

LETTER

The Politics of Intersecting Crises: The Effect of the COVID-19 Pandemic on Climate Policy Preferences

Parrish Bergquist^{1*} , Gabriel De Roche² , Erick Lachapelle³ , Matto Mildenerger⁴ 
and Kathryn Harrison⁵

¹McCourt School of Public Policy, Georgetown University, Washington, DC, USA, ²Department of Political Science, University of California San Diego, San Diego, CA, USA, ³Department of Political Science, Université de Montréal, Montreal, QC, Canada, ⁴Department of Political Science, University of California Santa Barbara, Santa Barbara, CA, USA and ⁵Department of Political Science, University of British Columbia, Vancouver, BC, Canada
*Corresponding author. Email: parrish.bergquist@georgetown.edu

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Abstract

Few contemporary crises have reshaped public policy as dramatically as the COVID-19 pandemic. In its shadow, policymakers have debated whether other pressing crises—including climate change—should be integrated into COVID-19 policy responses. Public support for such an approach is unclear: the COVID-19 crisis might eclipse public concern for other policy problems, or complementarities between COVID-19 and other issues could boost support for broad government interventions. In this research note, we use a conjoint experiment, panel study, and framing experiment to assess the substitutability or complementarity of COVID-19 and climate change among US and Canadian publics. We find no evidence that the COVID-19 crisis crowds out public concern about the climate crisis. Instead, we find that the publics in both countries prefer that their governments integrate climate action into COVID-19 responses. We also find evidence that analogizing climate change with COVID-19 may increase concern about climate change.

Keywords: climate change; COVID-19; public opinion; finite pool of worry; public policy

In the shadow of the COVID-19 pandemic, policymakers have debated whether other pressing crises—including climate change—should be integrated into their COVID-19 responses. Is it politically feasible to integrate climate policies into pandemic recovery plans? Conventional wisdom suggests that the public may struggle to prioritize multiple crises simultaneously, particularly when they unfold across different timescales. However, public experience with one crisis could also increase public comfort with the type of aggressive policy interventions necessary to manage other crises, especially where such interventions are complementary. The contemporary moment thus raises pressing questions about how policy preferences and issue prioritization shift in the face of competing policy challenges. Have the health and economic emergencies triggered by the pandemic displaced public concern about climate change? Or, has public experience with one crisis—the COVID-19 pandemic—increased support for climate action?

In this article, we draw from four new surveys of the Canadian and US publics to explore linkages (or lack thereof) in the public mind between COVID-19 and climate change. First, we use a conjoint experiment to examine whether the public supports integrating climate action into COVID-19 recovery packages. Next, we use a panel study to examine whether the pandemic has changed the extent to which the public believes the government should prioritize climate change. We then use a framing experiment to explore whether communication about

COVID-19 can shape the way the public thinks about climate change. Overall, we find that the COVID-19 crisis has not crowded out public support for climate action, but, instead, created political opportunities for integrated policy responses that include climate change mitigation in a COVID-19-related economic stimulus package.

While we assess potential linkages between climate change and COVID-19, the study's implications extend beyond this specific case. COVID-19 has dominated the news media and the zeitgeist for over two years. This intense media focus might lead the public to prefer a single-minded policy focus for COVID-19 (as distinct from other issues). Conversely, climate change might be easily displaced in public consciousness, as many view it as a temporally and geographically distant phenomenon. In this way, the COVID-19–climate change intersection can be viewed as a tough test of whether intersecting crises crowd each other out in the public mind.

The Politics of Intersecting Crises

To date, public opinion scholars have largely studied COVID-19 and climate change as independent issues. Political analyses of COVID-19 have focused on support for pandemic-related policies (Amat *et al.* 2020; Lachapelle *et al.* 2021) and/or the impact of the pandemic on support for incumbent governments (Devine *et al.* 2020; Esaiasson *et al.* 2020; Johansson, Hopmann, and Shehata 2021; Leininger and Schaub 2020; Schraff 2020; Yam *et al.* 2020). Several studies have also examined the extent of partisan polarization about COVID-19. Political polarization was initially low in the United States (Gadarian, Goodman, and Pepinsky 2021; Myers 2021) and in Canada (Merkley *et al.* 2020) but increased in the United States as the pandemic wore on (Allcott *et al.* 2020; Grossman *et al.* 2020). By contrast, in an extensive literature assessing climate change opinion, scholars have focused on how such drivers as elite cues (Guntermann and Lachapelle 2020; Lee *et al.* 2021; Merkley and Stecula 2020), framing (Aklin and Urpelainen 2013; Bernauer and McGrath 2016; Feldman and Hart 2018; Gifford and Comeau 2011; Nisbet 2009; Spence and Pidgeon 2010), information about economic costs and benefits (Ansolabehere and Konisky 2014; Stokes and Warshaw 2017), personal experience with a changing climate (Bechtel and Mannino 2021; Bergquist and Warshaw 2019; Egan and Mullin 2012; Howe *et al.* 2019; Konisky, Hughes, and Kaylor 2016; Marlon *et al.* 2021), economic downturns (Bakaki and Bernauer 2018; Elliott, Seldon, and Regens 1997; Inglehart 1977; Mildemberger and Leiserowitz 2017), and social norms (Bechtel, Genovese, and Scheve 2019; Mildemberger and Tingley 2019) influence beliefs about climate change and support for policies to address it. Scholars have also mapped the spatial distribution of climate beliefs in both the United States (Howe *et al.* 2015; Bergquist and Warshaw 2019) and Canada (Mildemberger *et al.* 2016).

These literatures leave open the question of how concern about one crisis—climate change—is impacted by other types of crisis experiences, but the climate opinion literature does provide some fruitful directions for theorizing on this question. Economic downturns represent one class of experiences that has been theorized to cause a downturn in public environmentalism (Elliott, Seldon, and Regens 1997; Inglehart 1977). Recent studies have revisited this link with mixed success in identifying a linkage between economic distress and climate action (Bakaki and Bernauer 2018; Mildemberger and Leiserowitz 2017). We extend this work by assessing the relationship between climate concern and a different type of massive public upheaval—COVID-19. Relatedly, scholars have explored how the framing of climate change and climate policy influences public attitudes (Aklin and Urpelainen 2013; Bernauer and McGrath 2016; Feldman and Hart 2018; Gifford and Comeau 2011; Nisbet 2009; Spence and Pidgeon 2010). For the most part, this work has focused on emphasizing different features of climate change itself. However, climate change is not occurring in a vacuum, and framing it as similar to or different from other pressing political issues might provide leverage for building climate policy support.

More generally, theoretical perspectives lead to three distinct expectations about how the public might respond to simultaneous crises. First, new crises may compete within the public's "finite

pool of worry” (Weber 2006) and crowd out concerns about other policy challenges. In this view, simultaneous crises act as substitutes in the public mind. Secondly, a new crisis may open a window of opportunity for addressing pre-existing issues (Kingdon and Thurber 1984). This might occur if the government response to a new crisis normalizes a particular type or scale of policy response. For example, the scale of COVID-19 stimulus spending could recalibrate expectations about appropriate government interventions in the economy. In this view, simultaneous crises could complement each other in the public mind. Thirdly, in the model implied by standard issue-specific studies of public opinion like those cited earlier, public attitudes about simultaneous policy challenges could remain independent. In this view, the emergence of new crises does not affect public opinion about longstanding issues.

To our knowledge, scholars have not tested these competing theories of public policy linkage. One study shows that climate policy is more popular when economic and social policies are integrated into policy packages—but it does not examine COVID-19 specifically (Bergquist, Mildemberger, and Stokes 2020). Separately, two recent studies have found that the public is more willing to accept some policies when they are proposed as measures to address COVID-19, as opposed to responses to climate change (Amat et al. 2020; Kallbekken and Sælen 2021). These findings suggest that the public views different policy instruments as more appropriate in some contexts than others, but they do not tell us whether exposure to intersecting crises influences how the public thinks about the crises or policies to address them. In practice, some governments have linked COVID-19 and climate change by incorporating a green stimulus into their COVID-19 relief plans, but we lack an understanding of the political benefits or drawbacks to this strategy.

Methods

Our analysis leverages four datasets: two collected during the early months of the COVID-19 pandemic; and two from mid-2021, over a year after pandemic-related restrictions began in the United States and Canada. First, we leverage data from the Canadian Climate Opinion Panel (CCOP). The CCOP was a custom five-wave public opinion panel survey administered online in five Canadian provinces between February 2019 and May 2020 to a sample drawn from the Leger 360 platform (Mildemberger et al. 2022). Complete information on the CCOP is provided as Section 1.1 in the Online Supplementary Material. Secondly, we fielded a national survey of the US public simultaneously with the fifth wave of the CCOP in May 2020. US respondents were recruited by Qualtrics between May 15 and May 20 ($n = 1,049$), and quota-sampled by race, age, and gender. Thirdly, in April 2021, we fielded a second national survey of Americans, this time using the Lucid Theorem service ($n = 1,695$). Again, respondents were quota-sampled by race, age, and gender. Fourthly, in June 2021, we fielded a national survey of Canadians, also using Lucid. Canadian respondents were quota-sampled on language, age, and gender ($n = 1,058$). We then merged local COVID-19 prevalence data into all four datasets, using data from provincial health authorities in Canada and a non-partisan repository of health data in the United States. We provide full details about the surveys and COVID-19 prevalence data in Section 1.2 in the Online Supplementary Material.

We use these surveys to explore the relationship between climate change and COVID-19 in three ways. Our primary focus explores whether public support for climate policy increases or decreases support for government responses to the COVID-19 pandemic. We explore this topic using a conjoint survey experiment embedded in the 2021 Canadian and US surveys. Conjoint experiments capture the dynamics of multidimensional decision-making and show how different choice dimensions vary in relative importance (Bansak, Hainmueller, and Hangartner 2016; Hainmueller, Hopkins, and Yamamoto 2014a). Respondents are asked to choose between two choice bundles that contain randomly varying combinations of policy elements. The researcher can then estimate average marginal component-specific effects

(AMCEs) for each policy element (Hainmueller, Hopkins, and Yamamoto 2014a). The AMCE shows how much a given policy element increases or decreases public support for the policy package, holding all other elements constant. We estimate the AMCE for each policy element by regressing a binary indicator for whether a policy bundle was preferred on treatment variables indicating the presence or absence of each element. Our results can be interpreted as the marginal change in support associated with the inclusion of each policy level, holding all other elements constant (including, crucially, the cost of the package).¹

As explained more thoroughly in Section 2.1 in the Online Supplementary Material, we designed the conjoint experiment to reflect contemporaneous policy discourses in the US Congress and the Canadian Parliament, and to speak to scholarly debates about climate policy, energy justice, and social policy. Respondents were asked to evaluate three randomly generated pairs of policy packages, which varied with respect to five dimensions (shown in Figure 1): climate action, infrastructure, individual support, business support, and costs. The elements included in each policy dimension are included in Appendix Table 2 in the Online Supplementary Material. It should be recalled that our primary focus is on support for including climate policies in COVID-19 economic recovery packages. We thus focus particular attention on the elements contained within the climate action and infrastructure dimensions.²

This conjoint experiment will reveal whether the US and Canadian publics prefer that COVID-19 response packages integrate policy to address climate change, but it does not tell us whether or how the pandemic has changed views of climate change and climate policy. We assess this question in two ways. First, we evaluate the effect of COVID-19 incidence on climate concern by evaluating within-subject changes in Canadian climate policy preferences between the December 2019 and May 2020 waves of the CCOP. Details on question wording are provided in Section 2.2 in the Online Supplementary Material. We analyze these panel data using a (two-way, fixed-effects) ordinary least squares (OLS) model of the form:

$$\text{Concern}_{it} = \gamma_i + \omega_t + \alpha \text{COVID-19 incidence}_{it} + \eta_{it} \quad (1)$$

where: Concern_{it} is one of our two climate attitude measures (climate concern and support for carbon pricing) i in survey wave t ; γ_i are individual respondent fixed effects; ω_t are survey-wave fixed effects; and η_{it} is the error term. The key parameter of interest is α , the coefficient on $\text{COVID-19 incidence}_{it}$, which gives the best linear approximation of the average treatment effect (ATE), subject to the conditional ignorability assumption holding.

Secondly, in all four surveys, we tested whether framing the climate crisis as similar to the COVID-19 pandemic might increase public climate concern or prioritization of climate change. We experimentally examined the effect of a vignette that described COVID-19 and climate change as problems that grow exponentially and are best mitigated through early action.³ We randomly assigned survey respondents to read one of three vignettes that either discussed the COVID-19 pandemic alone or highlighted similarities between COVID-19 and the climate crisis.

¹We note here that since respondents were forced to select a package for each choice task, estimated AMCEs range from -0.5 (a 0.5-point decrease in the probability of supporting a package) to 0.5 (a 0.5-point increase in the probability of supporting a package).

²In Section 2.1.3 in the Online Supplementary Material, we report the results from a follow-up study we conducted to confirm our results don't change if we also include COVID-19 mitigation policies in the conjoint experiment. We did not include these policies in our primary study because responsibility for managing the severity of COVID-19 was left primarily to the states and provinces (not the federal government), and because these debates happened independently from economic recovery debates.

³We acknowledge that while the structure of the underlying problems causing the pandemic and climate change are similar, the timing of policy impacts is quite different. The impact of policy responses to COVID-19 are observable in days, weeks, or months, whereas policies to mitigate climate change will take years or decades to realize their full impact. If respondents make this distinction, then their understanding of the problems as similar might not lead them to support aggressive climate policy. This could be one explanation for the null result from this experiment.

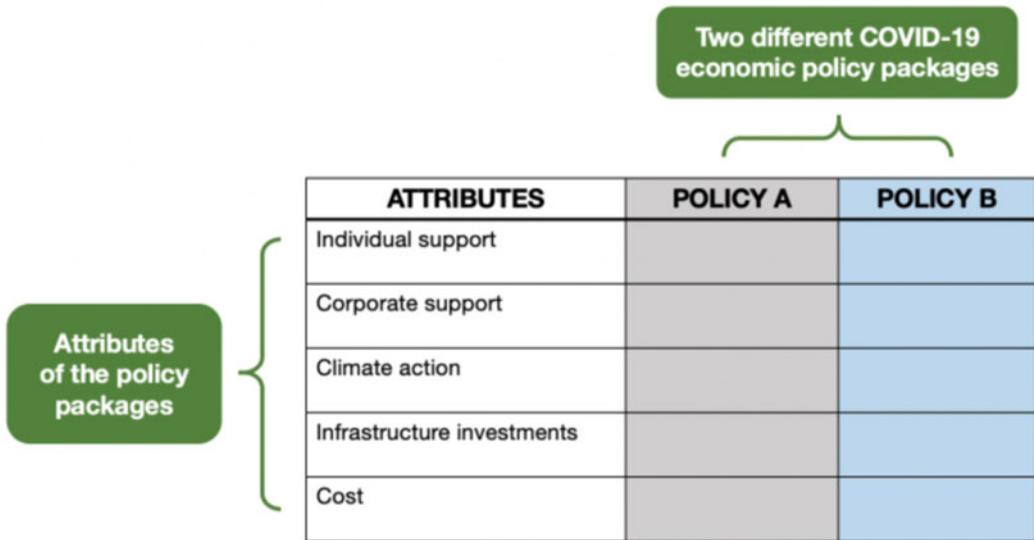


Fig. 1. Policy attributes included in our conjoint experiment.

Note: The figure shows the policy dimensions included in our conjoint experiment and was presented to respondents in the explanation preceding the comparison task.

We provide further details about these experiments in Section 2.3 in the Online Supplementary Material. We identify the ATE of the vignettes using OLS. We also conduct a mini meta-analysis using a random-effects model to identify an overall effect size across the four surveys (Baldwin and Lammers 2016; Goh, Hall, and Rosenthal 2016).

Results

Our conjoint-experimental results show that Americans and Canadians support an approach to COVID-19 relief that incorporates climate policy (see Figure 2). All of the climate action measures boost support for a COVID-19 relief package. Conditioning business support on pollution reductions boosts support by the greatest amount in both countries. Including green infrastructure spending also increases support for a COVID-19 relief package. Further, in both countries, support for clean energy and clean transportation boosts support more than fossil fuel infrastructure investments. In Canada, clean energy investments boost support more than roads, bridges, and tunnels, whereas we cannot distinguish between the increased support associated with clean energy and traditional infrastructure in the United States.

Climate change is conditioned by a high degree of partisan polarization in both the United States and Canada (Lachapelle, Borick, and Rabe 2012; Mildenerger et al. 2017). However, as detailed in Section 2.1.1 in the Online Supplementary Material, these results are stable when disaggregated by partisan subgroups in the United States and ideological subgroups in Canada.

We also examine whether these effects correspond to meaningful shifts in public support for a COVID-19 relief package. As explained in detail in Section 2.1.2 in the Online Supplementary Material and following prior work (for example, Bechtel and Scheve 2013), we address this question by comparing support for packages that include the most popular climate policy elements with baseline packages that do not. Even with large differences in costs, we find that including climate policy elements boosts support for a COVID-19 relief package by 12 and 14 points on a 0–100-point support scale in the United States and Canada, respectively. These conjoint-experimental results suggest that the public prefers that governments take simultaneous

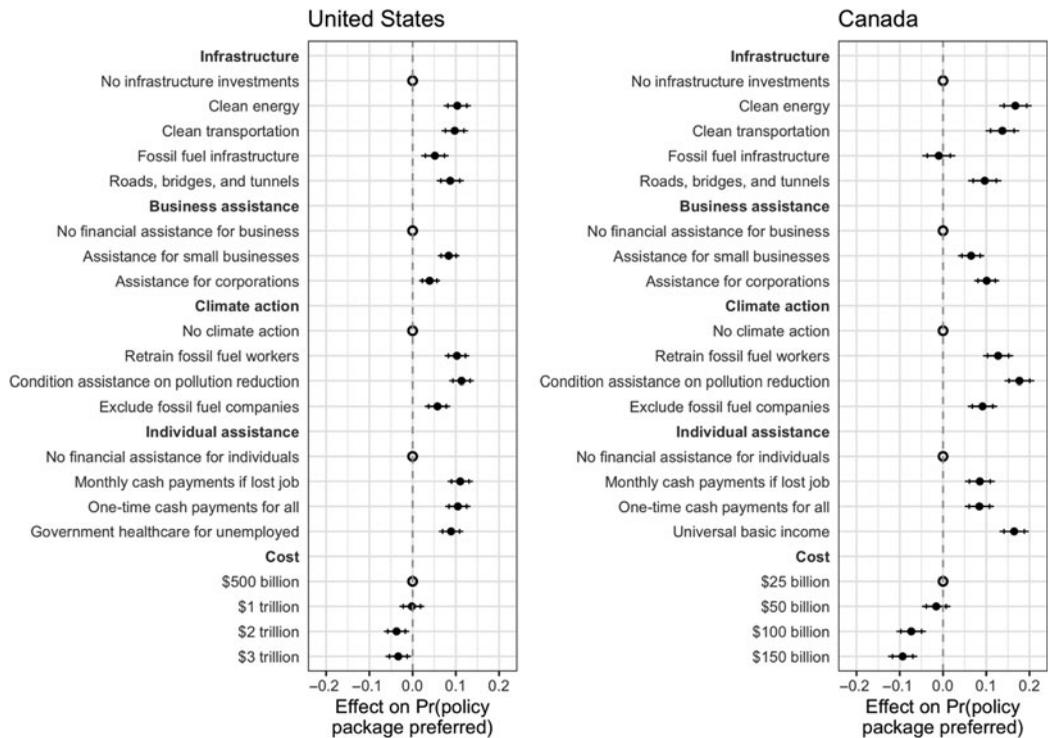


Fig. 2. How social, economic, and climate programs shape support for bundled COVID-19 response packages in Canada and the United States.

Notes: The figure shows average effects of each policy element on support for the COVID-19 policy bundle in the United States (left panel) and Canada (right panel). Point estimates are AMCEs: the change in probability of selecting a COVID-19 package, *ceteris paribus*, if the package includes each element. AMCEs are estimated using the R package *cjoint* (Hainmueller, Hopkins, and Yamamoto 2014a; Hainmueller, Hopkins, and Yamamoto 2014b). Standard errors are clustered at the respondent level. Bars reflect 95 per cent confidence intervals. Hash marks show 83 per cent confidence intervals to aid visual inspection of significant differences in effect sizes (Bolsen and Thornton 2014; Payton, Greenstone, and Schenker 2003). Each element is compared against a base category for each policy dimension, denoted by a dot on the 0 intercept.

action to manage intersecting crises, though these results do not shed light on potential shifts in issue prioritization. For instance, the public might prefer addressing climate change in COVID-19 recovery packages even as the intensity with which they want climate change prioritized declines. Our panel study estimating the effect of local COVID-19 prevalence on Canadians' climate concern suggests otherwise. The results reported in Table 1 show no significant effect of local COVID-19 prevalence on the importance Canadians assign to the issue of climate change (Column 1) or support for carbon pricing (Column 2). Results are similar for a range of other issues reported in Section 2.2 in the Online Supplementary Material. We thus find no evidence that COVID-19 crowded climate change out of a "finite pool of worry" for Canadians.⁴

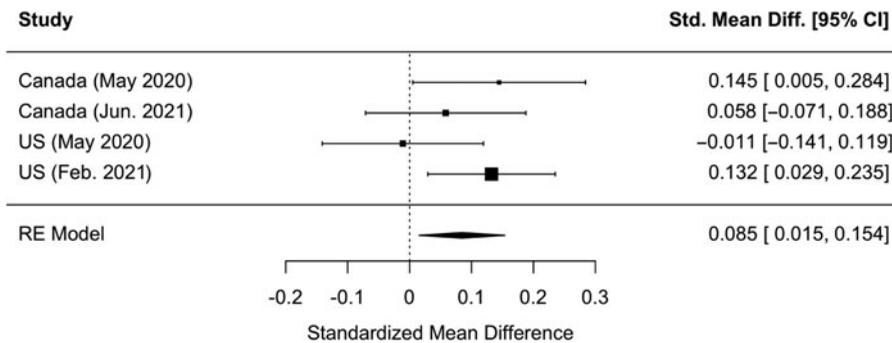
These results still leave open the question of how the public might respond to media or political communications that link the two crises. Thus, we also explore whether concern about climate change might be enhanced when respondents receive messages about parallels between the

⁴In Appendix Figures 4 and 5 in the Online Supplementary Material, we show the results from a simulation examining the minimum detectable effect of our panel study. Our samples are large enough to enable us to detect an effect of about 0.2 standard deviations on the issue-priority variable and 0.25 standard deviations on support for carbon pricing. Thus, while we acknowledge that our study is underpowered to detect very small effects, our design would enable us to detect a substantively meaningful effect.

Table 1. Results of two-way fixed-effects models, showing no statistically significant effect of COVID-19 prevalence at the local level on the importance Canadians assign to climate change (Column 1) and support for carbon pricing (column2)

	Dependent variable:	
	Importance of climate change (s.d.) 1	Support for carbon pricing (s.d.) 2
COVID-19 prevalence (log)	0.040 (0.118)	-0.083 (0.195)
Respondent fixed effects	Yes	Yes
Wave fixed effects	Yes	Yes
Waves	2	2
Observations	834	505

Notes: Local COVID-19 prevalence is measured as the natural log of the percentage of the local population that had contracted COVID-19 (cumulative through May 18, 2020). Issue importance is measured on a five-point scale (1–5) but has been rescaled to have a mean of 0 and standard deviation of 1. Support for carbon pricing is measured on a five-point scale (1–5) but has also been rescaled to have mean of 0 and standard deviation of 1. The table reports standardized coefficients, such that the effects should be interpreted in standard-deviation units. Robust standard errors clustered at the respondent level.

**Fig. 3.** Mini meta-analysis of four survey experiments framing climate change as analogous to COVID-19.

Notes: The figure shows the results of a mini meta-analysis, presenting standardized mean differences between groups that read a vignette analogizing the “exponential growth” of COVID-19 to that of climate change. The experiment was conducted four times in two countries: the United States (May 2020 and February 2021) and Canada (May 2020 and June 2021). The dependent variable is *worry about climate change*, measured on a four-point scale. The meta-analysis was conducted using a random-effects model.

COVID-19 pandemic and the climate crisis. We find suggestive evidence that this is the case. While results across the four vignette experiments were inconsistently significant (see Figure 7 in Section 2.3 in the Online Supplementary Material), a mini meta-analysis of the four studies finds a small, positive, and significant overall effect of analogizing climate change to the “exponential growth” of COVID-19 on respondents’ level of worry about climate change. Using a random-effects model, we estimate an overall standardized mean difference between the control groups (COVID-19 information only) and the treatment groups (COVID-19 analogized to climate change) of 0.085 (standard error: 0.035, $p < 0.017$). Results of the mini meta-analysis are presented in Figure 3. These results mirror the results from the panel analysis. COVID-19 does not crowd climate change out of the public consciousness, but neither does its structural similarity to climate change dramatically increase public climate concern.

Conclusion

In this research note, we have assessed public support for integrated policy approaches that address COVID-19 and climate change simultaneously. We have also explored the attitudinal bases for the public’s policy preferences by asking whether exposure to or communication about the new COVID-19 crisis changes how the public thinks about climate change. We find

no evidence that the COVID-19 pandemic reduced support for climate action by crowding climate change out of a finite pool of worry. COVID-19 recovery packages that included climate action were more popular than those that did not. Moreover, we do not find evidence that exposure to COVID-19 reduced the importance of climate change in the public mind or eroded support for climate policy. In addition, we find evidence that rhetorically linking the two crises might increase public concern about climate change. The COVID-19 crisis has not dampened public support for climate action; instead, it may create opportunities for integrated policy solutions. While our study focuses on the direct relationship between public experience with COVID-19 and policy-relevant views, political elites can also mediate this relationship. Future research could investigate how the public responds to political elites' efforts to link issues or keep them distinct.

Supplementary Material. Online appendices are available at: <https://doi.org/10.1017/S0007123422000266>

Data Availability Statement. Replication data for this article can be found at the *British Journal of Political Science* Dataverse, available at: <https://doi.org/10.7910/DVN/LULYEB>

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