

# An Outbreak of Selective Attribution: Partisanship and Blame in the COVID-19 Pandemic

MATTHEW H. GRAHAM *Temple University, United States*

SHIKHAR SINGH *University of Pennsylvania, United States*

**C**risis and disasters give voters an opportunity to observe the incumbent's response and reward or punish them for successes and failures. Yet, even when voters perceive events similarly, they tend to attribute responsibility selectively, disproportionately crediting their party for positive developments and blaming opponents for negative developments. We examine selective attribution during the COVID-19 pandemic in the United States, reporting three key findings. First, selective attribution rapidly emerged during the first weeks of the pandemic, a time in which Democrats and Republicans were otherwise updating their perceptions and behavior in parallel. Second, selective attribution is caused by individual-level changes in perceptions of the pandemic. Third, existing research has been too quick to explain selective attribution in terms of partisan-motivated reasoning. We find stronger evidence for an explanation rooted in beliefs about presidential competence. This recasts selective attribution's implications for democratic accountability.

**C**risis and disasters give voters an opportunity to observe the incumbent's response and punish or reward them for successes and failures (Ashworth and Bueno de Mesquita 2014). Yet, even when voters agree on the facts, they tend to attribute responsibility in a selective manner. Compared with opposition voters, supporters of the incumbent party are more likely to credit the government for positive outcomes and less likely to blame it for negative outcomes. In contrast, opposition supporters more readily blame the government for negative outcomes and give it less credit for positive outcomes. This sort of selective punishing and rewarding of performance is widely considered a threat to democratic accountability (Healy and Malhotra 2013).

In this paper, we study partisan selectivity in attributions of responsibility (hereafter “selective attribution”) through the lens of the COVID-19 pandemic in the United States. We report three main findings, which are summarized in Table 1. First, we show that selective attribution emerged quickly alongside the outbreak of COVID-19 in March and April 2020. Using an original time series spanning the 6 weeks between the country's five hundredth confirmed COVID-19 case and its five hundred thousandth, we show that as the reality of a pandemic set in, Democrats and Republicans changed their perceptions of the crisis and behaviors in a near-

parallel fashion. However, even as Democrats increasingly blamed then President Donald Trump for the pandemic, Republicans held firm in assigning him little responsibility for it.

Second, we show that selective attribution occurs as a result of individual-level changes in perceptions of the pandemic.<sup>1</sup> We demonstrate this using three experiments, two conducted during Trump's presidency and one conducted under Trump's successor, Joe Biden. In each experiment, subjects were randomly assigned to read vignettes that highlighted relatively positive or negative facts about the pandemic in the United States. Democrats and Republicans alike revised their perceptions of the pandemic in the direction of the evidence, and by about the same amount. However, when asked about presidential responsibility for the pandemic, Democrats and Republicans used the same information to make opposite inferences. After seeing positively (negatively) valenced information about the pandemic, the president's co-partisans attributed more (less) responsibility to the president. Opposing partisans responded in the opposite way, holding the president more responsible when they saw negatively valenced information and less responsible when they saw positively valenced information.

Third, we conduct the first tests of alternative explanations for selective attribution. Conventional wisdom holds that selective attribution occurs due to partisan-motivated reasoning (PMR). The PMR account holds that selective attribution occurs because voters' partisan identities create a psychological motivation to avoid blaming their party. This explanation has never been tested against any alternative (Table 2). We

Matthew H. Graham , Assistant Professor, Department of Political Science, Temple University, United States, [mattgraham@temple.edu](mailto:mattgraham@temple.edu).

Shikhar Singh , Postdoctoral Research Fellow, Center for the Advanced Study of India, University of Pennsylvania, United States, [shikhars@sas.upenn.edu](mailto:shikhars@sas.upenn.edu).

Received: March 13, 2021; revised: January 23, 2022; accepted: January 20, 2023. First published online: March 30, 2023.

<sup>1</sup> By contrast, elite cues could cause the selective attribution that emerges in observational studies.

**TABLE 1. Key Findings and Implications**

Data	Finding	Implication
Time series	1. Partisan differences in attributions of responsibility emerge early in the pandemic, despite parallel trends in perceptions and behavior.	Selective attribution quickly emerges in times of crisis. Could be due to individual-level factors or correlated factors like elite cues.
Experiments 1–3	2. Voters from the president's party are more (less) likely to hold the president responsible when they see positively (negatively) valenced information. Voters from the opposition party do the opposite.	Consistent with two individual-level explanations, partisan-motivated reasoning and beliefs about the incumbent's competence.
Experiments 2 and 3	3a. Compared with partisan identity, competence beliefs are a better predictor of selective attribution.	Descriptive evidence in favor of the competence beliefs account.
Experiment 3	3b. Accuracy motivation does not reduce selective attribution.	Causal evidence in favor of the competence beliefs account.

develop an explanation rooted in *competence beliefs*, which we define as voters' perceptions of whether the incumbent is likely to deliver good performance. This explanation is floated briefly in one existing account of selective attribution (Sirin and Villalobos 2011) and connects with classic work on democratic accountability (Fearon 1999; Key 1966a). A voter who believes that the incumbent is competent (i.e., likely to deliver good performance) responds to positive news by attributing more responsibility to the incumbent, and negative news by attributing less responsibility to the incumbent. A voter who believes the incumbent is incompetent assigns responsibility in the opposite way. These explanations are related to a broader debate over whether group-based differences in information processing are traceable to directional motivation or prior beliefs (Druckman and Levendusky 2019; Little 2021).

We compare the PMR and competence beliefs explanations using two empirical tests. First, we conduct two regression-based “horse races” using data from two survey experiments, one fielded during Trump's presidency and the other during Biden's presidency. The horse races compare the ability of partisan identity and competence beliefs to predict variation in how voters attribute responsibility. Under both Trump and Biden, we find support for the competence beliefs account. Independent of partisan identity, variation in competence beliefs still moderates the effect of performance information on attributions of responsibility; independent of competence beliefs, variation in partisan identity does not moderate the same effect. Moreover, whereas competence beliefs retain their explanatory power when only within-party variation is used, within-party variation in identity strength fails to predict variation in the degree of selective attribution. Second, we experimentally alter the motivational context using an accuracy prime that has been shown in other contexts to neutralize the effects of PMR (Bolsen and Druckman 2015; Bolsen, Druckman, and Cook 2014). Whereas the PMR account predicts that accuracy motivation will counteract selective attribution, we find that selective attribution persists with equal strength when accuracy

motivation is heightened. This suggests that selective attribution occurs as a function of voters' competence beliefs, not because their identities motivate them to reach convenient conclusions.

Our findings make several contributions. Most immediately, the novel evidence that selective attribution predated the widening of other partisan differences over the pandemic demonstrates its importance in a once-in-a-century public health crisis. More broadly, the tests of mechanisms have wide-ranging implications for partisanship, polarization, and democratic accountability. As we elaborate in the concluding section, our findings bridge two competing accounts of partisanship: one in which partisanship is a “running tally” of competence evaluations (Fiorina 1978; 1981) and another in which it is a “perceptual screen” rooted in social identity (Campbell et al. 1960). Our findings suggest that through the channel of selective attribution, a running tally of competence beliefs can harden into a perceptual screen over time. In turn, this suggests that party reputation-building—elsewhere viewed as an important component of parties' incentives to govern responsibly (Rosenbluth and Shapiro 2018)—can also dampen democratic accountability. These insights open new doors for examining the importance of selective attribution for a broader range of political contexts, as well as understanding how ethnic, ideological, or issue-based divisions shape voters' evaluation of performance information (Adida et al. 2017; Singh 2022).

## PERCEPTIONS, ATTRIBUTIONS, AND ACCOUNTABILITY

A potential advantage of democratic political systems is that elections may select competent politicians and provide incentives for politicians to deliver better performance (Fearon 1999; Ferejohn 1986; Manin 1997). A base-level question for such accounts is whether voters perceive government performance at all, given their limited exposure to political information and limited incentives to gather it (Downs 1957). Voters

**TABLE 2. Existing Research on Partisan Selectivity in Attributions of Responsibility**

Citation	Countries	Topics	Dates	Data	Source of variation	Explanation(s) considered
Rudolph (2003a)	United States	Fiscal conditions (state level)	Summer 1991	ABC/Washington Post poll	Cross-sectional variation in sociotropic perceptions	None*
Rudolph (2003b)	United States	Economy	Fall 1998	American National Election Studies	Cross-sectional variation in sociotropic perceptions	Partisan-motivated reasoning
Rudolph (2006)	United States	Fiscal conditions (state level, hypothetical)	Unknown	Original laboratory experiment	Randomly assigned partisan labels	Partisan-motivated reasoning
Malhotra and Kuo (2008)	United States	Natural disasters (Hurricane Katrina)	May 2006	Original survey	Randomly assigned partisan labels	None
Marsh and Tilley (2009)	Ireland, United Kingdom	UK: living standards, health care, taxes, education. Ireland: economy, health care.	1998–2001 and 2002–07	British and Irish Election Studies	Cross-sectional variation in sociotropic perceptions	None <sup>†</sup>
Brown (2010)	United States	Economy (1982 recession)	November 1982	CBS/New York Times exit poll	Cross-sectional variation in state political context	None
Sirin and Villalobos (2011)	United States	Domestic and foreign policy	Unknown	Original laboratory experiment	Randomly assigned partisan labels	Competence beliefs
Healy, Kuo, and Malhotra (2014)	United States	Terrorism (September 11, 2001)	February 2007	Original survey	Randomly assigned partisan labels	Partisan-motivated reasoning
Bisgaard (2015)	United Kingdom	Economy (Great Recession)	April 2004 to May 2010	British Continuous Monitoring Survey	Temporal variation in economic conditions	Partisan-motivated reasoning
Nawara (2015)	United States	Economy, war (Iraq)	August 2010	Original survey	Cross-sectional variation in sociotropic perceptions	Partisan-motivated reasoning
McCabe (2016)	United States	Health care (Affordable Care Act of 2010)	January 2014	Kaiser Family Foundation poll	Cross-sectional variation in personal experiences	Partisan-motivated reasoning
Bisgaard (2019)	Denmark, United States	Economy	December 2015 to April 2016	Original surveys	Randomly assigned performance information	Partisan-motivated reasoning
This paper	United States	International crisis (COVID-19 pandemic)	March 2020 to December 2021	Original surveys	Temporal variation, randomly assigned performance information	Competence beliefs, partisan-motivated reasoning

Note: \*Discusses “group-serving attributional bias” but does not specify a mechanism for it (196). <sup>†</sup>Concludes that selective attribution is evidence of “partisan filters” (134). Partisan filters are described as opposed to performance-based accounts (119), but mechanisms for partisan filtering are not discussed.

are thought to form impressions of performance not through a detailed analysis of public policies and their effects, but by paying attention to their own pocket-book (Fiorina 1981), their local context (Snowberg, Meredith, and Ansolabehere 2011), or the news (Kaysner and Leininger 2015).

To the extent that voters perceive the political world at all, another concern is that partisan voters perceive it differently. Ideally, one would hope Democrats and Republicans share a common factual basis for their debates, disagreeing only over matters of policy (Delli Carpini and Keeter 1996). In practice, partisans appear to know more about facts that are politically convenient (Bartels 2002; Jerit and Barabas 2012; Roush and Sood 2023). Yet, they also respond to changing economic conditions by similarly updating their beliefs in the direction of the evidence (Bisgaard 2015; Gerber and Green 1999; Parker-Stephen 2013). Existing analyses of large question banks put the typical partisan belief difference at 5 to 15 percentage points (Jerit and Barabas 2012; Roush and Sood 2023).

Even when voters perceive the world accurately, democratic accountability requires that voters also hold the incumbent responsible for what they observe. Whereas early research on performance-based accountability largely looked past the steps between performance perceptions and vote choice (Downs 1957; Key 1966a), subsequent scholarship argued that attributions of responsibility are crucial to how voters convert perceptions of the world into political attitudes and preferences. Perception of social and economic conditions, and of one's personal circumstances, only predict vote choice among those who hold the government responsible for bringing those conditions about (Abramowitz, Lanoue, and Ramesh 1988; Feldman 1982; Peffley and Williams 1985; Rudolph and Grant 2002). For example, Republican success in the 1982 midterm elections is credited to the American electorate's refusal to blame President Reagan for the preceding recession (Petrocik and Steeper 1986).

A growing body of scholarship finds that voters are selective in their attributions of responsibility. We define *selective attribution* as the tendency of partisan voters to disproportionately credit their party for positive outcomes and blame their political opponents for negative outcomes. A vivid example emerges from Bisgaard's (2015) account of economic perceptions in the United Kingdom during the Great Recession of 2007–9. Even as Britons near-universally recognized worsening economic conditions, supporters and opponents of the governing Labour party differed in their attributions of political responsibility for the economy. Labour supporters assigned less responsibility to the government, effectively making excuses for their party. Labour opponents assigned more responsibility to the government, blaming it for the tough times.

Selective attribution has been documented in several other policy domains in the United States and Europe (Table 2). In cross-sectional analyses, opposite-signed relationships between evaluations and attributions of responsibility have been detected among supporters and opponents of the governing party when it comes

to national economic conditions (Marsh and Tilley 2009; Nawara 2015; Bisgaard 2015; cf. Rudolph 2003b), state-level fiscal conditions (Brown 2010; Rudolph 2003a), and personal experiences with the health care system (McCabe 2016).<sup>2</sup> Though these accounts describe selective attribution as an individual-level process (particularly PMR; Table 2), selective attribution could occur through other means. For example, partisan voters may take cues from elected officials' tendency to seek credit for good outcomes (Grimmer, Messing, and Westwood 2012; Mayhew 1974) and deflect blame for bad outcomes (McGraw 1990).

The best evidence that selective attribution is an individual-level phenomenon emerges from a set of experiments that randomly assign positively or negatively valenced information about economic conditions in the United States and Denmark (Bisgaard 2019). In-partisans were more likely to hold the incumbent responsible when they read positively framed information, and less responsible when they read negatively framed information. Out-partisans did the opposite. Bisgaard's experiments suggest that selective attribution occurs at least in part through some individual-level process that is triggered by exposure to performance information. A related set of experiments find that randomly assigning partisan labels to government officials causes Democrats and Republicans to diverge in their attributions of responsibility for Hurricane Katrina (Malhotra and Kuo 2008), the September 11 attacks (Healy, Kuo, and Malhotra 2014), and hypothetical state-level fiscal conditions (Rudolph 2006).

## EXPLAINING SELECTIVE ATTRIBUTION

Why does exposure to identical information cause partisans to make opposite attributions of responsibility? One possibility is that individuals attribute responsibility in a manner that is consistent with their prior beliefs about who delivers good performance. Consider a voter who believes that the incumbent delivers good performance (i.e., is competent). When this voter observes positive information they infer that the incumbent may have been responsible for the outcome. By contrast, a voter who believes the incumbent is incompetent reacts to positive news by inferring that the incumbent may *not* have been responsible. We call this the *competence beliefs* explanation. In the Supplementary Material, we show that once selective attribution is expressed mathematically, this explanation directly follows from the laws of probability (Section F.1 of the Supplementary Material). By default, one should expect individuals to maintain proportionality between their perceptions of performance and their beliefs about the

<sup>2</sup> Similar results also obtain when voters attribute responsibility between their national governments and the European Union (Hobolt and Tilley 2014; Hobolt, Tilley, and Wittrock 2013), and when they reward or punish co-ethnic and non-co-ethnic politicians for their performance in developing democracies (Adida et al. 2017).

president's effect on performance (i.e., the president's competence).

The existing research on selective attribution favors a different explanation: PMR. Motivated reasoning holds that group identities create a psychological need to maintain a positive evaluation of one's group. These directional motivations cause individuals to find support for conclusions that are consistent with their identities (Kunda 1990; Leeper and Slothuus 2014). As a result, people place disproportionate weight on favorable information and down-weight or ignore inconvenient information. Crucially, not all group-based differences in reasoning are directionally motivated. In particular, the desire to positively evaluate one's group must influence how people use information when they reason, over and above the influence of prior beliefs. For example, the first paragraph of Kunda's (1990) oft-cited case for motivated reasoning notes that instances in which people "draw self-serving conclusions not because they wanted to but because these conclusions seemed more plausible, given their prior beliefs and expectancies" would not qualify as motivated reasoning (also see Coppock 2022; Little 2021; Tappin, Pennycook, and Rand 2020). In Druckman and McGrath's (2019) terminology, the competence beliefs explanation is an instance of priors bias and the PMR explanation is an instance of directional bias.

No previous research tests competing explanations for partisan selectivity in attributions of responsibility. Instead, almost every published study treats selective attribution as face-value evidence of PMR (Table 2). This ignores an observational equivalence problem: in theory, any instance in which groups use identical information to reach different conclusions can be explained either in terms of differences in prior beliefs or in terms of directional motivations (Coppock 2022; Little 2021). Recognition of this problem once spurred psychologists to carefully evaluate both motivational and non-motivational explanations for selective attribution in nonpolitical contexts (Kunda 1990; Miller and Ross 1975). As the concept of motivated reasoning gained wider attention, research increasingly jumped straight to psychological motivations without considering alternative mechanisms that can produce the same patterns (Druckman and McGrath 2019; Tappin, Pennycook, and Rand 2020).<sup>3</sup>

Some preliminary evidence for the competence beliefs explanation emerges in two studies with cross-pressured individuals: those whose partisan identity conflicts with their beliefs about the incumbent's competence. Using cross-sectional data from the 1998 ANES, Rudolph (2003b) finds that Democrats selectively credited President Clinton, a fellow Democrat, for economic performance. Democrats who viewed the economy more positively were also more likely to say the president is responsible for economic conditions.

However, there was "no evidence of partisan rationalizations among Republicans" (704). Instead, the estimates for Republicans took the same sign as the estimates for Democrats in all three models and were statistically significant in one case (Rudolph 2003b, Table 2). This cannot be due to PMR, but can be explained by beliefs about Clinton's competence. In the same data, 67% of Republicans approved of Clinton's handling of the economy, with 29% disapproving. Republicans, who thought on average that Clinton was good at managing the economy, reacted to positive economic news by assigning more responsibility to Clinton.

More evidence that PMR cannot fully explain selective attribution emerges from Denmark, a multiparty system in which some parties that are ideologically aligned with the governing party are not part of the ruling coalition. For such voters, partisan identity is likely to come into conflict with their beliefs about whether the government will deliver good performance. Bisgaard (2019, Study 2) finds that supporters of the center-left coalition government attributed more responsibility to the government when they saw positively framed information about the economy, and less responsibility when they saw negatively framed information. Supporters of right-wing opposition parties did the opposite. A third group of cross-pressured voters—supporters of further-left parties excluded from the ruling coalition—attributed responsibility similar to supporters of the ruling coalition. Eighteen months later a center-right party (the Liberals) took control of the government. A subsequent experiment found the same pattern for right-wing voters not part of the ruling coalition (Bisgaard 2019, Study 3). The cross-pressured voters' pattern of attribution cannot be explained by PMR, but is quite plausibly explained by competence beliefs. If voters believe that governments that share their ideology are likely to govern competently, they may react to good (bad) news by reasoning that the government is more (less) responsible.

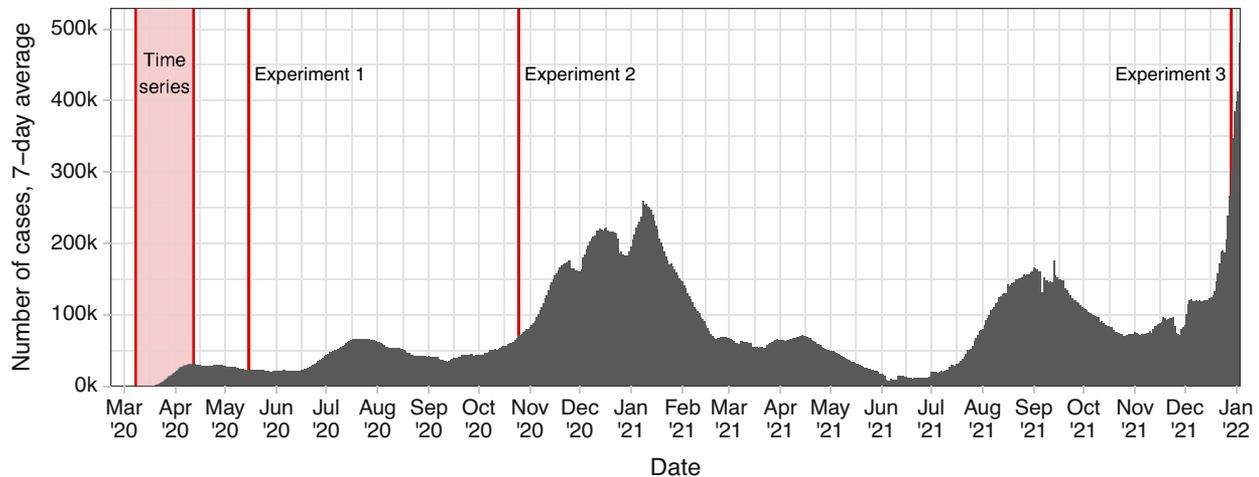
In sum, even though existing studies treat selective attribution as evidence of PMR, our reanalysis slightly favors the competence beliefs explanation. In both previously studied cases in which we could identify a plausible conflict between partisan motivations and competence beliefs, the latter appear to win out.

## RESEARCH DESIGN

Our analysis of selective attribution in the COVID-19 pandemic follows the same order as the foregoing discussion. In our first section of results, we use time series data to show that selective attribution emerged in real time in the early days of the pandemic. This evidence establishes the external validity of our findings but is limited in its ability to describe why selective attribution occurred.

Next, we search for a mechanism. Our first step is to show that selective attribution is an individual-level phenomenon that occurs as a function of voters' perceptions of performance. This justifies our focus on two

<sup>3</sup> It is instructive that the only previous study of partisan selective attribution to cite a competence beliefs explanation (Sirin and Villalobos 2011) develops its explanation through engagement with the psychology literature rather than the political science literature.

**FIGURE 1. Timeline**

Note: This figure plots daily COVID-19 case rates in the United States (gray bars) against the dates of our time series survey (red shaded box) and experiments (red vertical lines). Data: New York Times, "Coronavirus (COVID-19) Data in the United States," accessed January 15, 2022.

individual-level explanations, competence beliefs and PMR. We selected competence beliefs as a plausible alternative to PMR based on some further analysis, which appears in the Supplementary Material.<sup>4</sup>

Based on our theory, we developed and pre-registered two tests of which mechanism is more plausible. Our approach embodies Little's (2021) recommendation that researchers "manipulate (or find natural variance in) accuracy and directional motives while holding informational content as equal as possible" (abstract). The strategies have complementary strengths and weaknesses. To make use of natural variation, we run a regression-based horse race that examines whether measures of competence beliefs or partisan identity are the stronger predictor of selective attribution. This is highly specific in terms of what mechanisms are being tested. However, because the variation in partisan identity and competence beliefs is descriptive, the comparison between the two explanations is not causally identified. To manipulate motives, we examine the degree to which selective attribution persists in the presence of a randomly assigned accuracy motivation treatment. This provides causal evidence that beliefs are a better explanation than directional motivation, but is agnostic as to exactly what beliefs or directional motivations are at play.

<sup>4</sup> First, strength of partisanship, as measured by the traditional seven-point scale, is a poor predictor of selective attribution (Section F.3 of the Supplementary Material). This signals a potential need for an alternative explanation. Second, Bayes' rule implies that agents should maintain proportionality between their perceptions of performance and beliefs about the incumbent's effect on performance (Section F.1 of the Supplementary Material). This suggests competence beliefs as a plausible alternative. Third, we show that information about Trump's responsibility for the CDC causes Democrats and Republicans to make opposite inferences about its performance (Section C of the Supplementary Material). This suggests that voters have competence beliefs.

Empirical tests between belief-based and motivation-based explanations generally only consider the "last mile," the moment at which subjects evaluate information and/or update their beliefs. Our approaches share this limitation. Even if subjects' competence beliefs are the more-proximate explanation for selective attribution, it is possible that motivated reasoning plays a role in the formation of those beliefs. Though the analysis below makes clear that competence beliefs are not entirely a function of partisan identity (Figure 6), we would not go so far as to say that we can rule it out at all stages of the process. Within this limitation, we endeavor to provide a complete account of selective attribution in the COVID-19 pandemic, beginning by establishing external validity and culminating in a more thorough analysis of mechanisms than has been conducted for other cases (Table 2).

## AN OUTBREAK OF SELECTIVE ATTRIBUTION

Our first finding is that selective attribution emerged early in the pandemic, at a time when Democrats' and Republicans' perceptions of the threat from COVID-19 otherwise moved in tandem. To measure public reactions to the emerging crisis, we partnered with Lucid to field a time series cross-sectional survey, recruiting about 600 respondents each Sunday from March 8 to April 12, 2020 (6 weeks; total  $n = 3,748$ ). The data span a critical period in the pandemic (Figure 1). On March 8, the United States recorded its five hundredth confirmed COVID-19 case. Only one state, Washington, had confirmed a COVID-19 death. The World Health Organization had not yet declared a pandemic. By April 12, the pandemic was well underway, with more than five hundred thousand cases and 23,000 deaths confirmed in the United States alone.

The pandemic's dramatic escalation during this period produced close-to-parallel changes in perceptions among Democrats and Republicans.<sup>5</sup> We document this using three groups of measures. First, factual beliefs: the respondent's best guess of the cumulative number of confirmed cases and deaths recorded nationwide and in the respondent's own state. Figure 2a displays a box and whisker plot of the distribution of Democrats' and Republicans' best guesses. Each week, Democrats and Republicans made similar guesses about the number of cases and deaths.<sup>6</sup> Second, subjective threat perceptions. Respondents assessed the threat from COVID-19 on a five-point Likert scale from "no threat" to "imminent" (Figure 2b). On this measure, a partisan gap of about 0.5 scale points consistently appears each week, equal to about 13% of the 1 to 5 scale. Despite this persistent gap, Democrats and Republicans also updated their perceptions by a similar amount—close to a full scale point in each party. Third, a battery of self-reported behavioral changes (Figure 2c). On each of several indicators including avoiding physical contact with others, isolating oneself for at least 24 hours, and purchasing masks or other protective gear, Democrats and Republicans changed their behavior by about the same amount at approximately the same time.

In contrast to Democrats' and Republicans' parallel updating in threat perceptions, the time series documents substantial partisan divergence in blame attributions. Each respondent rated several actors' blameworthiness for the pandemic on a four-point Likert scale ranging from "not at all" to "a lot." First consider blame attributed to Trump. From March 8 to April 12, the average rating among Democrats increased by about 0.79 scale points, which is 23.5% of the scale (s.e. = 3.2), compared with 0.26 scale points or 8.9% of the scale for Republicans (s.e. = 2.8; partisan difference = 16.1, s.e. = 4.4). A version of the same pattern appears in attributions of blame to Trump's party, the Republicans (partisan difference = 15.3, s.e. = 4.2). By contrast, little such divergence is seen in the extent to which Americans blame Democrats, U.S. government agencies,

immigrants, bad luck, or nature. A slight partisan divergence emerges in attributions of blame to China, Trump's preferred scapegoat.<sup>7</sup>

The combination of parallel changes in perception but divergence in attributions of responsibility provide the basis for our claim that selective attribution emerged early in the pandemic. As the threat escalated, Democrats and Republicans reacted to new developments by similarly revising their factual beliefs, threat perceptions, and behavior. Yet, despite their parallel reactions, Democrats and Republicans increasingly diverged on the question of blaming Trump for the pandemic.

## THE CAUSAL EFFECT OF PERFORMANCE INFORMATION

Even as the time series establishes that selective attribution emerged as the pandemic unfolded, observational data have limitations when it comes to testing explanations for this pattern. Even though previous observational research overwhelmingly frames selective attribution as an individual-level process (Table 2), it is also possible that selective attribution emerges because of partisan leaders' tendency to take credit for positive developments and deflect blame for negative ones (Mayhew 1974; McGraw 1990).<sup>8</sup> To better isolate the relationship between individual perception and selective attribution, we turn to experiments. By randomly assigning information that positively or negatively affects perceptions of the pandemic at the individual level, we can be sure that consequent changes in attributions of responsibility are a function of voters' cognitive processes, not exposure to elite rhetoric. This lays the foundation for our subsequent analysis of which individual-level explanation is more plausible.

### Experiment 1

In May 2020, we recruited 1,059 respondents using Amazon Mechanical Turk (MTurk), which provides diverse national samples that skew young. Our sample included 564 Democrats or independents who lean toward the Democrats ("Democrat leaners"), 360 Republicans and Republican leaners, and 134 independents who do not lean toward either party.

The experiment examined the causal effect of information about the severity of the pandemic on two outcomes: (a) perceptions of how well the United States is doing in the fight against COVID-19 and (b) attributions of responsibility to President Trump. Each participant read four short vignettes providing

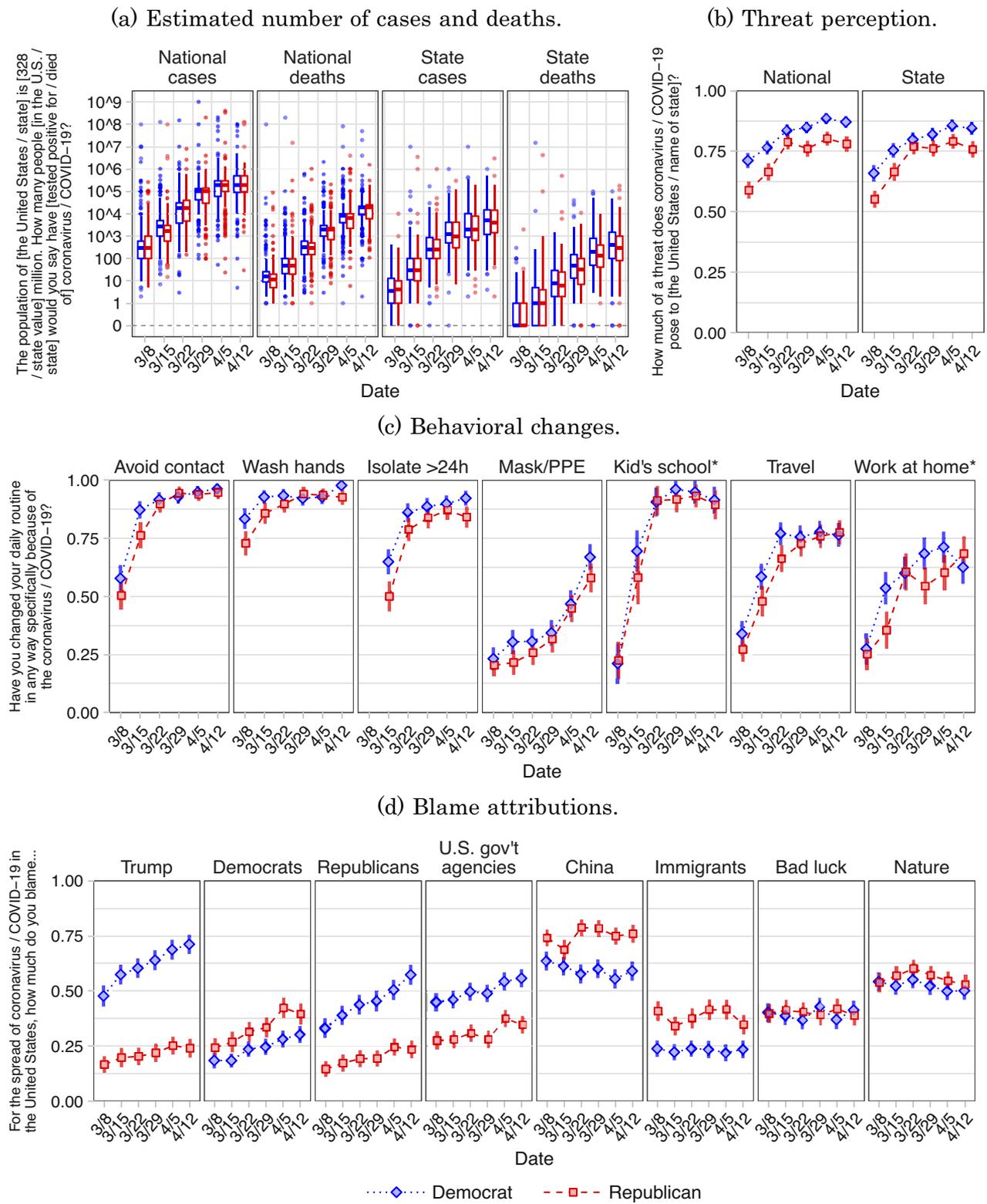
<sup>5</sup> Although the pandemic's subsequent politicization is a more common object of study, data collected in March and early to mid-April consistently reflects Democrats' and Republicans' shared recognition of the growing threat, dwarfing any partisan divides. Gollust, Nagler, and Fowler (2020) note that "[i]n mid-April, there was a strong bipartisan consensus on the threat and support for shelter-in-place recommendations" that soon broke down (973). Similarly, Sides, Tausanovitch, and Vavreck (2020) describe an early "consensus" that "broke down ...largely along partisan lines" (4–5). To provide more specific verification that the patterns we document are consistent with existing research, Section A.3 of the Supplementary Material analyzes replication data from previously published articles on partisanship and the pandemic (Allcott et al. 2020; Clinton et al. 2021).

<sup>6</sup> Consistent with best practices (Ansolabehere, Meredith, and Snowberg 2013), respondents were told the total population of the country and state before they made their guess (y-axis, Figure 2a). Using the paradata detection method described by Graham (Forthcoming), we flagged respondents suspected of looking up the answers and dropped them from our analysis of these items only.

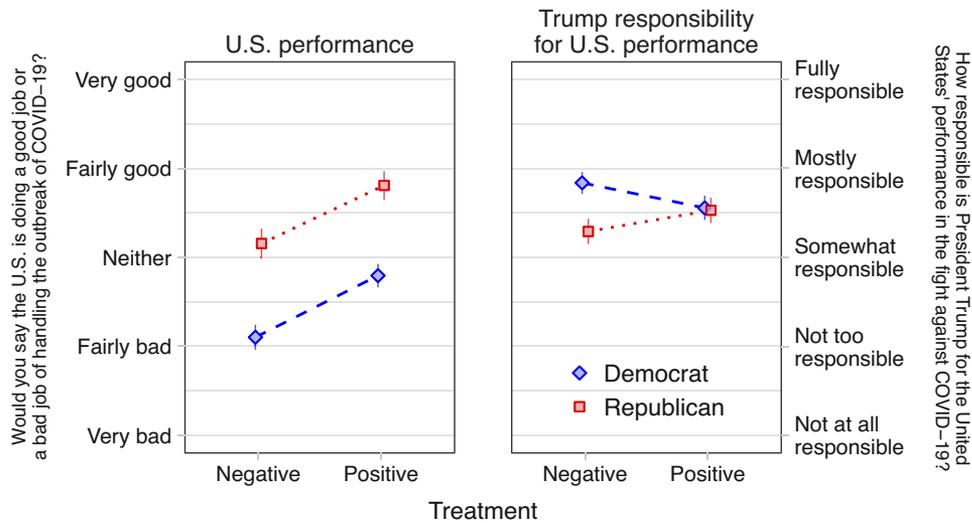
<sup>7</sup> In the Supplementary Material, we use regression to summarize these patterns more precisely.

<sup>8</sup> We think this factor is unlikely to seriously confound our time series analysis. A quintet of *New York Times* reporters date the Trump administration's pivot from taking credit for the pandemic response to disowning it to "a critical period in mid-April" that began "soon after" April 11, 2020 (Shear et al. 2020). However, the need to make arguments like this crystallizes the value of experiments.

**FIGURE 2. Time Trends in Perceptions, Behavior, and Blame Attributions, March–April 2020**



Note: Figure 2a displays the box and whisker plots of the distribution of respondents' best guesses. In each pair, Democrats are represented by the blue box and whiskers on the left; Republicans by the red box and whiskers on the right. Middle line is median, box borders are 25th and 75th percentiles, whiskers are 2.5th and 97.5th percentiles, and dots are outliers. Figure b–d displays the means. Democrats are blue diamonds connected by dots; Republicans, red squares connected by dashes. The vertical bars represent 95% confidence intervals. \* indicates questions that were only asked if applicable to the respondent.

**FIGURE 3. Experiment 1**

Note: The figure reports the group means for Democrats (blue diamonds) and Republicans (red squares) by experimental treatment (negatively or positively valenced information). In the left panel, the outcome is an assessment of the U.S.'s performance during the pandemic. In the right panel, the outcome is how much President Trump is responsible for the U.S.'s pandemic performance. Vertical bars represent 95% confidence intervals. For numerical tables and difference-in-means estimates, see the Supplementary Material.

information on the number of COVID-19 cases, number of deaths, testing capacity, and progress in developing treatments. Within these fixed topic areas, half of the respondents were randomly assigned to read positively valenced information, while the other half saw negatively valenced information. The information made no reference to the government or to any political figure. Following this, respondents answered three questions: an open-ended question about who is responsible for handling of the pandemic, a closed-ended question about how responsible Trump is for the pandemic, and a closed-ended question about how well the United States is handling the pandemic.

The experiment successfully manipulated perceptions of the pandemic among both Democrats and Republicans (Figure 3, left). On average, Republicans who read negatively valenced information rated the country's performance as "neither good nor bad," whereas Republicans who read positively valenced information rated it as "fairly good." The difference, about 16% of the scale, was statistically significant ( $CATE_R = 0.163$ ,  $s.e. = 0.029$ ). Similarly, the average Democrat moved from "fairly bad" to "neither good nor bad" ( $CATE_D = 0.173$ ,  $s.e. = 0.024$ ). The difference in treatment effects for Republicans and Democrats is statistically insignificant ( $CATE_R - CATE_D = -0.010$ ,  $s.e. = 0.038$ ). Section B of the Supplementary Material shows that the treatment moved perceptions of performance on each of the four dimensions, for both Democrats and Republicans (see Figure B.1 in the Supplementary Material).

Despite these parallel changes in perceptions, Democrats and Republicans made opposite inferences about presidential responsibility (Figure 3, right). Compared with Republicans who read negatively valenced

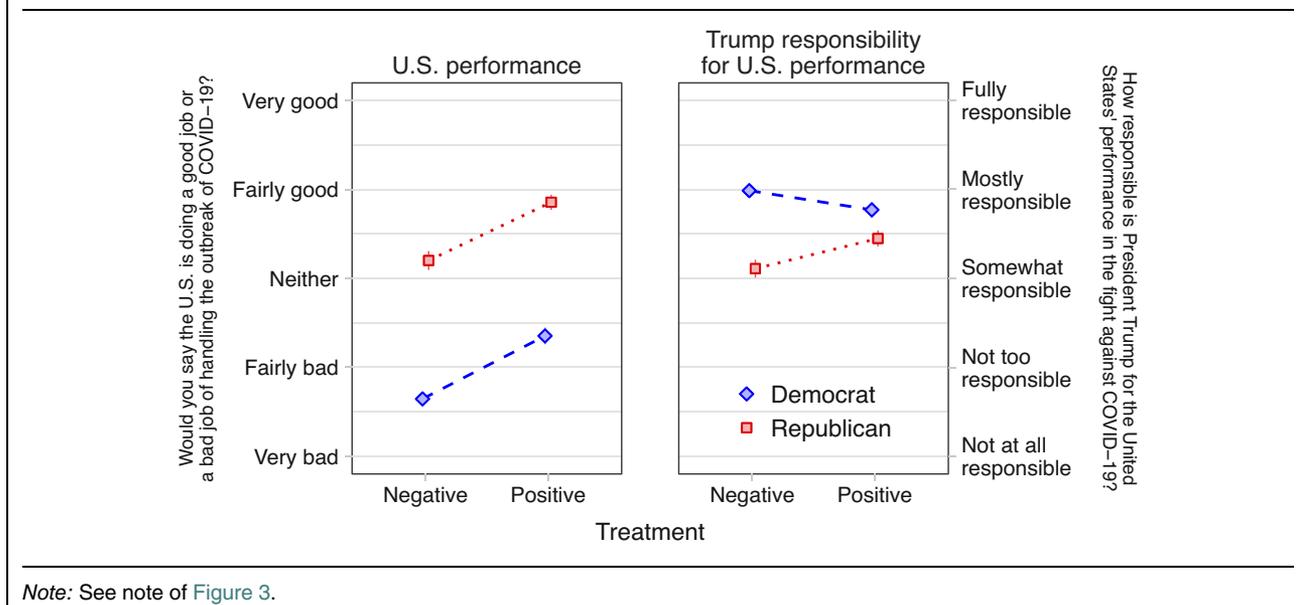
performance information, those that read positively valenced information said Trump was more responsible for the country's performance ( $CATE_R = 0.060$ ,  $s.e. = 0.026$ ). For Democrats, we observe the opposite. Compared with Democrats who read negatively valenced information, those that read positively valenced information said Trump was less responsible ( $CATE_D = -0.070$ ,  $s.e. = 0.023$ ). The difference in treatment effects is approximately 13% of the scale ( $CATE_R - CATE_D = 0.130$ ,  $s.e. = 0.035$ ).

Immediately before this close-ended question, we asked respondents an open-ended question about who is responsible for the pandemic. The question did not mention Trump or any other political figure. We coded responses as "1" if the respondent said Trump was responsible, else "0." We coded all responses using an automated dictionary-based approach and a research assistant who was blind to the hypotheses and the computer's coding. This procedure yielded a 97.9% inter-coder agreement. A second research assistant, also blind to the hypotheses and the other codings, independently broke all ties.

The open-ended outcome yields a similar pattern. The difference-in-means is positive for Republicans ( $CATE_R = 0.008$ ,  $s.e. = 0.043$ ) and negative for Democrats ( $CATE_D = -0.095$ ,  $s.e. = 0.041$ ), resulting in a borderline-significant difference ( $CATE_R - CATE_D = 0.103$ ,  $s.e. = 0.059$ ,  $p = 0.08$ ). In effect, partisan differences appear to exist even when questions of accountability are not explicitly stated in political terms.

## Experiment 2

The second experiment is a pre-registered replication of the first experiment in a more politicized context:

**FIGURE 4. Experiment 2**

Note: See note of Figure 3.

8 months into the pandemic, 3 weeks after the president tested positive for COVID-19, and 1 week before the presidential election. Between October 23 and 25, 2020, we used MTurk to recruit a diverse national sample ( $n = 3,592$ ) for a baseline survey that collected the respondent's demographics, partisan identity, beliefs about presidential competence, and pre-treatment measures of the outcomes. On October 26–28, 6–8 days before the election, we invited the 3,234 partisans and independent leaners to complete a follow-up survey containing only the experiment and the outcomes.<sup>9</sup> Of these, 2,504 respondents completed the second experiment.

The design was very similar to Experiment 1. Each respondent was randomly assigned to read a set of positively or negatively framed vignettes, which were updated to include the most recent information within the same four topic areas. Following this, respondents answered two close-ended questions: one on how responsible Trump is for handling of the pandemic, another on how well the United States is handling the pandemic. At no point prior to measuring outcomes did the follow-up survey mention any political party or figure.

Once again, the experiment successfully manipulated perceptions of the pandemic among both Democrats and Republicans (Figure 4, left). In fact, the point estimates are almost identical to those in Experiment 1. On average, Republicans who viewed negatively valenced information rated the country's performance as "neither good nor bad," whereas those that read positively valenced information rated it as "fairly good" ( $CATE_R = 0.175$ ,  $s.e. = 0.013$ ). The difference between

the two conditions was about the same for Democrats ( $CATE_D = 0.165$ ,  $s.e. = 0.011$ ). The difference in treatment effects for Republicans and Democrats is not statistically significant ( $CATE_R - CATE_D = 0.010$ ,  $s.e. = 0.017$ ). Section E of the Supplementary Material shows that the treatment moved perceptions of U.S. performance on all four dimensions, for both Democrats and Republicans (see Figure E.1 in the Supplementary Material).

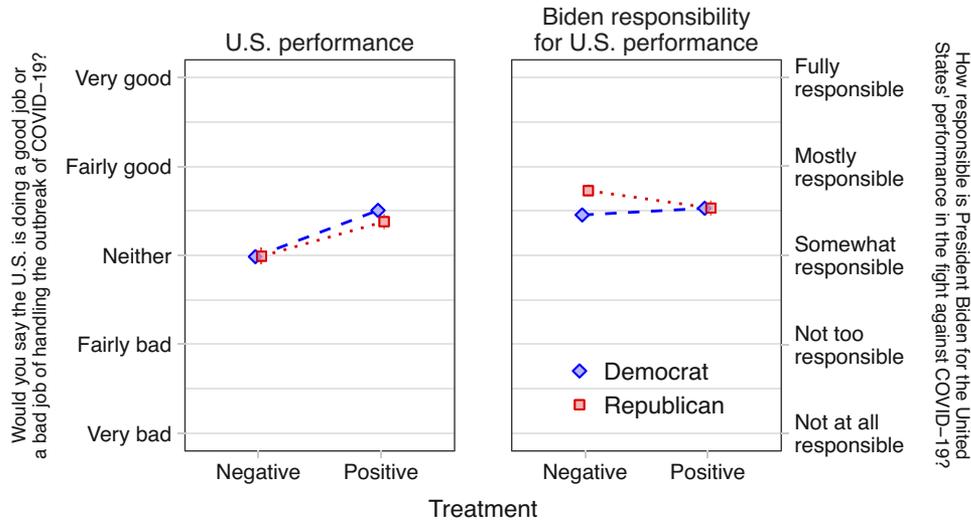
As before, Democrats and Republicans used the same information to make opposite inferences about presidential responsibility for the pandemic. Republicans who saw positively valenced information attributed more responsibility to President Trump, compared with Republicans who saw negatively valenced information ( $CATE_R = 0.099$ ,  $s.e. = 0.014$ ). By contrast, Democrats who saw positively valenced information attributed less responsibility to Trump, compared with those that read negatively valenced information ( $CATE_D = -0.059$ ,  $s.e. = 0.013$ ). The difference in treatment effects is about 16% of the scale and is statistically significant ( $CATE_R - CATE_D = 0.156$ ,  $s.e. = 0.019$ ).

One key difference between the results of Experiments 1 and 2 is that regardless of treatment condition, Democrats and Republicans differ more in their evaluations of the country's performance and attributions of responsibility. We attribute this to the fact that Experiment 2 was conducted later in the pandemic and closer to a presidential election.

### Experiment 3

The third experiment is another pre-registered replication conducted more than 1 year after Experiment 2. On December 29–30, 2021, we used MTurk to recruit another diverse national sample ( $n = 4,484$ ). By this time, the political and public health context differed in

<sup>9</sup> Methodological research suggests that the proximity of our pre- and post-treatment measures of the outcome is unlikely to have biased our estimates (Clifford, Sheagley, and Piston 2021).

**FIGURE 5. Experiment 3**

Note: See note of Figure 3.

two crucial respects. First, a Democrat, Joe Biden, had been elected U.S. President and led the country's pandemic response for slightly longer than President Trump. Second, the country was experiencing its largest COVID-19 surge to date. The day before the experiment was launched, the country broke its previous record for the number of COVID-19 cases recorded in a single day. On the first day of the experiment, the country set the world record for the most cases recorded by any country in a single day.

Again, the design closely followed Experiments 1 and 2. Each respondent was randomly assigned to read positively or negatively framed vignettes in four topic areas: the number of COVID-19 cases, number of deaths, testing and treatment capacity, and the Omicron variant. The first three topic areas are the same as those in Experiments 1 and 2, whereas the fourth topic reflects the growing prominence of new variants in the fight against COVID-19. Following the vignettes, all respondents answered two closed-ended questions: one on how well the United States is handling the pandemic, and another on President Biden's responsibility for the country's performance. The questions were identical to Experiments 1 and 2 with the exception that "Biden" was substituted for "Trump." The experiment also included a second treatment that randomly assigned respondents to read (or not read) a prime that enhanced accuracy motivations. We examine this treatment in a separate section (see the section "Altering the Motivational Context").

We observe parallel updating in perceptions of how well the country is weathering the pandemic (Figure 5, left). Republicans who read negatively valenced information rated the country's performance as "neither good nor bad," whereas Republicans who read positively valenced information moved half the distance to "fairly good." This difference was equal to about 13% of

the scale ( $\widehat{CATE}_R = 0.128$ ,  $s.e. = 0.010$ ). A similar pattern was observed for Democrats ( $\widehat{CATE}_D = 0.138$ ,  $s.e. = 0.008$ ).

Just as they did under Trump, Democrats and Republicans used identical information to make opposite inferences about Biden's responsibility for the pandemic (Figure 5, right). Democrats who read positively valenced information assigned more responsibility to Biden, relative to Democrats who read negatively valenced information ( $\widehat{CATE}_D = 0.027$ ,  $s.e. = 0.006$ ). By contrast, Republicans who read positively valenced information assigned less responsibility to Biden, compared to those that read negatively valenced information ( $\widehat{CATE}_R = -0.040$ ,  $s.e. = 0.009$ ). The difference in treatment effects is about 7% of the scale and is statistically significant ( $\widehat{CATE}_R - \widehat{CATE}_D = -0.067$ ,  $s.e. = 0.011$ ).

The results differ from Experiments 1 and 2 in three respects. None contradict our theoretical account, but all deserve explanation. First, regardless of treatment condition, Democrats and Republicans, on average, had more similar perceptions of the pandemic. We attribute this to divided issue ownership: at the time of the survey, a Democratic and Republican president had lead the country's pandemic effort for roughly similar amounts of time. Second, the treatment effects on performance perceptions are smaller. We attribute this to the fact that this experiment was conducted much later in the pandemic. By this time, Americans had been exposed to much more information about the pandemic, a form of "pre-treatment" that has been shown to reduce persuadability (Druckman and Leeper 2012). Third, the treatment effects on attributions of responsibility are smaller. We attribute this to the fact that attributions of responsibility are changing as a function of perceptions of performance. A smaller upstream effect on performance evaluations should

result in a smaller downstream effect on attributions of responsibility.

## COMPETENCE BELIEFS AS A MODERATOR

Having established the need for an individual-level explanation, we now turn to the question of what explains selective attribution. Experiments 2 and 3 each included a regression-based horse race that pits the prevailing explanation, PMR, against the alternative, competence beliefs. Because “the goal of directionally motivated reasoning is *identity protection*” (Kahan 2016, 4, emphasis original), researchers expect the tendency to engage in motivated reasoning to be strongest among those with the strongest identities (e.g., Leeper and Slothuus 2014; Nyhan and Reifler 2010). By comparison, the competence beliefs account predicts that beliefs about the incumbent’s effect on performance will be the stronger moderator.

Our strategy is to measure our respondents’ competence beliefs and partisan identities, then use regression to examine how these measures predict responses to an exogenous shock to perceptions of the pandemic (in the form of randomly assigned information). In other words, we enter both factors into a regression as moderators of the treatment effect and see which moderator retains its explanatory power. This strategy has two key strengths. First, when both measures are entered as moderators, regression uses only the variation in each measure that is independent of the other measure. This addresses concerns that competence beliefs may be partly determined by identity or vice versa. Second, the experimental design addresses concerns about reverse causality. In an observational version of the following analysis, one might worry that attributions of responsibility influence competence beliefs. This is not a concern in our setup because competence beliefs are measured before the treatment induces an exogenous shock to attributions of responsibility.

## Measurement

Our measure of partisan identity is adapted from Greene (1999) and Huddy, Mason, and Aaroe (2015). All respondents who indicated a partisan preference were asked to rate three statements, each using five-point Likert scales ranging from “strongly disagree” to “strongly agree.” We take a simple average of the three measures, then rescale so that 0 indicates strong identification as a Democrat, 1 indicates strong identification as a Republican, and 0.5 indicates no identification with either party (i.e., strong disagreement with all three statements). We refer to this as the partisan identity scale. The index relies on agreement or disagreement with the following statements:

- When I talk about [Democrats/Republicans], I say “we” rather than “they.”
- I think of myself as a [Democrat/Republican].
- Being a [Democrat/Republican] is important to me.

To measure competence beliefs, we developed a three-item scale based on the measures analyzed in Key (1966a) and our formal statement of the competence beliefs account (see Section F.1 of the Supplementary Material). The scale was minimally modified between Experiments 2 and 3 to account for differences in political context. These changes are indicated in brackets:

- When President [*Experiment 2: Trump / Experiment 3: Biden*] is running the government, do you expect government performance to get better or worse? (Definitely worse, probably worse, makes no difference, probably better, definitely better).
- What effect would you say President [Trump / Biden] has on the government’s ability to solve problems? (Completely negative, mostly negative, neither negative nor positive, mostly positive, completely positive).
- Who would you say is more competent: [Democratic presidential candidate Joe / President] Biden or [Republican presidential candidate Donald / former President] Trump? (Definitely Trump, probably Trump, equally competent, probably Biden, definitely Biden).

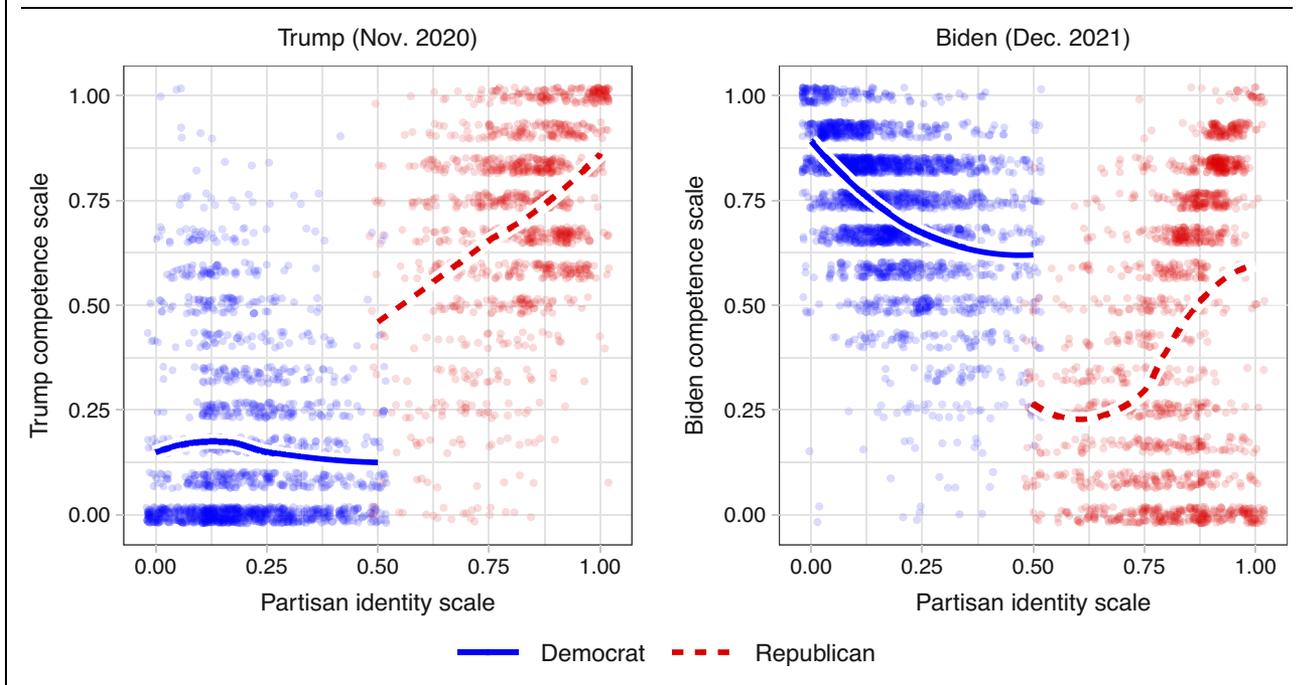
The scale meets conventional standards for internal consistency (Cronbach’s  $\alpha = 0.92$  and  $0.89$ ).

The two indices are related but distinct. In Experiment 2, the correlation between the partisan identity and Trump competence scales was 0.75. In Experiment 3, the correlation between the partisan identity and Biden competence scales was 0.47. To identify sources of common and residual variation, Figure 6 presents a scatter plot of the two indices, with a loess-smoothed line depicting the average competence belief conditional on partisan identity. Under both Biden and Trump, partisan identity and competence beliefs were strongly correlated among the president’s co-partisans: stronger identity predicted a more favorable perception of the president’s competence. In the opposing party, there was no relationship under Trump and a reverse relationship under Biden: stronger identification as a Republican was associated with *more* favorable assessment of Biden’s competence.<sup>10</sup>

To test which of these measures is a better predictor of selective attribution, we pre-registered a linear model,

$$Y_i = \alpha + \beta_1 \text{Partisan identity}_i + \beta_2 \text{Competence belief}_i + \beta_3 Z_i + \beta_4 (Z_i \times \text{Partisan identity}_i) + \beta_5 (Z_i \times \text{Competence belief}_i) + \beta_6 X_i + \epsilon_i, \quad (1)$$

<sup>10</sup> Though we knew from Experiment 2 that the relationship between identity and competence beliefs was imperfect, the reverse relationship surprised us. We conducted a series of checks to verify that it was not an indication of poor data quality (Section F.5 of the Supplementary Material).

**FIGURE 6. Partisan Identity versus Beliefs about Presidential Competence**

where  $Y_i$  is the amount of responsibility attributed to Trump or Biden,  $Z_i$  is an indicator of the respondent's treatment status in the experiment (0 = negatively valenced information, 1 = positively valenced information), Partisan identity $_i$  and Competence belief $_i$  are the indices just described, and  $X_i$  is the baseline measure of  $Y_i$ . In this model,  $\alpha$  is the mean for a strong Democrat who is certain that the president delivers bad performance and is exposed to negatively valenced information. For such a respondent,  $\beta_3$  is the predicted treatment effect of a switch to positive information. The key parameters are  $\beta_4$  and  $\beta_5$ , which respectively capture how this effect varies as a function of partisan identity and competence beliefs. Since our specification includes both indices, OLS only uses the residual predictive power of each variable after controlling for the other, or "partialling out" the variation predicted by the other variable (Wooldridge 2012). Consequently, we interpret  $\beta_5$  ( $\beta_4$ ) as answering the following question: after removing the variation in the treatment effect predicted by partisan identity (competence beliefs), what is the remaining explanatory power of competence beliefs (partisan identity)?

## Results

We find that competence beliefs are a better moderator of treatment effects (i.e., a better predictor of selective attribution). Table 3 presents OLS estimates of the parameters. We begin by considering column 4, which contains the horse race under Trump. In Experiment 2, the estimate of  $\beta_5$  tells us that compared with someone who thinks Trump never delivers good performance, a person who thinks Trump always delivers good performance responds to positively valenced

information by attributing 0.22 more responsibility to Trump on the [0, 1] scale (Table 3, column 4). By comparison, the estimate of  $\beta_4$  suggests that partisan identity does not predict much heterogeneity in treatment effects after accounting for competence beliefs.  $\beta_4$  is about one-fifth the size and statistically insignificant.

The same pattern of attribution appears under Biden. In Experiment 3, the estimate of  $\beta_5$  indicates that compared to someone who thinks that Biden never delivers good performance, a person who thinks he always delivers good performance responds to positively valenced information by attributing 0.15 scale units more responsibility to him for the pandemic (Table 3, column 8). Again, the estimate of  $\beta_4$  is about one-fifth the size and statistically insignificant. Whereas both estimates of  $\beta_5$  indicate that competence beliefs are a moderator independently of partisan identity, both estimates of  $\beta_4$  indicate that partisan identity has little if any moderating effect independent of competence beliefs.

To contextualize the main result, Table 3 also examines treatment effect heterogeneity in specifications that consider each index separately. Partisan identity is examined in the second and sixth columns, and competence beliefs in the third and seventh columns. In Experiment 2, both scales predict heterogeneity in treatment effects ( $\beta_4 = 0.220$ , s.e. = 0.029 in column 2;  $\beta_5 = 0.244$ , s.e. = 0.027 in column 3). This indicates that partisan identity and competence beliefs are capable of predicting selective attribution. In Experiment 3, both scales are again predictive of treatment effect heterogeneity. However, competence beliefs are a stronger moderator:  $|\beta_5|$  is about twice as large as  $|\beta_4|$ . In column 6,  $\beta_4 = -0.093$ , s.e. = 0.017, and in column 7,  $\beta_5 = 0.168$ , s.e. = 0.020. This indicates that on average, respondents

**TABLE 3. Treatment Effect Heterogeneity, Experiments 2 and 3**

	Experiment 2 (Trump)				Experiment 3 (Biden)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\alpha$ Constant	0.295** (0.017)	0.402** (0.022)	0.434** (0.021)	0.429** (0.022)	0.166** (0.009)	0.148** (0.009)	0.200** (0.014)	0.173** (0.016)
$\beta_1$ Partisan identity		-0.204** (0.022)		0.027 (0.031)		0.046** (0.012)		0.037** (0.013)
$\beta_2$ Competence beliefs			-0.274** (0.020)	-0.294** (0.029)			-0.047** (0.014)	-0.026 (0.016)
$\beta_3$ Treatment (1 = positive)	0.007 (0.010)	-0.095** (0.017)	-0.089** (0.014)	-0.097** (0.017)	0.003 (0.005)	0.041** (0.008)	-0.103** (0.015)	-0.080** (0.020)
$\beta_4$ Treatment $\times$ partisan ID		0.220** (0.029)		0.042 (0.041)		-0.093** (0.017)		-0.030 (0.018)
$\beta_5$ Treatment $\times$ comp. beliefs			0.244** (0.027)	0.216** (0.038)			0.168** (0.020)	0.152** (0.022)
$\beta_6$ Presidential responsibility, wave 1	0.551** (0.021)	0.533** (0.021)	0.503** (0.022)	0.502** (0.022)	0.743** (0.012)	0.743** (0.012)	0.737** (0.012)	0.734** (0.012)
Adj. R <sup>2</sup>	0.317	0.344	0.369	0.370	0.563	0.567	0.574	0.574
No. of obs.	2,503	2,503	2,503	2,503	4,065	4,065	4,065	4,065

Note: This table displays parameter estimates from Equation 1. HC2 robust standard errors in parentheses. \* $p < 0.05$ , \*\* $p < 0.01$ .

at the extremes of the competence beliefs scale attribute responsibility about twice as selectively as respondents at the extremes of the partisan identity scale.

Partisan identity scales can be thought of as encoding two types of information: party affiliation and strength of identification. Because regression imposes the assumption of a linear relationship, tests like those presented above can find statistically significant interactions even when the partisan difference, rather than the strength of identification, is the main driver of the results. The Supplementary Material includes two pre-registered tests of this possibility. First, we estimate the same models presented in Table 3 separately for Democrats and Republicans (Tables F.1 and F.2 in the Supplementary Material). When considering the two factors separately, competence beliefs have a statistically significant relationship with selective attribution (columns 3 and 7), but identity strength does not (columns 2 and 6).<sup>11</sup> Second, we examine how selective attribution varies according to the strength of partisanship, as measured by the traditional seven-point scale of partisan identity. This measure of identity strength also fails to predict heterogeneity in selective attribution (Figure F.1 in the Supplementary Material). This means that the relationship between partisan identity and selective attribution reported in Table 3 is driven mainly by cross-party differences, not by within-party variation in identity strength.

In sum, the horse race yields two key findings: (1) competence beliefs are a stronger predictor of selective attribution than is partisan identity and (2) measures of partisan identity draw their explanatory power from the difference between Democrats and Republicans, not from variation in identity strength within each party.

## ALTERING THE MOTIVATIONAL CONTEXT

Theories of motivated reasoning holds that directional motivation must influence conclusions over and above what conclusion would be reached by an accuracy-motivated reasoner with the same beliefs (Kunda 1990; see discussion above). Consequently, researchers often demonstrate motivated reasoning's influence by countering it with an accuracy prime. If some phenomenon is the product of directional motivation, enhanced accuracy motivation should lead to more objective conclusions. For example, Bolsen, Druckman, and Cook (2014) and Bolsen and Druckman (2015) find that an accuracy prime eliminates the influence of partisan cues on policy evaluations. In our context, the PMR account predicts that enhancing accuracy motivation should reduce selective attribution. By contrast, the competence beliefs account predicts that enhancing accuracy primes should have no effect on

selective attribution. We tested these predictions in Experiment 3.

To enhance accuracy motivation, we borrow a canonical strategy from the motivated reasoning literature: creating the expectation that one will have to justify their beliefs to others (Kunda 1990; Redlawsk 2002; Tetlock 1983; 1985). We closely modelled it after Bolsen, Druckman, and Cook (2014) and Bolsen and Druckman (2015). Prior to reading the information about the pandemic, treated subjects were told that “[w]hen thinking about your opinion, please try to view the questions in an evenhanded way and from various perspectives. We will later ask that you justify the reasons for your responses.” On each of the two pages containing the outcome questions, treated subjects were reminded, “[r]emember that you will have to justify the reasons for your response.”

To quantify the accuracy treatment's influence on selective attribution, we pre-specified a linear model:

$$\begin{aligned}
 Y_i = & \alpha + \beta_1 Z_i + \beta_2 \text{Republican}_i + \beta_3 (\text{Republican}_i \times Z_i) \\
 & + \beta_4 \text{Accuracy}_i + \beta_5 (\text{Accuracy}_i \times Z_i) \\
 & + \beta_6 (\text{Accuracy}_i \times \text{Republican}_i) \\
 & + \beta_7 (\text{Accuracy}_i \times \text{Republican}_i \times Z_i) + \beta_8 X_i + \epsilon_i,
 \end{aligned} \tag{2}$$

where  $\text{Accuracy}_i$  is an indicator for the accuracy motivation treatment and all other variables are as defined above. Here,  $\beta_1$  and  $\beta_3$  quantify selective attribution in the absence of the accuracy treatment.  $\beta_1$  is the effect of the information treatment on Democrats' attributions of responsibility when no accuracy prime is present.  $\beta_3$  is the difference in treatment effects between Republicans and Democrats. The primary coefficient of interest is  $\beta_7$ , which quantifies how the partisan difference in selective attribution (i.e.,  $\beta_3$ ) changes when the accuracy prime is introduced. If selective attribution were entirely due to PMR, we would expect that  $\beta_7 = -\beta_3$ . If selective attribution were entirely due to competence beliefs, we would expect that  $\beta_7 \approx 0$ .

We find no evidence that heightened accuracy motivation diminishes selective attribution. The second column of Table 4 presents the estimates for parameters in Equation 2. We estimate  $\beta_1 = 0.034$  (s.e. = 0.009) and  $\beta_3 = -0.068$  (s.e. = 0.016). This indicates that when no accuracy prime is present, Democrats reading positive information assign 0.034 more responsibility to Biden on the 0–1 scale. Republicans respond in the opposite way, attributing 0.068 less responsibility to Biden than Democrats. No evidence emerges that the accuracy treatment reduces selective attribution. We estimate  $\beta_7 = 0.000$  (s.e. = 0.022), which indicates that selective attribution persists at its full strength in the presence of an accuracy motivation.

Our first set of results for this experiment pooled across the two accuracy motivation treatment conditions (Figure 5 and surrounding text). To facilitate comparisons between those results and what we present here, Table 4 also includes a model that omits  $\beta_4$  through  $\beta_7$ . The CATE among Democrats ( $\beta_1 = 0.027$ ,

<sup>11</sup> Given this, it is no surprise that the within-party version of the horse race (columns 4 and 8) also favors the competence beliefs explanation.

**TABLE 4. Effect of Accuracy Prime on Selective Attribution, Experiment 3**

	(1)	(2)
$\alpha$ Constant	0.153** (0.009)	0.153** (0.010)
$\beta_1$ Information treatment (1 = positive)	0.027** (0.006)	0.034** (0.009)
$\beta_2$ Republican	0.037** (0.008)	0.037** (0.011)
$\beta_3$ Information $\times$ Republican	-0.067** (0.011)	-0.068** (0.016)
$\beta_4$ Accuracy treatment		0.001 (0.009)
$\beta_5$ Accuracy $\times$ Information		-0.015 (0.013)
$\beta_6$ Accuracy $\times$ Republican		0.001 (0.016)
$\beta_7$ Accuracy $\times$ Information $\times$ Republican		-0.000 (0.022)
$\beta_8$ Biden responsibility, pretreatment	0.742** (0.012)	0.742** (0.012)
Adj. $R^2$	0.567	0.567
No. of obs.	4065	4065

Note: This table displays parameter estimates from Equation 2. HC2 robust standard errors in parentheses. \* $p < 0.05$ , \*\* $p < 0.01$ .

s.e. = 0.006) and the difference in CATEs between Democrats and Republicans ( $\beta_3 = -0.067$ , s.e. = 0.011) are each equal to what we reported above. Comparing the two columns in Table 4 reiterates the accuracy treatment's minimal effect on selective attribution.

In sum, the accuracy motivation treatment yields no support for the PMR explanation. When accuracy motivation is enhanced, our respondents attributed responsibility just as selectively as they did at baseline. This suggests that selective attribution emerges largely as a function of our subjects' beliefs, not due to directional motivations like partisanship.

## IMPLICATIONS

The findings in this paper contribute to collective understanding of politics in several respects. With respect to the scope of the selective attribution phenomenon, our findings show that selective attribution emerged early in the COVID-19 pandemic, a period in which Democrats and Republicans were otherwise reacting similarly to the crisis. Our study is only the second to document the emergence of selective attribution over the course of a crisis, following Bisgaard's (2015) analysis of the Great Recession in the United Kingdom. As national crises unfold, partisans appear to diverge in their attributions of responsibility immediately, and as a function of individuals' perceptions of the severity of the crisis.

Our evidence suggests that selective attribution should be understood as an individual-level phenomenon that emerges as a function of two factors:

perceptions of the country's performance and beliefs about the incumbent's competence. When voters learn new information about the state of the world, they also make inferences about whether the incumbent is likely to have brought those conditions about. A voter who believes that the incumbent is competent (incompetent) finds it more plausible that the incumbent was responsible for positive (negative) developments and updates their beliefs accordingly. In showing that beliefs can provide a better explanation for findings that first appear to be textbook examples of directionally motivated reasoning, we join recent scholarship on information processing (Tappin, Pennycook, and Rand 2020; Zhang and Rand 2021), persuasion (Coppock 2022), and attitudes toward climate change (Bago, Rand, and Pennycook 2020; Druckman and McGrath 2019) and racialized police violence (Jefferson, Neuner, and Pasek 2020), as well as a longer tradition among psychologists who study selective attribution in nonpolitical settings (Kunda 1990; Miller and Ross 1975).

Though our evidence gives more support to the competence beliefs explanation, we think it would be premature to rule out PMR (or other alternative explanations) in all cases. Instead, we hope that our approach will spur more tests in other contexts. Specific to partisanship, our review of existing evidence points toward several underutilized points of leverage, including cross-pressure between ideology and partisanship in multiparty systems (see discussion of Bisgaard 2019), parties and politicians with strong issue reputations among out-partisans (see discussion of Rudolph 2003b), and variation in party control between subnational governments. The same approach can be applied to the study of ethnic politics in developing countries, which is increasingly interested in how identity-protective behavior shapes attributions of credit and blame (Adida et al. 2017; Singh 2022).

The competence beliefs account changes the implications of selective attribution for voters' capacity to reason objectively. The PMR explanation is rooted in the notion that group identities inherently skew reasoning. This suggests that so long as politically-relevant social groups exist, people will be incapable of reasoning objectively. The competence-based explanation holds that people use the same information differently not due to identity-based biases in reasoning but because they have different prior beliefs and expectations about performance. Competence beliefs may sometimes be shaped by partisan identity, just as partisan identity may sometimes be shaped by competence beliefs. Crucially, however, the competence beliefs explanation leaves hope that people who think of themselves as members of a group are still capable of objective reasoning.

The competence beliefs account also suggests a bridge between conflicting accounts of partisanship. Traditionally, the ideas that partisanship is a "perceptual screen" (Campbell et al. 1960) and "running tally" of performance evaluations (Fiorina 1981) have been treated as opposing possibilities. Our framework suggests a bridge between them: a perceptual screen may

be raised by the running tally itself.<sup>12</sup> Voters who maintain such a tally develop stronger beliefs about which party delivers better performance—particularly when their tally begins during an event like the Great Depression, which had long-lasting effects on Americans’ perceptions of the parties (Campbell et al. 1960). As a general matter, initial impressions have an outsized effect on later evaluations (Druckman, Fein, and Leeper 2012), including the formation of impressions of party performance (Peffley 1989). An initial, favorable impression of the parties may be all it takes for voters to begin interpreting subsequent events in a light that is favorable to one party.

In turn, the implications for partisanship have implications for the role of party reputation-building in the democratic process. A wide range of accounts of politics maintain that if voters hold parties responsible for their actions in government, parties have an incentive to build a reputation for governing effectively (Jones and McDermott 2004; Key 1966b; Ranney 1954; Sundquist 1988). Necessarily, a party’s success in developing such a reputation implies the existence of competence beliefs among the voting public. Our account suggests that such reputations may be a double-edged sword. Even as parties’ incentives to develop good reputations encourages responsible governance (Manin 1997; Rosenbluth and Shapiro 2018), these same reputations may have a self-reinforcing quality, locking in voters’ judgments in a way that stifles the electorate’s ability to punish and reward parties for their subsequent performance. This casts selective attribution as a counterweight to the positive effects of party reputations on democratic functioning.

In conclusion, even as our findings add to the evidence that selective attribution is a highly general pattern, our larger account demonstrates that understanding of this phenomenon is far from complete. In particular, our findings and reading of prior work each suggest that beliefs about the incumbent’s competence deserve strong consideration as an explanation. This opens the door to new perspectives on the nature and consequences of selective attribution.

## SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit <https://doi.org/10.1017/S0003055423000047>.

## DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are openly available in the APSR Dataverse at <https://doi.org/10.7910/DVN/3FF05Y>.

<sup>12</sup> This aligns with Lupu (2016) who contends that psychological attachments to a party emerge from party brands, specifically the voters’ observations of the party’s behavior over time.

## ACKNOWLEDGMENTS

For helpful comments on earlier versions of this work, we thank Alex Coppock, Alan Gerber, Daniel Goldstein, Jacob Hacker, Greg Huber, Josh Kalla, Lilla Orr, Kyle Peyton, Steven Wilkinson, Jen Wu, seminar participants at Yale University, poster session participants at the New York University CESS conference, and panel participants at the annual meetings of the American Political Science Association and the Midwest Political Science Association. We also thank Zac Jones and Rebecca Graham for coding the open-ended question in Study 1.

## FUNDING STATEMENT

This research was funded by the Institution for Social and Policy Studies and the Center for the Study of American Politics at Yale University.

## CONFLICT OF INTEREST

The authors declare no ethical issues or conflicts of interest in this research.

## ETHICAL STANDARDS

The authors declare the human subjects research in this article were reviewed and approved by the Yale University Institutional Review Board (Protocol Numbers 2000028095 and 2000026693) with a concurrence from the George Washington University Institutional Review Board. The authors affirm that this article adheres to the APSA’s Principles and Guidance on Human Subject Research.

## REFERENCES

- Abramowitz, Alan I., David J. Lanoue, and Subha Ramesh. 1988. “Economic Conditions, Causal Attributions, and Political Evaluations in the 1984 Presidential Election.” *Journal of Politics* 50 (4): 848–61.
- Adida, Claire, Jessica Gottlieb, Eric Kramon, and Gwyneth McClendon. 2017. “Reducing or Reinforcing In-Group Preferences? An Experiment on Information and Ethnic Voting.” *Quarterly Journal of Political Science* 12 (4): 437–77.
- Allcott, Hunt, Levi Boxell, Jacob Conway, Matthew Gentzkow, Michael Thaler, and David Yang. 2020. “Polarization and Public Health: Partisan Differences in Social Distancing During the Coronavirus Pandemic.” *Journal of Public Economics* 191: 104254. doi:10.1016/j.jpubeco.2020.104254
- Ansolabehere, Stephen, M. Meredith, and Erik Snowberg. 2013. “Asking about Numbers: Why and How.” *Political Analysis* 21 (1): 48–69.
- Ashworth, Scott, and Ethan Bueno de Mesquita. 2014. “Is Voter Competence Good for Voters?: Information, Rationality, and Democratic Performance.” *American Political Science Review* 108 (3): 565–87.
- Bago, Bence, David G. Rand, and Gordon Pennycook. 2020. “Reasoning About Climate Change.” *PsyArXiv* (preprint).
- Bartels, Larry M. 2002. “Beyond the Running Tally: Partisan Bias in Political Perceptions.” *Political Behavior* 24 (2): 117–50.

- Bisgaard, Martin. 2015. "Bias Will Find a Way: Economic Perceptions, Attributions of Blame, and Partisan-Motivated Reasoning During Crisis." *Journal of Politics* 77 (3): 849–60.
- Bisgaard, Martin. 2019. "How Getting the Facts Right Can Fuel Partisan-Motivated Reasoning." *American Journal of Political Science* 63 (4): 824–39.
- Bolsen, Toby, and James N. Druckman. 2015. "Counteracting the Politicization of Science." *Journal of Communication* 65 (5): 745–69.
- Bolsen, Toby, James N. Druckman, and Fay Lomax Cook. 2014. "The Influence of Partisan Motivated Reasoning on Public Opinion." *Political Behavior* 36 (2): 235–62.
- Brown, Adam R. 2010. "Are Governors Responsible for the State Economy? Partisanship, Blame, and Divided Federalism." *Journal of Politics* 72 (3): 605–15.
- Campbell, Angus, Phillip E. Converse, Warren E. Miller, and Donald E. Stokes. 1960. *The American Voter*. Chicago, IL: The University of Chicago Press.
- Clifford, Scott, Geoffrey Sheagley, and Spencer Piston. 2021. "Increasing Precision in Survey Experiments Without Introducing Bias." *American Political Science Review* 115 (3): 1048–65.
- Clinton, Joshua D., J. 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): eabd7204.
- Coppock, Alexander. 2022. *Persuasion in Parallel*. Chicago, IL: University of Chicago Press.
- Delli Carpini, X. Michael, and Scott Keeter. 1996. *What Americans Know About Politics and Why It Matters*. New Haven, CT: Yale University Press.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.
- Druckman, James N., Jordan Fein, and Thomas J. Leeper. 2012. "A Source of Bias in Public Opinion Stability." *American Political Science Review* 106 (2): 430–54.
- Druckman, James N., and Thomas J. Leeper. 2012. "Learning More from Political Communication Experiments: Pretreatment and Its Effects." *American Journal of Political Science* 56 (4): 875–96.
- Druckman, James N., and Matthew S. Levendusky. 2019. "What Do We Measure When We Measure Affective Partisanship?" *Public Opinion Quarterly* 83 (1): 114–22.
- Druckman, James N., and Mary C. McGrath. 2019. "The Evidence for Motivated Reasoning in Climate Change Preference Formation." *Nature Climate Change* 9 (2): 111–19.
- Fearon, James D. 1999. "Electoral Accountability and the Control of Politicians: Selecting Good Types Versus Sanctioning Poor Performance." In *Democracy, Accountability, and Representation*, eds. Adam Przeworski, Susan Stokes, and Bernard Manin, 55–97. Cambridge: Cambridge University Press.
- Feldman, Stanley. 1982. "Economic Self-Interest and Political Behavior." *American Journal of Political Science* 26 (3): 446–66.
- Ferejohn, John. 1986. "Incumbent Performance and Electoral Control." *Public Choice* 50 (1): 5–25.
- Fiorina, Morris P. 1978. "Economic Retrospective Voting in American National Elections: A Micro-Analysis." *American Journal of Political Science* 22 (2): 426–43.
- Fiorina, Morris P. 1981. *Retrospective Voting in American National Elections*. New Haven, CT: Yale University Press.
- Gerber, Alan, and Donald Green. 1999. "Misperceptions about Perceptual Bias." *Annual Review of Political Science* 2: 189–210.
- Gollust, Sarah E., Rebekah H. Nagler, and Erika Franklin Fowler. 2020. "The Emergence of COVID-19 in the US: A Public Health and Political Communication Crisis." *Journal of Health Politics, Policy and Law* 45 (6): 967–81.
- Graham, Matthew H. Forthcoming. "Detecting and Detering Information Search in Online Surveys." *American Journal of Political Science*.
- Graham, Matthew H., and Shikhar Singh. 2023. "Replication Data for: An Outbreak of Selective Attribution: Partisanship and Blame in the COVID-19 Pandemic." Harvard Datavers. Dataset. <https://doi.org/10.7910/DVN/3FF05Y>.
- Greene, Steven. 1999. "Understanding Party Identification: A Social Identity Approach." *Political Psychology* 20 (2): 393–403.
- Grimmer, Justin, Solomon Messing, and Sean J. Westwood. 2012. "How Words and Money Cultivate a Personal Vote: The Effect of Legislator Credit Claiming on Constituent Credit Allocation." *American Political Science Review* 106 (4): 1–17.
- Healy, Andrew, Alexander G. Kuo, and Neil Malhotra. 2014. "Partisan Bias in Blame Attribution: When Does It Occur?" *Journal of Experimental Political Science* 1 (2): 144–58.
- Healy, Andrew, and Neil Malhotra. 2013. "Retrospective Voting Reconsidered." *Annual Review of Political Science* 16: 285–306.
- Hobolt, Sara B., and James Tilley. 2014. "Who's in Charge? How Voters Attribute Responsibility in the European Union." *Comparative Political Studies* 47 (6): 795–819.
- Hobolt, Sara B., James Tilley, and Jill Wittrock. 2013. "Listening to the Government: How Information Shapes Responsibility Attributions." *Political Behavior* 35 (1): 153–74.
- Huddy, Leonie, Lilliana Mason, and Lene Aaroe. 2015. "Expressive Partisanship: Campaign Involvement, Political Emotion, and Partisan Identity." *American Political Science Review* 109 (1): 1–17.
- Jefferson, Hakeem J., Fabian G. Neuner, and Josh Pasek. 2020. "Seeing Blue in Black and White: Race and Perceptions of Officer-Involved Shootings." *Perspectives on Politics* 19 (4): 1165–83.
- Jerit, Jennifer, and Jason Barabas. 2012. "Partisan Perceptual Bias and the Information Environment." *Journal of Politics* 74 (3): 672–84.
- Jones, David R., and Monika L. McDermott. 2004. "The Responsible Party Government Model in House and Senate Elections." *American Journal of Political Science* 48 (1): 1–12.
- Kahan, Dan M. 2016. "The Politically Motivated Reasoning Paradigm, Part I." *Emerging Trends in the Social and Behavioral Sciences* 5 (8): 1–16.
- Kayser, Mark Andreas, and Arndt Leininger. 2015. "Vintage Errors: Do Real-Time Economic Data Improve Election Forecasts?" *Research and Politics* 2 (3): 1–11.
- Key, V. O. 1966a. *Public Opinion and American Democracy*. New York: Knopf.
- Key, V. O. 1966b. *The Responsible Electorate: Rationality in Presidential Voting, 1936–1960*. Cambridge, MA: Harvard University Press.
- Kunda, Ziva. 1990. "The Case for Motivated Reasoning." *Psychological Bulletin* 108 (3): 480–98.
- Leeper, Thomas J., and Rune Slothuus. 2014. "Political Parties, Motivated Reasoning, and Public Opinion Formation." *Political Psychology* 35 (Suppl 1): 129–56.
- Little, Andrew T.. 2021. "Directional Motives and Different Priors are Observationally Equivalent." Unpublished Manuscript.
- Lupu, Noam. 2016. *Party Brands in Crisis: Partisanship, Brand Dilution, and the Breakdown of Political Parties in Latin America*. Cambridge: Cambridge University Press.
- Malhotra, Neil, and Alexander G. Kuo. 2008. "Attributing Blame: The Public's Response to Hurricane Katrina." *Journal of Politics* 70 (1): 120–35.
- Manin, Bernard. 1997. *The Principles of Representative Government*. Cambridge: Cambridge University Press.
- Marsh, Michael, and James Tilley. 2009. "The Attribution of Credit and Blame to Governments and Its Impact on Vote Choice." *British Journal of Political Science* 40 (1): 115–34.
- Mayhew, David R. 1974. "Congressional Elections: The Case of the Vanishing Marginals." *Polity* 6 (3): 295–317.
- McCabe, Katherine T. 2016. "Attitude Responsiveness and Partisan Bias: Direct Experience with the Affordable Care Act." *Political Behavior* 38: 861–82.
- McGraw, Kathleen M. 1990. "Avoiding Blame: An Experimental Investigation of Political Excuses and Justifications." *British Journal of Political Science* 20 (1): 119–31.
- Miller, Dale T., and Michael Ross. 1975. "Self-Serving Biases in the Attribution of Causality: Fact or Fiction?" *Psychological Bulletin* 82 (2): 213–25.
- Nawara, Steven P. 2015. "Who Is Responsible, the Incumbent or the Former President? Motivated Reasoning in Responsibility Attributions." *Presidential Studies Quarterly* 45 (1): 110–31.
- Nyhan, Brendan, and Jason Reifler. 2010. "When Corrections Fail: The Persistence of Political Misperceptions." *Political Behavior* 32 (2): 303–30.
- Parker-Stephen, Evan. 2013. "Tides of Disagreement: How Reality Facilitates (and Inhibits) Partisan Public Opinion." *Journal of Politics* 75 (4): 1077–88.

- Peffley, Mark. 1989. "Presidential Image and Economic Performance: A Dynamic Analysis." *Political Behavior* 11 (4): 309–33.
- Peffley, Mark, and John T. Williams. 1985. "Attributing Presidential Responsibility for National Economic Problems." *American Politics Research* 13 (4): 393–425.
- Petrocik, John R., and Frederick T. Steeper. 1986. "The Midterm Referendum: The Importance of Attributions of Responsibility." *Political Behavior* 8 (3): 206–29.
- Ranney, Austin. 1954. *The Doctrine of Responsible Party Government: Its Origins and Present State*. Urbana: University of Illinois Press.
- Redlawsk, David P. 2002. "Hot Cognition or Cool Consideration? Testing the Effects of Motivated Reasoning on Political Decision Making." *Journal of Politics* 64 (4): 1021–44.
- Rosenbluth, Frances McCall, and Ian Shapiro. 2018. *Responsible Parties: Saving Democracy from Itself*. New Haven, CT: Yale University Press.
- Roush, Carolyn E., and Guarav Sood. 2023. "A Gap in Our Understanding? Reconsidering the Evidence for Partisan Knowledge Gaps." *Quarterly Journal of Political Science* 18 (1): 131–51.
- Rudolph, Thomas J. 2003a. "Institutional Context and the Assignment of Political Responsibility." *Journal of Politics* 65 (1): 190–215.
- Rudolph, Thomas J. 2003b. "Who's Responsible for the Economy? The Formation and Consequences of Responsibility Attributions." *American Journal of Political Science* 47 (4): 698–713.
- Rudolph, Thomas J. 2006. "Triangulating Political Responsibility: The Motivated Formation of Responsibility Judgments." *Political Psychology* 27 (1): 99–122.
- Rudolph, Thomas J., and J. Tobin Grant. 2002. "An Attributional Model of Economic Voting: 2000 Presidential Election." *Political Research Quarterly* 55 (4): 805–23.
- Shear, Michael D., Noah Weiland, Eric Lipton, David E. Sanger, and Maggie Haberman. 2020. "Inside Trump's Failure: The Rush to Abandon Leadership Role on the Virus." *New York Times*, July 18.
- Sides, John, Chris Tausanovitch, and Lynn Vavreck. 2020. "The Politics of COVID-19: Partisan Polarization About the Pandemic Has Increased, but Support for Health Care Reform Hasn't Moved at All." *Harvard Data Science Review* 1: 1–12.
- Singh, Shikhar. 2022. "Three Essays on Distributive Politics in India." PhD diss, Yale University.
- Sirin, Cigdem V. and Jose D. Villalobos. 2011. "Where Does the Buck Stop? Applying Attribution Theory to Examine Public Appraisals of the President." *Presidential Studies Quarterly* 41 (2): 334–57.
- Snowberg, Erik, Marc N. Meredith, and Stephen Ansolabehere. 2011. "Macro-Economic Voting: Local Information and Micro-Perceptions of the Macro-Economy." *Economics and Politics* 26 (3): 380–410.
- Sundquist, James L. 1988. "Needed: A Political Theory for the New Era of Divided Government in the United States." *Political Science Quarterly* 103 (4): 613–35.
- Tappin, Ben M., Gordon Pennycook, and David G. Rand. 2020. "Rethinking the Link Between Cognitive Sophistication and Politically Motivated Reasoning." *Journal of Experimental Psychology: General* 150: 1095–114.
- Tetlock, Philip E. 1983. "Accountability and the Perseverance of First Impressions." *Social Psychology Quarterly* 46 (4): 285–92.
- Tetlock, Philip E. 1985. "Accountability: A Social Check on the Fundamental Attribution Error." *Social Psychology Quarterly* 48 (3): 227–36.
- Wooldridge, Jeffrey M. 2012. *Introductory Econometrics: A Modern Approach*. Mason, OH: Cengage.
- Zhang, Yunhao Jerry, and David G. Rand. 2021. "Sincere or Motivated? Partisan Bias in Non-Political Information Processing." *SSRN*.