, and the main explanatory variables are the cumulative (up to the relevant poll week) COVID-19 cases and deaths.[10] We control for respondents' age, gender, race/ethnicity, years of schooling, and party affiliation[11], along with the number of hospital beds per 10,000 residents in a respondent's congressional district, survey date, and respondent's state of residence. Four interaction terms allow for the effect of COVID-19 incidence to vary across partisan groups and over time.

Separately for Democrats, Republicans, and independents, figure 2 shows the estimated point location with confidence intervals for conspiracy index 1 ("Nothing to see here") across the range of few to many COVID-19 cases and fatalities.[12] Democrats, the dotted lines, show a very

[10] We also constructed measures of cases and fatalities in the 30 days before the poll question was asked to account for varying *trends* in local coronavirus incidence.. See the appendix for results using these measures.

[11] Independents include both respondents who identify as such (17 percent of the sample) and those who respond "not sure" to the partisan identity item (5 percent of the sample).

[12] To accommodate a multi-week conspiracy index that at times encompasses periods in which the number of COVID-19 cases varied greatly (for instance, several items were asked in March and November 2020), we convert each week's COVID-19 incidence values to percentiles so that the measures range between 0 and 100 each week. That is, the congressional district with the most cumulative cases or deaths in a given survey week has a value of 100, the congressional district at the median in a given

slight rise in endorsement of this index as respondents' location shifts from low- to high-incidence districts. A floor effect arguably makes it unlikely that Democrats would show even less agreement, since their highest level of acceptance of index 1 is barely 10 percent.

Republicans, the dot-dashed line, show a decline in agreement that COVID-19 is a hoax or fraud as they increasingly confront higher rates of coronavirus incidence. Independents, the solid line, show a substantial decline in endorsement as they move from districts with few to many fatalities (the right side of figure 2) but a slight increase in endorsement as they move from districts with few to many COVID-19 cases (the left side of figure 2). Viewed retrospectively (we did not expect that result), it is plausible that deaths affect attitudes more powerfully than cases do (similarly, see Sides, Tausanovitch, and Vavreck 2022). Alternatively, independents' different slopes between cases and fatalities could be evidence of a null effect with regard to cases.

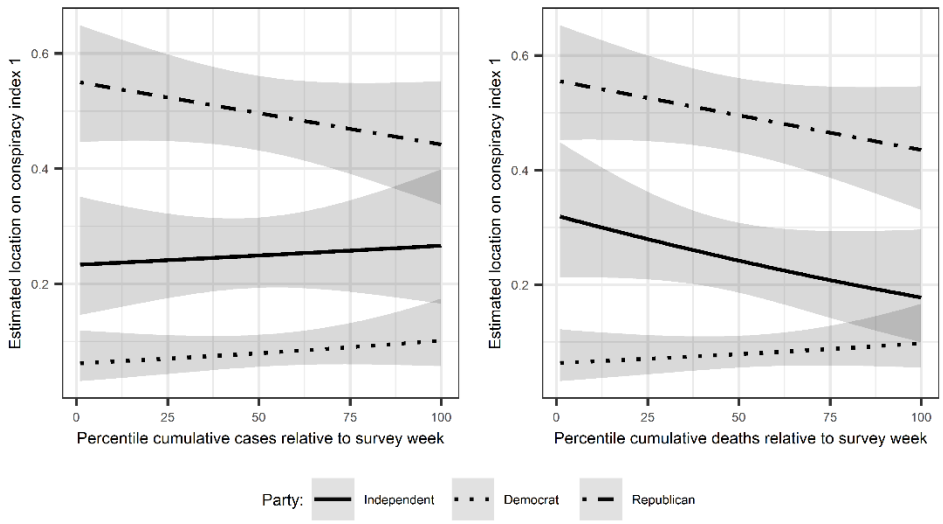

Figure 2. Estimated point locations with confidence intervals for conspiracy index 1 ("Nothing

survey week has a value of 50, and so on. The results vary little with alternative specifications of COVID-19 incidence. See the appendix for more details.

to see here"), YouGov polls, March–November 2020.

Figure 3 shows the estimated point location with confidence intervals for conspiracy index 2 ("They are out to get us"). Increases in COVID-19 cases and fatalities may induce Democrats in heavily affected areas to endorse this index a little more than do others (although the possibility of a floor effect for decreased endorsement is also plausible). Increases in COVID-19 incidence have an inconsistent effect on Republicans—and it is small and statistically noisy in both cases. In contrast, increased local COVID-19 cases and fatalities strongly affect independents' views. Although at low levels of local COVID-19 impact their level of agreement with index 2 is fairly close to that of Republicans, at high levels of COVID-19 impact independents agree with this set of theories as little as, or even less than, Democrats.

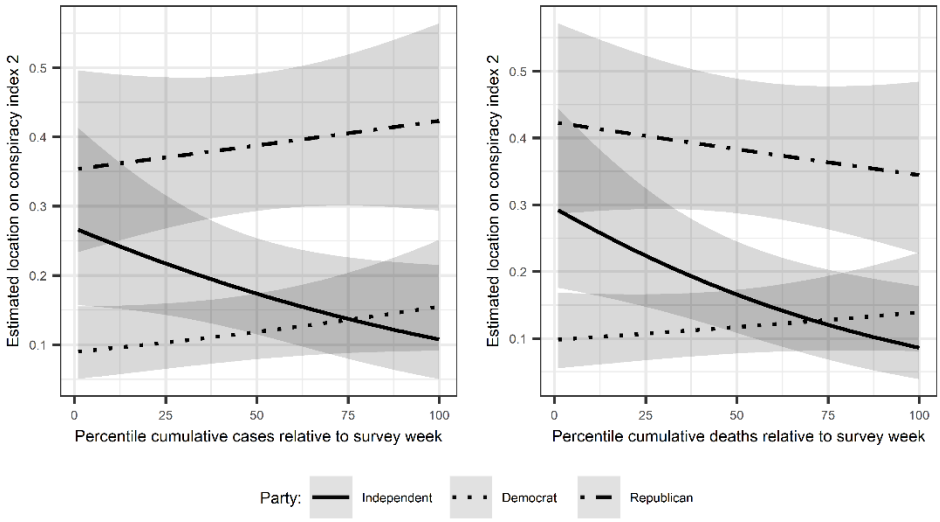

Figure 3. Estimated point locations with confidence intervals for conspiracy index 2 ("They are out to get us"), YouGov polls, March–November 2020.

Finally, figure 4 shows the estimated point location with confidence intervals for

conspiracy index 3 (“What aren’t they telling us?”). Here, Republicans show no change as congressional districts’ COVID-19 incidence moves from low to high; they are not affected by narratives that appeal to Democrats, or they are subject to floor effects (i.e., they could hardly disagree more). Among Democrats, the effect of a shift from low- to high-incidence districts is also minimal; their level of agreement neither increases nor decreases. Most puzzling, the pattern among independents is reversed from that in figure 2: independents endorse this conspiracy index less as districts shift from few to many cases, but their views do not change as districts shift from few to many deaths.

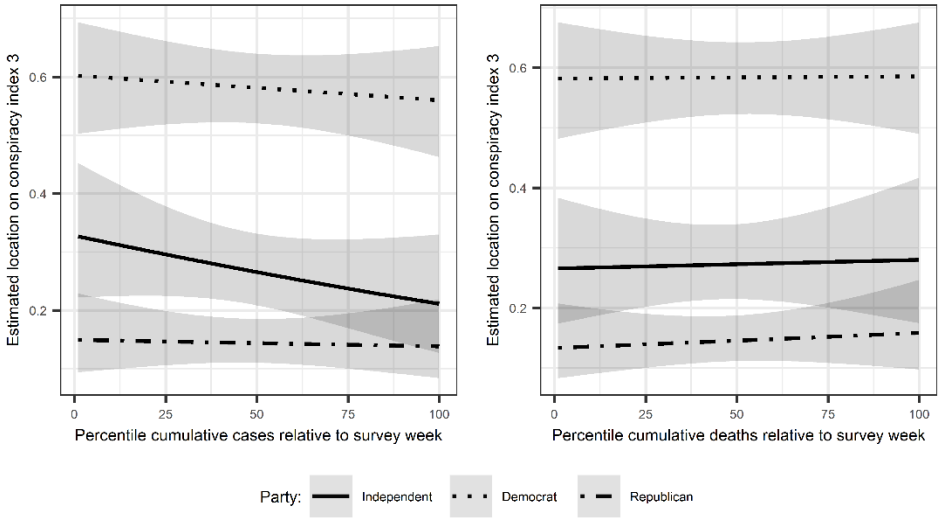

Figure 4. Estimated point locations with confidence intervals for conspiracy index 3 (“What aren’t they telling us”), YouGov polls, March–November 2020.

<A>IMPLICATIONS FOR DEMOCRATIC DISCOURSE

<B>*Summary of Results*

Analyses of Americans’ COVID-19 theories show an important overall result: in general, the higher the COVID-19 incidence in local communities during 2020, the lower was the level of

acceptance of conspiracy narratives. The simplest summary statement, therefore, is that *in some circumstances facts matter*.

But American politics are long past the point at which a simple summary statement is very illuminating, so we revert to disaggregation in order to really understand the relation between local conditions and agreement with COVID-19 narratives. Consider Republicans first. In three of the four analyses in which there was not a floor effect (that is, so few Republicans accepted index 3 that it was almost impossible for their acceptance to decline further), agreement with indices 1 and 2 was lower in communities hit harder by the pandemic. (Agreement with index 2 rose slightly in communities with high COVID-19 cases, though not deaths; we have no theoretically based explanation for this divergence.) This decline in conspiracy acceptance for three of the four relevant instances is consistent with a theory that anxiety, fostered by receipt of repeated distressing information, prodded some Republicans into giving priority to accurate over preferred information.

Next, consider independent citizens. In four of the six analyses, evidence suggests that agreement with COVID-19 narratives declined as community impact rose. (In the other two instances, they showed no change or a slight increase.) In fact, independents' acceptance of index 2 ("They are out to get us") declined so much as their community moved from least to most affected by COVID-19 that they ended up accepting that narrative even less than Democrats did. For this group, then, we have stronger grounds for inferring that increased exposure to COVID-19 decreased adherence to ungrounded theories. This is also consistent with a theory that anxiety, fostered by receipt of repeated distressing information, prods some people into giving priority to accurate over preferred information.

Finally, consider Democrats. In all six analyses, their views changed little as local

COVID-19 incidence rose from the lowest to the highest levels. Democrats were subject to a floor effect for indices 1 and 2. But for index 3, Democrats show minimal movement in conspiracy endorsement over the full range of local incidence. At least for this case, Democrats appear not to respond to repeated distressing information in the same ways that some Republicans and independents do.

We remind readers that these patterns are not fully consistent, that some slopes are not very steep, and that there is a lot of statistical noise around the results as we report them. Nevertheless, we conclude that some Republicans and independents behaved in ways that reinforce Stimson's assertion that facts matter. Thin gruel, perhaps, but not nothing.

<B>*Characteristics of Partisans and Independents*

We have said nothing so far about the characteristics of partisan groups in the YouGov polls. But given that the analysis shows that groups respond differently to the conspiracy indices in accord with local COVID-19 incidence, we need to explore the characteristics of partisan identifiers. Table 1 provides the basic evidence.

Table 1. Characteristics of partisans and nonpartisans, YouGov polls, March–November 2020

	Democrats	**Republicans**	**Independents**
Proportion of YouGov sample	47%	34%	19%
Follow COVID news very + somewhat closely	89%	80%	72%

not very closely + not at all	11%	20%	28%
Annual family income			
$20,000 or less	18%	14%	30%
over $20,000	82%	86%	70%
Education			
high school or less	30%	36%	47%
some college or more	70%	64%	53%
Race or ethnicity			
White	59%	86%	65%
Black	21%	3%	11%
Hispanic	13%	7%	14%
Age			
17–29	19%	12%	21%
30–64	58%	57%	63%
65 and older	22%	31%	16%

Compared with Republicans and independents, Democrats are the closest followers of COVID-19 news, have more schooling, and are more likely to be Black. Republicans are moderate consumers of COVID-19 news, are less educated than Democrats but also less likely to

be poor. They are older and much more likely to be White than either Democrats or independent citizens. Independents are least likely to follow pandemic news, by large margins. Compared with partisans, they are more likely to be poor, have fewer years of education, are more likely to be non-White (than Republicans), and are younger.

The profiles of Democrats and Republicans offer few surprises. What is more novel, and more important given our findings, is the profile of independents. On average they are not, as we scholars sometimes imagine, free of partisan identity and its motivated reasoning because, as sophisticated consumers of information, they choose among candidates and policies based on the evidence before them. Nor are they, as our categories are defined, undisclosed partisans (Klar and Krupnikov 2016). Instead, independents as a group are relatively disengaged not only from any political party (Hajnal and Lee 2011; Bruine de Bruin, Saw, and Goldman 2020), but also from news—even news about a once-in-a-century worldwide disaster.

This point has disconcerting implications for democratic discourse and practice. The group most responsive to local COVID-19 incidence is the group least engaged in the political realm (Vavreck 2009). That fits the logic of motivated reasoning. If those with few prior beliefs, commitments, or pieces of (mis)information are most available to be persuaded by direct experience, then living in a community with a huge number of COVID-19 cases and deaths could push independents into jettisoning false or at least unhelpful narratives. Republicans and, especially, Democrats remained more committed to the theories that they already held by late March 2020 and so were less impelled by new facts about what was actually happening in their communities.

<B>*The Role of the Media*

If our chain of reasoning is plausible—and we reiterate that the empirical results are not definitive—our final task here is to examine just what narratives partisans were absorbing from early 2020 onward. We do not argue that media have an independent causal impact beyond conveying messages from political elites and information about political activity; that is a topic of a rich and intense scholarly debate. Nonetheless, considering media engagement with our conspiracy narratives makes concrete the implications of the fact that partisans followed COVID-19 news closely while independents did not.

As noted above, we collected all 2020 broadcast transcripts discussing the pandemic from the two most popular cable television programs on Fox News (n = 443) and on MSNBC (n = 392). Further keyword searches enabled us to identify segments relevant to indices 1 and 2.[13]

Fox News used "hoax" in relation to COVID-19 36 times in 2020; MSNBC was similar, with 44 invocations. Fox News's use mainly involved clips of Democrats or media figures accusing Trump of calling the coronavirus a hoax, then debunking those claims or asserting that their own program consistently takes COVID-19 seriously.[14] On MSNBC, most relevant uses of "hoax" did indeed accuse Trump, Republicans, and conservative media of calling the pandemic a hoax.[15] The irony here has several layers. President Trump did say, as Fox News but not MSNBC correctly reported, that Democrats were falsely accusing him of describing the

[13] Neither Fox News nor MSNBC used "fraud" to refer to COVID-19, and references to the "deep state" in relation to COVID-19 were either generic (Fox) or vague (MSNBC).

[14] On March 2, for example, Sean Hannity said, "You got NBC News, fake news CNN, MSDNC, others, Cher, Hollywood, actually claiming that the president is calling the coronavirus a hoax. No, that's another complete lie. Instead the president called the weaponization and politicizing of the virus a hoax."

[15] As one example, Joy Reid said on March 16, "Just over two weeks ago, Donald Trump called the Coronavirus a hoax. That was his word, 'hoax.'"

coronavirus as a hoax—but neither partisan group of Americans paid attention. Across YouGov's four iterations of the question, more Republicans than Democrats (15 and 9 percent, respectively), along with 16 percent of independents, agreed that COVID-19 was or probably was a hoax. All these respondents presumably have in mind Trump's and others' statements to the effect that the pandemic is no more serious than a seasonal flu;[16] nonetheless, this example does not bolster the claim that media shape the content of public discourse in any very precise way.

Fox News shows were much more likely to use "bioweapon" in connection with COVID-19 than were MSNBC shows (21 uses to 1). Neither Hannity nor Carlson claimed that the coronavirus is a bioweapon (or a foreign plot to attack the world). But they criticized people who ruled that possibility out of order, and their shows included guests claiming evidence of a man-made coronavirus or at least a form modified from the naturally occurring type.[17] Furthermore, even if its development in a research laboratory was not intentional, "the Communist Chinese

[16] For example, Hannity observed on March 9, "I don't like how we are scaring people unnecessarily. And that is that unless you have a comp – an immune system that's compromised and you are older, and you have other underlying health issues, you are not going to die 99 percent from this virus, correct?"

[17] Take, for example, an exchange between Fox News reporter Bret Baier and host Hannity on April 15. Baier: "Let's just be clear about that. There's no one who is saying that this is a bio-weapon."

Hannity: "How would we know that? I mean, is that an [sic] conjecture?"

Another example occurs in an April 16 exchange between Steve Mosher, a guest, and Tucker Carlson. Mosher: "I'm not saying this is a bioweapon. Quit changing the subject which is what the other side loves to do."

Carlson: "Exactly."

Li-Meng Yan, a guest of Carlson's on September 15, asserted that the coronavirus "was spread to the world to make such damage."

government has blood on their hands," according to Hannity. Fox used "man-made" 18 times, MSNBC none. Some uses occur in the discussions of bioweapons; others follow the same pattern of hosts raising the possibility, quoting discussions of the evidence, and never quite dismissing it.

Thus for index 2, albeit in a different way from index 1, adherence to conspiracy theories does not map with any precision onto what the media were saying. Despite Fox's plausible denial of (after flirtation with) such claims, over half of Republicans and independents in the YouGov surveys agreed that the coronavirus definitely or probably was man-made, and almost as many Republicans and a third of independents agreed that it was or probably was released as a weapon. Even two-fifths of Democrats concurred on man-made and one-fifth on bioweapon, despite the absence of both terms from MSNBC.

In sum, conspiracy narratives are associated with media reports but not in a consistent way. Republicans responded to the idea of "hoax"—but incorrectly, according to their preferred news source (which reported the story accurately). Republicans overresponded to their preferred news source's not-quite-denial of bioweapons and a man-made pandemic. Democrats also overresponded to the possibility of a man-made pandemic or bioweapon, even though their preferred news source did not use the term at all. We can draw no clear conclusion here, except for the cynical speculation that independents may have been more grounded in reality in part *because* they were less engaged with media reportage of COVID-19's progress.

<A>CONCLUSION: LEARNING FROM EXPERIENCE?

In principle, democratic governance is predicated on a knowledgeable and engaged citizenry. As Thomas Jefferson wrote in his 1779 *Bill for the More General Diffusion of Knowledge*:

Even under the best forms [of government], those entrusted with power have, in time, and

> by slow operations, perverted it into tyranny; and it is believed that the most effectual means of preventing this would be, to illuminate, as far as practicable, the minds of the people at large, and more especially to give them knowledge of those facts, which history exhibited, that … they may be enabled to know ambition under all its shapes, and prompt to exert their natural powers to defeat its purposes.

In practice, however, knowledge and engagement are too often placed, not in the service of defeating the potentially tyrannous power holders, but in the service of narratives that, at least in the case of COVID-19, have arguably contributed to thousands of deaths in the United States.

Americans are not completely captive of their conspiracy theories; over the course of the frightening year of 2020, people residing in communities especially hard-hit by COVID-19 were somewhat less likely to adhere to those theories than were people in communities only lightly brushed by the coronavirus up to that point. That offers some encouragement for the promotion of democratic discourse.

But not much encouragement. Independents showed the most responsiveness to differences in local COVID-19 incidence, followed by Republicans. If American democracy obtains most of its electoral and substantive fluidity from its least engaged citizens—perhaps because media messages are ambiguous or misunderstood—democratic theorists and activists face a troubling dynamic. Still, that situation may be preferable to the alternative, of little to no substantive or electoral fluidity in any politically distinguishable group. Just as the coronavirus's impact will continue to resonate for decades, so will the questions it raises for advocates of democratic engagement and practice.

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