Party Polarization and COVID-19

Jennifer Lin1 and James N. Druckman2

1 Ph.D. Student, Department of Political Science, Northwestern University

2 Payson S. Wild Professor of Political Science, Department of Political Science, Northwestern University

**Abstract**

COVID-19 constituted a fundamental threat. In many cases, such threats bring people together. Yet, in the United States this was not the case. In this essay, we explore the impact of polarization on Americans’ reaction to COVID-19. We begin by reviewing work on affective polarization and its rise over time. We then review work that reveals substantial polarization of elite discourse regarding COVID-19, which likely contributed to partisan differences in the public’s response to COVID-19. These partisan distinctions covered a range of attitudes, behaviors, and attributions. Nonetheless, we also see an ironic dynamic regarding affective polarization particularly. The extent of affective polarization initially decreased with the onset of COVID-19; yet, it still remained at levels high enough such that it drove partisan responses. These findings highlight the distinction between the extent of polarization and the consequences of polarization. We conclude by discussing potential antidotes to how polarization divides countries during periods of existential threat.

Keywords: affective polarization, political attitudes, political behavior, elite communication

Contact Information

James N. Druckman

Payson S. Wild Professor of Political Science

Department of Political Science

Northwestern University

211 Scott Hall

601 University Place

Evanston, IL 60208

Office: 847-491-2646

https://faculty.wcas.northwestern.edu/~jnd260/index.html

druckman@northwestern.edu

Party Polarization and COVID-19

On the morning of September 11, 2001, little did the people of New York City, much less the country, know that their attitudes towards their neighbors and country were about to change. The terrorist attacks on the World Trade Center and Pentagon left a lasting rally-around-the-flag effect; it led to increased support of Democrats and Republicans for then (Republican) President George W. Bush (Kam & Ramos, 2008). These attacks, thus, suggest that external threats to the country tend to unite citizens (Carlin & Love, 2016; Levendusky, 2018). The onset of the COVID-19 pandemic led many to speculate a similar uniting. An early paper stated “the pandemic not only highlights a common identity with individuals all facing the same risk, but could also foster a sense of shared fate. By highlighting an overarching identity, politicians, the media and opinion leaders could help reduce political division around the issue” (van Bavel et al., 2020 pp. 464). By most accounts, though, this unity never occurred, and instead, the country ostensibly became even more divided by partisanship. The precise dynamics, however, are more subtle than most recognize -- our goal here is to unravel this subtlety to explore the relationship between partisan affective polarization and COVID-19 reactions in the United States. This will help explain how partisanship in general and polarization more specifically shaped pandemic opinions and behaviors.

We start with a discussion of the different types of polarization. Here, we chiefly focus on affective polarization, which is the extent to which one likes their own party relative to how much they dislike the other party (Iyengar et al., 2012). We then discuss political communication during COVID-19 as a key lever for partisan reactions. Next, we turn to data on partisan differences in COVID-19 response; This evidence is extensive but also leaves unclear whether affective polarization in fact played a role. To address that question, we present trends on polarization from the onset of the pandemic, which show surprisingly that affective polarization declined. Then, we describe a study that shows -- despite the decline in affective polarization -- it still played a central role in driving partisan responses. We conclude with a discussion about lessons learned and some suggestions of ways to temper polarization during crises.

**Polarization: The Concept, Over-Time Trends, and Possible Consequences**

Ideological polarization occurs when parties move towards the extreme ends of the liberal-conservative scale and become more homogenous. For example, Democrats become increasingly liberal and like one another and Republicans become increasingly conservative and also like one another (Hetherington, 2001). In the United States, this pattern describes Congress (McCarty et al., 2006; McCarty, 2019); over the past 50 years, members of Congress are increasingly moving to the extremes and becoming homogenous, based on their observed floor votes. However, this movement to the extremes is not as prevalent among the public (Fiorina, 2017; Lelkes, 2016). What is prevalent, however, is another type of polarization: Affective polarization. This refers to the process by which partisans have come more negative towards the opposing party, relative to their positive feelings towards their own party. A common measure of affective polarization is a feeling thermometer that asks individuals to rate the parties from 0 (very cold) to 100 (very warm). Lower ratings on this scale indicate greater animosity and higher ratings indicate greater friendliness with 50 being a neutral rating (Druckman & Levendusky, 2019; Iyengar et al., 2012). While it is unclear if the members of Congress are becoming increasingly affectively polarized, partisan animosity has been growing in the public during the same time that ideological polarization has been growing in the halls of government (Finkel et al., 2020; Groenendyk, 2018).

What causes affective polarization and what are its effects? In terms of the latter, affecitve polarization has led to an increase in levels of observed social discrimination (Gift & Gift 2015), dehumanization of out-partisans (Martherus et al., 2020), and decreased support for government institutions when the out-party is in office (Hetherington & Rudolph, 2015). In terms of causes of affective polarization, it stems from social and ideological sorting present in American politics today, media echo chambers, and the aforementioned ideological elite divide (Finkel et al., 2020). It also stems from the moralization of politics (Garrett & Bankert, 2020). People who are more likely to perceive issues as right or wrong are more likely to display animosity towards those who do not moralize politics in the same lens as they do. Finally, vitriolic elite rhetoric plays a role both in driving affective polarization and its consequences (e.g., Genzkow et al., 2019; Lau et al., 2017). Given the role of rhetoric in affective polarization, we next turn to a discussion of political communication during COVID-19.

**Political Communication During the COVID-19 Pandemic**

In times of crises, people often turn to the experts for guidance. During the COVID-19 pandemic, the public health experts partnered with political leaders to communicate best practices to prevent the spread of the disease. However, in a polarized era, these messages ended up being quite distinct based on party.

Even at the start of the lockdowns in March, 2020, Democrat politicians were more eager to tell the public to observe social distancing guidelines and wear a face mask (or other facial covering during times of mask shortages) while in public (Lipsitz & Pop-Eleches, 2020). Contrary to this tone, Republican politicians, led by then-President Donald Trump, were less enthusiastic about these measures and consequentially, were more likely to downplay the severity of the pandemic and less eager to push the people to abide by these rules. Moreover, Democrat politicians emphasized the importance of delivering aid to affected workers. In contrast, Republicans focused more on aid to small businesses, preserving national unity, and attacking China, for whom they blame the source of the virus (Lipsitz & Pop-Eleches, 2020).

These partisan rhetorical differences were echoed in the media, which politicized the pandemic at levels that exceed that of climate change (Hart et al., 2020). The rhetorical divide also manifested on Twitter (Green et al., 2021). Using a corpus of tweets scraped from both office-sponsored and personal accounts managed by members of the 116th Congress, Green et al. (2021) identified tweets that discussed the ongoing COVID-19 pandemic. They used these tweets to then predict the partisanship of the sender. The results suggest that members of Congress polarized quickly with the onset of the pandemic. Political elites differed not only in how they discussed the issue but also how frequently. Democrats tended to discuss the issue more frequently and started doing so earlier in the pandemic. They also were more likely to discuss issues such as aid to affected workers and emphasize public health. Republicans tended to focus more on national unity, China, and businesses.

Beyond Twitter, research into local county websites on COVID-19 guidance issued by the elites also demonstrates partisan differences (Hansen et al., 2020). Here, each county website was coded between April 17 and April 24, 2020, for whether or not it a) mentioned COVID-19 and b) provided tips for visitors for how to stay safe during the pandemic. Even when controlling for COVID prevalence, counties that voted for Clinton in 2016 (the partisanship measure) were more likely to mention and provide safety guidance for their residents compared to those who voted for Trump in 2016.

**Partisan Attitudes and Behaviors during the Pandemic**

Here we look at partisan differences in attitudes and behaviors during the pandemic. Differences emerged immediately with the most salient being abiding by the stay at home orders and social distancing. This was shown by tracking social distancing and mobility with data from SafeGraph (Allcott et al., 2020; Gollwitzer et al., 2020). SafeGraph is a proprietary data source that tracks cell phone mobility and provides data at the census block group level. By comparing the user’s starting location and the duration that they are out with their final location at the end of the day, the data predicts the rate that people in a given area are likely to travel or stay at home on any given day. Allcott et al. (2020) demonstrate that Democrats were more likely to abide by the social distancing orders. Similarly, Gollwitzer et al. (2020) compared compliance to stay at home orders between Democrat and Republican counties. After most states implemented these orders on March 23, 2020, the gap between residents in Democrat and Republican counties abiding by these orders increased rather than decreased. In line with the Allcott et al.’s (2020) findings, residents in Democrat counties were more likely, relative to Republican counties, to shelter in place and observe these guidelines (also see Clinton et al., 2021).

For the most part, people follow the lead of the politicians they trust and partisanship plays a big role in this. One instance is in social distancing (Bisbee & Lee, 2020). In a study of Trump supporting countries, Bisbee and Lee (2020) found that adherence to the social distancing recommendations were highest when the former President endorsed the seriousness of the virus but this was not adhered to when Trump downplayed the virus in his speeches and other public statements.

Partisan differences were not limited to movement. Gadarian et al. (2020) show that Democrats were more likely to alter their personal behaviors such as mask wearing and more frequent hand washing. Additionally, Republicans and Democrats differed in their attitudes towards government policies. Republicans were less likely to support movement across international borders and were more likely to endorse proposals that involved trade restrictions during the pandemic. On the contrary, Democrats were more likely to support free trade and measures that would cut taxes during the pandemic. Democrats were also more likely to endorse provisions to cut the cost of testing and healthcare associated with COVID-19. Partisans also differed by their blame attribution about the virus. Graham and Singh (2021) demonstrate that Republicans were less likely to attribute blame towards Donald Trump for his handling of the pandemic, while Democrats attributed more blame. This pattern grew as the pandemic continued.

Party differences also manifest in interpretations of the COVID-19 pandemic. The COVID States Project conducted surveys each month from April 2020 to April 2021 to identify the attitudes and behaviors during the pandemic. Each survey contains items on attitudes and behaviors during the pandemic, including attitudes towards policies to curb the spread of the virus and intentions to get the COVID vaccine. Additionally, each survey fields respondents from each state plus the District of Columbia. With each survey, the COVID States team releases a series of reports covering the core findings on each topic from the data. More details on the project can be found at https://covidstates.org/. Table 1 highlights some of the key partisan differences found in some of the reports. The report numbers reported in this table correspond with the report in which the findings were presented (see the project website). Table 1 shows that experiences with the economy or education are relatively similar for partisans. However, trust in key institutions to handle the pandemic, support for policies aimed at curbing the spread of the disease, and vaccine acceptance are distinct for members of both parties.

**Table 1: Partisan Differences in Experiences During the COVID-19 Pandemic (Results from the COVID States Project)**

|  |  |  |
| --- | --- | --- |
| **Topic** | **Partisan Differences** | **COVID States Project Report # (Release Month, Year)** |
| Economic Hardships | * Lost a Job: 17% Democrats, 14% Republicans * Unable to pay rent: 14% Democrats. 10% Republicans * Take a pay cut: 19% Democrats. 15% Republicans | 30 (December 2020) |
| Education | * Somewhat or very concerned with quality of education: 73% Democrats, 61% Republicans | 38 (January 2021) |
| Trust in Institutions | * 60% Democrats and 24% Republicans trust Anthony Fauci a lot * 4% Democrats and 46% Republicans trust Donald Trump a lot * 36% Democrats and 5% Republicans trust Joe Biden a lot | 13 (September 2020) |
| COVID policies | * Asking people to stay home and avoid gatherings: 96% Democrats and 72% Republicans somewhat or strongly approve * Requiring most businesses to close: 78% Democrats, 40% Republicans * Canceling major sports and entertainment events: 90% Democrats, 65% Republicans * Limiting restaurants to carry out only: 89% Democrats, 56% Republicans * Restricting International travel to the US: 92% Democrats. 85% Republicans * Restricting travel within the US: 82% Democrats, 57% Republicans * Prohibit K-12 schools from teaching in person: 85% Democrats, 48% Republicans | 25 (November 2020) |
| Vaccine acceptance | * Would not get the vaccine: 11% Democrats, 30% Republicans * Would get the vaccine after most people they know: 13% Democrats, 17% Republicans | 43 (March 2021) |

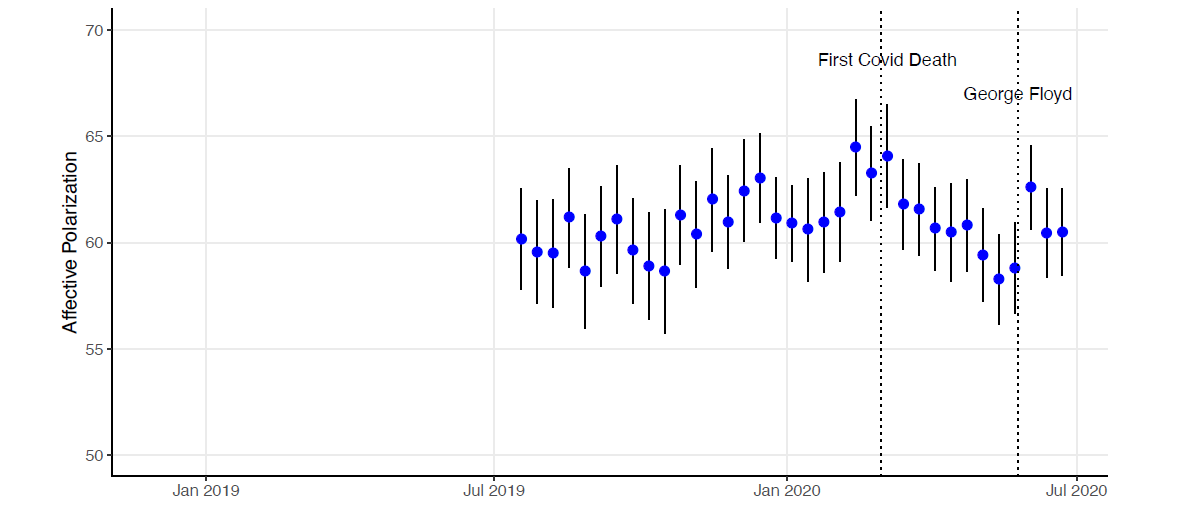
Interestingly, the Table reveals a deep partisan divide regarding Dr. Fauci, Director of the U.S. National Institute of Allergy and Infectious Diseases, who became a central scientific advisory figure during the pandemic. He became highly politicized with Democrats being far more likely to trust him to handle the virus compared to their Republican counterparts. While not in the Table, the project finds much less polarization when it comes to general trust in scientists, doctors, researchers, the CDC and hospitals to stop the spread. Nonetheless, data make clear that vaccines even split the parties, with more Republicans saying that they are going to wait or just not receive the vaccine at all.

**Affective Polarization During COVID-19**

Partisan divisions led many to presume that affective polarization grew during COVID-19. That is, partisans came to cherish their party more and hold even more animus for the other party; after all, the partisan elite rancoring and vast partisan differences in responses suggest discord, Yet, interestingly, the extant data suggest otherwise. Boxell et al. (2020) identify several data sources that tracked levels of affective polarization at the start of the pandemic. Perhaps their most impressive source of data comes from Nationscape that covers more than 300,000 interviews between July 2019 and July 2020. These data included a measure that asked respondents to rate their favorability towards each of the parties (on 4-point scales) -- items akin to the aforementioned thermometer ratings. As re-displayed in Figure 1, it shows that affective polarization in fact declined after the first COVID-19 death in the U.S. The authors report the same trend in three of five other data sources, with the other two showing neither a decline nor an increase. They also present results from a survey experiment in which people were primed to think about the start of COVID-19 and this also lowered out-party animus. Thus, despite 2/3rds of the respondents in the survey experiment expressing a belief that the country had become more divided during COVID-19, it seems, from Figure 1, that it was the George Floyd murder and not COVID-19 that sparked an increase in affective polarization.

Related evidence comes from Rodriguez and colleagues (2020) who show that the country did not polarize on various political issues (distinct from those in Table 1). They find no evidence that the onset of COVID-19 led to divides in attitudes on welfare, delaying elections, deploying the National Guard, banning domestic travel and use of cell phones to track behaviors.

In sum, even though the elite rhetoric and partisan attitudes/behaviors with regard to COVID-19 revealed a sharp divide, affective polarization itself did not seem to increase. There seemed to be somewhat of a feeling of “we are all in this together.” In fact, even President Trump’s approval level depolarized (Boxell et al., 2020) -- although nothing comparable to Bush’s after 9/11. This might seem puzzling, but it reflects a distinction between the *extent* of polarization and the *consequences* of polarization. The extent of it might have even declined as people recognized a shared sense of threat. But at the same time, the issues concerning COVID-19 politicized, leading to the aforementioned partisan variations.



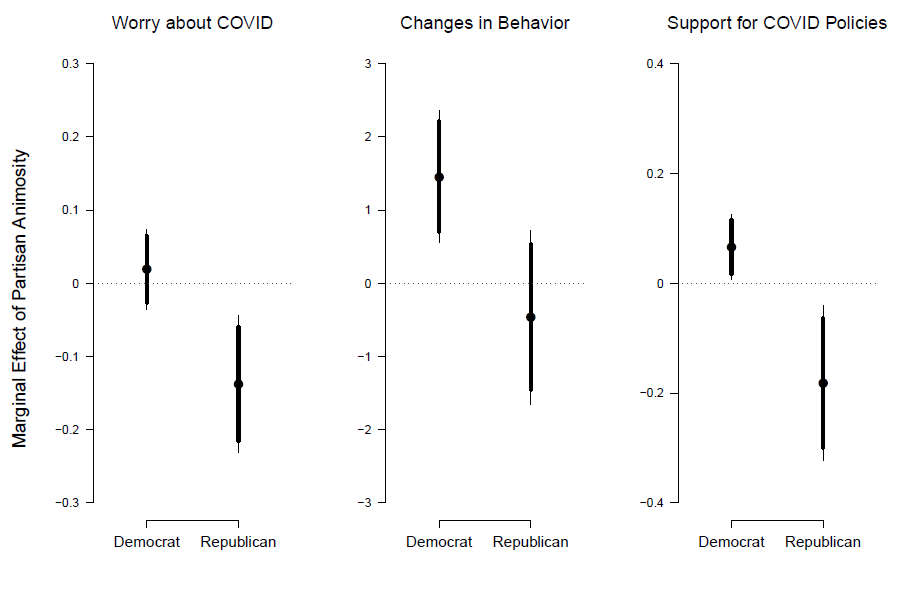
**Figure 1: Affective Polarization during the onset of the COVID-19 Pandemic (from Boxell et al, 2020)**

**The Consequences of Affective Polarization During COVID-19**

There remains a question of whether affective polarization itself shaped COVID-19 responses, even if the level of polarization itself shrunk. This is a difficult question to answer because if one observes a correlation between affective polarization levels and COVID-19 attitudes or behaviors, one of three possible dynamics may be at work. It could be that affective polarization shapes reactions, that reactions are leading to polarization, or that some third variable such as exposure to partisan media determines both affective polarization and reactions. Druckman et al. (2021) offer a way around this. Specifically, they had conducted a survey that included measures of affective polarization in the summer of 2019, a half year before the emergence of COVID-19. They then returned to these same respondents in April, 2020, once COVID-19 had spread and shut down economies. They were able to re-interview nearly 75% of the respondents, asking about the extent to which they worried about COVID-19, which COVID-19 behaviors they practiced (e.g., washing hands, wearing masks, staying at home, ordering groceries), and their opposition or support for various restrictive policies (e.g., stay at home orders). Because the affective polarization measures were taken well before COVID-19 existed as an issue, the authors could be confident that COVID-19 did not affect polarization levels. The authors also measured a host of potential confounding variables such as media exposure, partisan identity strength, and social media behaviors to control for factors that could shape both affective polarization and COVID-19 reactions. In short, the design allowed for a test of whether affective polarization -- aside from party -- shaped COVID-19 attitudes and behaviors.

The authors find clear evidence that affective polarization -- specifically animus towards the out-party -- shaped COVID-19 worry, behaviors, and policy support (also see Druckman et al., n.d.). We re-display their results in Figure 2 (taken from Druckman et al., 2021 pp. 31). The Figure reports the marginal change in the given outcome for a change in party animosity for Democrats and Republicans. For instance, when it comes to worry about COVID-19, an increase in partisan animosity does not alter Democrats’ worry (the effect encompasses 0) but it leads Republicans to become less worried. We also see that it leads to more behaviors and policy support for Democrats, and less policy support for Republicans. The overall results make clear that partisan animosity -- not just party differences -- played a role in shaping COVID-19 responses.

This matters because it suggests that the partisan divisions we presented above may stem, at least partially, from affective polarization. The idea is that those who are more affectively polarized are motivated to differentiate themselves from the other party they dislike. When they see the clear elite party cues concerning COVID-19 (see above discussion), they then act in concert with their party and against the other party. Affective polarization acts as a mechanism for elite influence and underlying partisan divides. It shows these divides stem from non-substantive considerations -- i.e., feelings about the parties -- which itself may be concerning. That said, Druckman et al. (2021) report that the impact of affective polarization is muted in counties with high COVID-19 case-counts; in those areas, the threat of COVID-19 leads people to depart from their partisan motivations and engage in more accuracy oriented thinking.



**Figure 2: The Effect of Affective Polarization on COVID-19 Worry, Behavior, and Policy Support.** Material from: Druckman, J. N., Klar, S., Krupnikov, Y., Levendusky, M., & Ryan, J. B. Affective polarization, local contexts and public opinion in America. *Nature Human Behaviour*, published 2021, **Nature Publishing Group**.

**Lessons for Polarization from the COVID-19 Pandemic**

What lessons has this pandemic taught us and how can we move forward from here? For one, the evidence makes clear that, unlike 9/11, partisanship emerged as a major factor in driving COVID-19 response. Even though this was a health crisis, it politicized and partisanship became central. This is clear in political communications, partisan differences in attitudes, and affectively polarized responses. That said, that affective polarization levels did not simultaneously increase makes clear that one needs to distinguish levels of polarization from its effect. Second, these results have implications for our understanding of political geography. In the early days of the pandemic, Republican led states seemed to have had fewer cases, but this pattern reversed course in early June. Republican states increasingly had a heavier case load compared to their Democratic counterparts (Neelon et al, 2020). While this likely stemmed in part from the more rural, less dense nature of Republican states, it also may have been a reflection of the patterns discussed in this chapter such that Republicans tend to have relaxed their adherence to the guidelines earlier than Democrats (Kempler, 2021). Indeed, population density alone could not explain the stark monotonic rise in Republican states, relative to Democratic states. It was the partisan politics surrounding the resulting attitudes towards the pandemic and the subsequent divide in behaviors that led Republican states to see increased caseloads by the middle of the pandemic.

Beyond the effects observed in caseloads, the pandemic makes clear that elite messaging is crucial to addressing a crisis as massive as COVID-19. According to a Pew Research Center survey (Funk & Tyson, 2021), trust in the COVID-19 vaccine is a significant predictor of whether someone would take the vaccine (see Chapter # for more on trust related to the pandemic). Beyond that, the belief that vaccines will help the country emerge from the pandemic differs significantly by party. Democrats are more likely to believe that the vaccine will significantly help the economy compared to the Republican counterparts. Consequently, as displayed in Table 1, Republicans are more likely to be vaccine resistant compared to Democrats (Lazer et al., 2021). Bokemper et al (2020) report that Democrats are more likely to want to take the vaccine if people who they trust, such as Dr. Anthony Fauci, endorse the vaccine. The vaccine partisan divide once again demonstrates how quickly novel events can be politicized (Druckman et al., n.d.) but also provides an opportunity to explore what can be done to mitigate the results. Pink and colleagues (2021) provide a hint related to messaging campaigns by political elites. From their survey experiment, they find that if Republican elites endorse a vaccine, Republican identifiers in the public will be more likely to want to get vaccinated. The reason why Republicans seem to be more hesitant to get the vaccine is because of the messages that their leaders have been communicating (and/or their lack of public endorsement for the vaccine). Clearly, elite messages can be even more powerful in pushing people to solve novel crises such as getting vaccinated from COVID-19. This is an example of those on top, even the most partisan of politicians, having a group of supporters who would listen to their recommendations. If the elites agree and provide similar messages, the gap between partisans narrows and becomes a greater reflection of the “we are in this together” sentiment. After all, Republicans and Democrats alike found COVID-19 to be the most important problem facing the country in the leadup to the 2020 Presidential election (Baum et al., 2020). For leaders, the willingness to be on the same page or to at least be collegial to one another, despite differences in political beliefs can reduce affective polarization in the public (Huddy & Yair, 2021). In a time of a novel crisis, that is what the country needs most.

For future research, it is important to understand the ways to temper the jump to politicize novel issues that drive partisans apart. Additionally, it is important for researchers to understand ways to bring partisans together rather than exacerbate a crisis when partisans are interpreting the situation differently and behaving differently as a result. The work that we present in this chapter considers these topics from the top-down, addressing the need for elites to come together so that the people will do the same. In future research, we can consider bottom-up approaches to mitigating affective polarization, to increase tolerance and cooperation among people from opposing parties. With a better understanding of how partisans can build trust and tolerance towards each other during the so-called “normal times,” it can perhaps become easier to apply this knowledge to times of crisis.

**Conclusion**

We provided an overview of the partisan differences in attitudes and behaviors during the COVID-19 pandemic. We demonstrate a sharp partisan divide in elite rhetoric, with Democrats expressing more care towards affected workers and Republicans highlighting the need for unity and strength in standing up to China. We also show these partisan divides carried over to citizens. For example, Republicans tended to loosen their observance to social distancing guidance earlier than Democrats. Alternatively, Democrats were more likely to endorse tax cuts during the pandemic and to ensure that health care costs associated with COVID-19 were decreased.Even though levels of polarization did not increase during the pandemic, the clear partisan divides that may have exacerbated inefficiencies in pandemic response including those related to patchwork policies across the nation and incomplete vaccine uptake.

**For Further Reading**

Finkel, E. J., Bail, C. A., Cikara, M., Ditto, P. H., Iyengar, S., Klar, S., Mason, L., McGrath, M. C., Nyhan, B., Rand, D. G., Skitka, L. J., Tucker, J. A., Van Bavel, J. J., Wang, C. J., & Druckman, J. N. (2020). Political sectarianism in America. *Science*, *370*(6516), 533–536. <https://doi.org/10.1126/science.abe1715>

Hetherington, M. J., & Rudolph, T. J. (2015). *Why washington won’t work: Polarization, political trust, and the governing crisis* (Vol. 104). University of Chicago Press.

Iyengar, S., Lelkes, Y., Levendusky, M., Malhotra, N., & Westwood, S. J. (2019). The origins and consequences of affective polarization in the united states. *Annual Review of Political Science*, *22*, 129–146. https://doi.org/10.1146/annurev-polisci-051117-073034

Iyengar, S., & Westwood, S. J. (2014). Fear and loathing across party lines: New evidence on group polarization. *American Journal of Political Science*, *59*(3), 690–707. https://doi.org/10.1111/ajps.12152

Klein, E. (2020). *Why we’re polarized*. Simon Schuster.

Lelkes, Y., & Westwood, S. J. (2016). The limits of partisan prejudice. *Journal of Politics*, *79*(2), 485–501. https://doi.org/10.1086/688223

Mason, L. (2018). *Uncivil agreement: How politics became our identity*. University of Chicago Press.

Moore-Berg, S. L., Ankori-Karlinsky, L.-O., Hameiri, B., & Bruneau, E. (2020). Exaggerated meta-perceptions predict intergroup hostility between American political partisans. *Proceedings of the National Academy of Sciences*, *117*(26), 14864–14872. https://doi.org/10.1073/pnas.2001263117

**References**

Allcott, H., Boxell, L., Conway, J., Gentzkow, M., Thaler, M., & Yang, D. (2020). Polarization and public health: Partisan differences in social distancing during the coronavirus pandemic. *Journal of Public Economics*, *191*, 104254. https://www.nber.org/papers/w26946

Baum, M. A., Lin, J., Gitomer, A., Quintana, A., Ognyanova, K., Green, J., Lazer, D., Druckman, J. N., Perlis, R. H., Santillana, M., Chwe, H. & Simonson, M. (2020). The state of the nation: A 50-state COVID-19 survey, report 21: Most important problems facing the country today. In *COVID-19 Consortium for Understanding the Public’s Policy Preferences Across States*. https://osf.io/q3av7/

Bisbee, J., & Lee, D. (2021). Mobility and elite cues: Partisan responses to covid-19. Working Paper.

Bokemper, S. E., Huber, G. A., Gerber, A. S., James, E. K., & Omer, S. B. (2020). Timing of COVID-19 vaccine approval and endorsement by public figures. *Vaccine*, *39*(5), 825–829. https://doi.org/10.1016/j.vaccine.2020.12.048

Boxell, L., Conway, J., Druckman, J. N., & Gentzkow, M. (2020). Affective polarization did not increase during the coronavirus pandemic. Working Paper. <https://doi.org/10.3386/w28036>

Carlin, R. E., & Love, G. J. (2016). Political competition, partisanship and interpersonal trust in electoral democracies. *British Journal of Political Science*, *48*(1), 115-139. https://doi.org/10.1017/S0007123415000526

Clinton, J., Cohen, J., Lapinski, J., & Trussler, M. (2021). Partisan pandemic: How partisanship and public health concerns affect individuals’ social mobility during COVID-19. *Science Advances*, *7*(2), eabd7204. https://doi.org/10.1126/sciadv.abd7204

Druckman, J. N., Klar, S., Krupnikov, Y., Levendusky, M., & Ryan, J. B. (2021). Affective polarization, local contexts and public opinion in America. *Nature Human Behaviour*, *5*(1), 28–38. https://doi.org/10.1038/s41562-020-01012-5

Druckman, J. N., Klar, S., Krupnikov, Y., Levendusky, M., & Ryan, J. B. (n.d.). How affective polarization shapes Americans’ political beliefs: A study of response to the COVID-19 pandemic. *Journal of Experimental Political Science*, 1–12. https://doi.org/10.1017/XPS.2020.28

Druckman, J. N., & Levendusky, M. S. (2019). What do we measure when we measure affective polarization? *Public Opinion Quarterly*, *83*(1), 114–122. https://doi.org/10.1093/poq/nfz003

Finkel, E. J., Bail, C. A., Cikara, M., Ditto, P. H., Iyengar, S., Klar, S., Mason, L., McGrath, M. C., Nyhan, B., Rand, D. G., Skitka, L. J., Tucker, J. A., Van Bavel, J. J., Wang, C. J., & Druckman, J. N. (2020). Political sectarianism in America. *Science*, *370*(6516), 533–536. <https://doi.org/10.1126/science.abe1715>

Fiorina, M. P. (2017). *Unstable majorities: Polarization, party sorting, and political stalemate*. Hoover Press.

Funk, C., & Tyson, A. (2021). Growing share of Americans say they plan to get a covid-19 vaccine-or already have. *Pew Research Center Science & Society.* Retrieved from: https://www.pewresearch.org/science/2021/03/05/growing-share-of-americans-say-they-plan-to-get-a-covid-19-vaccine-or-already-have/

Garrett, K. N., & Bankert, A. (2018). The moral roots of partisan division: How moral conviction heightens affective polarization. *British Journal of Political Science*, *50*(2), 621–640. https://doi.org/10.1017/S000712341700059X

Gadarian, S. K., Goodman, S. W., & Pepinsky, T. B. (2021). Partisanship, health behavior, and policy attitudes in the early stages of the COVID-19 pandemic. *Plos One*, *16*(4), e0249596. https://doi.org/10.1371/journal.pone.0249596

Gentzkow, M., Shapiro, J. M., & Taddy, M. (2019). Measuring group differences in high-dimensional choices: Method and application to congressional speech. *Econometrica*, *87*(4), 1307–1340. https://doi.org/10.3982/ECTA16566

Gift, K., & Gift, T. (2015). Does politics influence hiring? Evidence from a randomized experiment. *Political Behavior*, *37*(3), 653–675. https://doi.org/10.1007/s11109-014-9286-0

Gollwitzer, A., Martel, C., Brady, W. J., Pärnamets, P., Freedman, I. G., Knowles, E. D., & Van Bavel, J. J. (2020). Partisan differences in physical distancing are linked to health outcomes during the COVID-19 pandemic. *Nature Human Behaviour*, *4*(11), 1186–1197. https://doi.org/10.1038/s41562-020-00977-7

Graham, M. H., & Singh, S. (2021). Partisan selectivity in blame attribution: Evidence from the COVID-19 pandemic. *SocArXiv*, *5*. https://osf.io/preprints/socarxiv/t8xar/

Green, J., Edgerton, J., Naftel, D., Shoub, K., & Cranmer, S. J. (2021). Elusive consensus: Polarization in elite communication on the COVID-19 pandemic. *Science Advances*, *6*(28), eabc2717. https://doi.org/10.1126/sciadv.abc2717

Groenendyk, E. (2018). Competing motives in a polarized electorate: Political responsiveness, identity defensiveness, and the rise of partisan antipathy. *Political Psychology*, *39*, 159–171. https://doi.org/10.1111/pops.12481

Hansen, M. A., Johansson, I., Sadowski, K., Blaszcynski, J., & Meyer, S. (2020). The partisan impact on local government dissemination of COVID-19 information: Assessing US county government websites. *Canadian Journal of Political Science/Revue Canadienne de Science Politique*, *54*(1), 150–162. https://doi.org/10.1017/S0008423920000918

Hetherington, M. J. (2001). Resurgent mass partisanship: The role of elite polarization. *American Political Science Review*, 619–631. https://doi.org/10.1017/S0003055401003045

Hetherington, M. J., & Rudolph, T. J. (2015). *Why washington won’t work: Polarization, political trust, and the governing crisis* (Vol. 104). University of Chicago Press.

Huddy, L., & Yair, O. (2021). Reducing affective polarization: Warm group relations or policy compromise? *Political Psychology*, *42*(2), 291–309. https://doi.org/10.1111/pops.12699

Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, not ideology: A social identity perspective on polarization. *Public Opinion Quarterly*, *76*(3), 405–431. https://doi.org/10.1093/poq/nfs038

Kam, C. D., & Ramos, J. M. (2008). Joining and leaving the rally: Understanding the surge and decline in presidential approval following 9/11. *Public Opinion Quarterly*, *72*(4), 619–650. https://doi.org/10.1093/poq/nfn055

Kempler, C. (2021). Link found between state governors’ political parties and COVID-19 case and death rates. https://hub.jhu.edu/2021/03/11/covid-death-rate-governor-politics/.

Lau, R. R., Andersen, D. J., Ditonto, T. M., Kleinberg, M. S., & Redlawsk, D. P. (2017). Effect of media environment diversity and advertising tone on information search, selective exposure, and affective polarization. *Political Behavior*, *39*(1), 231–255. https://doi.org/10.1007/s11109-016-9354-8

Lazer, D., Ognyanova, K., Baum, M., Druckman, J., Green, J., Gitomer, A., Simonson, M., Perlis, R. H., Santillana, M., Quintana, A., Lin, J., & Uslu, A. (2021). The state of the nation: A 50-state COVID-19 survey, report 43: COVID-19 vaccine rates and attitudes among americans. In *COVID-19 Consortium for Understanding the Public’s Policy Preferences Across States*. https://osf.io/rnw8z/

Lelkes, Y. (2016). Mass polarization: Manifestations and measurements. *Public Opinion Quarterly*, *80*(S1), 392–410. https://doi.org/10.1093/poq/nfw005

Levendusky, M. S. (2018). When efforts to depolarize the electorate fail. *Public Opinion Quarterly*, *82*(3), 583–592. https://doi.org/10.1093/poq/nfy036

Lipsitz, K., & Pop-Eleches, G. (2020). The partisan divide in social distancing. *Available at SSRN 3595695*. https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3595695

Martherus, J. L., Martinez, A. G., Piff, P. K., & Theodoridis, A. G. (2019). Party animals? Extreme partisan polarization and dehumanization. *Political Behavior*, 1–24. https://doi.org/10.1007/s11109-019-09559-4

McCarty, N. (2019). *Polarization: What everyone needs to know*. Oxford University Press.

McCarty, N., Poole, K. T., & Rosenthal, H. (2006). *Polarized America: The dance of ideology and unequal riches*. MIT Press.

Neelon, B., Mutiso, F., Mueller, N. T., Pearce, J. L., & Benjamin-Neelon, S. E. (2020). Associations between governor political affiliation and covid-19 cases and deaths in the united states. *medRxiv*. <https://doi.org/10.1101/2020.10.08.20209619>

Pink, S., Chu, J., Druckman, J.N., Rand D.G., & Willer, R. (2021). Elite party cues increases vaccination intentions among Republicans. Working Paper, Stanford University. https://psyarxiv.com/f9jq5/

Rodriguez, C., Gadarian, S. K., Goodman, S. W., & Pepinsky, T. (2020). Morbid polarization: Exposure to covid-19 and partisan disagreement about pandemic response. Working Paper. https://psyarxiv.com/wvyr7/

Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., … Willer, R.. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, *4*(5), 460–471. https://doi.org/10.1038/s41562-020-0884-z