Testing Negative: The Non-Consequences of COVID-19 on Mass Ideology

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Abstract

In response to the COVID-19 pandemic governments implemented large-scale economic and social policies that, outside of war time, are unprecedented in scale and scope. They highlighted the state's capacity to guarantee economic and health security, and they reached beyond demographic groups that are more typically beneficiaries of state support. Because of this, we hypothesise that exposure to the pandemic and these policy responses caused ideology change, including attitudes to the role of government in the economy, redistribution, and the deservingness of beneficiaries of state support. We test this expectation using data from the long-running (2014–present) British Election Study Internet Panel, together with a unique panel survey fielded to existing BES respondents in April and September, 2020. Our panel makes it possible to track individuals on a rich set of variables both before and during the pandemic. We find virtually no evidence that the pandemic, or exposure to pandemic-induced shocks, affected ideological beliefs about the role of government, or economic and social policy attitudes. In a follow-up survey experiment on British respondents we test one possible reason for this lack of change – a lack of elite cues – but find that exposure to elite cues linking the pandemic to a greater government role in providing welfare, national insurance and public spending has no impact on ideological beliefs either. We conclude that the pandemic was not, and could not have been, a cause of mass ideological change.

> Coming out [of the crisis], as we all hope we will, vaccine permitting, the world looks a little different. For example, nobody would deny the crucial role of central government and state action in the common interest.
>
> Simon Schama, BBC Today, 5th December 2020

> Out of the crisis, Britain is moving in a more collectivist – for want of a better term – direction. The state is going to be, for the foreseeable future, much bigger.
>
> Iain Martin, The Week in Westminster, 17th October 2020

1 Introduction

The COVID-19 pandemic provoked a sudden expansion of government activity never seen before outside of wartime. Nor, in times of peace, has the government asked citizens to sacrifice so much for the common good. Previous events of this magnitude, such as the World Wars and the Great Depression, left lasting political legacies. Citizens and governments changed their beliefs about what the state should do in the economy

(Titmuss 2018, Ch.4; Scheve and Stasavage 2010; Skocpol 1995).[1] As the opening quotes in this article suggest, it was widely anticipated by journalists and commentators that the current crisis would do the same. In this study we ask whether they were correct.

A second aim of our paper is to add to a growing literature on how experiencing unemployment, shocks to economic risks – primarily, unemployment risk – as well as receiving government benefits for the first time affect political preferences and ideologies. A large literature argued that those at higher risk of unemployment or with lower incomes will be more supportive of redistribution, taxing the rich, and welfare provision, and generally, will be more economically left-wing (Cusack et al. 2006; Iversen and Soskice 2001; Rehm 2009; Rehm 2011; Rehm et al. 2012). However, these studies tested their theories with cross-sectional data, providing a limited basis for inferring causality.

More recently, a wave of studies (summarised in Margalit (2019)) have been published using panel data tracking individuals over time. A number find at least some evidence that preferences are updated (Ares 2020; Langsaether et al. 2020; Naumann et al. 2016; Owens and Pedulla 2014; Pahontu 2021). Others, however, find that any updating is only small, short-lived, or confined to certain groups, or may occur only in response to large changes in circumstances (Lerman and McCabe 2017; Margalit 2013; Marten 2019; O'Grady 2019; Stegmueller 2013; Wehl 2020).

One barrier to a more general understanding of the effect of economic shocks is the lack of long-term panel data on political beliefs. It is rare for political scientists to collect this sort of data; indeed, the literature often ends up re-analysing the same small number of quality datasets, such as the British Household Panel Study. Another barrier is a lack of shocks. Even in a good panel dataset, it may take a large, one-off economic crisis to expose enough respondents to changes in treatment status to make reliable inferences.

The COVID-induced crisis, together with our dataset, overcome both problems. The crisis exposed an unusually wide range of people to shocks and drew a lot of them into new systems of government support such as (in the UK) the furlough scheme. To measure their impact we collected a large, long-term panel dataset that is new to the literature. During the initial phase of the pandemic in the UK, from April to September 2020, together with the British Election Study (BES) team, we fielded survey questions in three waves that were designed to assess ideological change during the pandemic. Because our study uses existing BES panelists, a unique feature is that we also have substantial pre-pandemic data on our respondents over several years. We track the same individuals before and during the crisis to assess whether they changed their ideological stances. By following individuals over time, in a way that was not done during previous crises, we test the widespread expectations of attitudinal/ideological change – and find almost *no* evidence that such change occurred.

[1] But see, e.g. Green et al. (2019), for countervailing evidence.

Our paper adds to a small set of recent studies examining opinion change during the pandemic, most of which have reported very little evidence of ideological shifts, other than increased trust in government. In a Dutch panel study Reeskens et al. (2021) found only very limited value change from 2017 to May 2020, focusing mostly on core political values. Ares et al. (2021) collected panel data in Germany, Sweden and Spain on two occasions, 2018 and June 2020, and uncovered no clear leftward shift in general redistributive attitudes, but some evidence that citizens positively updated their views on state capacity and trust in politicians. Other studies of countries across Western Europe have confirmed that the crisis increased trust in governments and politicians (Baekgaard et al. 2020; Bol et al. 2021; Esaisson et al. 2021). Like Ares et al. (2021) we find no evidence for aggregate ideological changes over the pandemic. Nor do we find that exposure to pandemic-induced shocks led individuals to change their views.

Below, we first motivate our panel research design from a theoretical perspective, discussing reasons to expect general ideological change, ideological change that is limited only to certain groups, or no ideological change. We then outline our data. In the empirical sections that follow this, we look for general and then limited ideological change using generalised difference-in-difference analyses, finding no evidence of change. Finally, we use a pre-registered survey experiment to test a key potential explanation for the lack of change – that during the pandemic, political elites have not made arguments that would cause people to reconsider their opinions. The experimental study shows no evidence for the idea that different elite cues could have produced opinion changes.

2 Theoretical Motivations

In this section, we outline the theoretical underpinnings of the study: why the pandemic's economic impact and the British government's economic response to it might have shifted citizens' ideological attitudes to the left. We then consider why attitudinal impacts might be *limited* to certain individuals, experiences, or attitudes. Finally, we suggest some reasons why ideological change may not have taken place at all.

2.1 Reasons to Expect Ideological Change

There are at least four reasons why the Covid-induced economic shock might have generated ideological shifts among citizens, making them generally more favorable toward state intervention in the economy. The first two of these reasons relate to the experience of economic loss arising from the pandemic-induced recession, while the second two reasons relate to the nature of the state response to those losses.

1. Widespread losses. The economic crash induced by the pandemic and associated lockdowns was massive. The magnitude and structure of the downturn ensured that it

had an unusually broad reach, threatening social groups in parts of the economy that might have been relatively sheltered and secure in a more "typical" recession. Rehm et al. (2012) show that the correlation of labour market risk and income is particularly strongly negative for the UK, meaning that higher-income workers usually face the lowest risks of unemployment. Yet the Covid-induced shock was so powerful that its effects spread relatively high up the income distribution, affecting people who are usually quite insulated from downturns. The downturn devastated whole sectors, particularly in leisure and (non-essential) retail, that include both low- and well-paid workers. In addition, as the crisis was unforeseeable, many of those suffering economic losses from the pandemic will have been surprised, in comparison to past crises, at finding themselves unemployed or at risk of unemployment.

One reason why these unusually broadly distributed economic losses might have shaped ideological attitudes is their interaction with systematic biases in human judgment of risk. One well-established skew in human cognition is the "availability bias," under which individuals rate as more likely those outcomes that they can more readily imagine or call to mind (Tversky and Kahneman 1973; Vaughn and Weary 2002). News or direct experience of dramatic, widespread economic losses during the Covid-induced recession might have made job loss and other adverse economic outcomes more cognitively available to citizens. Even where individuals did not directly experience loss themselves, a sense of social affinity with those who did suffer economic losses might have also mattered: Stapel et al. (1994) find that individuals judge as more likely those events that they observe to have happened to other individuals who belong to the same social category as they do. For many middle- and higher-income workers in relatively secure jobs, the risk of unemployment is typically not especially salient, even during a recession. By generating large job losses across a wider range of income and occupational groups, the Covid-induced recession may have made the general risk of labor-market losses imaginable and personally relevant to an especially large number of individuals. Higher market-risk assessments might, in turn, generate greater demand for social protection (Rehm 2011).

2. Demonstration of unique state capacities. Prevailing narratives about the state in recent decades have primarily focused on its decline. Globalization and financialization have often been depicted as implying a diminished capacity of the state to shape economies and societies. Even the most recent, similarly-sized economic shock – the Financial Crisis and ensuing Great Recession of 2008-9 – quickly appeared to present governments as being at the mercy of bond markets, central bank technocrats, and assorted apparatchiks (e.g. Brazys and Hardiman 2015; Chang and Leblond 2015; Woodruff 2016).

The pandemic, and the policy responses that it demanded, had the potential to reverse this view. In both public health and economic terms, the pandemic plausibly provided a powerful demonstration of the capacity of the state to act as the ultimate guarantor of security for its population. The transition from "there is a new virus in China" to "make

sure you wash your hands" to "almost everyone must stay at home and the state will backstop your income" was as rapid as it was unimaginable only weeks prior to the initial outbreaks. Moreover, no actor other than the state had the power to respond comprehensively to the problem, and that feature of the crisis was rather novel in contemporary political-economic history. To the extent that anti-statist attitudes derive, in part, from a belief about the limited or diminished capacities of the state to act effectively, or from the notion that the state has been functionally supplanted by market or non-governmental actors or forms of organization, the pandemic response potentially served as a dramatic demonstration of the state's enduring strength and indispensable capacities to provide relief and generate collective action.

3. Widespread benefits. In comparison to past crises, the pandemic and the state's response drew an unusually large number of people into direct financial dependence on the state. In the UK, not only did social benefit rolls swell with the newly unemployed middle classes, but a vast program of wage subsidies for furloughed workers paid the wages of millions of people whose reliance on state aid had previously been rather minimal. For salaried employees there was a furlough scheme that covered 80% of their wage, and for the self-employed there was a self-employment scheme of similar generosity. Work by Soss (1999) and Mettler (2011, 41–43) in the U.S. context suggests that citizens' experiences – positive or negative – with individual social programs can generalize, shaping their overall perceptions of the state. The direct receipt of state benefits during the Covid crisis may have dramatized for some UK citizens, for the first time, the value of the state as an insurance mechanism against shocks and as a source of relief for those who have fallen on hard times.

The widespread distribution of benefits in the state's pandemic response is important in a second sense: it implies that information relevant to policy attitudes will have reached individuals irrespective of prior levels of political interest and knowledge. In contrast to much political communication (Zaller 1992), therefore, the "political message" entailed by the benefit – that the state supports the "deserving" and has the capacity to do so on a large scale – is not likely to be blunted by low exposure among those most susceptible to persuasion, i.e., those low in political knowledge and interest (Lerman and McCabe 2017).

4. Shift in deservingness perceptions. A large body of evidence points to the role of beliefs about deservingness – and, especially, the degree to which recipients' need arises from circumstances beyond their control – in shaping support for social welfare spending (Alesina et al. 2001; Fong 2001; Gilens 1999; Petersen 2012; Petersen et al. 2011; Sniderman et al. 1991). For instance, in his multi-decade study of media representations of poverty in the U.S., Gilens (1999) finds that, during "economic hard times", coverage of poverty is both "more sympathetic" and more likely to connect the circumstances of the poor to national conditions (127). Those negatively affected by the Covid-induced

labour market shock are very obviously not to blame for their unfortunate circumstances. The crash was exogenous to the operation of the British economy, and indeed British society more broadly, in that it was imported from afar. This means that, in comparison to other circumstances generating financial need or unemployment, the victims of the Covid-induced recession may have been looked on with an unusual degree of sympathy. It is possible that beliefs about deservingness formed in the context of the Covid crisis might generalize, yielding a shift toward more favourable beliefs about the deservingness of welfare recipients and greater support for welfare in general.

The broad dispersal of public largesse noted above may have also affected deservingness perceptions and, hence, ideological attitudes. There is considerable evidence that attitudes toward redistribution are shaped by individuals' sense of social affinity with beneficiaries (Cavaillé and Trump 2015; Lupu and Pontusson 2011). To the extent that recipients during the pandemic represented a more socially diverse group, relative to the "typical" group of benefit recipients, a broader range of citizens may have felt a sense of social proximity to beneficiaries and, thus, perceived them as deserving. These shifts in deservingness perceptions, in turn, may have increased support for social spending.

2.2 Why Ideological Change Might Be Limited

While the Covid crisis and the government's response may have held the potential to reshape political attitudes, there is also reason to expect that any effects might be limited to particular individuals or specific attitudes that are narrower than overall ideological orientations. We focus on three limits: direct experience, ideological starting points, and limited visibility.

1. Direct experience. Under a maximalist version of our theorized mechanisms, the economic devastation wrought by the pandemic and the state's widely publicized role in providing relief might have had broad effects on public attitudes by generally making labor-market risk and the unique state capacities salient for citizens. Consistent with this logic, the vast literature on economic voting finds that, in judging governments' economic performance, citizens are strongly influenced by outcomes at the societal level (e.g., Healy et al. 2017; Kinder and Kiewiet 1981). Yet there is also reason to believe that the cognitive and attitudinal effects of economic loss and governmental support might be much more limited. In Margalit's (2013) analysis of ideological shifts during the Great Recession in the U.S., movement to the left is observed specifically among those who personally experience unemployment. Likewise, Soss's (1999) analysis of the impact of receiving social benefits on recipients' political attitudes emphasizes beneficiaries' personal experiences with government bureaucracies. A more modest – and perhaps realistic – expectation, therefore, might be that any attitudinal impacts would be limited to those individuals who *personally* experienced economic losses or received government benefits.

2. Visibility. A rich literature on accountability and welfare-state politics emphasizes the importance of visibility in shaping public responses to state action. Citizens are unlikely to credit the state for the benefits they receive from public programs if they cannot easily observe the delivered gains and trace them back to state action (Arnold 1990; Pierson 1994; Tilley et al. 2018). Mettler (2011) presents micro-level survey and experimental evidence from the United States that social programs that deliver their benefits indirectly, such as through private-sector intermediaries, are less likely to be recognized by recipients *as* public benefits and that citizens are less likely to form opinions about "submerged" state programs that cohere with their own material interests. More generally, work on the impact of "self-interest" – concern regarding the short-run, material well-being of oneself and one's family – on policy attitudes suggests such effects are more likely when a policy's personal costs and benefits are highly visible (e.g. Chong et al. 2001).

In this regard, we note that the UK government's Covid-relief programs varied markedly in how directly they delivered their benefits. While Universal Credit involves a direct government payment to individuals, and those receiving the self-employment support had to actively register for it, the furlough subsidies are paid to *employers*, who in turn continue to pay their employees as before. The state's hand in supporting employment in the furlough program is, thus, likely to be much more difficult for beneficiaries to detect than the state's role in Universal Credit or Self-Employment support. In turn, we might expect any attitudinal impacts of government's economic response to be larger for those benefiting from one of the latter two schemes than for those benefiting from the furlough program.

3. Ideological starting points. Citizens' ideological starting points might limit the moveability of their attitudes in at least two respects. First is the general "stickiness" of partisan and ideological orientations, underwritten by motivated reasoning and selective information-processing (Achen and Bartels 2017). Lerman (2019) finds strong partisan motivated reasoning in U.S. citizen evaluations of the quality of government services, while Jacobs and Mettler (2018) find that partisanship and overall levels of distrust are stronger drivers of evaluations of the U.S. Affordable Care Act than are personal experiences. Using German Socio-Economic Panel Data, Wehl (2020) finds that the policy-attitudinal effects of changes in employment status depended on respondents' starting points: negative shocks tended either to reinforce the attitudes of those already positioned on the left or to affect those respondents without strong prior predispositions. Brooks and Manza (2013), studying the Great Recession in the U.S., report a similar pattern of ideological doubling-down among Republicans (and no change among Democrats) (but see Lerman and McCabe 2017). Alternatively, it may be that "ceiling effects" constrain attitudinal movement. Existing left-wingers might not be moveable, even in the face of severe economic loss or experience of government relief, simply because they do not have much

scope to move further to the left. Building on these findings, we might thus expect only the attitudes of those citizens from particular ideological groups to be influenced by the experience of the Covid-induced economic crisis.

2.3 Why the Crisis Might Not Have Affected Ideological Attitudes

Finally, we consider reasons to be skeptical that even a profound economic crisis and dramatic state rescue effort might have done much at all to change citizens' core beliefs about social policy or the appropriate role of government.

First, we note that the evidence to date on ideological change arising from the experience of economic loss or government help is, at best, relatively narrow or tenuous. The evidence that Soss (1999) and Mettler (2011) present on the attitudinal effects of direct exposure to government programs relates to recipients' beliefs about how responsive or helpful to them the state is, rather than to shifts in general ideological beliefs. The attitudinal change that Margalit (2013) uncovers during the Great Recession in the U.S. turns out to be transient, quickly disappearing after a new job is found, suggesting that any belief changes were relatively superficial, even following personal economic loss. O'Grady (2019) finds that short-term economic circumstances have little effect on support for redistribution and social policy. Even studies that have found clear effects of benefit receipt on political attitudes, moreover, often concern highly specific effects, such as the effect of program enrollment on attitudes toward that program or others in the same policy domain (Hopkins and Parish 2019; Lerman and McCabe 2017). Nor are these very specific effects always found: Morgan and Campbell (2011), for example, showed that there was no change in beliefs about the government's role in healthcare amongst individuals who received government health insurance in the US following a 2003 reform to the Medicare program.

Second, citizens might have reasonably refrained from drawing general lessons from their economic experiences during the economic crash because the crisis, however devastating, was also highly unusual. A once-in-a-century pandemic is just that. For those motivated to defend prior beliefs favoring a limited state role, the exceptional nature of the circumstances and of the rationale for a robust state response would have offered a readily available line of reasoning to justify retaining those priors.

Finally, a long tradition in public opinion research emphasizes the importance of elite cues in driving (changes in) mass attitudes (Berinsky 2007; Zaller 1992). Cavaille and Neundorf (2016) argue that the effect of the experience of material hardship on attitudes is moderated by the availability of elite signals. Notably, British political leaders, including Labour leader Keir Starmer, refrained from publicly drawing broader ideological lessons from the experience of the pandemic, focusing instead on resolving the present crisis.

In the absence of such top-down cues, citizens may have been much less likely to draw general implications themselves and, thus, less likely to shift ideological positions. As Scheve and Stasavage (2020, 15) put in a discussion of the Financial Crisis, "the effect of a crisis depends on what a society makes of it. This may in turn depend on whether a crisis creates new fairness-based arguments that construct a societal consensus for policy change." At the end of the paper we test the possibility that a lack of elite cues stymied opinion change, using a survey experiment.

3 Survey Data

Our research design first examines changes in political and ideological attitudes in the aggregate. We then leverage variation in individual-level exposure to various consequences of the pandemic to compare the attitudinal shifts in respondents who were directly affected by the crisis to attitudinal changes of those who were not directly affected. Our data come from questions fielded by the long-running British Election Study (BES) Internet Panel (2014–2020). Waves 1-19 of the BES provide pre-crisis observations for more than 30,000 survey respondents. We also observe some of these respondents on three occasions during the Covid-19 pandemic. The first and third of these survey waves come from our own Public Assessments of Covid-19 Economic Response (PACER) project, which was fielded to subsets of the BES panelists in April 2020 ($n = 3041$) and September 2020 ($n = 3149$). The second crisis survey wave comes from the BES wave 20 itself, fielded in June 2020 ($n = 31468$).[2] All respondents appearing in the PACER waves, and most of those in BES wave 20, were drawn from wave 19 of the BES, allowing us track these respondents from the pre-crisis period through the first phase of the pandemic. Altogether our data include information on 32,352 individuals from the BES panel who appear in at least one survey wave after the start of the crisis. 28,997 respondents appear in just a single crisis wave, 1,404 appear in two crisis waves, and 1,951 respondents appear in all three crisis waves.[3]

We collected information on respondents' attitudes toward redistribution and inequality as well as the deservingness of welfare recipients. In most of the paper we assess impacts on three outcome variables – focused on economic inequality, the tax-and-spend size of government, and the role of government – as measures of broad ideological orientation:

- $redistSelf_{i,t}$ "Some people feel that government should make much greater efforts

[2]For the PACER project, we collected panel survey data about experiences and views of the crisis in the UK. The core goal was to understand the UK public's attitudes towards immediate crisis-response policies (such as lockdown and social distancing); medium-term policies aimed at stabilising the economy; and long-term ideological attitudes regarding the relationship between the government, the economy, and society. Given those goals, some of the questions that appear in the PACER waves are absent or rare in the BES waves – although some PACER questions did also get added to BES wave 20.

[3]Our data set is therefore an unbalanced panel, as we do not observe each respondent in each survey wave. We plan to re-estimate all models using only data on respondents who appear in our two PACER waves as a comparison robustness check.

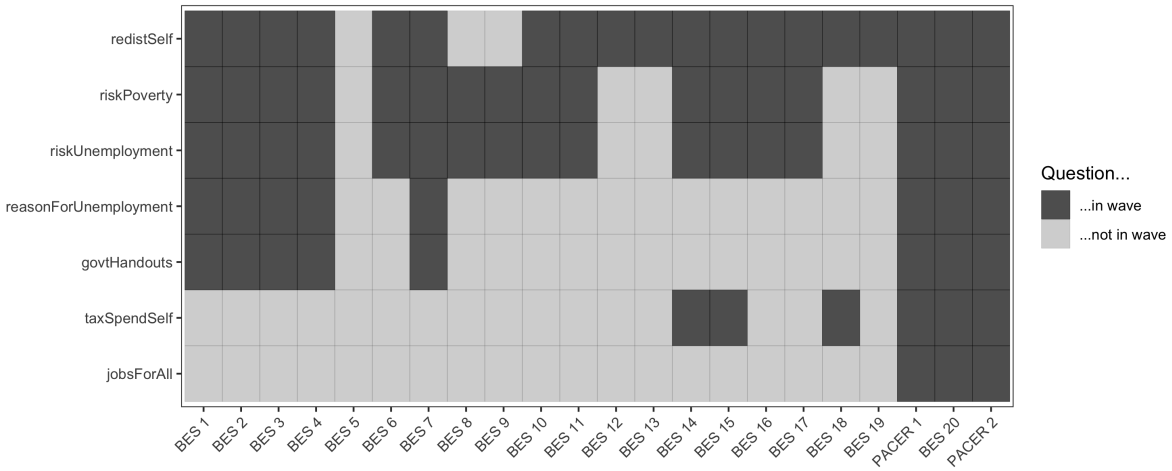

Figure 1: Dependent variable coverage by wave

to make people's incomes more equal. Other people feel that government should be much less concerned about how equal people's incomes are. Where would you place yourself on this 0-10 scale?";

- $taxSpendSelf_{i,t}$ "Using the 0 to 10 scale below, where the end marked 0 means that government should cut taxes a lot and spend much less on health and social services, and the end marked 10 means that government should raise taxes a lot and spend much more on health and social services, where would you place yourself?";

- $jobsForAll_{i,t}$ "People have different views about society and the economy. How much do you agree or disagree with the following statements?... 'It is the government's responsibility to provide a job for everyone who wants one'."

In all results that we present in this paper, these DVs are scaled such that higher values correspond to more left-wing responses. Further, for our estimated models, we standardise the DVs to have mean zero and standard deviation one in order to ease comparison of effects.[4]

Figure 1 displays the coverage of all variables used in this paper across our twenty-two panel waves, as well as several other variables that we introduce later in the paper. All three variables described in this section were asked in all pandemic waves (PACER 1, BES 20 and PACER 2). $redistSelf$ and $taxSpendSelf$ were also asked in waves preceding it, back to 2014 and 2018 respectively. Thus it should be borne in mind that the fixed-effects results for the effect of exposure to crisis-induced shocks on $jobsForAll$ that we reported below are based only on variation within the crisis, but this is not the case for the other two dependent variables.

[4]The question wordings are provided in full in the Appendix.

4 Aggregate Ideological Change

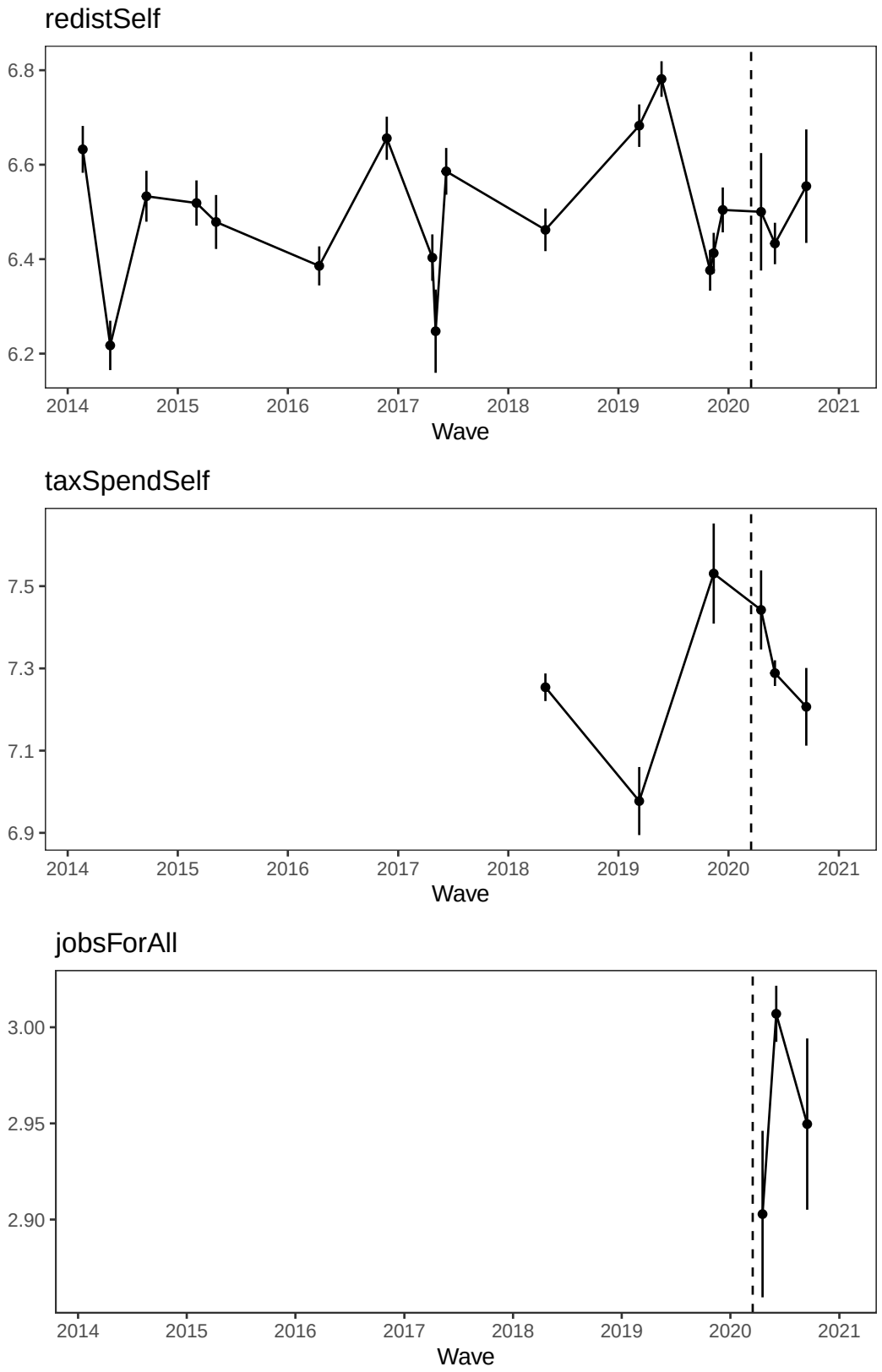

Figure 2: Aggregate variation in outcome variables over time (higher = more left-wing response)

Did the ideological attitudes of UK citizens change during the Covid-induced economic crisis? Figure 2 shows aggregate patterns of change in our dependent variables over time from the pre-pandemic period to the waves fielded during the pandemic. There is, overall, little evidence of large-scale aggregate change. The top panel in figure 2 suggests that the UK public became no more favourable towards the idea of redistribution during the crisis than they were before it. Similarly, there is no evidence that our respondents became more desirous of higher levels of taxation and government expenditure. In fact, they became slightly less supportive of it during the pandemic, although overall support was virtually unchanged compared to 2018. There was a small increase in support for the government providing jobs during the early part of the pandemic, but some of this was later reversed. Lack of data availability means we are unable to make any comparisons with the pre-pandemic period.

5 Looking for Limited Effects

So far it appears that there was no major, aggregate ideological shift amongst British residents during the pandemic. We now turn to looking for a further set of more limited effects. In Section 2.2 we argued that ideological change may have been limited to three particular groups: those who personally experienced the negative economic effects of the crisis and/or received government assistance, those who received more visible forms of assistance, and those from particular partisan groups. In this section we consider the three groups in turn.

5.1 Personal Experiences of Loss

In addition to asking about respondents' ideological views, during the pandemic we also collected a range of information on respondents' personal economic experiences. This included respondents' status in the labour market, use of pre-existing state benefits (including Universal Credit), and receipt of employment or income support from either of the newly-implemented governmental schemes (the furlough scheme and the self-employment support scheme). For each of these, we asked about personal experiences as well as experiences of other members of the respondents' households, which we combine to capture whether respondents *or* one of their household members experienced an economic change or received a benefit. We use responses to these variables to define the following treatment dummy variables, where each is defined to be 0 for all observations from pre-pandemic survey waves:

- $CovidFurlough_{i,t}$ =1 if the respondent self-reports that they or a household member became a beneficiary of the "Coronavirus Job Retention Scheme" (the furlough scheme for employees);

- $CovidSelfEmployment_{i,t}$ =1 if the respondent self-reports that they or a household member became a beneficiary of the "Self-Employed Income Support Scheme";
- $CovidUniversalCredit_{i,t}$ =1 if the respondent self-reports that they or a household member received, "as a result of the coronavirus outbreak", Universal Credit or some "other state benefit" (not including the furlough or self employment schemes);
- $CovidGovSupport_{i,t}$ =1 if the respondent self-reports that they or a household member was a beneficiary of *any one of* the preceding three programs;
- $CovidLostEmployment_{i,t}$ =1 if the respondent self-reports that they or a household member's working hours had reduced relative to before the crisis (including becoming unemployed)

Our goal is to analyse whether respondents who had direct experience of the economic consequences of the crisis, and the associated government response, were more likely to shift their political views than those without direct experience, as indicated by these five dummy variables. The models that we estimate rule out a number of sources of omitted variable bias that might otherwise be of concern in this setting. First, individual fixed-effects account for the fact that individuals who are directly affected by the COVID crisis are likely to be different on many dimensions from those who are not affected, and that those differences are likely to be correlated with political attitudes. The fixed-effect approach allows us to rule out omitted variable bias stemming from any characteristics that differ between directly-affected and not directly-affected groups that are fixed over time. Second, wave fixed-effects rule out common shocks that might affect the responses of all respondents in a given time-period. They allow us to measure any additional change in attitudes over and above general aggregate changes for directly-affected respondents compared to non-affected respondents over time.[5]

Wave	Gov Support	Furlough	Self-emp.	UC	Lost Emp.	N
PACER 1 (April 2020)	22	15	2	6	4	3041
BES 20 (June 2020)	27	18	5	5	2	31468
PACER 2 (Sept 2020)	26	16	5	7	4	3149

Table 1: Treatment distribution by wave (percentage of respondents per wave)

The inclusion of individual fixed-effects means that identification relies on within-individual variation in our treatment variables. Table 1 shows the proportion of treated

[5]An additional concern is that treated and untreated individuals may be subject to differential over-time trends with respect to the various outcome variables, which could lead our estimates of the treatment effects to be biased. One potential solution to this concern would be to additionally estimate unit-specific time-trends, at least for those dependent variables where we have a reasonable amount of pre-treatment data. We intend to do this soon.

respondents in each of the three crisis waves. These proportions are relatively stable throughout the crisis period. Between 22 and 27% of respondents report having accessed financial support through one of the COVID-specific government programmes, with 15-18% using the furlough scheme, 2-5% in the self-employment scheme and 5-7% in receipt of Universal Credit. Finally, between 2% and 4% report losing employment. There was not much new unemployment reported, in part because so many people in pandemic-hit industries such as hospitality and entertainment were supported by the furlough scheme.

In this part of the paper we use a baseline specification that estimates the effects of employment loss and receiving any form of government support:

$$\begin{aligned} Y_{i,t} &= \beta_1 CovidGovSupport_{i,t} + \beta_2 CovidLostEmployment_{i,t} \\ &\quad + \alpha_i + \delta_t + \epsilon_{i,t} \end{aligned} \tag{1}$$

where $Y_{i,t}$ is the outcome (i.e. $redistSelf$, $taxSpendSelf$, or $jobsForAll$) for respondent i in wave t, and α_i and δ_t are fixed-effects for respondent and survey wave, respectively.

As noted earlier, all dependent variables are standardised to have mean zero and standard deviation one and each is recoded where necessary so that higher values indicate more left-wing preferences. As a consequence, the coefficients of interest – β_1 and β_2 – represent the degree to which personal exposure to different dimensions of the crisis is associated with leftward shifts in respondent attitudes, measured in standard deviations of the outcome variables. They capture the effects of respondents' receipt of government assistance or lost employment during the period of the crisis, relative to respondents who received no such assistance or did not lose employment.

The results are shown in Figure 3, which provides very little evidence for ideological updating as a result of these economic shocks. At a 5% significance level, those who received government assistance became more supportive of redistribution ($redistSelf$), but not of higher levels of taxation and spending ($taxSpendSelf$) or of the government providing jobs ($jobsForAll$), although the latter coefficient is in the expected direction. In substantive terms, the effect sizes are very small: only a few percentage points of a standard deviation. We also did not find any clear evidence that losing employment during the pandemic shifted people's attitudes (see Figure 4 below), though we note that there is very low variance on this treatment variable in our sample.

5.2 Visibility

Next, it may be that we need to consider different types of government support separately, because some were more visible to recipients than others. As we argued in Section 2.2, the furlough scheme should have been far less visible to respondents than Universal Credit. Arguably, Self Employment Support is also quite visible, as the self-employed have to

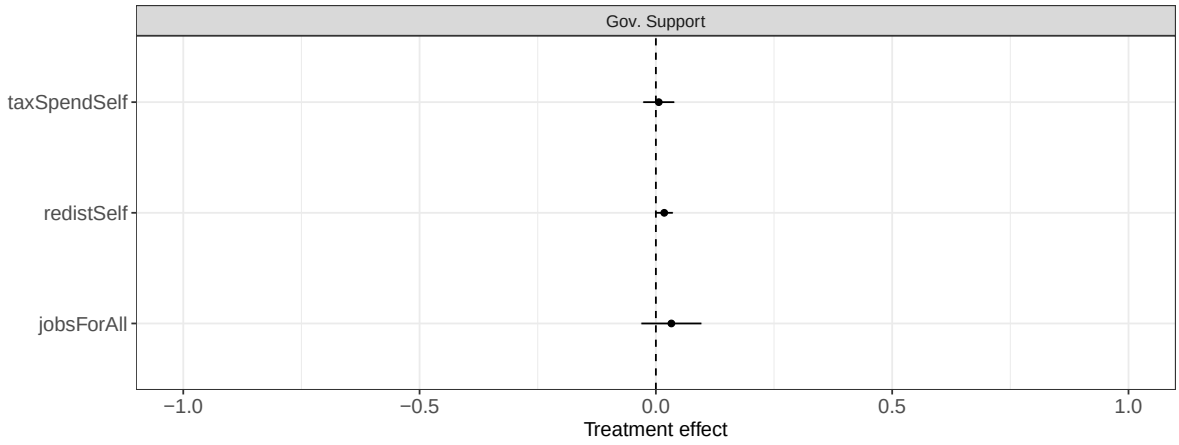

Figure 3: Ideological effects of Crisis Exposure: Estimates of $\hat{\beta}_1$ and $\hat{\beta}_2$ with 95% Confidence Intervals

actively request it rather than receiving it passively. With this in mind, Figure 4 shows fixed-effects coefficients from a regression that omits $CovidGovSupport$ and instead includes $CovidFurlough$, $CovidSelfEmployment$ and $CovidUniversalCredit$. In short, we find no evidence for strong differences across programs. If anything the strongest evidence is that being furloughed shifted opinions, despite this being, on paper, the least visible program. Altogether though, the estimated coefficients are small and not often statistically distinguishable from zero. The visibility of a program does not seem to determine whether or not it shifts attitudes, and the receipt of any of the programs had very little discernible effect overall.

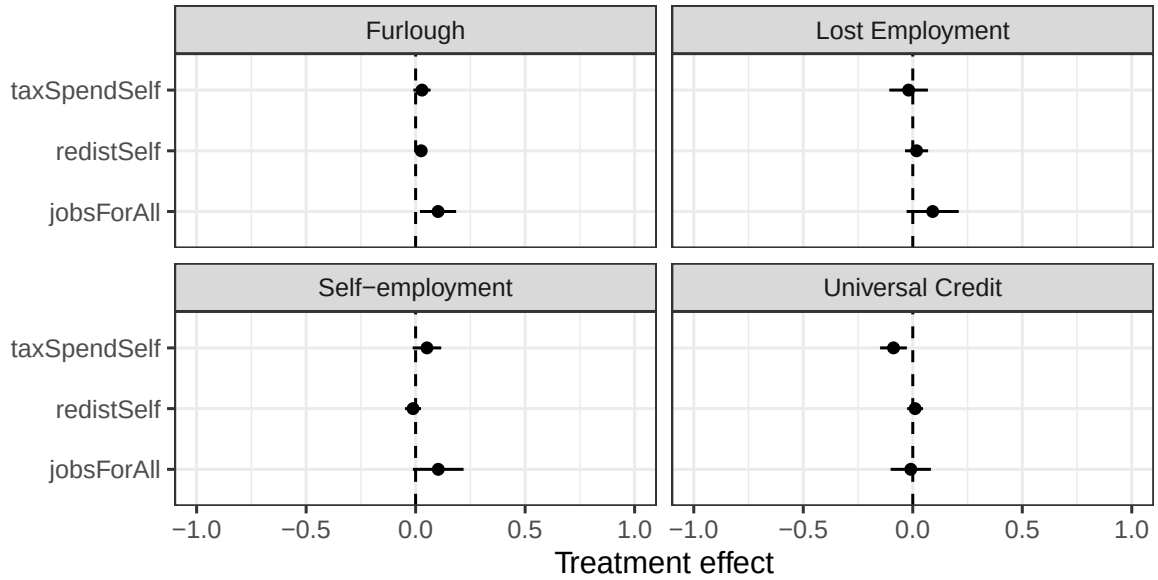

Figure 4: Ideological effects of Crisis Exposure, Splitting out Different forms of Government Assistance (coefficients and 95% Confidence Intervals)

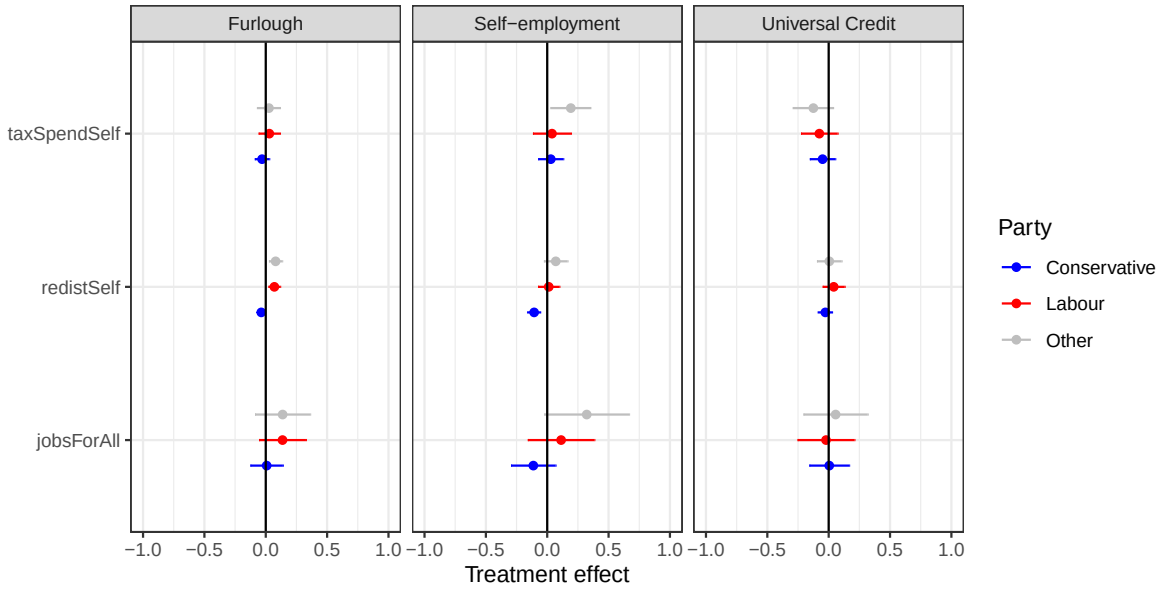

Figure 5: Ideological effects of Crisis Exposure for Supporters of Different Parties (coefficients and 95% Confidence Intervals)

5.3 Ideological Starting Points: Party Support

We proposed in Section 2.2 that ideological updating might differ by party attachment. In particular, if ceiling effects are operating, then we might expect Conservative supporters to be more susceptible to a leftward shift, simply because they have further scope to move. To investigate this possibility, Figure 5 shows the results from regressions that are the same as those in Figure 4, but with the inclusion of variables measuring party support, as well as interaction terms between party support and the receipt of the different types of government support. Party support is measured using the respondents' recalled vote in the 2019 General Election, as reported in panel waves after the election. We focus on Labour, Conservative and other party supporters. We are unable to assess the effect of employment loss in this context because the size of partisan groups for those who lost employment is too small for reliable estimation.

Figure 5 demonstrates that Labour supporters and supporters of 'other' parties were very slightly more likely to shift to the left than Conservative party supporters, but again statistically significant shifts were rare even in these subgroups. Conservative supporters, on the other hand, became very slightly *less* left-wing across some of the outcome variables and treatments, but for the most part their views did not change either. Thus, when updating occurred in the expected direction, it occurred only for non-Conservative voters – in direct contradiction of the "ceiling effects" hypothesis. At the same time, we also note that, even just for Labour supporters, the pattern of effects is quite inconsistent across program types and survey items, providing little overall support for the claim that exposure to shocks induced by the pandemic yielded meaningful ideological change.

6 Explaining Non-Effects

We turn now to providing evidence on why, overall, we observe quite minimal effects of even personal loss and receipt of benefits on ideological attitudes. In Section 2.1, we argued that one mechanism through which experience of the pandemic-induced recesssion might change ideological orientations is by changing perceptions of the risk of experiencing economic loss. A second mechanism we outlined would operate through changes in individuals' beliefs about the deservingness of those who receive state benefits. With these two mechanisms in mind, we focus on two possible breaks in the theorized causal chain between crisis experiences and ideological change: the possibility that experiences of the crisis did not in fact change individuals' perceptions of economic risks and the possibility that these experiences did not change beliefs about the deservingness of benefit recipients.

6.1 Changes in Risk Perceptions

One set of mechanisms through which we hypothesized that experiences of economic loss might affect ideological attitudes is via changes in individuals' perceptions of their own exposure to the risks from which state programs can provide protection. Did experience of the Covid-induced economic crisis fail to change attitudes because it did not alter these risk perceptions? We employed two survey items asking respondents about the likelihood of experiencing unemployment and poverty – *riskPoverty* and *riskUnemployment* – to assess this possibility. These items ask how likely respondents think it is that during the next year they will "not have enough money to cover day to day living costs" or that they "will be out of a job and looking for work", respectively. Answers are on five-point scales. Their coverage over time is shown in Figure 1, earlier in this paper.

There is some evidence that the crisis temporarily shifted risk-perceptions in the *aggregate*: in Figure 6, we observe an aggregate increase in respondents' perception of their own risk of unemployment. In the PACER wave fielded in April there was a noticeable increase in the proportion of respondents saying that in the next 12 months it is likely that they will be unemployed. However, the change was fleeting, as this perception quickly reverted to its pre-crisis level in subsequent waves. There was a tiny increase in the perception that respondents would be unable to cover daily living costs in the next 12 months in the same April wave, but this subsequently *fell* over the subsequent two waves.[6]

Yet, what if we disaggregate by direct experience? Did people who (or whose households) received government assistance or suffered loss of employment update their perceptions of risks, as measured by *riskPoverty* and *riskUnemployment*? Figure 7 shows coefficients from fixed-effects regressions that are identical to those above, except that the dependent variables are now *riskPoverty* and *riskUnemployment*. Once again, we

[6]One potential explanation is that respondents who remained employed were saving a lot during the lockdown, increasing their financial security.

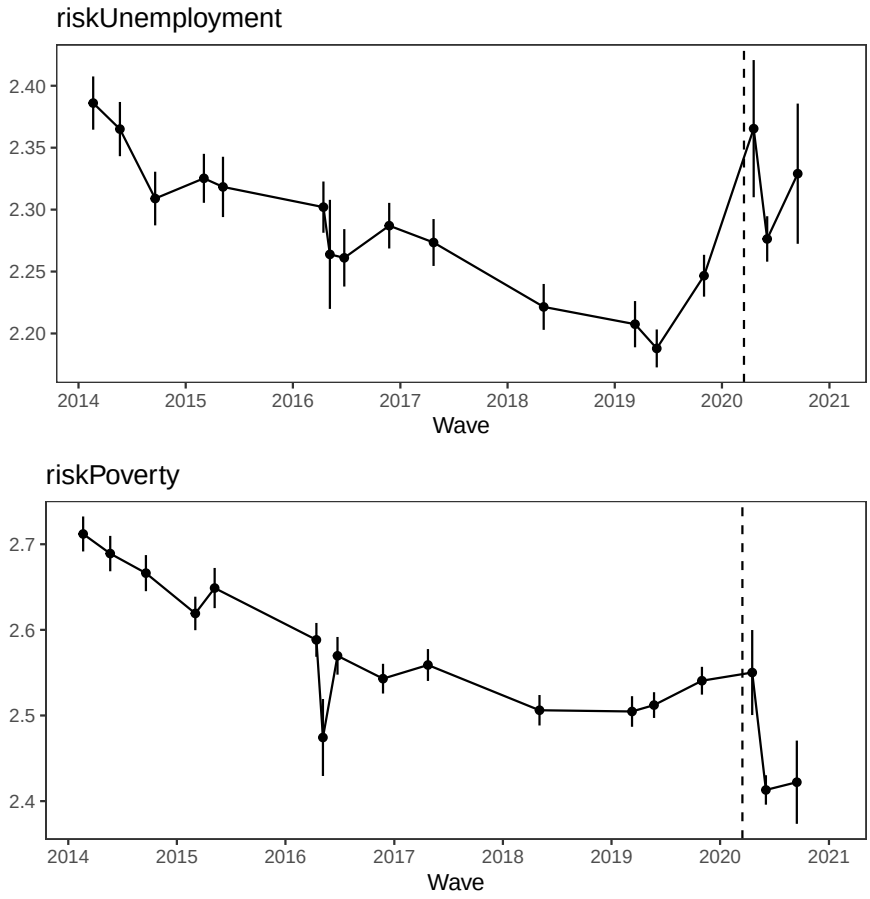

Figure 6: Aggregate variation in deservingness perceptions over time (higher = more deserving)

standardised their response scales to have mean zero and standard deviation of one. In all cases we find strong evidence for updating in the expected directions. People who received government support or lost employment did, as a result, consider themselves at greater risk of experiencing poverty or unemployment in the next twelve months. These experiences generally had large effects on risk perceptions, up to more than half of a standard deviation. Thus we can rule out a lack of updating of relevant risk beliefs as an explanation for the lack of ideological updating.

6.2 Changes in Deservingness Perceptions

We argued in Section 2.1 that another mechanism through which experience of the Covid-induced recession may have changed attitudes is via making individuals view benefit recipients as more deserving, whether through direct experience of benefit receipt or through a feeling of greater social affinity towards those receiving benefits. To investigate this mechanism, we examine responses to two further survey questions that we fielded:

- $reasonForUnemployment_{i,t}$ "When someone is unemployed, it's usually through no

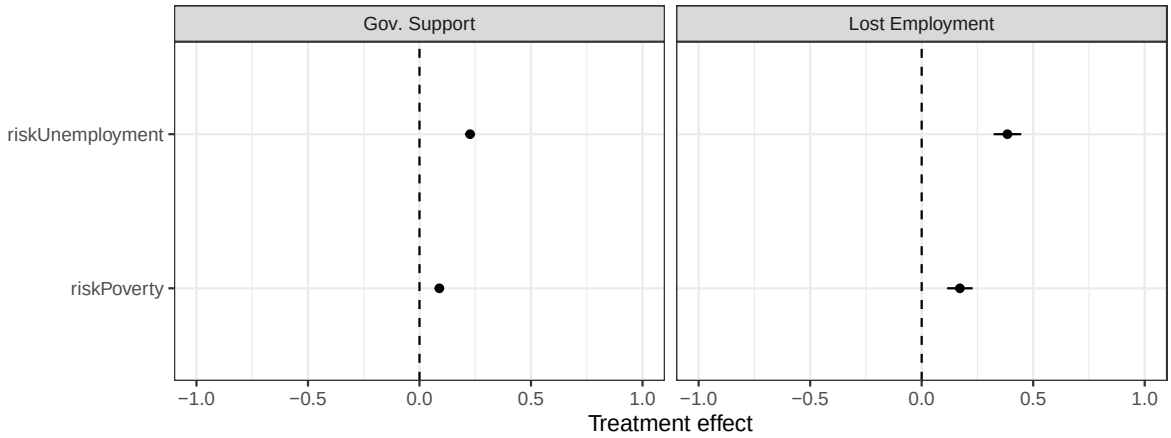

Figure 7: Effects of Crisis Exposure on Risk Perceptions (coefficients and 95% Confidence Intervals)

fault of their own": how much do you agree or disagree?;

- $govtHandouts_{i,t}$ "Too many people these days like to rely on government handouts": how much do you agree or disagree?;

Both variables were again rescaled to have a mean of 0 and standard deviation of 1. Both were also asked in some pre-pandemic waves, albeit substantially further in the past than for our other variables. Their evolution over time is displayed in Figure 8. There is some evidence of increased perceptions of deservingness *during* the pandemic, particularly for $reasonForUnemployment$, although it only returned to its 2015 level. Between the last pre-crisis observation in 2016 and the onset of the pandemic, there was no overall change in $reasonForUnemployment$ but a substantial leftward shift is evident for $govtHandouts$. Due to the lack of data from 2017-19, we cannot say with any certainty whether this shift is due to the pandemic itself or whether it occurred much earlier.

We also investigated whether ideological change occurred for those people directly affected by the pandemic economically. Figure 9 shows coefficients from the same fixed effects regressions that featured in Section 5.2, estimating the effects of all three government programs plus losing employment on these two attitudinal variables that measure perceptions of the deservingness of the unemployed and welfare recipients. Deservingness perceptions were largely unaffected by any of our four treatment variables. In all cases, even when statistically significant the estimated effects are very close to zero. The only treatment on which we find anything close to substantial updating is for losing employment. Thus, even on these attitudinal measures that should be affected by the receipt of government support, we find only limited evidence of updating during the pandemic overall, and even less evidence that experiencing pandemic-related economic changes, including receiving benefits, shifted deservingness perceptions.

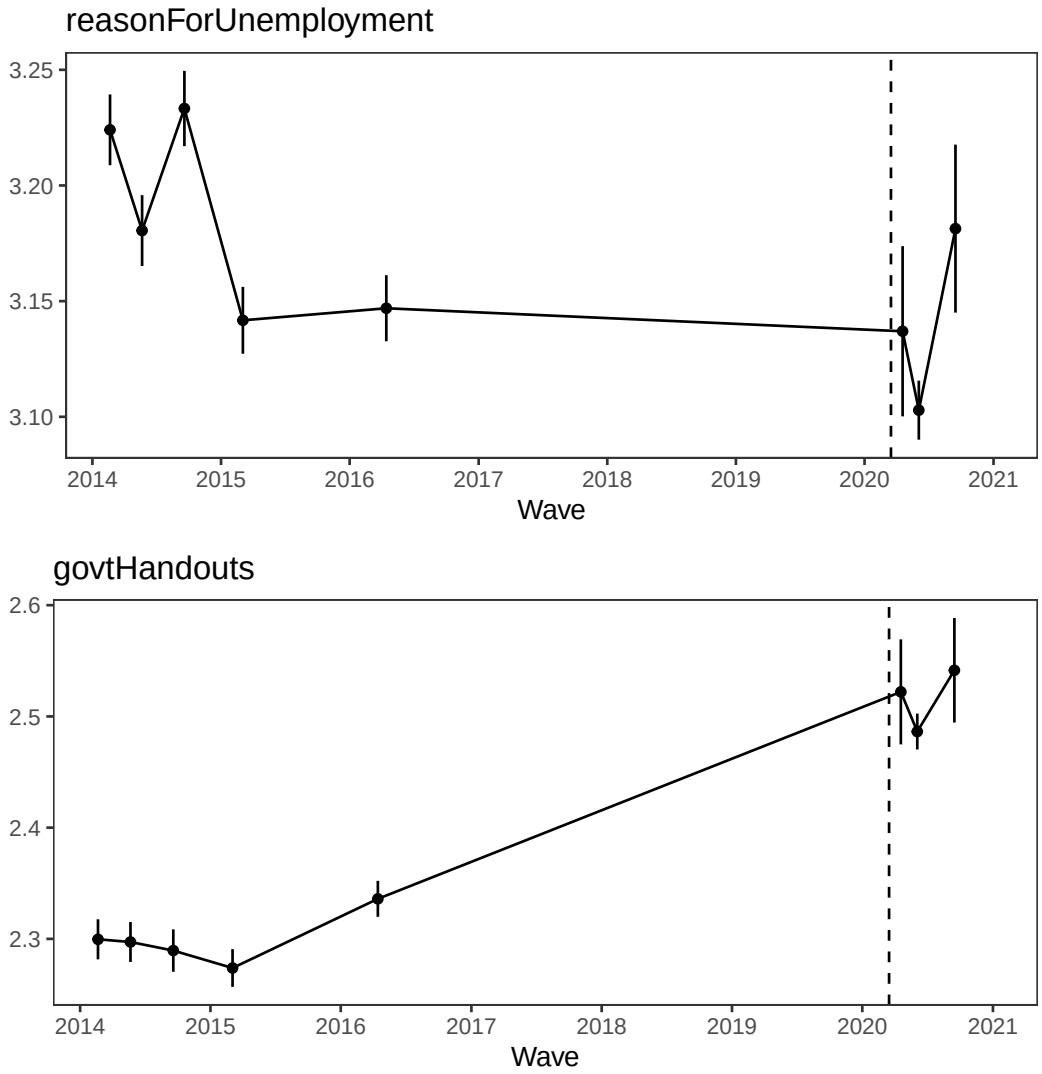

Figure 8: Aggregate variation in deservingness perceptions over time (higher = more deserving)

7 The Role of Political Discourse: Evidence from a Survey Experiment

So far we have found no evidence that exposure to Covid-related economic shocks altered ideological beliefs, even though those exposed did update their beliefs about their risks of poverty and unemployment. Section 2.3 explored some reasons why we might not expect to find updating of beliefs. They included inconsistent evidence from the existing literature that such effects exist, the uniqueness of the pandemic compared to other crises, and a lack of opinion leadership from politicians. To this list we might add the British government's mixed performance during the pandemic. These possible explanations for the overall non-effect of the pandemic on ideological beliefs are difficult to test with our panel data alone. In this section we test what, in our view, is the most plausible of the

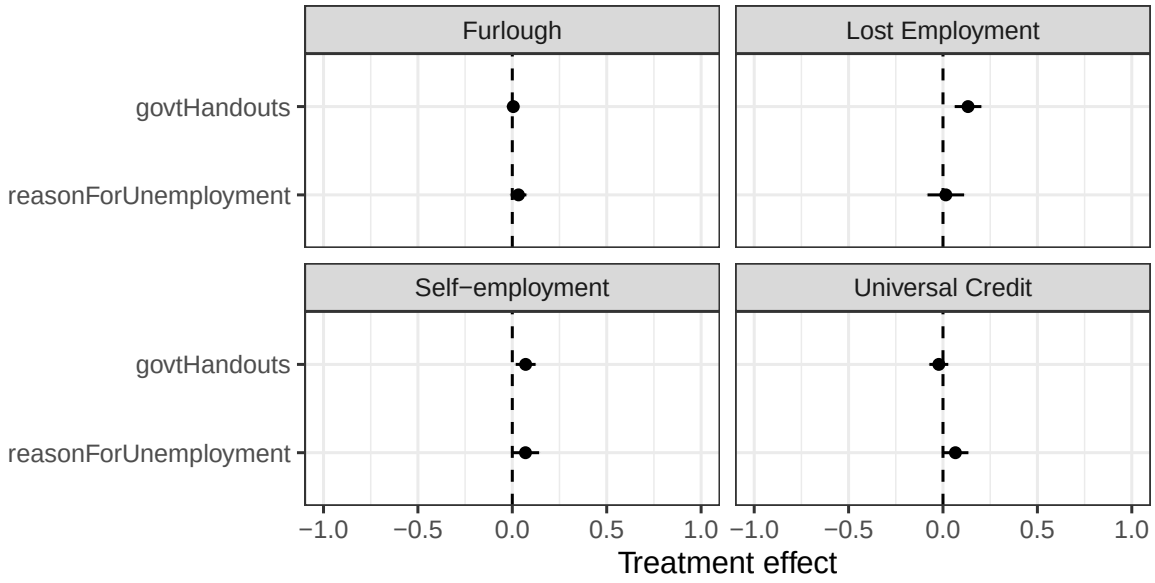

Figure 9: Ideological effects of Crisis Exposure on Deservingness Perceptions (coefficients and 95% Confidence Intervals)

explanations: that if politicians had publicly made a connection between the experience of the pandemic and the need for political-economic change, citizens would in turn have shifted their views. A notable feature of the pandemic in the UK, especially its early stages, was a lack of strong messaging from any party, including Labour, arguing that the pandemic would or should lead to long-term changes in the role of government or welfare policies.

To test this, we fielded a pre-registered survey experiment that randomly exposed people to different types of discourse that British politicians could plausibly have employed – but didn't – during the period covered by our panel. The experiment was fielded to 2,500 British adults in August/September 2021 through the survey firm Lucid. The sample was balanced against the UK population in terms of the joint distribution of age-group and sex, as well as region and education, and we restricted our sample for analysis to respondents who passed two screener questions measuring their attentiveness to the survey.[7] All of the survey design and analysis in this section, including our hypotheses and empirical tests, follow a Pre-Analysis Plan registered in advance through the Open Science Framework, without any deviations.

We began without strong priors on what specific *type* of discourse would be most likely to affect opinions, and therefore investigated several different possibilities. We designed four short speeches that make different types of arguments, all of which advocate in some way that the crisis should lead to a large economic role for the government, whether inter-

[7]Our Pre-Analysis Plan contains power calculations justifying the choice of sample size. We used six age bands, the 12 NUTS level 1 regions for the UK, and three education levels (GCSE or equivalent and below, A-Level or equivalent, degree level or higher.)

Prime	Argument
Common Risk and Insurance Prime (CRIP)	Covid demonstrated how vulnerable we are to risk, so we need stronger national insurance and benefits
Unequal Risk and Insurance Prime (URIP)	Covid demonstrated how unequal risks are in our society, so we need stronger national insurance and benefits
State Capacity Prime (SCP)	Covid demonstrated the government's ability to solve problems, so it should play a larger role in society in future
State Incapacity Prime (SIP)	Covid demonstrated that underfunding our government leads to problems, so we need to invest in state capacity in future

Table 2: Summary of the Experimental Primes

vening more broadly in the economy or making benefits and national insurance schemes more generous. Table 2 contains a brief summary of each of these four primes, which we labelled "CRIP", "URIP", "SCP" and "SIP" for short. The full texts are contained in Section A2.1. Respondents assigned to read one of these four primes were told "the coronavirus pandemic has prompted debate about whether the UK government should play a different role in the economy going forward. We will now show you an example of an argument that has been put forward in this debate. Please read this argument carefully." They were then asked how strongly they agreed or disagreed with the statements. Respondents assigned to a control condition did not read any arguments.

Finally, we also hypothesised that the strength of the effects of the various types of discourse would depend on the salience of the respondent's own exposure to effects of the crisis. Therefore, half of the respondents were primed to think about the effects of the crisis by asking them – before reading the argument about the pandemic – whether they or someone close to them lost their job, had experienced a reduction in income or had a business fail, and whether they had used the same forms of government support that we measured in our panel data. The other half were instead asked these questions after the dependent variables were measured. The interaction of this 'personal Covid experience' prime (PCE) with our treatment and control arms leads to ten different groups in our survey experiment.

Following recent methodological work on increasing the precision of survey experiments (Clifford et al. 2021), we employed a pre–post design where respondents were asked the dependent variable questions before and after the treatment, with the aim of using the pre-treatment measures as covariates to increase estimation precision. Following the Clifford et al. (2021) design, we inserted a block of 'distractor' questions between the two sets of dependent variable questions that asked about issues unrelated to the experiment, such as mathematical puzzles. The flow of the survey experiment for each of our ten groups is summarised in Table 3.

Our pre- and post-treatment batteries of dependent variable questions included the three dependent variable questions from our panel study: $redistSelf$, $taxSpendSelf$ and

Group	Block 1	Block 2	Block 3	Block 4	Block 5	Probability
A	Pre-treatment battery	Distractors	-	Post-treatment battery	PCE	2/12
B	Pre-treatment battery	Distractors	PCE	Post-treatment battery	-	2/12
C	Pre-treatment battery	Distractors	CRIP	Post-treatment battery	PCE	1/12
D	Pre-treatment battery	Distractors	PCE, CRIP	Post-treatment battery	-	1/12
E	Pre-treatment battery	Distractors	URIP	Post-treatment battery	PCE	1/12
F	Pre-treatment battery	Distractors	PCE, URIP	Post-treatment battery	-	1/12
G	Pre-treatment battery	Distractors	SCP	Post-treatment battery	PCE	1/12
H	Pre-treatment battery	Distractors	PCE, SCP	Post-treatment battery	-	1/12
I	Pre-treatment battery	Distractors	SIP	Post-treatment battery	PCE	1/12
J	Pre-treatment battery	Distractors	PCE, SIP	Post-treatment battery	-	1/12

Table 3: Structure of the survey experiment in terms of the sequencing of core questions and treatments across different experimental groups.

$jobsForAll$. In the panel analysis we were largely constrained to only analyse variables that had previously been included in the British Election Study, but our experiment allowed us to check for effects on more comprehensive measures of the concepts we are interested in. Accordingly we also asked two further sets of questions, one measuring support for redistribution towards benefits claimants (primarily asking about deservingness, but also including $redistSelf$) and the other measuring support for a greater role for the government in the economy (including $jobsForAll$ but also support for other government actions such as financing new companies). We extracted the first Principle Component (PC) of responses to, respectively, these sets of four and five survey questions for use as further dependent variables capturing the respondent's support for redistribution to welfare claimants and a greater role for the government in the economy.[8]

Our primary theoretical interest is in establishing whether it was *possible* for ideological rhetoric relating to COVID-19 to move people's attitudes. As such, the core hypothesis that we test is that, for each of our five dependent variables, the effect of at least one of our four treatment conditions is greater than zero. That is, for each DV:

$$\delta^{CRIP} > 0 \vee \delta^{URIP} > 0 \vee \delta^{SCP} > 0 \vee \delta^{SIP} > 0 \ , \tag{2}$$

where the δs are treatment effects for each of the experimental primes.

Our secondary set of hypotheses relate to our expectation that the personal COVID-19

[8]The precise survey questions are shown in Section A2.2 and the PC loadings are shown in Section A2.3.

experience (PCE) treatment will moderate our treatment effects. As moderation effects are far more demanding in terms of sample size required for a given statistical power, we opted to collapse our four ideological-link treatments into a single treatment variable for this part of the analysis, the effect of which we denote as δ^{μ}.[9] Hence we hypothesise that:

$$\delta^{\mu}_{PCE} > \delta^{\mu}_{NPCE} \wedge \delta^{\mu}_{PCE} > 0, \tag{3}$$

where δ^{μ}_{PCE} is the average ideology treatment effect when $PCE = 1$, and δ^{μ}_{NPCE} is the average ideology treatment effect when $PCE = 0$.

Statistical estimation proceeds as follows. Let $\Omega \equiv \{CRIP, URIP, SIP, SCP\}$. Thus to test our main hypothesis set out in eq. (2), we estimate:

$$DV_i^{Post} = \beta_0 + \beta_1 \cdot DV_i^{Pre} + \sum_{\tau \in \Omega} \delta^{\tau} \tau_i + \epsilon_i \ . \tag{4}$$

Our test then consists of an F-test for the joint significance of the δ coefficients. Because we conduct five such F-tests – one for each of the dependent variables – we adjust the F-test p-values for multiple comparisons using the Benjamini and Hochberg (1995) procedure as applied across the five tests.

To test the PCE-moderation hypothesis in eq. (3), let T_i be a dummy equal to 1 if individual i is in any of the ideological-link treatments. Then, we estimate:

$$DV_i^{Post} = \beta_0 + \beta_1 \cdot DV_i^{Pre} + \delta^{\mu} T_i + \delta^{PCE} PCE_i + \gamma(T_i \cdot PCE_i) + \epsilon_i \ . \tag{5}$$

The explicit test of the moderation hypothesis is then the combination of $\delta^{\mu} + \gamma > 0$ and $\gamma > 0$.[10] To implement this test, having estimated eq. (5), we simulate 2000 draws from the estimated sampling distributions of the coefficients, and then calculate what fraction of those draws meet the joint condition that $\delta^{\mu} + \gamma > 0$ and $\gamma > 0$, with the latter quantity denoted as $PCConsistent$. As we wish to adjust our inferences to reflect the multiple comparisons that we will be making across the five DVs, we calculate a p-value for our theoretical inference as $p_x = 1 - PCConsistent$, where x indexes the DVs. We then adjust the set of five p-values, again using the Benjamini and Hochberg (1995) procedure.

The results of our main hypothesis tests (unmoderated by PCE) are shown in Table 4, with the results moderated by PCE shown in Table 5. They show that across all of

[9] In principle, such moderation should obviously operate separately on the individual ideology-link treatments, but we do not consider this empirically as we are not adequately powered for such analysis, as shown in our Pre-Analysis Plan

[10] While $\delta^{\mu} < 0$ would fail our first hypothesis – presumably because of a backfire effect of some sort – our particular interest with the moderation result regards whether moderation occurs with respect to PCE, and whether the combined treatment effect of PCE and T is positive. Thus, for each DV, this hypothesis requires that both estimated quantities meet their respective conditions.

the treatment primes and all of the dependent variables, there is almost no evidence that our primes caused respondents to change their opinions on redistribution or the role of government, with only $taxSpendSelf$ having an adjusted p-value for our joint significance test that is anywhere close to achieving statistical significance (p=0.061). Figure A1 in the Appendix shows the coefficients and 95% confidence intervals for the individual treatments without any adjustments for multiple testing. Even here there is no evidence that the primes moved opinions: only 1 of the 20 coefficients is greater than zero and statistically significant at the 5% level. Furthermore, there is no sign that personal experience moderates the effect: in Table 5 none of the coefficients on the interaction terms is statistically significant at conventional levels.

We therefore conclude that there is no evidence that, had politicians used different discourse during the pandemic, opinions on redistribution and the role of government would have shifted. Even when we explicitly made these arguments to British survey respondents there was no discernible impact on their opinions.

	Dependent variable:				
	redistSelf	taxSpendSelf	jobsForAll	RoGIndex	redistIndex
Common Risk and Insurance	−0.012	0.060	0.101	0.010	0.034
	(0.035)	(0.040)	(0.042)	(0.052)	(0.030)
Unequal Risk and Insurance	−0.032	0.070	0.062	0.043	0.072
	(0.036)	(0.041)	(0.043)	(0.053)	(0.030)
State Capacity	−0.052	−0.063	0.068	0.051	0.009
	(0.035)	(0.041)	(0.042)	(0.052)	(0.030)
State Incapacity	−0.013	−0.040	0.025	0.016	0.016
	(0.036)	(0.042)	(0.043)	(0.054)	(0.031)
Pre-treatment DV	0.825	0.765	0.724	0.591	0.885
	(0.012)	(0.014)	(0.014)	(0.018)	(0.010)
Constant	0.022	−0.004	−0.045	−0.031	−0.017
	(0.021)	(0.024)	(0.025)	(0.031)	(0.017)
F-test adj. p-value	0.807	0.061	0.303	0.861	0.303
Observations	2,284	2,236	2,362	2,083	2,203
R^2	0.685	0.590	0.526	0.353	0.781

Table 4: Ideological treatment effects

Note: Table presents effect estimates from each of the four ideological-link treatments as estimated from the OLS model described in eq. (2). All dependent variables are standardised to have mean zero, standard deviation one. The multiple-comparison adjusted p-values for the F-test of joint significance of the treatment effects is presented for each model (*F-test adj. p-value*).

8 Conclusion

In this study we uncovered very little evidence that, in the UK, the pandemic or exposure to pandemic-related shocks (unemployment or personal receipt of government support)

	Dependent variable:				
	redistSelf	taxSpendSelf	jobsForAll	RoGIndex	redistIndex
Ideological Treatment	−0.045	0.021	0.020	−0.002	0.016
	(0.035)	(0.041)	(0.043)	(0.053)	(0.030)
Personal Experience Treatment	−0.036	0.035	−0.006	0.0003	−0.028
	(0.041)	(0.048)	(0.050)	(0.061)	(0.035)
Pre-treatment DV	0.825	0.767	0.723	0.591	0.884
	(0.012)	(0.014)	(0.014)	(0.018)	(0.010)
Interaction	0.036	−0.028	0.086	0.063	0.034
	(0.050)	(0.058)	(0.061)	(0.075)	(0.043)
Constant	0.040	−0.021	−0.042	−0.031	−0.003
	(0.029)	(0.033)	(0.035)	(0.043)	(0.024)
Adj. p-value	0.744	0.76	0.371	0.371	0.371
Observations	2,284	2,236	2,362	2,083	2,203
R^2	0.685	0.588	0.527	0.354	0.780

Table 5: Interaction between ideological treatments and personal-experience prime
Note: Table presents effect estimates (as estimated from the OLS model described in eq. (3)) for a binary indicator capturing whether a respondent received one of the ideological-link treatments, and the interaction between that variable and a binary indicator which captures whether a respondent saw the personal-experience prime. All dependent variables are standardised to have mean zero, standard deviation one. P-values for the test of the moderation hypothesis, adjusted for multiple-comparisons, are presented for each model (*Adj. p-value*).

shifted ideological beliefs to the left. We also looked at possible explanations for the lack of effects. The visibility of programs did not affect opinion change, nor did opinion change vary amongst supporters of different parties. Direct experiences of the crisis do seem to have shaped how individuals understood their own material situation – the economic risks that they face – but it did little to shape wider opinions. Feelings about the deservingness of welfare recipients were unaffected too. Experimental exposure to elite cues linking the pandemic to reasons for increased size of government and welfare effort also exerted no effect on opinions. We conclude that it is most likely that the COVID-19 pandemic did not, and could not have, shifted public opinion, perhaps because it is such a unique event that voters have not drawn any general conclusions about the role of government from it.

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A1 Question Wordings from Panel Data

Survey Question	Response Options	Variable	Range
It is the government's responsibility to provide a job for everyone who wants one	1 Strongly disagree; 2 Disagree; 3 Neither/nor; 4 Agree; 5 Strongly agree; 6 Don't know	jobsForAll	1–5 (No DK)
When someone is unemployed, it's usually through no fault of their own	As above	reasonForUnemployment	As above
Many people who get benefits don't really deserve help	As above	benefitsNotDeserved	As above
Some people feel that government should make much greater efforts to make people's incomes more equal. Other people feel that government should be much less concerned about how equal people's incomes are. Where would you place yourself and the political parties on this scale?	0 Government should try to make incomes equal; 1; ... 9; 10 Government should be less concerned about equal incomes; DK	redistSelf	0–10 (No DK)
Using the 0 to 10 scale below, where the end marked 0 means that government should cut taxes a lot and spend much less on health and social services, and the end marked 10 means that government should raise taxes a lot and spend much more on health and social services, where would you place yourself and the political parties on this scale?	As above	taxSpendSelf	0–10 (No DK)
During the next 12 months, how likely or unlikely is it that [y]ou will be out of a job and looking for work	1 Very unlikely; 2 Fairly unlikely; 3 Neither/nor; 4 Fairly likely; 5 Very likely; 99 Don't know	riskUnemployment	1–5 (No DK)
During the next 12 months, how likely or unlikely is it that [t]here will be times when you don't have enough money to cover your day to day living costs	As above	riskPoverty	As above

Table A1: Survey Questions

A2 Further Information for the Survey Experiment

A2.1 Primes from the Survey Experiment

The personal/close experience (PCE) of COVID-19 priming treatment is formed of the following questions:

Treatment 1 *Personal/Close Experience (PCE)*
We will now ask you some questions about the experiences of you and people you know during the coronavirus pandemic.

Have you personally, or has someone you know (such as family, friends, neighbours, or coworkers), experienced any of the following kinds of financial loss as a result of the coronavirus pandemic? (Check all that apply)

	You personally	Someone you know
Lost your/their job	X	X
Lost some of your/their wages or salary	X	X
Lost some of your/their business or self-employment income	X	X
Saw your/their business fail	X	X
None of the above	X	X

Have you personally, or has someone you know (such as family, friends, neighbours, or coworkers), received any of the following forms of government financial support as a result of the coronavirus outbreak? (Check all that apply)

	You personally	Someone you know
Coronavirus Job Retention Scheme (for furloughed employees)	X	X
Coronavirus Self-Employment Income Support Scheme	X	X
Universal credit	X	X
Other state benefits	X	X
None of the above	X	X

Our various ideological-link treatments all begin with the following text:

> The coronavirus pandemic has prompted debate about whether the UK government should play a different role in the economy going forward. We will now show you an example of an argument that has been put forward in this debate. Please read this argument carefully.

All the treatments conclude with the following question, which we ask to try to create more cognitive engagement with the respective treatments.

How much do you agree or disagree with the argument above?

- Strongly disagree;
- Disagree;
- Neither agree nor disagree;
- Agree;
- Strongly disagree;
- Don't know.

The individual ideological-link treatments are given below. Note that the indicated bold formatting is included in the actual survey.

Treatment 2 *State Incapacity Frame (SIP)*
The devastating experience of ***the pandemic has shown us the failure of an idea****: of the notion* ***that government should step back and let the market solve our problems****. This is an idea that's proved incapable of providing security for Britons and that left the country unprepared when we were tested most.*

Our ***care homes*** *are perhaps the clearest example of this. But we see the same tragic story in overstretched* ***hospitals and GP surgeries****, in a* ***testing-and-tracing system*** *that practically collapsed when we needed it most, in* ***schools with ever-growing class sizes****, in our once proud town centres and high streets, in an* ***economy so insecure*** *that millions of people can't afford to isolate.*

This must now be a moment to think again about the country that we want and to recognize the value of public services. ***The pandemic has shown what can go wrong when we do not let the state play its proper role in society****. We need a state that invests in British skills, science, universities and manufacturing; that provides world-class education for all of our children; and that can ensure people don't have to leave their home town to have a chance of getting a good job and won't leave university with crippling debt.*

Treatment 3 *State Capacity Frame (SCP)*
As we emerge from the pandemic, we have seen the success of an idea: of the notion that ***government can solve problems that the market cannot****. This is an idea that's proved capable of providing security for Britons and that helped the country succeed when we were tested most.*

The ***rapid development and rollout of an effective COVID-19 vaccine*** *is perhaps the clearest example of this. But we see the same inspiring story in the* ***performance of the NHS*** *through a period of unparalleled crisis, in the* ***furlough scheme*** *that allowed millions of workers to stay safe at home while continuing to collect a paycheck, and in a* ***massive testing programme*** *that allowed hundreds of thousands to get free COVID-19 tests every day.*

This is a moment to think again about the country that we want and to recognize the value of public services. ***The pandemic has shown what we can achieve when we let the state play its proper role in society****. We need a state that invests in British skills, science, universities and manufacturing; that provides world-class education for all of our children; and that can ensure people don't have to leave their home town to have a chance of getting a good job and won't leave university with crippling debt.*

Treatment 4 *Unequal Risk and Insurance Prime (URIP)*
Covid has shown us the best of Britain, but it's shown our fragilities too*. This virus has a deadly ability to find the most vulnerable and to expose deep inequalities and injustices in our society.*

Tragically, this pandemic and economic crisis have shown that ***those who live in low-quality overcrowded housing****, who are* ***trapped in insecure work****, and who* ***live from paycheck-to-paycheck*** *can face financial catastrophe at any moment. We have seen that so many Britons are at risk of severe hardship through no fault of their own.*

Before the pandemic, we lived through a decade of neglect of our social safety net. ***We now need to seize this moment to build stronger benefits and national insurance schemes*** *and make sure that they can protect the most vulnerable Britons from risks beyond their control.*

Treatment 5 *Common Risk and Insurance Prime (CRIP)*
Covid has shown us the best of Britain, but it's shown our fragilities too*. This virus has a deadly ability to strike at every family and to expose how vulnerable all of us are.*

Tragically, this pandemic and economic crisis have shown that ***even those who today live comfortably, have good jobs, and earn good wages can face financial catastrophe*** *at any moment. We have seen that so many Britons are at risk of severe hardship through no fault of their own.*

Before the pandemic, we lived through a decade of neglect of our social safety net. ***We now need to seize this moment to build stronger benefits and national insurance schemes*** *and make sure that they can protect all Britons from risks beyond their control.*

A2.2 Full Survey Experiment Question Wordings

A2.2.1 redistSelf

Some people feel that government should make much greater efforts to make people's incomes more equal. Other people feel that government should be much less concerned about how equal people's incomes are. Where would you place yourself and the political parties on this scale?

- 0 – Government should try to make incomes equal
- 1
- ...
- 9
- 10 – Government should be less concerned about equal incomes
- Don't know

A2.2.2 taxSpendSelf

Using the 0 to 10 scale below, where the end marked 0 means that government should cut taxes a lot and spend much less on health and social services, and the end marked 10 means that government should raise taxes a lot and spend much more on health and social services, where would you place yourself on this scale?

- 0 – Government should cut taxes a lot and spend much less on health and social services
- 1
- ...
- 9
- 10 – Government should increase taxes a lot and spend much more on health and social services
- Don't know

A2.2.3 perceptionsOfPoorGrid

How much do you agree or disagree with the following statements?

Statement	Strongly disagree	Dis-agree	Neither / nor	Agree	Strongly agree	Don't know
[Resulting variable: *reasonForUnemployment*] When someone is unemployed, it's usually through no fault of their own						
[Resulting variable: *govtHandouts*] Too many people these days like to rely on government handouts						
[Resulting variable: *benefitsNotDeserved*] Many people who get benefits don't really deserve help						

A2.2.4 bhpsRoGGrid

People have different views about society and the economy. How much do you agree or disagree with the following statements?

Statement	Strongly disagree	Dis-agree	Neither / nor	Agree	Strongly agree	Don't know
[Resulting variable: *privateEnterprise*] Private enterprise is the best way to solve Britain's economic problems						
[Resulting variable: *stateOwnership*] Major public services and industries ought to be in state ownership						
[Resulting variable: *jobForAll*] It is the government's responsibility to provide a job for everyone who wants one						

A2.2.5 isspRoGGrid

Here are some things the government might do for the economy. Please show which actions you are in favour of and which you are against...

Statement	Strongly in favour of	In favour of	Neither / nor	Against	Strongly against	Don't know
[Resulting variable: $financeNewJobs$] Government financing of projects to create new jobs						
[Resulting variable: $supportNewProducts$] Support for industry to develop new products and technology						

A2.2.6 bsasBenefitsGrid

Some people think that there should be more government spending on social security, while other people disagree. For each of the groups I read out please say whether you would like to see more or less government spending on them than now. Bear in mind that if you want more spending, this would probably mean that you would have to pay more taxes. If you want less spending, this would probably mean paying less taxes.

Statement	Spend much more	Spend more	Same as now	Spend less	Spend much less	Don't know
[Resulting variable: $poorBenefitsMore$] Benefits for the poor						
[Resulting variable: $unempBenefitsMore$] Benefits for unemployed people						
[Resulting variable: $disabledBenefitsMore$] Benefits for disabled people who cannot work						

A2.2.7 riskGrid

During the next 12 months, how likely or unlikely is it that...

Statement	Very unlikely	Fairly unlikely	Neither / nor	Fairly likely	Very likely	Don't know
[Resulting variable: $riskPoverty$] There will be times when you don't have enough money to cover your day to day living costs						
[Resulting variable: $riskUnemployment$] You will be out of a job and looking for work						

A2.3 PCA Loadings

Table A1: Principal component analysis loadings for "redistribution" items

	PCA1	PCA2	PCA3	PCA4
redistSelf	0.41	0.08	0.91	0.05
noFaultOfTheirOwn	0.14	-0.99	0.03	-0.01
tooManyHandouts	0.63	0.07	-0.33	0.70
dontDeserveHelp	0.64	0.10	-0.26	-0.72

Table A2: Principal component analysis loadings for "role of government" items

	PCA1	PCA2	PCA3	PCA4	PCA5
jobsForAll	0.01	0.70	0.09	0.70	0.06
privateEnterprise	-0.12	-0.07	0.98	-0.07	0.12
StateOwnership	0.01	0.71	0.00	-0.71	-0.01
govFinanceNewJobs	-0.71	0.03	0.01	0.03	-0.70
supportNewProducts	-0.70	-0.00	-0.17	-0.03	0.70

A2.4 Extra Results

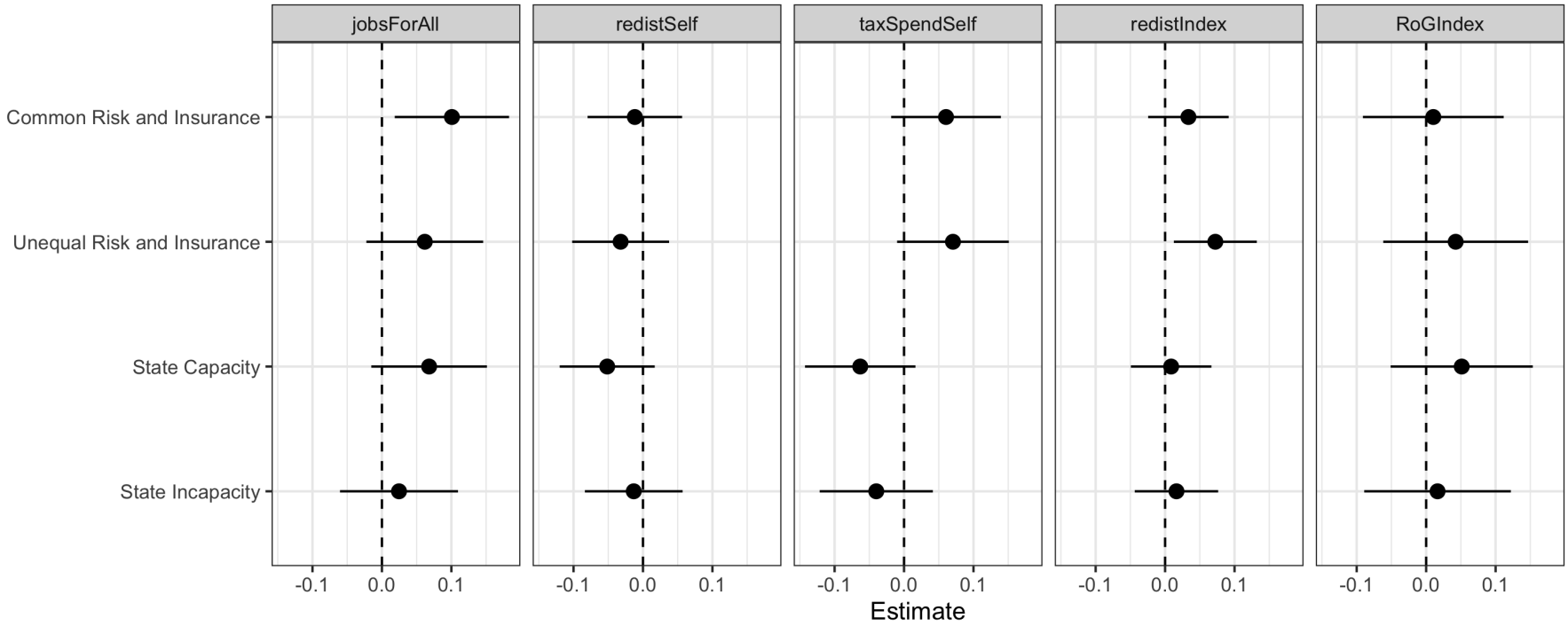

Figure A1: Effects of Ideological Treatments on Attitudes (coefficients and 95% Confidence Intervals)
Note: Confidence intervals are not adjusted for multiple testing