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## A false divide? Correcting beliefs about inequality aligns preferences for redistribution between right and left-wing voters<sup>\*</sup>

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## Abstract

Are differences in preferences for redistribution between right- and left-wing voters amplified because of misperceptions of inequality? To address this question, we conduct a nationally representative, randomized survey experiment of 3,402 Australians, in which respondents are informed about either the level of national inequality and economic mobility, their position in the national income distribution, their household income per capita, or given no information. We show that correcting misperceptions of inequality reduces the gap between right- and left-wing voters' level of support for redistribution by at least 24 percent. This is predominantly due to right-wing voters becoming more supportive of redistribution.

Keywords: Inequality, social mobility, redistribution, political economy.

JEL Classification: D31, D63, D72, D83, O50, P16, H23.

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## 1 Introduction

The government's role in reducing inequality is one of the most divisive economic issues across the political spectrum (Haidt, 2012). Right-wing voters tend to believe that there is a limited role for the government in redistributing income across society for a range of reasons, such as assuming that individuals have the capacity to work hard to improve their own living standards (Castles and Mair 1984, Huber and Ingehardt 1995, Beniot and Laver 2009). By contrast, left-wing voters tend to be more in favor of government-led redistribution, which is motivated by a number of factors such as being more pessimistic about the ability of individuals to change the circumstances they are born into on their own (Castles and Mair 1984, Huber and Ingehardt 1995, Beniot and Laver 2009). In light of increasing political polarization across a number of countries (ParlGov 2019), it is important to examine the extent to which these divisions are a result of fundamental ideological differences in preferences for redistribution between right- and left-wing voters, versus differences in perceptions about the extent of inequality in society.

Recent research in a number of countries suggests that differences in preferences for redistribution may be largely based on several misperceptions about inequality (Gimpelson and Treisman 2018; Hauser and Norton 2017). People tend to (1) underestimate the level of inequality, (2) overestimate the degree of upward mobility, and (3) believe they are in the middle of the national income distribution in their country, regardless of whether they are rich or poor (Gimpelson and Treisman 2018, Hauser and Norton 2017). This raises the question: how would people's preferences for redistribution change if their underlying misperceptions were corrected? And would this increase or reduce polarization in right- and left-wing voters' preferences for redistribution?

To develop a better understanding of how information about inequality shifts people's support for redistribution, and whether this effect varies between right- and leftwing voters, we conduct a nationally representative,<sup>1</sup> randomized survey experiment of 3,402 people in Australia. Mandatory voting that generates one of the world's highest voter participation rates, and a two-party democratic electoral system, enable credible and sharp identification of right- and left-wing voters in Australia (ParlGov, 2019).

<sup>&</sup>lt;sup>1</sup>Based on age, gender and location.

Respondents are randomly allocated to either receive information about the level of national inequality and economic mobility in Australia (Treatment A), their position in the national income distribution (Treatment B), their household income in per capita terms (Treatment C), or no information (Control). Treatments A and B allow us to test whether the elasticity of people's preferences for redistribution varies by the kind of misperception of inequality that the treatment tries to correct, while Treatment C provides additional insights on the mechanisms that are driving our results. Prior to receiving the treatment, respondents provide information about their voting preferences (along with other background characteristics) and their existing perceptions of inequality. Following the treatment, respondents answer questions on their support for redistribution and policy preferences that have been used in a number of prior studies on this topic (e.g., Alesina et al 2018a), in a between-subjects design. As an alternative, real-stakes measure of willingness to redistribute income to address inequality, we also examine how the treatments affect people's willingness to make a financial contribution out of their compensation for completing the survey to a large charity working to address inequality in Australia.

Conventional economic theories of other-regarding preferences and preferences for redistribution predict that informing people that inequality is worse than they expected, upward mobility is more limited than they expected, or letting people know they are relatively poorer than they expected, increases their support for redistribution (the opposite is true for letting people know they are relatively richer than they expected) (e.g., Meltzer and Richard 1981, Benabou and Ok 2001, Piketty 1995, Fehr and Schmidt 1999). However, there is limited guidance from existing studies as to whether rightor left-wing voters' preferences for redistribution are more elastic to information and if correcting misperceptions about inequality would increase or reduce polarization across the political spectrum (Hauser and Norton 2017). We extend the theory by presenting a simple model that predicts if right-wing voters have larger misperceptions of inequality then providing accurate information is likely to result in convergence in preferences for redistribution across the political spectrum, however if left-wing voters have larger misperceptions than greater polarization will arise.

Our findings are consistent with the hypothesis that a significant part of the gap in

preferences for redistribution between left- and right-wing voters is due to misperceptions, which can be partly corrected by providing information. We find that misperceptions tend to be of larger magnitude among right-wing voters, and the provision of information that aims to correct these misperceptions (both Treatments A and B) tends to boost respondents' support for redistribution. This is particularly the case for rightwing voters. Meanwhile, there is little effect among left-wing voters, who are less likely to misperceive inequality and more supportive of redistribution in the first place. Hence, correcting people's misperceptions of inequality leads to convergence between right- and left-wing respondents' preferences for redistribution, reducing their gap in support for redistribution by at least 24 percent. Respondents who are told about the level of inequality and economic mobility in Australia (Treatment A) are more likely to desire urgent action from the government to reduce inequality, and less likely to support traditional right-wing policies (such as cutting corporate taxes). With regard to correcting beliefs about respondents' own position in the national income distribution (Treatment B), respondents who are told they are relatively poorer than they expected are more supportive of urgent action by the government to address inequality and more in favour of increasing taxes on the richest 1 percent of Australians. There is no statistically significant impact from informing people they are relatively richer than they expected or accurately estimated their position in the national income distribution.

It is possible for Treatments A and B to work through at least two channels: to encourage respondents to reflect on their own economic circumstances, and/or to correct their beliefs about the distribution of economic outcomes in society. As a partial mechanism test, Treatment C focuses solely on the former, by making income per person in the respondent's household salient. We find that the magnitude of this treatment effect on preferences for redistribution is 53 to 93 percent of the effect of Treatment A and B respectively, and these differences are not statistically significant. This suggests that respondents' preferences are primarily shaped by their own economic circumstances and are not finely attuned to different types of information about inequality.

The main results from our real-stakes measure of willingness to redistribute income complements these results: information about inequality leads to convergence between the level of charitable giving provided by right- and left-wing voters. Right-wing voters in the control group are more likely to donate than left-wing voters (even after controlling for background characteristics); this trend has been shown in a range of existing studies in Australia and abroad (Wood et al 2016, Margolis et al 2013, Winterich et al 2013). As we would expect in light of this, both Treatments A and B lower the propensity of right-wing voters to donate to a large charity working to reduce inequality in Australia. In the case of Treatment A, the effect of information is large enough to close the over ten percentage point pre-existing difference in charitable giving between right- and left-wing voters.

Among the small number of randomized survey experiments on this topic, only two have detected differences between respondents based on their political views (Alesina et al 2018a; Karadja et al 2017). Alesina et al (2018a) show that providing pessimistic, but accurate information about economic mobility to respondents in the United States and Western Europe only leads left-wing respondents to become more supportive of redistribution. Meanwhile Karadja et al (2017) show that informing right-wing respondents in Sweden that they are relatively richer than they expected reduces their support for redistribution. However most of the existing research on the elasticity of preferences for redistribution is from jurisdictions with more moderate rates of voter turnout (e.g. the United States) and/or fragmented party regimes (e.g. most countries in Western Europe), making it more difficult to explore whether information leads to polarisation or convergence between left- and right-wing voters. In addition, prior survey experiments on this topic only address correcting misperceptions of upward mobility, the level of inequality or alternatively the position in the distribution of respondents, through a single treatment. As such they are unable to test the elasticity of preferences for distribution to more than one type of information in the same sample.

While based on a representative sample of Australian respondents, our study makes three significant methodological contributions to the global literature on this topic. Firstly, the combination of the sample size of our study, and the unique features of the political system in Australia which more credibly and sharply define right- and leftwing voters, deliver tests with more statistical power than studies in other contexts. This allows us to show that preferences of right-wing voters are more elastic to information and that correcting misperceptions of inequality leads to convergence across the political spectrum. Previous studies on this topic conducted in other countries only have around 1,000 respondents (split evenly between a treatment and control group) (Karadja et al 2017, Cruces et al 2013, Bublitz 2016), only a much smaller share of respondents that actually vote in national elections and respondents support a wide array of parties due to political fragmentation.<sup>2</sup> By contrast, in our study the sample size in each treatment group is considerably larger (around 850 respondents in each of the four arms), 97.3<sup>3</sup> percent of survey respondents are voters (as voting is compulsory) and the two-party system in Australia means the vast majority of respondents vote for one of the two main parties (i.e., either the main left-wing party or the main right-wing party).

Secondly, we test the effect of correcting different types of existing misperceptions of inequality in the same sample, showing that all the treatments have similar effects on preferences for redistribution. This is the first study to rigorously test the elasticity of people's preferences for redistribution to different types of information about inequality. In addition, this is the first time that a treatment is included in a randomized survey experiment on inequality that isolates the effect on preferences for redistribution of providing information about respondents' own economic circumstances as a partial mechanism test. Previous studies only include one treatment group, which means that it is difficult to infer whether people's preferences are more elastic to information about the macro situation (i.e., level of inequality and mobility) or their relative position within their country. The results of our survey experiment highlight that the findings of existing studies may be simply due to receiving a treatment about inequality, as opposed to the exact content of the treatment itself.

Thirdly, beyond measuring respondents' preferences, we test the effect of the treatments on a real-stakes measure of charitable giving and also find convergence between right- and left-wing voters. This is the first randomized survey experiment on inequality

<sup>&</sup>lt;sup>2</sup>For example, in most countries in Western Europe the democratic system is based on proportional representation that allows a larger number of minor parties to hold a seat in parliament than first past the post or preferential voting systems that exist in Anglo-American countries like the United States, the United Kingdom and Australia (ParlGov, 2019).

<sup>&</sup>lt;sup>3</sup>Only Australian Citizens are eligible to vote, so some of our respondents may have permanent residency visas, which means they are able to reside in Australia indefinitely even though they cannot vote in national elections.

and preferences for national level redistribution to include a real-stakes measure. The existing literature focuses solely on changes in preferences, which may be different from changes in behavior. The closest a previous study on this topic has come to this is asking respondents if they would be willing to email their representative in Congress (Kuziemko et al, 2015). Related research suggests that people's views about the role of the government and charitable giving tend to align (Nair 2018, Alesina et al 2018b), but these studies do not include treatments related to national inequality.

The rest of this paper is structured as follows. In the second section, we outline the context of the study, the related literature on this topic, and present a theoretical framework of how perceptions of inequality shape support for redistribution. This is followed by a description of the methodology and some stylized facts that emerged from the survey data. We then outline the findings of the randomized survey experiment and discuss the implications. The main regression tables and a number of additional robustness checks and materials are provided in the appendix.

## 2 Background

### 2.1 Background on the political context in Australia

Studying the current political situation and voters' preferences for redistribution in Australia is relevant for an Australian and international audience for a number of reasons. Firstly, the democratic electoral processes is a two-party system that is comparable to that of the United States and the United Kingdom. Only two parties have formed national governments since the Second World War (a right-leaning party and a left-leaning party), and there have only been seven changes of government between these parties over this time period (ParlGov, 2019). A relatively unique feature of Australian politics is that voting is compulsory, which we leverage to address the research question about differences between right- and left-wing voters.

Secondly, similar to most high-income countries, the state of the economy is the number one issue that voters consistently mention to be the deciding factor when casting their vote (Cameron and McAlister, 2016). For example, in the lead-up to the most recent

national election, which featured a change in government, the economy outperformed the second most popular issue (immigration) that voters mentioned as deciding their vote by more than 200 percent (ABC 2013).

Thirdly, one of the most divisive economic policies at the time of the survey, where the two main parties differ, involves whether tax cuts should be given to large corporations.<sup>4</sup> This contentious issue also exists in a number of other large Western democracies such as the United States (e.g., see Alesina et al 2018a). A nationally representative survey that was conducted three months prior to this study shows that over 70 percent of right-wing voters in Australia support corporate tax cuts, while only around a third of left-wing voters are supportive of corporate tax cuts (Koziol 2018).

For the purpose of this study, respondents that intend to vote for the Liberal Party of Australia at the next federal election are considered to be right-wing<sup>5</sup> voters, while other respondents<sup>6</sup> are considered to be left-wing voters (this is the categorisation used by ParlGov that places political parties on a right-left spectrum across the world). It is important to note that despite the name, the Liberal Party is actually considered to be relatively conservative by international standards. The name originates from a common goal among its members of achieving "economic liberalism"<sup>7</sup>. The characteristics associated with being a right-wing voter in Australia are shown in Table A1 in Online Appendix A. On average, they are more likely to be richer, older and to have received a tertiary education than left-wing voters.

### 2.2 Background information about inequality in Australia

Over the past 27 years, Australia has experienced the longest consecutive period of economic growth for any OECD country and income inequality has only risen slightly (ABS 2019). According to the Australian Bureau of Statistics, the GINI coefficient of

<sup>&</sup>lt;sup>4</sup>Corporations with a revenue of over 50 million Australian dollars a year.

<sup>&</sup>lt;sup>5</sup>We also include respondents who would vote for the National Party of Australia as right wing voters because they are part of a coalition government with the Liberal party. The National party only receives around three percent of the primary vote among respondents in our survey.

<sup>&</sup>lt;sup>6</sup>The vast majority of these respondents intended to vote for the Labor Party of Australia.

<sup>&</sup>lt;sup>7</sup>More information about the name of the party can be found at: https://www.liberal.org.au/our-history

equivalized disposable household income has ranged from a low of 0.30 to a high of 0.34 over this period (ABS 2019). While income inequality (measured by the GINI coefficient) in Australia is slightly above the average for OECD countries (OECD 2019), the degree of economic mobility (measured in terms of intergenerational earnings elasticity) is slightly higher than the typical OECD country (Corak 2016).

The composition of the Australian population in the different quintiles of the national income distribution varies considerably. People who are sole parents, aged above 65 years, unemployed, from non-English speaking countries and those living outside capital cities are substantially more likely to be in the poorest quintile of the national income distribution than the rest of the population (ACOSS 2018), while people who are of working age, couples without children, those working full-time and those living in some of the largest capital cities are much more likely to be in the richest quintile of the national income distribution than the rest of the population (ACOSS 2018). Our survey captures most of the demographic characteristics described above that are correlated with being in either the richest or poorest quintile in the national income distribution.

## 2.3 Background literature to how inequality relates to preferences for redistribution

Conventional economic theories of preferences for redistribution predict that countries with higher levels of inequality and lower levels of upward economic mobility have greater support for redistribution (e.g., Meltzer and Richard 1981, Benabou and Ok 2001, Piketty 1995, Fehr and Schmidt 1999). In addition, these theories predict that relatively poor people are more in favor of redistribution because they are more likely to benefit (e.g., through the provision of welfare), whereas relatively rich people are less in favor of redistribution because they are less likely to benefit (e.g., such as having to pay higher taxes) (e.g., Meltzer and Richard 1981). Both of these aspects of existing theory can be seen in the Meltzer-Richard Hypothesis (1981), which theorizes that the greater the difference between the median and mean income in a country, the greater the support for redistribution.

Recent evidence suggests that these conventional theories of preferences for redistribution, which assume correct beliefs over the extent of inequality, social mobility, and one's own position in the income distribution, need to be updated to account for misperceptions about inequality (Gimpelson and Treisman 2018, Hauser and Norton 2017). For example, Norton et al (2011 and 2014) show that Americans and Australians dramatically underestimate the level of wealth inequality in their country. Similarly, Davidai et al (2015) and Alesina et al (2018a) provide evidence that Americans overestimate the degree of upward mobility. In addition, Gimpelson and Treisman (2018) and Hoy and Mager (2019) illustrate that a "median bias" is prevalent in a range of countries (including Australia), resulting from the misperception of being in the middle of the income distribution regardless of one's actual position.

Collectively, the existing research on theories of preferences for redistribution and descriptive studies on misperceptions of inequality imply that:

- 1. If people knew about the actual level of inequality and mobility in their country, they would be more supportive of redistribution.
- 2. If people knew that they were relatively poorer (richer) than expected, they would be more (less) supportive of redistribution.

Only a relatively small number of randomized survey experiments have tested whether the above implications hold, and the findings are mixed. Studies that inform people of their position in the national income distribution often find an effect. Cruces et al (2013) show that informing people in Buenos Aires that they are relatively poorer than they expected leads to greater support for redistribution. Similarly, consistent with what the theory predicts, Karadja et al (2017) and Bublitz (2016) show that informing people that they are relatively richer than they expected in Northern Europe (Karadja in Sweden and Bublitz in Germany and Russia) reduces their support for redistribution. Interestingly, Karadja et al (2017) find that the reduction in support is primarily driven by right-wing voters.

Survey experiments that test how preferences for redistribution change when people are informed about the overall level of inequality, or about limited mobility, rarely find an effect. The exception is Alesina et al (2018a), who show that providing left-wing respondents with pessimistic, but accurate information about upward mobility, increases their support for redistribution in the United States, the United Kingdom and a number of countries in Western Europe. In contrast, a seminal study by Kuziemko et al (2015) in the United States shows that providing detailed information about the level of national inequality does not affect people's preferences for redistribution regardless of whether they state they are a Democrat or a Republican.

## 2.4 Theoretical framework of how preferences for redistribution are shaped by perceptions of inequality

To illustrate how a person's perception of the level of inequality and their position in the income distribution relates to their preferences, we start with a seminal model of other regarding preferences by Fehr and Schmidt (1999).<sup>8</sup> An important aspect of this model is it isolates the utility people gain from their own consumption in an absolute sense from the way their utility is effected by the consumption of others. In a simple setting where there are three people and person A consumes at a level between the other two, person A's utility function can be expressed as follows:

$$U(c_a, c_p, c_r) = U(c_a) - \beta U(c_a - c_p) - \gamma U(c_r - c_a)$$

$$\tag{1}$$

In this model an individual's utility  $(U(c_a, c_p, c_r))$  depends on their own consumption  $(c_a)$  as well as the direction and size of the weighting they place on their consumption relative to people poorer  $(c_p)$  than them  $(\beta)$  and richer  $(c_r)$  than them  $(\gamma)$ .

We modify this model to reflect recent research on perceptions of inequality and preferences for redistribution (Gimpelson and Treisman 2018, Hauser and Norton 2017) to show that person A's utility is dependent on how they perceive the consumption of the other two individuals, as opposed to their actual consumption levels. The simple three-person model becomes:

$$U(c_a, c_p(p), c_r(p)) = U(c_a) - \beta U(c_a - c_p(p)) - \gamma U(c_r(p) - c_a)$$
(2)

where  $c_p(p)$  is the perceived consumption of the individual poorer than  $c_a$  and  $c_r(p)$  is

<sup>&</sup>lt;sup>8</sup>While this model does not explicitly predict how preferences change when individuals are provided with information, we follow Card et al (2012) who modify a similar utility function to illustrate how people update their beliefs.

the perceived consumption of the individual richer than  $c_a$ .

This revised model provides a framework to illustrate how providing information that changes an individual's perception of the level of inequality in society  $(c_r(p) - c_p(p))$  or their position in the national income distribution  $((c_r(p) - c_a)/(c_a - c_p(p)))$  is expected to affect their preferences. Fehr and Schimdt (1999) assume, as do most conventional theories of preferences for redistribution (Alesina et al 2011), that people are averse to inequality and put greater weight on consumption differences between them and people richer than them, than consumption differences between them and people poorer than them (i.e.,  $0 < \beta < \gamma$ ). This model in perceptions generates predictions in line with the standard models based on full information, in section 2.3:

- Informing people that inequality is higher than they perceive to be the case would lower their utility and subsequently increase their desire for redistribution i.e. if (c<sub>r</sub> - c<sub>p</sub>) > (c<sub>r</sub>(p) - c<sub>p</sub>(p)) then U(c<sub>a</sub>, c<sub>p</sub>, c<sub>r</sub>, I) < U(c<sub>a</sub>, c<sub>p</sub>(p), c<sub>r</sub>(p)) where I is information about the other individuals' consumption.
- 2. Informing people they are relatively poorer than they thought would lower their utility and subsequently increase their desire for redistribution

i.e. if  $((c_r - c_a)/(c_a - c_p)) > ((c_r(p) - c_a)/(c_a - c_p(p)))$  then  $U(c_a, c_p, c_r, I) < U(c_a, c_p(p), c_r(p))$ 

This extended model also allows us to illustrate that observed preferences for redistribution are a function of people's fundamental ideological preferences (captured in terms of  $\beta$  and  $\gamma$ ) and what they perceive the level of consumption of others to be (captured in terms of  $c_p(p)$  and  $c_r(p)$ ). This can be used to decompose the differences in preferences for redistribution between right- and left-wing voters between fundamental differences in ideology and differences in perceptions. Consider a simple world where there are two types of voters, X and Y, and X voters prefer greater redistribution than Y voters. This could be due to differences in fundamental ideological preferences ( $\beta_X \neq \beta_Y, \gamma_X \neq \gamma_Y$ ), perceptions of income differences ( $c_p(px) \neq c_p(py), c_r(px) \neq c_r(py)$ ), or both. While it is beyond the scope of our analysis to theorize about where such differences might emerge from, we can use the model to make predictions about the effects of information that is meant to correct misperceptions. We can identify a lower bound on the extent to which differences in preferences between X and Y voters are due to people's misperceptions of income differences (so that  $c_p(px) = c_p(py) = c_p$  and  $c_r(px) = c_r(py) = c_r$ ) by implementing interventions designed to correct these misperceptions. This is the rationale for the randomized survey experiment that follows.

It is an empirical question the extent to which right- or left-wing voters will have greater misperceptions of inequality. However, as a lemma to predictions 1. and 2. above, we can observe the following, assuming the empirical regularities that misperceptions of inequality go in the direction of underestimating inequality, overestimating social mobility and poorer individuals overestimating their position in the distribution (the opposite is true for richer individuals):

3. If type X voters have a greater misperception of inequality then we should see a polarization in preferences for redistribution in response to information correcting these misperceptions, while if type Y voters have a greater misperception of inequality, then we should see a convergence in preferences for redistribution in response to information correcting these misperceptions.

## 3 Methodology

#### 3.1 Survey design

The randomized survey experiment was conducted with 3,402 respondents that make up a nationally representative sample of the Australian population (on the dimensions of age, gender and location). Data was collected using the survey firm IPSOS Mori, which regularly conducts online surveys to measure the views of the Australian population on a range of political and social issues. The survey was in the field for approximately two weeks in late July and early August, 2018.<sup>9</sup> On average, respondents are very similar to the Australian population across a broad range of characteristics, however the sample includes a disproportionate share of poorer households (see Table A2 in Online Appendix A). To illustrate that sample selection along this dimension is not driving our results we conduct a robustness check in Section 5.5 whereby we re-weight the sample of respondents

<sup>&</sup>lt;sup>9</sup>The survey was not conducted during the time of a federal election.

to match the Australian income distribution and the results are qualitatively similar.

The median respondent completed the survey in six minutes and 43 seconds, while the average respondent took nine minutes and 49 seconds. We follow Alesina et al (2018) who exclude respondents that did not complete the survey in a timeframe that meant they would have provided adequate attention by winzorising our sample through excluding the fastest and slowest five percent of respondents.<sup>10</sup> We conduct a robustness check in Section 5.5 whereby we include all respondents in the survey and the results are qualitatively similar. The rate of attrition was only 2.35 percent as this was a very short online survey where respondents received compensation conditional on completing the survey. Only 0.97 percent of respondents dropped out of the survey after receiving the treatment and there was no differential attrition across the treatments.

The survey, consists of two sections, the first of which is implemented prior to the randomized information treatments, and the second of which is implemented afterwards. The first collects information about people's existing perceptions of inequality and demographic characteristics, while the second includes questions about people's beliefs about the causes of inequality and desire for government action. The demographic characteristics section (see Online Appendix B for the complete questionnaire) includes questions about which political party they are most likely to vote for at the next federal election (in the first half of 2019), their total household income, and the number of people in their household, so that the position of each respondent's household in the national income distribution can be determined. We conduct a robustness check in Section 5.5 whereby we exclude respondents to the survey that live by themselves and have six or more residents in their household. This does not have a meaningful impact on our results, which suggests differences in the size of respondents' households are unlikely to explain our findings.

To measure respondents' perception of the level of national inequality, previous studies have used a range of techniques, such as stylized distributions (ISSP 2009) or asking

<sup>&</sup>lt;sup>10</sup>We excluded the fastest and slowest five percent of respondents in each treatment group and the control group. This is because we did not want to generate differential attrition due to respondents spending longer or shorter periods of time reading the different treatments (or in the case of the control group no treatment) they were randomly allocated to receive.

respondents to estimate the share of wealth in each quintile of the national wealth distribution (Norton et al 2011). We follow the rationale behind existing approaches (Hauser and Norton 2017) but we minimize measurement error by gathering people's perceptions on an ordinal scale. Namely, respondents were asked to select one of six options that represented the distribution of income in their country, ranging from perfectly equal to extremely unequal (Figure 1).

#### [Insert Figure 1 here]

Respondents were also asked about which quintile they perceived their household to fall into in the national income distribution (Figure 2). This approach of using a limited number of options for respondents to select from is similar to what has been employed by other studies (e.g., Cruces et al 2013 and Karadja et al 2017), as directly asking respondents their exact percentile or rank in the distribution is likely to have a large margin of error. We compare respondents' perceived quintile in the national income distribution to their actual quintile in the national income distribution to determine if they accurately estimated, underestimated (richer than they expected) or overestimated (poorer than they expected) their position.

#### [Insert Figure 2 here]

The second part of the survey, which occurs after providing the randomized information treatments that are described in the next section, includes questions on respondents' support for redistribution and policy preferences that were sourced from previous studies, specifically the International Social Survey Programme (ISSP) (2009), Alesina et al (2018a), Indrakesuma et al (2015) and Koziol (2018). Following Alesina et al (2018a) and Karadja et al (2017), we create a Redistribution Index, which is the unweighted average of the z-scores of the answers to all questions about preferences for redistribution (see Online Appendix B for the complete questionnaire), oriented so that a higher index means more support for redistribution. We present both the answers to each question and the Redistribution Index in the tables of results.

In addition to their preference for redistribution, we measure respondents' willingness to make a financial contribution to a large, well-known charity that works to address inequality in Australia. This provides a real stakes measure of the effect of the treatments on respondents' preferences for redistribution, however the channel for redistributing is a non-government entity.<sup>11</sup> We do this by providing all respondents an extra Australian dollar for completing the survey (i.e., this is beyond their standard reimbursement) that they could keep for themselves or give to one of two charities (a social justice charity or a health-related charity). We include one charity that is directly related to inequality and the other that is unrelated entirely so we are better able to isolate the channels through which the treatments have an effect on the preferences of respondents. This is based on a similar question in Nair (2018) and Alesina et al (2018b), who provide respondents with a small chance of winning a large additional payment and ask them to state how they would divide the money between themselves and a charity. However due to Australian law we were unable to provide respondents with a chance of winning a large additional payment, which is why we provided all respondents with a small additional payment so they could make a discrete choice as to how to use the money.

#### 3.2 Information treatments

Prior to answering the second section of the survey, respondents were randomly allocated to either receive information about:

- the level of inequality and mobility in Australia (Treatment A; see Figure 3),
- their position in the income distribution (Treatment B; see Figure 4),
- their household income in per person terms (Treatment C), or
- no information (i.e., they went straight from the first to the second part of the survey) (the control group).

<sup>&</sup>lt;sup>11</sup>It is not feasible to use a real stakes measure of peoples' preferences for redistribution through the government as part of a survey experiment. This would require a way to be able to make a voluntary payment to the government on behalf of others, which does not exist in Australia.

Randomization ensures that the effect of Treatment A, B and C can be determined by comparing averages of answers of questions to the control group. The randomization was successful, as there was only one statistically significant difference between treatment and control groups across demographic characteristics, with regards to the gender of the respondent (see Table A3 in Online Appendix A). We control for all background characteristics, including this difference, in our analysis.

The information treatments provided to respondents are similar to what was used in previous studies. In the case of Treatment A, we follow Alesina et al (2018a) and provide people with accurate, but pessimistic, information about inequality and economic mobility as this simplifies the interpretation of the treatment effect (Alesina et al 2018a). Specifically, we provide exactly the same information about economic mobility as Alesina et al (2018a), who describe qualitatively the lack of economic mobility that exists in the United States and Western Europe.<sup>12</sup> In regards to the level of inequality, we provide respondents with information about the level of wealth inequality in Australia. This is likely to exceed most people's perceptions about the level of wealth inequality, as reported in a previous study with Australian respondents (Norton et al 2014). Treatment B is almost identical to what was provided in studies by Cruces et al (2013) and Karadja et al (2017). Treatment C was designed to provide respondents with information about their absolute living standard without providing any information about their relative income. This allows for a partial mechanism test for Treatments A and B as we would expect both of these treatments to lead respondents to reflect on their own living standard. Respondents in Treatment group C were provided with the following information, "Based upon your reported income, your annual household income in per person terms is..." This was calculated by simply dividing their reported annual household income by the number of people who reside in their household.

#### [Insert Figure 3 here]

[Insert Figure 4 here]

<sup>&</sup>lt;sup>12</sup>A similar situation of limited economic mobility exists in Australia (Corak, 2016).

We designed our survey experiment to minimize the risk our findings are due to "behavioral biases" that can occur in response to information. Firstly, there is a risk that "priming" may occur whereby simply mentioning inequality could trigger an effect irrespective of the exact content of the treatment (Nair 2016, McCall 2017). We overcome this concern by asking all respondents prior to the treatment about their views on the level of inequality and their perceived position in the national income distribution. As such, all respondents were already thinking about inequality prior to the treatment being provided, which dramatically reduces the likelihood that "priming" is driving the effect of different treatments. This is the same approach as was taken by Alesina et al. (2018a), who solicited all respondents' views about mobility in their country prior to the treatment being provided.

Secondly, a potential risk in a survey experiment is that results are skewed due to "experimenter demand effects" or "social desirability bias" (Kuziemko et al. 2015), whereby respondents provide either answers they think the experimenter would want to hear or answers they perceive as more socially acceptable. In our study, this could look like respondents pretending to be more supportive of the government addressing inequality than they actually are. We reduce the likelihood this is driving our results as all respondents remained anonymous and the surveys were conducted online so there was no direct human interaction associated with completing the survey. Furthermore, there was no incentive structure that could lead respondents to believe they could answer the survey in a way to increase their likelihood of getting to participate (or avoid participating) in a future survey (unlike studies that use platforms like Mechanical Turk).

## 3.3 Empirical model

We capture the effect of information by comparing average responses to the questions discussed above between each of the treatment groups relative to the control group, using a linear probability model with binary dependent variables. We pre-registered this study with the American Economic Association RCT registry (ID number AEARCTR-0002614) (Hoy 2017). We create indicator variables for the responses to each question  $(Y_j)$  in Online Appendix B, which take on the value 1 if the respondent selects the outcome of interest in question j, and the value 0 if the respondent does not select this option. Our model includes an indicator variable for each treatment group  $(T_A, T_B \text{ and } T_C)$ , which takes on the value 1 if the respondent belongs to the respective treatment group, and the value 0 if the respondent belongs to the control group. Our linear probability model can be written as follows:

$$Y_j = \beta_0 + \beta_1 T_A + \beta_2 T_B + \beta_3 T_C + X\gamma + \varepsilon, \tag{3}$$

where  $\beta_1$  captures the average difference in the share of respondents in treatment group A and the control group who selected the outcome of interest in question j,  $\beta_2$  captures the average difference in the share of respondents in treatment group B and the control group who selected the outcome of interest in question j and  $\beta_3$  captures the average difference in the share of respondents in the treatment group C and the control group who selected the outcome of interest in question j. X is a vector of variables that controls for potential imbalance in background characteristics (age, gender, education level, location and household income) between the treatment and control groups,  $\beta_0$  is the intercept term and  $\varepsilon$  is the model error term.

We estimate heterogeneous treatment effects from information based on people's voting preferences through a modified specification for the right-hand-side that is estimated treatment-by-treatment relative to the control. We create a dummy variable for voting for a left-wing party (LW) that takes on the value 1 if the respondent votes for a leftwing party and the value 0 if the respondent votes for another party (i.e., they vote for a right-wing party). As such our linear probability model can be written as follows for Treatment group A:

$$Y_{i} = \theta_{0} + \theta_{1}T_{A} + \theta_{2}LW + \theta_{3}T_{A} * LW + X\alpha + \mu, \qquad (4)$$

where  $\theta_1$  captures the average difference in the share of respondents, who vote for a right-wing party, in treatment group A and the control group who selected the outcome of interest in question j,  $\theta_2$  captures the average difference in the share of respondents in the control group who selected the outcome of interest in question j between respondents who vote for a left-wing party and a right-wing party and  $\theta_3$  is the co-efficient of the interaction term and it captures the average difference in the effect of Treatment A between respondents who would vote for a left-wing or right-wing party.  $\theta_0$  is the intercept term, X is a vector of variables that controls for potential imbalance in background characteristics (age, gender, education level, location and household income) between the treatment and control groups and  $\mu$  is the model error term.

## 4 Descriptive analysis of study data

In this section, we present descriptive trends in the data about perceptions of inequality and how they relate to preferences for redistribution in the absence of the treatments. To do so we focus on the responses of all respondents in the first section of the survey (i.e., prior to the treatment) and the responses of respondents in the control group in the second section of the survey (i.e., those who did not receive a treatment). All differences that are reported are statistically significant with a p-value below 5 percent unless otherwise stated.

Almost 95 percent of respondents misperceive either the level of inequality in Australia and/or their position in the national income distribution, and these misperceptions are strongly correlated with respondents' voting preferences. Right-wing voters are significantly more likely to underestimate the extent of inequality and state they belong to the middle quintile of the income distribution. We show that the two key determinants of people's support for redistribution are their existing perceptions of inequality and their voting preferences.

#### 4.1 Right wing voters tend to perceive lower levels of income inequality

Around half of the Australian population perceive that the current level of income is extremely or very unequally distributed. Only 43 percent of right-wing voters perceive this is the case compared to 59 percent of left-wing voters (see Figure 5). Even after controlling for a range of background characteristics, being a right-wing voter is still strongly correlated with perceiving lower levels of inequality (see Table A4 in Online Appendix A).

#### [Insert Figure 5 here]

## 4.2 Right wing voters who are relatively poor are more likely to overestimate their position in the national income distribution

As has been documented in existing studies, including with Australian respondents (e.g., Gimpelson and Treisman 2018, Hoy and Mager 2019), people tend to perceive themselves to be in the middle of the national income distribution regardless of their actual income percentile. This means that poorer individuals overestimate their position and richer individuals underestimate their position. Right-wing voters in the poorest two quintiles of the national income distribution are over 8 percentage points more likely to overestimate their position than other types of voters (see Figure 6) (this difference is over 10 percentage points after controlling for actual income levels as well as other background characteristics; see Table A5 in Online Appendix A).

[Insert Figure 6 here]

## 4.3 Right wing voters are considerably less supportive of government-led redistribution

The stylized facts above show that right-wing voters tend to hold misperceptions about inequality that would make them less likely to support redistribution according to conventional economic theory (Alesina et al, 2011). We show in Table 1 that even after controlling for these perceptions of inequality, right-wing voters are still less likely to support redistribution. These results suggest that people's support for redistribution depend not only on their perceptions of inequality, but also other factors, in particular more fundamental (and likely far less malleable) political preferences. Hence we should not expect our information treatments that are designed to correct misperceptions of inequality to be able to fully close the gap between right- and left-wing voters support for redistribution.

[Insert Table 1 here]

## 4.4 Right wing voters are more likely to give to charity, even after controlling for differences in the level of income between voters

To provide an alternative, real-stakes measure of respondents' willingness to share wealth, all respondents are provided with an extra Australian dollar for completing the survey that they can keep for themselves or give to one of two charities (a social justice charity that aims to reduce inequality in Australia, or a health-related charity). While we found that right-wing voters were less supportive of government redistribution, they are more likely to give to charity (especially the social justice charity) than left-wing voters, even after controlling for background characteristics<sup>13</sup> (see Table 2 below), including perceptions of inequality. This finding is consistent with existing studies that show right-wing voters tend to be more likely to donate to charity in Australia and in the United States, even after controlling for income levels (Wood et al 2016, Margolis et al 2013, Ruth et al 2012), which again suggests that these preferences are significantly determined in part by fundamental political preferences.

#### [Insert Table 2 here]

Hence we show, ex ante, that right-wing voters are more likely to have misperceptions about inequality that economic theory predicts would make them less supportive of government-led redistribution. This raises the question, if these misperceptions are corrected, would the gap between right- and left-wing voters become larger or smaller? The model we present in Section 2.4 suggests the gap would become smaller and the survey experiment that follows tests whether this is the case as well as providing an estimate of the extent to which correcting misperceptions may close this gap. Since our treatments are relatively benign (providing information in an online format at a single point in time), it is likely that they identify a lower bound on the extent to which correcting misperceptions can close the gap.

<sup>&</sup>lt;sup>13</sup>Ideally, data would be available on the religiosity and attendance at religious services of respondents to this survey, however that information is not available. In the case of Australia, these factors have actually been shown to be negatively related to giving to charity (Wood et al 2016), which would suggest that even if this data was available and we could control for it in this analysis, the results would not change.

## 5 Results of the randomized survey experiment

We present the results of the survey experiment in terms of preferences for redistribution for each treatment group compared to the control group. This is followed by the results of the survey experiment on charitable giving. Finally, we present some robustness checks.

## 5.1 Information about the overall level of inequality and the degree of mobility (Treatment A) increases support for redistribution by rightwing voters

Respondents in Treatment group A are substantially more likely to desire urgent action by the government to reduce inequality, more likely to select providing free access to education and health care as the key policy the government should prioritize to reduce inequality in Australia, and less likely to support tax cuts for large corporations, compared to respondents in the control group (see Table 3: Panel A).

#### [Insert Table 3 here]

These treatment effects are predominantly driven by right-wing voters becoming more progressive in their views (see Table 3: Panel B). For example, right-wing voters in Treatment group A are 9.9 percentage points more likely to agree that urgent action is required by the government to address inequality, which is around twice as large as the treatment effect across all respondents (5.2 percentage points).

To illustrate the magnitude of the treatment effect on right-wing voters, we show how much the treatment closed pre-existing gaps in preferences for redistribution between right- and left-wing voters. This can be determined by comparing the co-efficient of the interaction term in Panel B of Table 3 (Treatment A X Left-wing Voters) with the co-efficient of the dummy variable for left-wing voters (i.e., the gap between rightand left-wing voters in the control group). In the case of agreement that urgent action is required by the government to address inequality, Treatment A reduces the pre-existing gap between right- and left-wing voters by 35.6 percent, as the co-efficient on the interaction term is -0.072 while the co-efficient on the dummy for left wing voters is 0.202. This is also illustrated in Figure 7, which shows the difference between right- and left-wing voters in the control group is over 20 percentage points, however the difference in the treatment group is just over 10 percentage points. The redistribution index captures the average effect of the treatment across all outcomes (captured in Table 3, columns 1-4) and it shows this treatment tends to reduce the gap between right- and left-wing voters by 23.9 percent.

[Insert Figure 7 here]

## 5.2 Informing respondents they are relatively poorer than they thought (Treatment B, for respondents that overestimated their position) makes right-wing voters more supportive of redistribution

Respondents who are told that they are poorer than they thought (i.e., they overestimated their position in the national income distribution) are more supportive of urgent action by the government to reduce inequality and are more in favour of taxes on the richest 1 percent of Australians being increased, compared to respondents in the control group (see Table 4: Panel A). Similar to Treatment A, the effect of Treatment B is twice as large among right-wing voters as it is across all respondents (see Table 4: Panel B). For example, while the treatment results in a 7.7 percentage point increase in the share of all respondents who agree urgent action is required by the government, there is a 14.7 percentage point increase in the share of right-wing voters who agree.

#### [Insert Table 4 here]

On average, the treatment reduces the gap between right- and left-wing voters by 33.4 percent (this is based on the results for the redistribution index shown in Panel B in Table 4). This is also illustrated in Figure 8, which shows the difference between right- and left voters in terms of agreement that urgent action is required by the government to address inequality in the control group is over 20 percentage points, however the difference in the treatment group is just over 10 percentage points.

#### [Insert Figure 8 here]

We show in Table A6 in Online Appendix A that there are no significant effects from informing people they accurately estimated their position in the income distribution or are relatively richer than they thought.

## 5.3 Informing people about their household income in per person terms (Treatment C) also tended to impact their support for redistribution

Informing respondents of their household income in per person terms resulted in higher levels of support for urgent action by the government to reduce inequality and lower levels of support for corporate tax cuts (see Table 5: Panel A). This treatment was slightly more likely to alter right-wing voters' preferences for redistribution (see Table 5: Panel B). On average, the treatment reduced the gap between right- and left-wing voters by 12.7 percent (this is 53.3 percent of the effect of Treatment A and not statistically distinguishable (see Table A7 in Online Appendix A)).

#### [Insert Table 5 here]

We also examine the effect of this treatment on a restricted sample of respondents who overestimated their position in the national income distribution (i.e., if these respondents had been randomly allocated to Treatment group B they would have been told they are poorer than they thought). Among this sub-group we find the treatment reduced support for corporate tax cuts by 10.6 percentage points (see Table 5: Panel C). This treatment was more likely to alter right-wing voters' preferences for redistribution (see Table 5: Panel D) and on average, the treatment reduced the gap between right- and left-wing voters by 31.0 percent (this is 92.7 percent of the effect of Treatment B and not statistically distinguishable (see Table A7 in Online Appendix A)).

# 5.4 The treatments also lead to convergence between types of voters in terms of charitable giving

Informing respondents about the level of inequality and mobility (Treatment A) reduces the likelihood of right-wing voters giving to the social justice related charity and increases the likelihood of them keeping the money for themselves (see Table 6: Panels A and B) (there is no effect on giving to the health related charity). This treatment closed the entire gap between right- and left-wing voters in terms of likelihood to donate to the social justice charity and keep the additional payment for themselves. Informing respondents that they are poorer than they expected (Treatment B, for respondents that overestimated their position) results in right-wing voters becoming less likely to donate to the social justice charity and more likely to keep the money for themselves, however these effects were not statistically significant (see Table 6: Panels C and D). Similar to the case for Treatment B, Treatment C results in right-wing voters becoming less likely to donate to the social justice charity and more likely to keep the money for themselves, however these effects were not statistically significant (see Table 6: Panels C and D). Similar to the case for Treatment B, Treatment C results in right-wing voters becoming less likely to donate to the social justice charity and more likely to keep the money for themselves, however these effects were not statistically significant (see Table 6: Panels E and F).

### [Insert Table 6 here]

#### 5.5 Robustness checks

To illustrate that our findings are not skewed by the design of our survey experiment, we conduct a series of robustness checks adjusting for the attention paid by respondents, differences between the characteristics of our sample and the national population and the composition of respondents' households.

<u>Attention paid by respondents</u> We illustrate that our main findings still hold even if we do not winzorise our sample based on how long respondents took to complete the survey (see Table A8 in Online Appendix A). We conduct a robustness check whereby we include all survey respondents including those that were in the fastest five percent and slowest five percent of respondents. This had negligible impact on the effect of Treatments A and C and slightly reduced the statistical significance and order of magnitude of the effect of Treatment B.

<u>Re-weighting sample by income</u> To overcome concerns about the representativeness of our sample of respondents, we re-run our analysis weighting our sample based on income (i.e., poorer respondents' answers receive proportionally less weight than richer respondents) to match the Australian population. This is because survey respondents reported incomes are slightly poorer on average than the national population. Re-weighting the sample had little effect on the results of Treatments A, B and C (see Table A9 in Online Appendix A).

<u>Household composition</u> Treatments B and C were based on respondents' reported household size and it is possible that the responses of outlier households, with only one individual or a very large number of occupants (defined as six or more in our study) may be skewing our results. To address this concern we conduct our analysis with a restricted sample of respondents with two to five household members, which make up 78 percent of respondents in our sample. The results for all three treatments are qualitatively similar to including the entire sample of respondents although the heterogeneous treatment effects between right- and left-wing voters are not as large (see Table A10 in Online Appendix A).

## 6 Discussion

Collectively, our findings demonstrate that existing misperceptions of inequality in Australia cause greater polarization across the political spectrum in terms of preferences for redistribution than would be the case if people had accurate information. We show that simply presenting basic information about inequality on a one-off basis through an online interface leads to immediate convergence in preferences and behavior between right- and left-wing voters. By doing so our study makes three substantive contributions to the literature on how beliefs about inequality shape preferences for redistribution.

Firstly, we show that right-wing voters in Australia are more likely to have perceptions about inequality that economic theory predicts would make them less supportive of government-led redistribution, and they are more likely to respond to accurate information about inequality by becoming more supportive of government-led redistribution. Therefore, correcting misperceptions about inequality leads to convergence across the political spectrum in terms of preferences for redistribution as right-wing voters are less likely to be supportive of government-led redistribution than left-wing voters in the absence of accurate information. Our results suggest that misperceptions of inequality explains between at least 24 to 34 percent of the difference between right- and left-wing voters' level of support for redistribution. This is directly in line with the predictions of our model in Section 2.4 that shows if the group of voters who underestimate the extent of inequality more are also less supportive of redistribution, we should see a convergence in preferences for redistribution between different groups of voters (X and Y voters in our model) in response to accurate information correcting these misperceptions.

Our findings are in contrast to the two related survey experiments to date that detect heterogeneous effects between respondents with different political views as they suggest accurate information leads to greater polarization across the political spectrum (Alesina et al 2018a, Karadja et al 2017). However, neither study is directly comparable to our survey experiment as they do not provide the same information, focus on the same parts of the national income distribution or categorize respondents based on political views in the same way. For example, in the case of Alesina et al (2018a), they define respondents as right- or left-wing depending on where they place themselves on a scale from very liberal to very conservative on economic issues, which is a substantially different categorisation to our study that draws on actual voting intentions. In the case of Karadja et al (2017), relatively rich individuals were far more likely to participate in their survey experiment, which resulted in 94 percent of respondents either underestimating or accurately estimating their position in the national income distribution. In contrast, our sample of respondents is representative of the national population across most demographic characteristics (see Section 3.1) and 47 per cent of respondents to our survey overestimated their position in the distribution (we focus our analysis on this group of respondents).

Secondly, we show that providing information about the level of inequality and mobility (Treatment A), informing people that they are poorer than they expected (Treatment B, for respondents who overestimated their position) or informing them of their household income in per person terms (Treatment C) all have similar effects on preferences for redistribution. This suggests that there is some degree of substitutability between the treatments. Simply providing people with either type of information about inequality, which conventional theories of preferences for redistribution would imply should result in increased support of redistribution, is enough to change respondents' views.

In addition, we show that on average Treatment C has between 53 to 93 percent of the effect of Treatments A and B, respectively, and these differences are not statistically significant (see Table A7 in Online Appendix A). We can think of Treatment C as capturing an aspect of Treatments A and B: asking them to reflect on their own economic circumstances. As the effect of Treatment C was almost as large as the other treatments this suggests that people are primarily concerned about their absolute living standard, as opposed to their relative position or the distribution of income across the country, which are what Treatments A and B additionally encourage them to reflect on. To put this formally using the model in Section 2.4, the size of the weighting that people place on the consumption of others is greater than zero but far from one (i.e.,  $0 < \beta < \gamma << 1$ ). This finding is a considerable contribution to the existing literature, as previous survey experiments on this topic only include one treatment group and the authors are left to speculate on whether people's preferences are more elastic to information about the macro situation (i.e., level of inequality and mobility), or their own circumstances within their country (Hauser and Norton 2017). Hence we show that the findings of existing studies may well be simply due to receiving a treatment about inequality as opposed to the exact content of the treatment itself.

Thirdly, we show that the treatments also lead to convergence between right- and left-wing voters in terms of charitable giving, but the effect is in the opposite direction. Namely, right-wing voters are more generous than left-wing voters ex ante in terms of charitable giving, and the treatments make them less generous, even though right-wing voters are less supportive of government-led redistribution than left-wing voters and the treatments make them more supportive. This suggests that differences in preferences for redistribution between right- and left-wing voters cannot simply be dismissed as differences in levels of compassion or empathy (or more formally, differences in otherregarding preferences). Instead, it may be that differences in baseline levels of support for redistribution and charitable giving may be due primarily to fundamental differences in preferences for how best to reduce inequality, and both right- and left-wing voters may see these channels as somewhat substitutable.

Importantly, only Treatments A and B had a large effect on charitable giving, which suggests relative incomes have a larger influence on charitable giving than support for government-led redistribution. Our results also highlight that information about inequality may change people's views about the relative responsibility of the government in addressing inequality, compared to non-state actors such as charities. In other words, the treatments may have led right-wing voters to desire the government, as opposed to charities, to be the channel through which redistribution to the poor should take place. This finding is in contrast to the limited related research to date that suggests greater alignment between how information affects people's views about government policies and their own charitable giving (Nair 2018, Alesina et al 2018b). However, neither of these studies test the effect of treatments about national inequality, which is more likely to directly relate to whether it is the role of the government or non-state actors to deliver national level redistribution.

## 7 Conclusion

This study shows that information about inequality can dramatically reduce differences in preferences for redistribution between right- and left-wing voters. Ex ante, right-wing voters are more likely to have perceptions about inequality that economic theory predicts would make them less supportive of redistribution. We show that information that tries to correct these misperceptions increases right-wing voters' desire for urgent action by the government to reduce inequality and makes them more supportive of traditionally left-wing policies (like increasing taxes). In addition, we show that the same information also reduces the gap in support for charitable giving between right- and left-wing voters.

Future research on perceptions of inequality and support for redistribution could focus on three main areas. Firstly, survey experiments could be conducted to tease out the substitutability of different types of information about inequality and develop a theoretical framework to rationalize the patterns that we observe. Secondly, additional analysis is required about the relationship between people's preferences for governmentled redistribution and non-state actors' role in redistribution. Finally, further research could be conducted to explore how the dissemination of information about inequality affects people's voting behavior.

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## 9 Tables and figures

FIGURE 1: QUESTION ABOUT RESPONDENTS' PERCEPTION OF THE EXISTING LEVEL OF INEQUALITY

Assume the Australian population is broken into 5 income groups from richest to poorest, each with the same number of people.

Richest	2 <sup>nd</sup> Richest	Middle	2 <sup>nd</sup> Poorest	Poorest

Given the Australian population is around 25 million people, each of the groups consists of 5 million people.

#### Q1. How is income CURRENTLY distributed between these groups



Note: The most unequal distribution option is based upon the actual level of income inequality in South Africa. This is followed by the distribution in Indonesia, the United Kingdom and Norway. The two most equal distribution options are more equitable than what exists in any country in the world. The income distribution in Australia is most similar to that of the United Kingdom (i.e., the third pie chart from the left).
FIGURE 2: QUESTION ABOUT RESPONDENTS' PERCEIVED QUINTILE IN THE NATIONAL INCOME DISTRIBUTION

Q2. In which of these income groups would you place your household?

Richest 2 <sup>nd</sup> Richest Middle 2 <sup>nd</sup> Poorest Poorest					
	Richest	2 <sup>nd</sup> Richest	Middle	2 <sup>nd</sup> Poorest	Poorest

Note: This question was asked immediately following Q1 shown in Figure 1 above.

FIGURE 3: TREATMENT A: INFORMATION ABOUT THE LEVEL OF INEQUALITY AND DEGREE OF MOBILITY

The richest 20% of people in Australia have two-thirds of the country's wealth.

This leaves around 20 million people with only one-third of the country's wealth.



Recent research shows:

<u>FACT1</u> – Only very few children from poor Australian families ever become rich, the vast majority **stay poor** throughout their life.

<u>FACT2</u> – Children born into rich Australian families are extremely likely to **remain rich** when they grow up.

FIGURE 4: EXAMPLE OF TREATMENT B: INFORMATION ABOUT POSITION IN INCOME DISTRIBUTION

Based upon your reported income, your household is in the 'Poorest 20%'. This means around 20 million Australians are richer than you





FIGURE 5: PERCEIVED LEVEL OF INEQUALITY BY TYPE OF VOTER



FIGURE 6: PERCEIVED POSITION BY TYPE OF VOTER



FIGURE 7: DIFFERENCES BETWEEN DESIRE FOR URGENT ACTION BETWEEN RESPONDENTS IN TREATMENT GROUP A AND THE CONTROL GROUP



FIGURE 8: DIFFERENCES BETWEEN DESIRE FOR URGENT ACTION BETWEEN RESPONDENTS IN TREATMENT GROUP B AND THE CONTROL GROUP

	(1)	(2)	(3)	(4)	(5)
	Urgent Action	Tax Top $1\%$	Education	Support Tax Cuts	Redistribution Index
Right-wing voter	-0.186***	-0.095***	-0.045	$0.354^{***}$	-0.324***
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Bottom 40 percent	$0.120^{**}$	-0.009	0.008	-0.013	0.068
	(0.05)	(0.05)	(0.04)	(0.06)	(0.07)
Over 50 years old	-0.008	$0.084^{***}$	$-0.053^{*}$	-0.057	0.043
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Capital City	-0.016	$-0.056^{*}$	-0.008	-0.036	-0.033
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Tertiary Education	-0.003	-0.011	0.045	0.017	0.015
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Male	-0.025	-0.006	-0.028	0.026	-0.050
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Perceive High Inequality	$0.195^{***}$	$0.267^{***}$	0.027	$-0.275^{***}$	$0.405^{***}$
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Overestimate Position	-0.001	-0.030	-0.026	$0.101^{*}$	-0.063
	(0.05)	(0.05)	(0.04)	(0.06)	(0.06)
Constant	$0.569^{***}$	$0.594^{***}$	$0.212^{***}$	$0.520^{***}$	-0.182***
	(0.04)	(0.04)	(0.04)	(0.06)	(0.06)
Observations	848	848	848	594 #	

TABLE 1: CORRELATION BETWEEN POLICY PREFERENCES AND VOTING BEHAVIOUR

 $\overline{ { \ } { \ } p < 0.1, { \ } { \ } { \ } p < 0.05, { \ } { \ } { \ } { \ } p < 0.01 \ \# \text{Respondents' that answered do not know were excluded from this question.}} \\ \text{Note: this table is based on responses provided by the control group. Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% - defined as respondent preferring taxes to be increased on the richest one percent of individuals as opposed to public services being cut, Education - defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years, Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.$ 

	(1)	(2)	(3)
	Give to social justice charity	Give to health charity	Keep for yourself
Right-wing voter	0.095***	0.037	-0.133***
	(0.03)	(0.04)	(0.04)
Bottom 40 percent	-0.024	-0.054	0.078
	(0.05)	(0.05)	(0.05)
Over 50 years old	0.039	0.054	-0.094***
	(0.03)	(0.03)	(0.04)
Capital City	$0.053^{*}$	0.001	-0.054
	(0.03)	(0.03)	(0.03)
Tertiary Education	$0.054^{*}$	-0.043	-0.011
	(0.03)	(0.03)	(0.04)
Male	-0.092***	-0.024	$0.116^{***}$
	(0.03)	(0.03)	(0.03)
Perceive High Inequality	$0.054^{*}$	-0.001	-0.052
	(0.03)	(0.03)	(0.03)
Overestimate Position	-0.004	0.055	-0.050
	(0.04)	(0.05)	(0.05)
Constant	0.147***	0.340***	$0.512^{***}$
	(0.04)	(0.05)	(0.05)
Observations	848	848	848

TABLE 2: CORRELATION BETWEEN POLICY PREFERENCES AND CHARITABLE GIVING

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Note: this table is based on responses provided by the control group. The outcomes in the table above are based on answers provided by respondents to the following question: In addition, to your usual reimbursement for completing this survey, there is a bonus of \$1, which you can choose to do one of the following (Select one): 1. Donate to Cancer Council of Australia (Health Charity) 2. Donate to Smith family (Social Justice Charity) 3. Keep for yourself. Give to social justice charity is defined as the respondent selecting option 2 to the question above (this charity works to reduce inequality in Australia). Keep for yourself is defined as the respondent selecting option 3 to the question above.

TABLE 3: EFFECT OF TREATMENT A ON ALL RESPONDENTS

	(1)	(2)	(3)	(4)	(5)
	Urgent Action	Tax Top $1\%$	Education	Support Tax Cuts	Redistribution Index
Panel A - Treatment Effect					
Treatment A	$0.052^{**}$	0.034	$0.064^{***}$	$-0.053^{*}$	$0.106^{***}$
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Control Mean	0.676	0.710	0.182	0.487	-0.045
Panel B - Heterogenous Effects of	Treatment A				
Treatment A	$0.099^{**}$	0.030	$0.094^{**}$	-0.081	$0.161^{***}$
	(0.04)	(0.04)	(0.04)	(0.05)	(0.06)
Left-wing Voters	0.202***	$0.135^{***}$	0.045	-0.418***	$0.377^{***}$
	(0.04)	(0.03)	(0.03)	(0.04)	(0.05)
Treatment $A \times Left-wing$ Voters	-0.072	0.000	-0.044	0.063	-0.090
	(0.05)	(0.05)	(0.05)	(0.06)	(0.07)
Controls	Y	Y	Y	Y	Y
Observations	1551	1551	1551	1102#	1551

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01 # Respondents' that answered do not know were excluded from this question.

Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% - defined as respondent preferring taxes to be increased on the richest one percent of individuals as opposed to public services being cut, Education - defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years, Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

	(1)	(2)	(3)	(4)	(5)
	Urgent Action	Tax Top 1%	Education	Support Tax Cuts	Redistribution Index
Panel A - Treatment Effect					
Treatment B	$0.077^{**}$	$0.063^{*}$	-0.002	-0.074	0.110**
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Control Mean	0.708	0.689	0.158	0.546	-0.075
Panel B - Heterogenous Effects of	Treatment B				
Treatment B	$0.147^{**}$	0.087	0.016	-0.094	$0.183^{**}$
	(0.06)	(0.06)	(0.05)	(0.07)	(0.08)
Left-wing Voters	0.253***	0.100**	0.056	-0.408***	0.392***
	(0.05)	(0.05)	(0.04)	(0.06)	(0.07)
Treatment $B \times Left-wing$ Voters	-0.115	-0.040	-0.029	0.055	-0.131
	(0.07)	(0.07)	(0.06)	(0.09)	(0.09)
Controls	Y	Y	Y	Y	Y
Observations	709	709	709	498 #	709

TABLE 4: EFFECT OF TREATMENT B ON RESPONDENTS WHO OVERESTIMATED THEIR POSITION

p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01 # Respondents' that answered do not know were excluded from this question.

Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% - defined as respondent preferring taxes to be increased on the richest one percent of individuals as opposed to public services being cut, Education - defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years and Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

	(1)	(2)	(3)	(4)	(5)
	Urgent Action	Tax Top 1%	Education	Support Tax Cuts	Redistribution Index
Panel A - Effect of Treatment C of	on all respondents	3			
Treatment C	0.078***	0.033	0.033	$-0.057^{*}$	$0.110^{***}$
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Control Mean	0.676	0.710	0.182	0.487	-0.045
Panel B - Heterogenous Effects of	Treatment C on	all respondents	3		
Treatment C	0.063	0.042	$0.073^{*}$	-0.068	$0.135^{**}$
	(0.04)	(0.04)	(0.04)	(0.05)	(0.06)
Left-wing Voters	0.201***	0.135***	0.043	-0.422***	$0.377^{***}$
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)
Treatment C $\times$ Left-wing Voters	0.015	-0.017	-0.057	0.029	-0.048
	(0.05)	(0.05)	(0.05)	(0.06)	(0.07)
Controls	Y	Y	Y	Y	Y
Observations	1504	1504	1504	1068~#	1504
Panel C - Effect of Treatment C of	on respondents th	at overestimate	d their positi	on	
Treatment C	0.051	0.039	$0.050^{*}$	-0.106**	$0.121^{***}$
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)
Control Mean	0.708	0.689	0.158	0.546	-0.075
Panel D - Heterogenous Effects of	<sup>r</sup> Treatment C on	respondents th	at overestima	ited their position	
Treatment C	0.096	0.071	$0.097^{*}$	-0.103	$0.195^{**}$
	(0.06)	(0.06)	(0.05)	(0.07)	(0.08)
Left-wing Voters	0.254***	0.106**	0.056	-0.400***	0.394***
-	(0.05)	(0.05)	(0.04)	(0.06)	(0.07)
Treatment C $\times$ Left-wing Voters	-0.075	-0.051	-0.068	0.016	-0.122
-	(0.07)	(0.07)	(0.06)	(0.09)	(0.10)
Controls	Y	Y	Y	Y	Y
Observations	708	708	708	501 #	708

TABLE 5: EFFECT OF TREATMENT C

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01 # Respondents' that answered do not know were excluded from this question. Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% defined as respondent preferring taxes to be increased on the richest one percent of individuals as opposed to public services being cut, Education defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years, Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

	(1)	(2)	(3)
	Give to social justice charity	Give to health charity	Keep for yoursel
Panel A - Effect of Treatment A	on all respondents		
Treatment A	0.010	-0.018	0.008
	(0.02)	(0.02)	(0.02)
Control Mean	0.217	0.344	0.439
Panel B - Heterogenous Effects of	Treatment A on all respondent	s	
Treatment A	-0.085**	-0.021	$0.106^{**}$
	(0.04)	(0.04)	(0.05)
Left-wing Voters	-0.068**	-0.066*	$0.134^{***}$
Ŭ	(0.03)	(0.04)	(0.04)
Treatment $A \times Left-wing$ Voters	0.142***	0.007	-0.149***
_	(0.05)	(0.05)	(0.05)
Controls	Y	Y	Y
Observations	1551	1551	1551
Panel C - Effect of Treatment B of	on respondents that overestimate	ed their position	
Treatment B	-0.017	0.020	-0.003
	(0.03)	(0.04)	(0.04)
Control Mean	0.197	0.353	0.450
Panel D - Heterogenous Effects of	<sup>r</sup> Treatment B on respondents th	hat overestimated their po	sition
Treatment B	-0.079	0.023	0.057
	(0.05)	(0.07)	(0.07)
Left-wing Voters	-0.099**	-0.075	0.174***
0	(0.04)	(0.05)	(0.06)
Treatment $B \times Left-wing$ Voters	0.093	0.002	-0.094
Ū.	(0.06)	(0.08)	(0.08)
Controls	Y	Y	Y
Observations	709	709	709
Panel E - Effect of Treatment C of	on all respondents		
Treatment C	0.012	-0.011	-0.001
	(0.02)	(0.02)	(0.03)
Control Mean	0.217	0.344	0.439
Panel F - Heterogenous Effects of	Treatment C on all respondent		
Treatment C	-0.052	0.010	0.043
	(0.04)	(0.04)	(0.05)
Left-wing Voters	-0.066**	-0.070*	0.135***
~	(0.03)	(0.04)	(0.04)
Treatment $C \times$ Left-wing Voters	0.091**	-0.026	-0.065
0	(0.05)	(0.05)	(0.06)
Controls	Y	Y	Y
Observations	1504	1504	1504

TABLE 6: EFFECT OF TREATMENTS ON CHARITABLE GIVING

The outcomes in the table above are based on answers provided by respondents to the following question: In addition, to your usual reimbursement for completing this survey, there is a bonus of \$1, which you can choose to do one of the following (Select one): 1. Donate to Cancer Council of Australia (Health Charity) 2. Donate to Smith family (Social Justice Charity) 3. Keep for yourself. Give SJ charity is defined as the respondent selecting option 2 to the question above (this charity works to reduce inequality in Australia). Keep is defined as the respondent selecting option 3 to the question above.

## 10 Online Appendix A - Supplementary Tables

TABLE A1: CORRELATION BETWEEN BACKGROUND CHARACTERISTICS AND BEING A RIGHT-WING VOTER

	Vote for right-wing party
Bottom 40 percent	-0.088***
	(0.02)
Over 50 years old	$0.115^{***}$
	(0.02)
Capital City	0.000
	(0.02)
Tertiary Education	0.048**
	(0.02)
Male	0.028
	(0.02)
Constant	0.260***
	(0.02)
Observations	3402

	Survey	Census 2016
	(percent)	(percent)
50 years old or over	43	43
Female	49	51
City	81	87
Attended a university	51	51
Bottom 40 percent	59	40

TABLE A2: COMPARISON OF SURVEY RESPONDENTS TO AUSTRALIAN POPULATION

TABLE A3: BALANCE TABLE ACROSS TREATMENT AND CONTROL GROUPS

	(1)	(2)	(3)	(4)	t-test	t-test	t-test	t-test	t-test	t-test
	TREATMENT	TREATMENT	TREATMENT	CONTROL	Difference	Difference	Difference	Difference	Difference	Difference
	GROUP A	GROUP B	GROUP C	GROUP						
Variable	Mean/SE	Mean/SE	Mean/SE	Mean/SE	(1)-(2)	(1)-(3)	(1)-(4)	(2)-(3)	(2)-(4)	(3)-(4)
Bottom 40 percent	0.594	0.582	0.601	0.597	0.012	-0.007	-0.003	-0.019	-0.015	0.005
	[0.017]	[0.017]	[0.017]	[0.017]						
Over 50 years old	0.423	0.435	0.422	0.422	-0.012	0.001	0.001	0.013	0.013	-0.000
	[0.017]	[0.017]	[0.017]	[0.017]						
Capital City	0.529	0.564	0.544	0.561	-0.035	-0.015	-0.033	0.020	0.002	-0.017
	[0.017]	[0.017]	[0.017]	[0.017]						
Tertiary Education	0.497	0.475	0.515	0.494	0.022	-0.018	0.002	-0.040*	-0.020	0.021
	[0.017]	[0.017]	[0.017]	[0.017]						
Male	0.529	0.506	0.487	0.466	0.023	$0.042^{*}$	$0.063^{***}$	0.019	$0.040^{*}$	0.021
	[0.017]	[0.017]	[0.017]	[0.017]						
Observations	872	864	818	848						

	(1)
	Perceive extreme or very high level of inequality
Bottom 40 percent	0.026
	(0.02)
Over 50 years old	0.096***
	(0.02)
Capital City	-0.057***
	(0.02)
Tertiary Education	0.030
	(0.02)
Male	0.028
	(0.02)
Right-wing voter	-0.162***
	(0.02)
Constant	0.532***
	(0.03)
Observations	3402

TABLE A4: CORRELATION BETWEEN BACKGROUND CHARACTERISTICS AND PERCEPTION OF LEVELS OF INEQUALITY

	(1)	(2)
	Overestimate position	Overestimate position (Bottom 40 percent only)
Bottom 40 percent	0.770***	N/A
	(0.01)	
Over 50 years old	-0.056***	-0.087***
	(0.01)	(0.02)
Capital City	0.006	0.010
	(0.01)	(0.02)
Tertiary Education	0.029**	0.046**
	(0.01)	(0.02)
Male	0.006	-0.001
	(0.01)	(0.02)
Right-wing voter	$0.055^{***}$	$0.104^{***}$
	(0.01)	(0.02)
Constant	-0.004	0.763***
	(0.02)	(0.02)
Observations	3402	2019

TABLE A5 - CORRELATION BETWEEN BACKGROUND CHARACTERISTICS AND OVERESTIMATING POSITION IN DISTRIBUTION

TABLE A6: EFFECT OF TREATMENT B ON RESPONDENTS WHO UNDERESTIMATED AND ACCURATELY ESTIMATED THEIR POSITION

	(1)	(2)	(3)	(4)	(5)
	Urgent Action	Tax Top $1\%$	Education	Support Tax Cuts	Redistribution Index
Panel A - Effect of Treatment B of	on respondents th	at underestima	ted their posi	tion	
Treatment B	0.036	-0.010	0.046	-0.014	0.050
	(0.05)	(0.05)	(0.04)	(0.06)	(0.07)
Panel B - Heterogenous Effects of	Treatment B on	respondents th	at underestin	nated their position	
Treatment B	0.056	0.001	0.042	0.043	0.027
	(0.08)	(0.08)	(0.07)	(0.09)	(0.11)
Left-wing Voters	$0.148^{**}$	$0.140^{**}$	0.060	-0.389***	0.340***
	(0.07)	(0.07)	(0.06)	(0.08)	(0.09)
Treatment $B \times Left-wing$ Voters	-0.034	-0.022	0.004	-0.101	0.022
	(0.10)	(0.10)	(0.09)	(0.11)	(0.13)
Controls	Y	Y	Y	Y	Y
Observations	400	400	400	282 #	400
Panel C - Effect of Treatment B of	on respondents th	at accurately es	stimated their	• position	
Treatment B	$0.074^{*}$	0.042	-0.020	0.057	0.039
	(0.04)	(0.04)	(0.04)	(0.06)	(0.06)
Panel D - Heterogenous Effects of	<sup>f</sup> Treatment B on	respondents th	at accurately	estimated their posit	ion
Treatment B	-0.007	0.040	-0.020	0.062	-0.015
	(0.08)	(0.08)	(0.08)	(0.10)	(0.11)
Left-wing Voters	0.109	$0.151^{**}$	0.015	-0.468***	$0.331^{***}$
	(0.07)	(0.07)	(0.07)	(0.08)	(0.10)
Treatment B $\times$ Left-wing Voters	0.113	0.007	-0.001	-0.022	0.084
	(0.10)	(0.09)	(0.09)	(0.11)	(0.13)
Controls	Y	Y	Y	Y	Y
Observations	434	434	434	320 #	434

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01 # Respondents' that answered do not know were excluded from this question. Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% defined as respondent preferring taxes to be increased on the richest one percent of individuals as opposed to public services being cut, Education defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years and Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

	(1)	(2)	(3)	(4)	(5)
	Urgent Action	Tax Top 1%	Education	Support Tax Cuts	Redistribution Index
Panel A - Effect of Treatment A compa	red to Treatmen	t C		**	
Treatment $A==1$	-0.025	0.002	0.030	0.004	-0.003
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Panel B - Heterogenous Effects of Treat	ment A compare	ed to Treatment	C	. ,	<u> </u>
Treatment A==1	0.036	-0.012	0.022	-0.016	0.027
	(0.04)	(0.04)	(0.04)	(0.05)	(0.06)
Left-wing Voters	0.216***	0.116***	-0.010	-0.387***	0.329***
-	(0.04)	(0.04)	(0.03)	(0.04)	(0.05)
Treatment A==1× Left-wing Voters	-0.085*	0.019	0.011	0.038	-0.043
-	(0.05)	(0.05)	(0.05)	(0.06)	(0.07)
Controls	Y	Y	Y	Y	Y
Observations	1525	1525	1525	1094 #	1525
Panel C - Effect of Treatment B compa	red to Treatment	t C			
Treatment B==1	0.027	0.029	$-0.055^{*}$	0.031	-0.009
	(0.03)	(0.03)	(0.03)	(0.05)	(0.04)
Panel D - Heterogenous Effects of Treas	ment B compare	ed to Treatment	C		
Treatment B==1	0.052	0.024	-0.081	0.002	-0.004
	(0.06)	(0.06)	(0.06)	(0.08)	(0.08)
Left-wing Voters	$0.169^{***}$	0.054	-0.011	-0.388***	$0.266^{***}$
	(0.05)	(0.05)	(0.05)	(0.07)	(0.07)
Treatment $B==1 \times Left-wing Voters$	-0.039	0.007	0.036	0.046	-0.014
	(0.07)	(0.07)	(0.07)	(0.09)	(0.10)
Controls	Y	Y	Y	Y	Y
Observations	708	708	708	501 #	708
Panel E- Effect of Treatment A compar	ed to Treatment	В			
Treatment A==1	-0.038	-0.010	$0.059^{**}$	-0.016	0.008
	(0.03)	(0.03)	(0.03)	(0.05)	(0.04)
Panel F - Heterogenous Effects of Treat	ment A compare	ed to Treatment	В	. ,	. ,
Treatment A==1	-0.045	-0.086	$0.106^{*}$	-0.026	-0.004
	(0.06)	(0.06)	(0.06)	(0.08)	(0.09)
Left-wing Voters	0.135***	0.062	0.019	-0.345***	$0.254^{***}$
-	(0.05)	(0.05)	(0.05)	(0.07)	(0.07)
Treatment $A==1 \times Left-wing Voters$	0.008	0.101	-0.064	0.025	0.012
ő	(0.07)	(0.07)	(0.07)	(0.09)	(0.10)
Controls	Y	Y	Y	Y	Y
Observations	708	708	708	501#	708

 $\frac{\text{Observations}}{* p < 0.1, ** p < 0.05, *** p < 0.01 \# \text{Respondents' that answered do not know were excluded from this question.}}$ Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% - defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years, Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

	(1)	(2)	s without w (3)	(4)	(5)
	Urgent Action	(2) Tax Top 1%	Education	(4) Support Tax Cuts	(3) Redistribution Inde
	~	<u> </u>	Education	Support Tax Cuts	Redistribution mde:
Panel A - Effect of Treatment A					
Treatment A	0.052**	0.026	0.053***	-0.059**	0.096***
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Panel B - Heterogenous Effects o					
Treatment A	$0.105^{***}$	0.009	$0.093^{**}$	$-0.079^{*}$	$0.150^{***}$
	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
Left-wing voters	$0.214^{***}$	$0.131^{***}$	$0.056^{*}$	-0.396***	$0.382^{***}$
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)
Treatment $A \times$ Left-wing voters	-0.084*	0.017	-0.058	0.056	-0.095
	(0.05)	(0.05)	(0.04)	(0.06)	(0.06)
Controls	Y	Y	Y	Y	Y
Observations	1720	1720	1720	1215#	1720
Panel C - Effect of Treatment B	on respondents wh	no overestimate	d their positio	n.	
Treatment B	0.067**	0.043	-0.024	-0.047	0.066
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Panel D - Heterogenous Effects of					(0.01)
Treatment B	0.134**	0.039	0.016	-0.073	$0.142^{*}$
freatment D	(0.06)	(0.06)	(0.05)	(0.07)	(0.08)
Left-wing voters	0.243***	0.094*	0.070*	-0.391***	0.385***
Lett-wing voters	(0.05)	(0.054)	(0.04)	(0.06)	(0.06)
Treatment $B \times$ Left-wing voters	-0.109	-0.000	-0.059	0.060	-0.131
Treatment B × Left-wing voters	(0.07)	(0.07)	(0.06)	(0.08)	(0.09)
Controls	(0.07) Y	(0.01) Y	(0.00) Y	(0.03) Y	(0.05) Y
Observations	793	793	793	557#	793
			195	551#	195
Panel E - Effect of Treatment C					
Treatment C	$0.079^{***}$	0.022	0.026	-0.069**	$0.102^{***}$
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Panel F - Heterogenous Effects of					
Treatment C	$0.078^{**}$	0.040	$0.062^{*}$	-0.075	$0.138^{**}$
	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
Left-wing voters	$0.212^{***}$	$0.131^{***}$	$0.054^{*}$	-0.400***	$0.381^{***}$
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)
Treatment $C \times$ Left-wing voters	-0.008	-0.030	-0.054	0.024	-0.067
-	(0.05)	(0.05)	(0.04)	(0.06)	(0.07)
Controls	Y	Y	Y	Y	Y
Observations	1720	1720	1720	1215#	1720

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01 # Respondents' that answered do not know were excluded from this question.

Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% - defined as respondent preferring taxes to be increased on the richest one percent of individuals as opposed to public services being cut, Education - defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years and Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

	(1)	Weighted Tri (2)	(3)	(4)	(5)
	Urgent Action	Tax Top 1%	Education	Support Tax Cuts	Redistribution Index
	~		Education	Support Tax Outs	Redistribution mde.
Panel A - Effect of Treatment A					
Treatment A	0.062**	0.040	0.069***	-0.047	0.119***
	(0.03)	(0.03)	(0.02)	(0.03)	(0.04)
Panel B - Heterogenous Effects of					
Treatment A	$0.089^{*}$	0.055	$0.074^{*}$	-0.070	$0.154^{**}$
	(0.05)	(0.05)	(0.04)	(0.05)	(0.07)
Left-wing Voters	$0.184^{***}$	$0.140^{***}$	0.043	-0.404***	$0.364^{***}$
	(0.04)	(0.04)	(0.03)	(0.05)	(0.06)
Treatment A $\times$ Left-wing Voters	-0.046	-0.028	-0.010	0.059	-0.066
	(0.06)	(0.06)	(0.05)	(0.07)	(0.08)
Controls	Y	Y	Y	Y	Y
Observations	1525	1525	1525	1094 #	1525
Panel C - Effect of Treatment B of	on respondents wh	o overestimated	l their positio	n	
Treatment B	0.084**	0.087**	-0.008	-0.101**	$0.135^{***}$
	(0.04)	(0.04)	(0.03)	(0.05)	(0.05)
Panel D - Heterogenous Effects of	Treatment B on	respondents wh	o overestimat	ed their position	
Treatment B	0.118	0.115*	0.014	-0.111	$0.189^{**}$
	(0.07)	(0.07)	(0.05)	(0.08)	(0.08)
Left-wing Voters	0.250***	$0.101^{*}$	0.058	-0.409***	0.391***
0	(0.06)	(0.06)	(0.05)	(0.06)	(0.07)
Treatment $B \times$ Left-wing Voters	-0.072	-0.049	-0.037	0.051	-0.115
Fredemont B × Here wing voters	(0.08)	(0.08)	(0.06)	(0.09)	(0.10)
Controls	Y	Y	Y	Y	Y
Observations	708	708	708	501#	708
Panel E - Effect of Treatment C of	n nonondonte wh	o overestimates	I their regitie	11	
Treatment C	0.091***	0.041	0.023	-0.041	0.110***
Treatment O	(0.03)	(0.03)	(0.02)	(0.03)	(0.04)
Panel F - Heterogenous Effects of					(0.04)
Treatment C	0.052	0.026	0.055	-0.039	0.098
freatment C	(0.052)	(0.05)	(0.035)	(0.05)	(0.07)
Left-wing Voters	0.181***	0.141***	0.039	-0.409***	0.362***
Leit-wing voters	(0.04)	(0.04)	(0.039)	(0.05)	(0.06)
Treatment C × Left wing Votors	(0.04) 0.047	(0.04) 0.014	(0.03) -0.047	0.015	(0.08) 0.002
Treatment C $\times$ Left-wing Voters					
	(0.06)	(0.06) Y	(0.05)	(0.07)	(0.08)
Controls	Y	-	Y	Y	Y
Observations	708	708	708	501#	708

 $\frac{0.05 \text{ evertors}}{* p < 0.1, ** p < 0.05, *** p < 0.01 \# \text{ Respondents' that answered do not know were excluded from this question.}}$ Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% - defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years and Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

	A10: TREATMEN (1)	(2)	(3)	(4)	(5)
	Urgent Action	Tax Top 1%	Education	Support Tax Cuts	Redistribution Index
	0	· ·	Education	Support Tax Outs	recustribution muc.
Panel A - Effect of Treatment A of Treatment A	0.047*	0.034	0.085***	-0.037	0.112***
Treatment A					
	(0.03)	(0.03)	(0.02)	(0.03)	(0.04)
Panel B - Heterogenous Effects of					
Treatment A	0.108**	0.016	0.088**	-0.045	0.140**
	(0.05)	(0.05)	(0.04)	(0.06)	(0.06)
Left-wing Voters	$0.193^{***}$	$0.119^{***}$	0.025	-0.372***	0.328***
	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
Treatment A $\times$ Left-wing Voters	-0.092	0.021	-0.006	0.027	-0.050
	(0.06)	(0.06)	(0.05)	(0.07)	(0.08)
Controls	Y	Y	Y	Y	Y
Observations	1196	1196	1196	849 #	1196
Panel C - Effect of Treatment B of	on respondents wh	o overestimated	l their positio	n	
Treatment B	0.084**	$0.064^{*}$	0.017	-0.069	$0.123^{**}$
	(0.04)	(0.04)	(0.03)	(0.05)	(0.05)
Panel D - Heterogenous Effects of	Treatment B on	respondents wh	o overestimat	ed their position	
Treatment B	$0.154^{**}$	0.080	0.012	-0.077	$0.174^{**}$
	(0.07)	(0.07)	(0.06)	(0.09)	(0.09)
Left-wing Voters	0.280***	0.083	0.017	-0.361***	0.350***
0	(0.05)	(0.06)	(0.05)	(0.07)	(0.07)
Treatment $B \times$ Left-wing Voters	-0.111	-0.026	0.006	0.035	-0.089
Treatment B X Left Wing Veterb	(0.08)	(0.08)	(0.07)	(0.10)	(0.10)
Controls	Y	Y	Y	Y	Y
Observations	553	553	553	392#	553
Panel E - Effect of Treatment C of			000	002//	000
Treatment C	0.079***	0.038	0.053**	-0.044	0.123***
Treatment C	(0.03)	(0.03)			
Panel F - Heterogenous Effects of			(0.02)	(0.03)	(0.04)
			0.070*	0.007	0.100*
Treatment C	0.062	0.026	$0.076^{*}$	-0.027	0.109*
T (1 - X7)	(0.05)	(0.05)	(0.04)	(0.06)	(0.06)
Left-wing Voters	0.193***	0.120***	0.024	-0.375***	0.330***
	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
Treatment C× Left-wing Voters	0.017	0.013	-0.032	-0.017	0.009
	(0.06)	(0.06)	(0.05)	(0.07)	(0.08)
Controls	Y	Y	Y	Y	Y
Observations	1180	1180	1180	835#	1180

 $\frac{0 \text{ Deservations}}{* p < 0.1, ** p < 0.05, *** p < 0.01 \# \text{ Respondents' that answered do not know were excluded from this question.}}$ Urgent Action - defined as respondent selecting they would like very urgent or urgent action by the government to reduce inequality, Tax Top 1% - defined as respondent selecting free and high quality education and medical care for all people as the main policies the government should prioritise to reduce inequality, Support Tax Cuts - defined as respondent selecting they support the lowering of corporate tax from 30 percent to 25 percent over the next 10 years and Redistribution Index - is the unweighted average of the z-scores of all variables from columns (1) to (4), oriented so that a higher index means more support for redistribution.

## 11 Online Appendix B - Questions about respondents' background characteristics and the outcomes of interest

## 11.1 Questions about respondents' background characteristics

Which of these would best describe the area in which you live? Within a capital city, Within a major Regional city, Within a rural town or its surrounds, More than 5km from the nearest town

Which of the following age groups do you belong to? 18 to 34, 35 to 49, 50 to 64, 65 years or older

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Are you? Male, Female

What is the highest level of formal education that you have completed?

Higher degree or post graduate diploma, Bachelor degree, Undergraduate diploma, Associate diploma, Skilled vocational, Basic vocational, Completed highest level of school, Did not complete highest level of school, Prefer not to say

Which of the following best describes your annual household income?

Less than \$5,000, \$5,000-\$9,999, \$10,000-\$14,999, \$15,000-\$19,999, \$20,000-\$24,999, \$25,000-\$29,999, \$30,000-\$34,999, \$35,000-\$39,999, \$40,000-\$44,999, \$45,000-\$49,999, \$50,000-\$54,999, \$55,000-\$59,999, \$60,000-\$64,999, \$65,000-\$69,999, \$70,000-\$74,999,

\$75,000-\$79,999, \$80,000-\$84,999, \$85,000-\$89,999, \$90,000-\$94,999, \$95,000-\$99,999, \$100,000-\$124,999, \$125,000-\$149,999, \$150,000-\$199,999, \$200,000-\$249,999, \$250,000 or more

How many people including yourself, are currently living in your household? One, Two, Three, Four, Five, Six, Seven, Eight, Nine

At the next Federal election, who would you be most likely to vote for? Labor party, Liberal party, The Nationals, The Greens, Other/Independent, Don't know, I'm ineligible to vote

## $\stackrel{\scriptscriptstyle{(3)}}{\odot}$ 11.2 Questions about the outcomes of interest

The following questions were asked immediately following the questions in Figures 1 and 2.

How urgently should the Australian government act to address the difference in income between the rich and poor? (Select one) 1. Very urgently, 2. Urgently, 3. Less urgently, 4. Not urgent at all, 99. Don't know

Dummy variable was created that takes the value of 1 if respondent selected options 1 or 2, otherwise it takes a value of 0.

The government is faced with the choice of reducing debt by either increasing income taxes on the richest 1% or by cutting public services. Do you think income taxes on the richest 1% of people should be:

1. Increased, 2. Stay the same, 3. Decreased, 99. Don't know

Dummy variable was created that takes the value of 1 if respondent selected option 1, otherwise it takes a value of 0.

Which one of the following is MOST important for the Australian Government to do to reduce income inequality? 1. Provide free and high quality education and medical care for all people, 2. Raise the minimum wage, 3. Provide more social protection for poor and vulnerable people, 4. Increase the amount of spending on welfare programs (e.g. Newstart, Old Age pension, Disability Pension etc), 5. Provide jobs for the unemployed, 6. Raise taxes on the rich, 97. Other (please specify):, 99. Don't know

09

Dummy variable was created that takes the value of 1 if respondent selected option 1, otherwise it takes a value of 0.

Do you support or oppose the proposal to cut the company tax rate from 30% to 25% over the next ten years? a) Support, b) Oppose, c) Don't know

Dummy variable was created that takes the value of 1 if respondent selected option 1, otherwise it takes a value of 0.

In addition, to your usual reimbursement for completing this survey, there is a bonus of one Australian dollar, which you can choose to do one of the following (Select one):

1. Donate to Cancer Council of Australia, 2. Donate to Smith family, 3. Keep for yourself

Dummy variable was created that takes the value of 1 if respondent selected option 1, otherwise it takes a value of 0. Dummy variable was created that takes the value of 1 if respondent selected option 2, otherwise it takes a value of 0. Dummy variable was created that takes the value of 1 if respondent selected option 3, otherwise it takes a value of 0