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# Income, Identity, and International Redistribution: Evidence from the European Union 

Julian Schuessler, Aarhus University, julians@ps.au.dk<br>Thomas Hinz, University of Konstanz, thomas.hinz@uni-konstanz.de<br>Dirk Leuffen, University of Konstanz, dirk.leuffen@uni-konstanz.de<br>Peter Selb, University of Konstanz, peter.selb@uni-konstanz.de

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## About the authors

Julian Schuessler is a post-doc at the Centre for the Experimental-Philosophical Study of Discrimination (CEPDISC) associated with the Department of Political Science at Aarhus University since 2020. He received his PhD in Political Science from the University of Konstanz in 2020. His fields of expertise are statistical methods in social sciences, especially causal models.

Thomas Hinz is Professor of Sociology with a focus on survey research. He also heads (together with Susanne Strauß) the Research Group on Higher Education at the University of Konstanz. He is Principal Investigator at the Cluster of Excellence EXC2035 "The Politics of Inequality". His research interests lie in the field of survey methodology as well as in labour market and discrimination research.

Dirk Leuffen is a professor of political science and international politics at the Department of Politics and Public Administration, University of Konstanz. He is a Principal Investigator in the project "Conditions of International Solidarity" of the Cluster of Excellence "The Politics of Inequality". His research interests include the study of European integration and the interplay between domestic and international politics.

Peter Selb is a professor of survey research at the Department of Politics and Public Administration, University of Konstanz, and a Principal Investigator in the project "Preferences for Redistribution" of the Cluster of Excellence "The Politics of Inequality". His research covers topics in political behavior and public opinion, often with a methodological thrust.

# Income, Identity, and International Redistribution: 

## Evidence from the European Union*

Julian Schuessler ${ }^{\dagger}$<br>Thomas Hinz ${ }^{\ddagger}$<br>Dirk Leuffen ${ }^{\S}$<br>Peter Selb

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#### Abstract

Previous research emphasizes that individual economic status does not significantly influence support for redistribution within the European Union (EU). Instead, identity factors are often posited as the main causes. We study the interaction of these variables and synthesize various theories that all predict that heightened European identification leads to a weaker influence of economic status. In a large original survey fielded in 12 countries, we find that respondents' income and perceived relative position correlate negatively with their redistribution preferences, both on the national and the EU level, as predicted by economic accounts. We also replicate findings on the positive effect of identity variables and find some evidence for the predicted interaction. However, randomized information treatments aimed at altering perceptions of an individual's or their member state's relative economic position fail to impact on preferences and do not interact with identity variables. Overall, our findings point toward a possible but quantitatively very limited role of economic status and its interaction with identity in understanding EU redistribution preferences.


## 1 Introduction

The European Union's (EU) unique structure aims to increase economic efficiency through the single market, but not least since its Corona recovery policies, it also plays a significant role in the redistribution of resources among member states. What kind of economic and non-economic factors play a role for preferences towards such redistribution? Research suggests that individual support for redistribution within the EU is unrelated to individual economic status (Bechtel, Hainmueller and Margalit 2014; Bansak et al. 2020; Kuhn and Stoeckel 2014). Instead, it is argued that individual ideology, sociotropic concerns, and especially "cosmopolitan" attitudes affect attitudes (Daniele and Geys 2015; Kleider and Stoeckel 2019; Kuhn, Solaz and Elsas 2018; Nicoli, Kuhn and Burgoon 2020). Against this backdrop, this letter makes a theoretical and an empirical contribution. Theoretically, we synthesize various theories of redistribution preferences that make predictions on the interaction between economic and non-economic factors. Empirically, we analyze a large, pre-registered survey experiment run in 12 European countries where we measure household income and use information treatments (Karadja, Mollerstrom and Seim 2017; Schaffer and Spilker 2019; Becker 2023) to experimentally manipulate respondents' perceptions of their national or EU-wide relative income position or of that of their member state. Accordingly, our treatments impact on both egotropic and sociotropic considerations. We use both attitudinal and behavioral outcome measures.

Theoretically, we show that different theories about the relationship between income, identity, and redistribution preferences actually lead to similar predictions: While narrow self-interest leads to negative effects of one's position in the income distribution on demand for redistribution, identification with an enlarged group of possible recipients (immigrants instead of natives only, EU citizens instead of co-nationals
only) leads to attenuated or even positive effects of one's position. Accordingly, the interaction between income and identification is predicted to be positive.

In non-experimental analyses, we show that income is negatively associated with redistribution preferences, both on the national and the European level. Measures of "cosmopolitanism", but especially of immigration support are positively associated with redistribution preferences and behavior. Having a national or European identity does not explain preferences. Finally, only immigration support consistently moderates the effect of economic variables. For citizens that support immigration, higher incomes translate more weakly into opposition to redistribution. This is as predicted for national-level redistribution, but somewhat surprising on the European level, given that more direct measures of a European identity do not exhibit such associations. However, effect sizes throughout are very small.

Our experimental information treatments do largely not affect redistribution preferences, nor do they interact with identity variables. This is in lieu of an unusually large sample size ( 18,000 respondents). If anything, there is some limited evidence for framing effects. Exploratory analyses suggest that the information treatments did change beliefs for some, but certainly not all respondents. In that regard, our nonexperimental and experimental findings are consistent in that they point towards very small effects of economic variables, both in terms of main and interaction effects. We discuss the implications of our findings in the concluding section.

## 2 Income, Identity, and Redistribution Preferences

We differentiate between three central theoretical concepts. First, there is the individual position in the income distribution which affects whether a person is a net receiver or payer in a redistribution scheme. Accordingly, this position might drive redistri-
bution preferences if individuals act self-interestedly ("egotropically") in a narrowly defined way. Second, citizens might be concerned about the welfare of the nation they reside in ("sociotropic" considerations). This, instead of egotropic considerations, has been argued to drive sentiments about bailouts within the EU (Bechtel, Hainmueller and Margalit 2014).

Third, citizens might be concerned about the welfare of others in a more encompassing way. On the national level, such encompassing attitudes are often associated with immigration support (Shayo 2009). On the EU level, it corresponds to an identification with Europe (and its citizens) instead of the nation state. This is related to what some of the prior literature has called "cosmopolitanism", and both sociotropic mechanisms as well as federal identification can be understood as "targeted altruism".

Simple economic models of redistribution preference assume that only egotropic considerations matter (Meltzer and Richard 1981), but there is a consensus in the EU and the more general public opinion literature that such factors play at most a minor role (Cavaillé and Neundorf 2022). Instead, it is often argued that if individuals have high European identification, this leads to higher willingness to redistribute (Nicoli, Kuhn and Burgoon 2020). Existing research almost exclusively relies on survey measures of such variables, which are then correlated with redistribution preferences (Kuhn et al. 2014; Daniele and Geys 2015; Kleider and Stoeckel 2019). Preferences are sometimes measured through conjoint experiments (Bechtel, Hainmueller and Margalit 2014; Nicoli, Kuhn and Burgoon 2020). Our experiment, on the other hand, employs randomized information manipulations of egotropic and sociotropic considerations, and so puts these basics predictions to a more thorough test.

Furthermore, more recent theories of redistribution preferences emphasize the interaction between an individual's economic position and her concerns for others. The predictions from these models are summarized in Figure 1. First, Shayo (2009), among
others, argues that it is only the poor that are diverted by non-economic motivations, e.g. racism or national identification, so that some of them may have preferences against their economic self-interest (i.e., against redistribution), while the rich are uniformly against redistribution. This corresponds to the left graph in Figure 1. For those with low identification-i.e., those who do not care about the welfare of others in the polity at large-the income effect is negative, due to narrow self-interest; however, for those with high identification, the income effect is less negative, and possibly zero. Accordingly, the predicted interaction between identification and income position is positive.

Second, Rueda and Stegmueller (2019, pp.139-140) argue that the poor are uniformly pro-redistribution, while the preferences of the rich depend on the homogeneity of a nation or federation: Only in homogeneous groups (e.g., in terms of ethnicity) will the rich afford themselves to be altruistic (see also Alt and Iversen (2017)). This is summarized by the middle graph in Figure 1. High identification now makes poor and rich similarly pro-redistribution. Even though the prediction from this model differ in terms of levels, marginal effects and their differences are actually the same as in the first model. Accordingly, here too the predicted interaction is positive.

Third, the model in Holm (2016) combines both predictions: Identification with the EU will lead poor citizens to oppose redistribution, against their narrowly defined selfinterest, while this very same identification is the driver of richer citizens' willingness to give. This is because if the mechanism of "targeted altruism" is taken seriously, the poor who care about others in the polity may refuse to accept transfers from these others. Therefore, for a person with high European identification, an increase in income leads to more support for redistribution. For a person with low identification, it leads to less support. Here too, the interaction between identification and income is positive.

Taking together existing empirical findings and theoretical arguments leads to a

Redistribution preferences

-- - High identification
Low identification
Figure 1: Predictions on the relationship between relative income position, national/EU identification, and redistribution preference. Left: Only the poor act against their narrow self-interest, if they have high identification. Middle: Only the rich act against their narrow self-interest, if they have high identification. Right: Identification reverses the effect of income position on preferences.
series of hypotheses. First, the consensus in the empirical literature on EU redistribution preferences is that individual economic status does not matter, which we put to an experimental test. Second, there is observational and some experimental evidence on the importance of sociotropic considerations (Bechtel, Hainmueller and Margalit 2014), which we put to an experimental test in multiple countries. The poorer one perceives one's member state to be, the more supportive of EU-wide redistribution one becomes. Lastly, the general literature on redistribution preferences predicts positive interactions between relative position and identity: Identification with Europe (or immigration support) attenuates or even makes positive the otherwise negative relationship between perceived income position and demand for redistribution within the EU (or the nation).

## 3 Experimental Design and Data Collection

We ran a survey experiment in 12 EU member states in November and December 2020. Details about the survey design can be found in the Appendix. Our sample includes Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Poland, Spain, and Sweden. These countries account for about $80 \%$ of the EU's population and vary significantly in terms of their average income. We recruited 1500 respondents from each country using the access panel of a commercial provider. This yields a planned sample size of 18,000 . We employ quota sampling based on age, gender, and region.

In the survey, we first asked respondents standard demographic questions, including about their net household income. We used this information to estimate respondents' position in their national or the EU-wide income distribution, based on data provided by Eurostat (Income and Living Conditions 2020). We then asked respondents to report their own assessment of where in the income distribution they are located. We also asked all respondents to estimate the rank of their member state within the EU in terms of GDP per capita.

Respondents then received at most one information treatment. Regarding their individual position in the income distribution, the treatment reads: "For your information: Using data from the European Statistical Office, we have estimated that X\% of households in (NATION / the European Union) have an income that is lower than your household income." The member state information treatment reads, "Based on data from the European Statistical Office, NATION is in position Z in terms of GDP per inhabitant, where 1 is highest and 27 is lowest." All information treatments are accompanied by a graph showing a scale from 0 to 90 (or 1 to 27 ), with a clear indication of the estimated position of the respondent or his/her nation (see Appendix).

We then elicited attitudes towards redistribution:"The (NATIONAL government / the EU) should reduce income differences between rich and poor citizens" and "The EU should reduce the income gap between poor and rich countries in Europe." We then ask about more concrete redistributive European policy proposals, including "Coronabonds" as well as a hypothetical EU-wide, income-progressive unemployment insurance scheme.

Finally, we include a behavioral outcome that mirrors nation- or EU-wide individual-level redistribution. Respondents participated in a lottery for a total of 100 Euros and could choose to donate between 0 and 10 of their lottery tickets to respondents that belonged to the poorest $20 \%$ in their country or the EU.

Individuals can underestimate, overestimate, or correctly estimate their individual or member state positions. We define individual income position beliefs as unbiased when they are within one income group from our estimated true position (Karadja, Mollerstrom and Seim 2017). Member state position assessments are defined to be unbiased when they are within two steps from the true rank. It is important to interact the information treatment with prior beliefs (Karadja, Mollerstrom and Seim 2017; Cruces, Perez-Truglia and Tetaz 2013) because the treatment should move preferences depending on pre-existing beliefs. In each country, we randomized $30 \%$ of the respondents into the "national income position" condition and the other $70 \%$ into the "European income position" condition. Among all respondents in the national condition, we randomized the national-level information treatment. To maximize statistical power, in the European condition, all respondents that gave unbiased estimates were put into the control group. Among the others, we randomize them to either the individual or the member state position treatment (but not both). This minimized the number of respondents who were unbiased and still received an information treatment.

We estimate effects using linear models and heteroskedasticity-robust standard er-
rors, using estimatr (Blair et al. N.d.). Throughout, we graphically present point estimates and $95 \%$ confidence intervals. Control variables include gender, age (squared), number of children, income (in PPPs, squared), income change over the past year, perceived fairness of income, left-right placement, belief in effort versus luck, attitudes towards immigration, and dummies for the four national/European identity configurations (minus a reference category). For our non-experimental results, we compute average marginal and interaction effects since we are using squared terms of income or perceived position. Full regression results can be found in the Appendix.

All analyses were pre-registered (except where explicitly mentioned). We document minor deviations from the pre-analysis plan in the Appendix.

## 4 Results

We start by inspecting biases in perceptions. In the Appendix, we show that respondents are biased towards the middle, with respect to their position in both the national and in the European income distribution. This replicates earlier findings (Cruces, Perez-Truglia and Tetaz 2013; Fernández-Albertos and Kuo 2018). Nonetheless, we still find a clear positive gradient: On average, a higher actual position correlates with a higher estimated position (a linear regression yields $\beta \approx 0.22$ ). With respect to the relative GDP position of one's nation, we see a similar pattern of bias towards the middle; however, the relationship between average estimates and actual positions is much tighter $(\beta \approx 0.63)$. This can be explained by a wisdom-of-the-crowds effect: The GDP rank estimates are each averages of 1,500 assessments that target only one quantity (the actual GDP rank of the country), whereas the individual income position estimates all target a different quantity (the income position of a single respondent). Finally, we find that respondents are overall evenly distributed among the three bias
categories across outcomes: approximately one-third each exhibit positive or negative bias or are unbiased.

We now discuss our non-experimental findings. Figure 2 shows the effects of actual income (in 10,000 EUR) and perceived position in the income distribution on redistribution preferences and donation behavior, controlling for a rich set of control variables (results without controls, which are overall very similar, are in the Appendix). For preferences on both the national and European level, actual income has a consistently negative association, as predicted by narrow self-interest. Finally, we find that both income and perceived position are correlated with higher donations. However, for actual income, we find nonlinearities such that donation behavior is regressive (i.e., proportionally speaking, richer individuals donate less than poorer individuals). We therefore regard this result as not necessarily contradictory with the results on stated preferences for redistribution. Overall, however, it may also be that differences across these outcomes reflect a preference for redistribution through non-state channels, e.g., due to efficiency or corruption concerns.

In general, these point estimates are very small. In the European condition, an increase in income by $10,000 \mathrm{EUR}$ is associated with an about 0.02 standard deviations decrease in redistribution preferences.

Figure 3 shows the effects of the identity variables. Cosmopolitanism, but especially immigration support positively and robustly correlates with redistribution preferences. In the European condition, the effect size of immigration support is a lot larger than that of cosmopolitanism, though still small overall. A one standard deviation increase in immigration support is associated with a 0.1 standard deviation increase in redistribution preferences (cosmopolitanism: 0.03). European/National identity variables, on the other hand, do not correlate significantly with redistribution preferences. When it comes to donation behavior, here too immigration support is robustly associated with
more donations, while cosmopolitanism is associated with fewer donations.


Figure 2: Effects (point estimates and $95 \%$ confidence intervals) of household income and perceived position on redistribution preferences and behavior. Y-axis depicts conditions (EU or national) as well as independent variables (household income or perceived position).

Finally, Figure 4 shows average interaction effects between actual income (black dots) and perceived position (white dots) and various identity variables. In the European condition, cosmopolitanism negatively moderates the effect of perceived position on preferences and behavior, contra our predictions. However, immigration support positively moderates the effect of income on donations in the national condition, as


Figure 3: Effects of identity variables on redistribution preferences and behavior. Y-axis depicts conditions (EU or national) as well as independent variables (national, national-European, European-national identity, immigration support, cosmopolitanism).
predicted. It also positively moderates the effects of income on preferences and donations as well as of perceived position on preferences in the European condition. Throughout, effect sizes are very small. Lastly, in the European condition, having a more national identity negatively moderates the effect of income on donations, as predicted: For those who identify more with their nation than with Europe, a higher income is associated with less donations. In sum, immigration support, but not cosmopolitanism, fairly consistently (but very weakly) moderates the effects of economic variables as predicted.

We now turn to our experimental estimates. Figure 5 shows treatment effect estimates across the national/European condition, outcomes, and respondents' biases. We find mostly insignificant results. Two notable exceptions are the negative effects of the treatment in the national condition both among unbiased (which was a placebo tests) and positively biased respondents. The first implies that confirming peoples beliefs about their position in the national income distribution leads to less demand for redistribution. This complicates the interpretation of all other effects, because it suggests that just re-emphasizing prior beliefs, without telling people any news, elicits a negative response. Accordingly, this could be dubbed a framing effect. The second effect in the "positive bias" group is contrary to all predictions, but may be due to the framing effect.

Figure 6 shows estimates of the effect of providing information of the true relative GDP per capita rank to respondents. The outcome here is whether people demand more redistribution between countries. We find no significant effects. Lastly, Figure 7 reports interaction effects between the information treatments and immigration support (national) and having an exclusively national identity (European condition). Here, in contrast to the observational findings, we find no significant interactions. Finally, in exploratory analyses reported in the Appendix, we estimate all treatment effects and


Figure 4: Interaction effects of identity variables with actual income and perceived position on redistribution preferences and behavior. X-axis depicts conditions (EU or national), main variable (income or perceived position) as well as moderator (identity) variables (national, national-European, European-national identity, immigration support, cosmopolitanism).


Figure 5: Effects of information on respondents' individual income position on various redistribution preferences and donation behavior. X-axis depicts outcomes. First (leftmost) panel: Effects in the national condition among respondents who were unbiased. Second panel: Effects among respondents that have a higher relative income than perceived, in both the national and the European condition. Third panel: Effects among respondents that have a lower relative income than perceived, in both the national and the European condition.
interactions separately by country; we find very few significant effects (to be expected given the large number of hypothesis tests) that are not consistent across countries, outcomes, and subgroups.


Figure 6: Effects of information on respondents' member states GDP per capita rank on various redistribution preferences and donation behavior. X-axis depicts outcomes. First panel: Effects among respondents that underestimated their nation's GDP rank. Second panel: Effects among respondents that overestimated their nation's GDP rank.

One reason for the mostly non-significant treatment effects could be that the treatments failed to impact on beliefs. In an exploratory analysis, we used GPT-4 to classify comments that respondents could give at the end of the survey into whether they appear to be related to the information treatment (see Appendix). Qualitatively, we find evidence of both belief changes as well as refusal to do so: "Really interesting and a real eye opener of a survey", "it was very interesting to find out where our household income sits in comparison to others", but also "my income may put [me] in the top 30 but the tax I pay and the cost of living [...] puts me way down [...] top $30 \%$ don't


Figure 7: Interaction effects of information on respondents' individual income position with immigration support (national condition) or having an exclusively national identity (European condition), on various redistribution preferences and donation behavior. X-axis depicts outcomes. First panel: Effects among respondents that have a higher relative income than perceived, in both the national and the European condition. Second panel: Effects among respondents that have a lower relative income than perceived, in both the national and the European condition.
be ridiculous". ${ }^{1}$ Quantitatively, we find that the information treatments increase the probability of commenting about the treatment by about 5 to 7 percentage points, which seems sizable given the overall comment probability of $13 \%$.

## 5 Conclusion

Our findings should lead to a limited re-appreciation of the role of individual economic status in understanding preferences for redistribution within the EU. Possibly, their role is only correlational, since for the non-experimental findings we cannot rule out unobserved confounding. Certainly, the effect sizes are small. However, this also holds true for the main effects of the identity variables. And as in our design, most other studies of EU redistribution preferences that we are aware of do not experimentally manipulate identity or ideology variables. As such, there appear to be no firm answers to the question of what drives redistribution preferences. Economic effects are at most small, while inferences on the role of identity variables are possibly biased.

In a meta-analysis of information treatments and redistribution preferences, Ciani, Fréget and Manfredi (2021) find that information on individual positions does not affect preferences, while information on overall inequality (picking up on sociotropic concerns) does, but only weakly so. This is consistent with our experimental findings. Additionally, they find some evidence for publication bias. In sum, scholars interested in studying the role of economic variables and perceptions need to further develop experimental treatments. Our theoretical framework highlights that it is worthwhile to incorporate both narrowly self-interested as well as altruistic concerns and to consider their interaction. A natural next step would be to incorporate the processing of elite messaging and how it may interact with such factors (Cavaillé and Neundorf 2022).

[^1]
## Competing Interests

Competing interests: The author(s) declare none.

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## Online Appendix

# "Income, Identity, and Redistribution: Evidence from the European Union" 

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## A Content of Survey

We here reproduce essential items from the English (Irish) version of the survey.

## A. 1 Introduction

Welcome to this survey by [redacted] In the following, we are interested in your opinions and assesments of the current social situation in Ireland and Europe. There are no wrong answers. Please answer truthfully. This is the only way we can get a realistic picture of the opinions of the population. [Redacted] does not store any IP addresses and only has access to the information that you voluntarily provide to us over the next 10 minutes. The data are used exclusively for scientific purposes and are processed in such a way that no conclusions can be drawn about individual persons. If the questionnaire is answered thoroughly and conscientiously, there will also be a lottery for extra payouts of Points at the end of the questionnaire.

## A. 2 Income Measurement

Think of the income after taxes and deductions ("net" income) that members of your household received in 2019. This includes income from employment, financial investments and social transfers (for example pension payments and unemployment benefits). A household is made up of all people who live together and share expenses. Taken together: What was the net income of your household? You can report it as income per month or as total annual income. If you don't know for sure, please provide an estimate. Your information is only used for scientific purposes and is processed in such a way that no conclusions can be drawn about individual persons. My household net income was ...

## A. 3 Income Change

Has your household income changed since one year ago?
Greatly reduced / Reduce / Roughly the same / Increased / Greatly Increased

## A. 4 Fair Income

Would you say your net household income is unfairly low, fair, or unfairly high?
Unfairly low (1) ... fair pay (5) ... unfairly high (9)

## A. 5 Perceived Position

People have different incomes: some are relatively rich, others relatively poor. What do you think: What percentage of households [in the EU / in Ireland) have an income that is lower than yours?

## A. 6 Perceived GDP Rank

European countries have different levels of prosperity. A well-known measure for this is the gross domestic product (GDP) per capita (corrected for different purchasing powers). The richest country in this regard - number 1 - is Luxembourg. What do you think: where is Ireland's GDP per capita ranked within all EU countries?

1 - the richest country - Luxembourg ... 27 - the poorest country.

## A. 7 Left-Right Placement

In political matters people talk of "the left" and "the right". How would you place your views on this scale? 1-Left ... 10 - Right.

## A. 8 Effort vs. Luck

What do you think: Is it mainly effort or luck that matters for how well a person manages economically in life?

1-Only luck ... 10 - Only effort.

## A. 9 Immigration Support

What do you think: Is Ireland made a worse or a better place to live by people coming to live here from other countries? 0 - Worse place to live ... 10 - Better place to live

## A. 10 Cosmopolitanism

How strongly do you agree or disagree with the following statement? "Although the media often reports about national and international events and developments, this news is seldom as interesting as the things that happen directly in our own community and neighborhood." Strongly disagree / Somewhat disagree / Neither nor / Somewhat agree / Strongly agree

## A. 11 National / European Identity

Do you see yourself as...?
Irish only / Irish and European / European and Irish / European only

## A. 12 Income Information Treatment

For your information: Using data from the European Statistical Office, we have estimated that X \% of households [in Ireland / in the EU ] have an income that is lower than your household income.


Figure A1: Example of graphic that accompanied individual income position information treatment.

## A. 13 Member State GDP Information Treatment

For your information: According to the European Statistical Office, Ireland ranks 2nd in terms of GDP per capita, with 1 being the richest country and 27 being the poorest.

Ireland's Position:


Figure A2: Example of graphic that accompanied GDP rank information treatment.

## A. 14 Government Should Reduce Inequality

Do you agree with the following statement? "The Irish government should reduce the income gap between poor and rich citizens in Ireland."

1 - Do not agree at all ... 7 - Fully agree.

## A. 15 EU Should Reduce Inequality Between Citizens

Do you agree with the following statement? "The European Union should reduce the income gap between poor and rich citizens in Europe."

1 - Do not agree at all ... 7 - Fully agree.

## A. 16 EU Should Reduce Inequality Between Countries

Do you agree with the following statement? "The European Union should reduce the income gap between poor and rich countries in Europe."

1 - Do not agree at all ... 7 - Fully agree.

## A. 17 Corona Bonds

In July 2020, the heads of state and government of the European Union decided that the EU should take on debt to combat the economic consequences of the Corona crisis ("Corona bonds"). This money will be directed to the countries hardest hit by the crisis in order to finance short-time working programs, among other things. Shorttime work means that employees in companies in economic distress work less and the government of the country pays part of their wages. The recipient countries have to repay the money from the corona bonds to the EU after a while. Do you support the introduction of such a system?

1 - Fully against it ... 7 - Fully support it.

## A. 18 European Solidarity Fund

Now imagine the following situation. To combat future crises, the European Union is introducing a European solidarity fund. This money will only be used to finance a European unemployment insurance scheme. The insurance ensures a minimum level
of unemployment benefit. The individual member states can go beyond this level with their own funds. The fund is financed with a new tax: $1 \%$ on the gross annual income of citizens who are among the richest $20 \%$ in the EU. If you are not among the richest $20 \%$ of your income, you would have to pay 0 euros per year. If you are among the richest $20 \%$ of your income, you would have to pay $1 \%$ of your gross income per year. Would you support the introduction of such a system?

1 - Fully against it ... 7 - Fully support it.

## A. 19 Lottery Ticket Donation

You are now participating in a lottery for extra payments of Points for your survey participation! You have 10 tickets for this lottery. Each ticket has a chance to win one of 10 payouts worth 10 Euros. In total, you can win up to 100 Euros in the form of Points. The payment will be made separately over the next few weeks. Before you can enter, however, you need to determine if you want to give some of your lottery tickets to people on low incomes. How many of your tickets do you want to give?

0 Tickets ... 10 Tickets.

## A. 20 Comments

Thank you for your participation! Do you have any suggestions or feedback for this survey?

## B Deviations from Pre-Analysis Plan

We found that some respondents reported unrealistically high household incomes above one million Euros. These also lead to estimation problems as the squared income term became collinear with the country fixed effects. We therefore excluded the 18 out of

18,000 respondents that represented the top $0.1 \%$ percent in terms of household income in our sample.

## C Biases: Descriptive Plots



Figure A3: Relationship between actual position (x-axis) of individuals and their estimated position (y-axis) in the European (top) and national (bottom) income distributions. Circle sizes are proportional to the share of respondents with a given position/estimate combination. Point estimates and $95 \%$ confidence intervals of average estimates, conditional on actual position, are depicted by black dots and lines. The dashed diagonal line corresponds to perfect equality of average actual and estimated positions.


Figure A4: Relationship between actual rank of sampled EU member states in terms of GDP per capita (x-axis) and respondents' average estimates of their nation's rank (yaxis). Point estimates and $95 \%$ confidence intervals of average estimates, conditional on actual rank. The dashed diagonal line corresponds to perfect equality of average actual and estimated ranks.

## D Regression Results: Descriptives



| Reduce Inequality |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income Position | $\begin{aligned} & \hline-0.01 \\ & (0.01) \end{aligned}$ | $\begin{gathered} \hline 0.00 \\ (0.01) \end{gathered}$ | $\begin{gathered} \hline 0.01 \\ (0.01) \end{gathered}$ | $\begin{gathered} \hline 0.00 \\ (0.01) \end{gathered}$ | $\begin{gathered} \hline 0.00 \\ (0.01) \end{gathered}$ | $\begin{gathered} \hline 0.00 \\ (0.01) \end{gathered}$ | $\begin{aligned} & \hline 0.05^{*} \\ & (0.02) \end{aligned}$ | $\begin{gathered} 0.02 \\ (0.02) \end{gathered}$ | $\begin{aligned} & \hline-0.01 \\ & (0.05) \end{aligned}$ |
| Income Position ${ }^{2}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{gathered} -0.00^{* *} \\ (0.00) \end{gathered}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ |
| Cosmopolitanism |  |  | $\begin{gathered} 0.06 \\ (0.03) \end{gathered}$ |  |  | $\begin{aligned} & 0.07^{*} \\ & (0.03) \end{aligned}$ | $\begin{gathered} 0.27 \\ (0.14) \end{gathered}$ |  |  |
| Immigration Support |  |  |  | $\begin{gathered} 0.07^{* * *} \\ (0.01) \end{gathered}$ |  | $\begin{gathered} 0.07^{* * * *} \\ (0.02) \end{gathered}$ |  | $\begin{gathered} 0.11 \\ (0.06) \end{gathered}$ |  |
| EN Identity |  |  |  |  | $\begin{gathered} 0.25 \\ (0.22) \end{gathered}$ | $\begin{gathered} 0.21 \\ (0.21) \end{gathered}$ |  |  | $\begin{gathered} 0.33 \\ (1.00) \end{gathered}$ |
| Natl. Identity |  |  |  |  | $\begin{gathered} 0.06 \\ (0.21) \end{gathered}$ | $\begin{gathered} 0.08 \\ (0.21) \end{gathered}$ |  |  | $\begin{aligned} & -0.29 \\ & (0.95) \end{aligned}$ |
| NE Identity |  |  |  |  | $\begin{gathered} 0.10 \\ (0.21) \end{gathered}$ | $\begin{gathered} 0.07 \\ (0.20) \end{gathered}$ |  |  | $\begin{gathered} 0.34 \\ (0.92) \end{gathered}$ |
| Immigration x Position |  |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ |  |
| Immigration $\times$ Position ${ }^{2}$ |  |  |  |  |  |  |  | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ |  |
| Cosmopolitan x Position |  |  |  |  |  |  | $\begin{gathered} -0.02^{*} \\ (0.01) \end{gathered}$ |  |  |
| Cosmopolitan $\times$ Position ${ }^{2}$ |  |  |  |  |  |  | $\begin{aligned} & 0.00^{* *} \\ & (0.00) \end{aligned}$ |  |  |
| EN Id. x Position |  |  |  |  |  |  |  |  | $\begin{gathered} 0.00 \\ (0.05) \end{gathered}$ |
| EN Id. x Position ${ }^{2}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ |
| Natl. Id. x Position |  |  |  |  |  |  |  |  | $\begin{gathered} 0.03 \\ (0.05) \end{gathered}$ |
| Natl. Id. x Position ${ }^{2}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ |
| NE Id. x Position |  |  |  |  |  |  |  |  | $\begin{gathered} 0.00 \\ (0.05) \end{gathered}$ |
| NE Id. x Position ${ }^{2}$ |  |  |  |  |  |  |  |  | $\begin{array}{r} -0.00 \\ (0.00) \\ \hline \end{array}$ |
| Controls | Country FE | Full | Full | Full | Full | Full | Full | Full | Full |
| $\mathrm{R}^{2}$ | 0.09 | 0.17 | 0.17 | 0.17 | 0.17 | 0.18 | 0.17 | 0.17 | 0.17 |
| Num. obs. | 2631 | 2558 | 2549 | 2555 | 2553 | 2541 | 2549 | 2555 | 2553 |

Table A2: Regressions of redistribution preferences on perceived position in the national condition.

| Donated Tickets |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income Position | $\begin{gathered} 0.05^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.04^{* *} \\ (0.01) \end{gathered}$ | $\begin{gathered} \hline 0.04^{* *} \\ (0.01) \end{gathered}$ | $\begin{aligned} & \hline 0.04^{*} \\ & (0.01) \end{aligned}$ | $\begin{gathered} 0.04^{* *} \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.04^{* *} \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.02 \\ (0.04) \end{gathered}$ | $\begin{gathered} 0.01 \\ (0.03) \end{gathered}$ | $\begin{gathered} \hline-0.01 \\ (0.10) \end{gathered}$ |
| Income Position ${ }^{2}$ | $\begin{gathered} -0.00^{*} \\ (0.00) \end{gathered}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ |
| Cosmopolitanism |  |  | $\begin{gathered} -0.22^{* *} \\ (0.07) \end{gathered}$ |  |  | $\begin{gathered} -0.17^{*} \\ (0.07) \end{gathered}$ | $\begin{aligned} & -0.17 \\ & (0.30) \end{aligned}$ |  |  |
| Immigration Support |  |  |  | $\begin{gathered} 0.20^{* * *} \\ (0.03) \end{gathered}$ |  | $\begin{gathered} 0.17^{* * *} \\ (0.03) \end{gathered}$ |  | $\begin{gathered} 0.04 \\ (0.10) \end{gathered}$ |  |
| EN Identity |  |  |  |  | $\begin{aligned} & -0.05 \\ & (0.44) \end{aligned}$ | $\begin{aligned} & -0.20 \\ & (0.45) \end{aligned}$ |  |  | $\begin{array}{r} -2.25 \\ (1.96) \end{array}$ |
| Natl. Identity |  |  |  |  | $\begin{gathered} -1.08^{* *} \\ (0.42) \end{gathered}$ | $\begin{gathered} -0.90^{*} \\ (0.42) \end{gathered}$ |  |  | $\begin{aligned} & -1.65 \\ & (1.87) \end{aligned}$ |
| NE Identity |  |  |  |  | $\begin{aligned} & -0.32 \\ & (0.41) \end{aligned}$ | $\begin{aligned} & -0.33 \\ & (0.41) \end{aligned}$ |  |  | $\begin{gathered} -0.94 \\ (1.85) \end{gathered}$ |
| Immigration x Position |  |  |  |  |  |  |  | $\begin{gathered} 0.01 \\ (0.01) \end{gathered}$ |  |
| Immigration $\times$ Position ${ }^{2}$ |  |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ |  |
| Cosmopolitan x Position |  |  |  |  |  |  | $\begin{gathered} 0.01 \\ (0.01) \end{gathered}$ |  |  |
| Cosmopolitan x Position ${ }^{2}$ |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ |  |  |
| EN Id. x Position |  |  |  |  |  |  |  |  | $\begin{gathered} 0.09 \\ (0.11) \end{gathered}$ |
| EN Id. x Position ${ }^{2}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ |
| Natl. Id. x Position |  |  |  |  |  |  |  |  | $\begin{gathered} 0.05 \\ (0.10) \end{gathered}$ |
| Natl. Id. x Position ${ }^{2}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ |
| NE Id. x Position |  |  |  |  |  |  |  |  | $\begin{gathered} 0.04 \\ (0.10) \end{gathered}$ |
| NE Id. x Position ${ }^{2}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & -0.00 \\ & (0.00) \\ & \hline \end{aligned}$ |
| Controls | Country FE | Full | Full | Full | Full | Full | Full | Full | Full |
| $\mathrm{R}^{2}$ | 0.04 | 0.07 | 0.08 | 0.09 | 0.08 | 0.10 | 0.08 | 0.09 | 0.09 |
| Num. obs. | 2622 | 2548 | 2539 | 2545 | 2543 | 2531 | 2539 | 2545 | 2543 |

Table A4: Regressions of redistribution behavior on perceived position in the national condition.

E Regression Results: Treatment Effects

Table A5: Regressions of outcomes on information treatment in the national condition.

|  | Reduce Inequality | Reduce Inequality | Corona Bonds | Corona Bonds | Solidarity Fund | Solidarity Fund | Donated Tickets | Donated Tickets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Information Treatment | $\begin{aligned} & -0.05 \\ & \hline(0.06) \end{aligned}$ | $\begin{aligned} & -0.07 \\ & (0.05) \end{aligned}$ | $\begin{gathered} 0.05 \\ (0.05) \\ \hline \end{gathered}$ | $\begin{aligned} & -0.02 \\ & (0.06) \end{aligned}$ | $\begin{aligned} & -0.11 \\ & (0.06) \\ & \hline \end{aligned}$ | $\begin{gathered} 0.05 \\ \hline 0.06) \\ \hline \end{gathered}$ | $\begin{gathered} 0.21 \\ (0.12) \\ \hline \end{gathered}$ | $\begin{gathered} 0.10 \\ (0.12) \\ \hline \end{gathered}$ |
| Bias | Negative | Positive | Negative | Positive | Negative | Positive | Negative | Positive |
| Controls | Full | Full | Full | Full | Full | Full | Full | Full |
| $\mathrm{R}^{2}$ | 0.18 | 0.19 | 0.08 | 0.04 | 0.14 | 0.09 | 0.07 | 0.05 |
| Num. obs. | 3084 | 2940 | 3072 | 2933 | 3070 | 2935 | 3072 | 2929 |
| ${ }^{* * *} p<0.001 ;{ }^{* *} p<0.01 ;{ }^{*} p<0.05$ |  |  |  |  |  |  |  |  |

Table A6: Regressions of outcomes on information treatment in the European condition.

|  | Reduce Inequality | Reduce Inequality | Corona Bonds | Corona Bonds | Solidarity Fund | Solidarity Fund | Donated Tickets | Donated Tickets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Information Treatment | $\begin{aligned} & -0.04 \\ & (0.06) \end{aligned}$ | $\begin{aligned} & -0.06 \\ & (0.06) \end{aligned}$ | $\begin{gathered} 0.03 \\ (0.06) \\ \hline \end{gathered}$ | $\begin{gathered} 0.03 \\ (0.06) \\ \hline \end{gathered}$ | $\begin{aligned} & -0.09 \\ & (0.06) \\ & \hline \end{aligned}$ | $\begin{gathered} 0.11 \\ \hline(0.06) \\ \hline \end{gathered}$ | $\begin{gathered} 0.17 \\ (0.13) \\ \hline \end{gathered}$ | $\begin{gathered} 0.03 \\ \hline(0.11) \\ \hline \end{gathered}$ |
| Bias | Negative | Positive | Negative | Positive | Negative | Positive | Negative | Positive |
| Controls | Full | Full | Full | Full | Full | Full | Full | Full |
| $\mathrm{R}^{2}$ | 0.22 | 0.15 | 0.12 | 0.05 | 0.17 | 0.08 | 0.07 | 0.03 |
| Num. obs. | 2743 | 2925 | 2734 | 2915 | 2733 | 2911 | 2730 | 2911 |
| ${ }^{* * *} p<0.001 ;{ }^{* *} p<0.01 ;{ }^{*} p<0.05$ |  |  |  |  |  |  |  |  |

Table A7: Regressions of redistribution preferences on GDP rank information treatment.

|  | Reduce Inequality | Reduce Inequality | Donated Tickets | Donated Tickets |
| :--- | :---: | :---: | :---: | :---: |
| Information Treatment | -0.20 | -0.35 | 0.59 | -0.25 |
|  | $(0.18)$ | $(0.20)$ | $(0.33)$ | $(0.34)$ |
| Treatment x Immigration | 0.05 | 0.03 | $-0.14^{*}$ | 0.10 |
|  | $(0.03)$ | $(0.04)$ | $(0.06)$ | $(0.07)$ |
| Bias | Negative | Positive | Negative | Positive |
| Controls | Full | Full | Full | Full |
| R $^{2}$ | 0.22 | 0.16 | 0.10 | 0.09 |
| Num. obs. | 1893 | 1390 | 1883 | 1383 |
| ${ }^{* * *} p<0.001 \cdot{ }^{* *} p<0.01 *^{*} p<0.05$ |  |  |  |  |

${ }^{* * *} p<0.001 ;{ }^{* *} p<0.01 ;{ }^{*} p<0.05$
Table A8: Regressions of outcomes on information treatment in the national condition - interaction effects.

F Regression Results: Treatment Effects by Country

Table A10: Regressions of outcomes on information treatment in the national condition, by country.

|  | Reduce Inequality | Reduce Inequality | Corona Bonds | Corona Bonds | Solidarity Fund | Solidarity Fund | Donated Tickets | Donated Tickets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Treatment BG | $\begin{gathered} -0.04 \\ (0.19) \end{gathered}$ | $\begin{aligned} & -0.41 \\ & (0.24) \end{aligned}$ | $\begin{gathered} 0.11 \\ (0.19) \end{gathered}$ | $\begin{aligned} & -0.10 \\ & (0.25) \end{aligned}$ | $\begin{gathered} 0.13 \\ (0.20) \end{gathered}$ | $\begin{aligned} & -0.20 \\ & (0.26) \end{aligned}$ | $\begin{aligned} & -0.30 \\ & (0.35) \end{aligned}$ | $\begin{gathered} 0.85 \\ (0.50) \end{gathered}$ |
| Treatment CZ | ${ }_{-0.32}$ | -0.27 | 0.01 | ${ }_{-0.05}$ | 0.11 | 0.05 | 0.27 | 0.41 |
|  | (0.21) | (0.18) | (0.21) | (0.18) | (0.24) | (0.20) | (0.49) | (0.45) |
| Treatment DA | -0.09 | -0.61** | 0.08 | 0.00 | 0.06 | 0.22 | 0.69 | 0.62 |
|  | ${ }_{\text {c }}^{(0.15)}$ | (0.24) | ${ }^{(0.14)}$ | ${ }_{0}^{(0.21)}$ | ${ }^{(0.18)}$ | ${ }_{(0.27)}^{(0.27)}$ | ${ }_{(0.41)}^{(0.43)}$ | ${ }_{\text {c }}^{(0.58)}$ |
| Treatment DE | $\begin{gathered} 0.37 \\ (0.19) \end{gathered}$ | $\begin{gathered} -0.28 \\ (0.21) \end{gathered}$ | $\begin{gathered} -0.17 \\ (0.18) \end{gathered}$ | $\begin{gathered} 0.08 \\ (0.24) \end{gathered}$ | $\begin{aligned} & -0.25 \\ & (0.22) \end{aligned}$ | $\begin{aligned} & 0.12 \\ & (0.27) \end{aligned}$ | $\begin{gathered} 0.43 \\ (0.33) \end{gathered}$ | $\underset{(0.91}{-0.94}$ |
| Treatment EL | -0.11 | -0.11 | ${ }_{-0.03}$ | 0.21 | $-0.30$ | 0.09 | -0.54 | -0.26 |
|  | (0.20) | (0.11) | (0.29) | (0.17) | (0.25) | (0.15) | (0.64) | (0.32) |
| Treatment IRE | $\begin{gathered} 0.26 \\ (0.17) \end{gathered}$ | $\begin{aligned} & 0.49^{*} \\ & (0.22) \end{aligned}$ | $\begin{aligned} & 0.17 \\ & (0.17) \end{aligned}$ | $\begin{aligned} & -0.30 \\ & (0.19) \end{aligned}$ | $\begin{aligned} & -0.12 \\ & (0.20) \end{aligned}$ | $\frac{-0.04}{(0.24)}$ | $\begin{aligned} & -0.10 \\ & (0.42) \end{aligned}$ | $\begin{gathered} 0.24 \\ (0.49) \end{gathered}$ |
| Treatment ES | -0.16 | 0.29 | 0.30 | 0.10 | -0.13 | 0.04 |  |  |
|  | (0.20) | (0.18) | (0.20) | (0.16) | (0.20)* | (0.18) | (0.43) | (0.33) |
| Treatment FR | -0.20 | ${ }^{-0.06}$ | -0.12 | -0.02 | ${ }_{-}^{-0.69 * *}$ | 0.23 | -0.29 | $0.60$ |
| Treatment IT | $(0.20)$ 0.07 | $(0.19)$ -0.27 | $(0.19)$ -0.04 | $(0.20)$ -0.08 | $(0.23)$ -0.31 | ${ }_{-0.13}^{(0.22)}$ | ${ }_{0}^{(0.42)}$ | ${ }^{(0.41)}$ |
|  | (0.22) | (0.16) | (0.23) | (0.17) | (0.23) | (0.17) | (0.38) | (0.33) |
| Treatment NL | $\begin{aligned} & -0.34 \\ & (0.20) \end{aligned}$ | $\begin{gathered} 0.26 \\ (0.20) \end{gathered}$ | $\begin{gathered} 0.05 \\ (0.18) \end{gathered}$ | $\begin{gathered} -0.06^{*} \\ (0.17) \end{gathered}$ | $\begin{aligned} & -0.04 \\ & (0.21) \end{aligned}$ | $\begin{gathered} 0.06 \\ (0.21) \end{gathered}$ | $\begin{gathered} 0.27 \\ (0.42) \end{gathered}$ | $\begin{aligned} & -0.49 \\ & (0.40) \end{aligned}$ |
| Treatment PL | -0.05 | -0.19 | 0.29 | 0.09 | 0.08 | 0.15 | 0.46 | ${ }_{-0.22}$ |
|  | (0.22) | (0.21) | (0.19) | (0.20) | (0.24) | (0.23) | (0.37) | (0.35) |
| Treatment SV | $\begin{aligned} & -0.08 \\ & (0.18) \end{aligned}$ | $\begin{aligned} & 0.16 \\ & (0.21) \end{aligned}$ | $\begin{aligned} & -0.06 \\ & (0.17) \end{aligned}$ | $\begin{aligned} & -0.02 \\ & (0.20) \end{aligned}$ | -0.11 $(0.21)$ | $\begin{gathered} 0.02 \\ (0.24) \end{gathered}$ | $\begin{aligned} & -0.02 \\ & (0.39) \end{aligned}$ | $\begin{aligned} & -0.18 \\ & (0.46) \end{aligned}$ |
| Bias | Negative | Positive | Negative | Positive | Negative | Positive | Negative | Positive |
| Controls | Full | Full | Full | Full | Full | Full | Full | Full |
| $\mathrm{R}^{2}$ | 0.18 | 0.20 | 0.08 | 0.04 | 0.14 | ${ }_{0} 0.09$ | 0.08 | 0.06 |
| $\xrightarrow[* * * p r o b s .]{\text { Num }}$ | 3084 | 2940 | 3072 | 2933 | 3070 | 2935 | 3072 | 2929 |

Table A11: Regressions of outcomes on information treatment in the European condition, by country.

|  | Reduce Inequality | Reduce Inequality | Corona Bonds | Corona Bonds | Solidarity Fund | Solidarity Fund | Donated Tickets | Donated Tickets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Treatment BG |  | $\begin{gathered} -0.18 \\ (0.19) \end{gathered}$ |  | $\begin{gathered} -0.14 \\ (0.20) \\ \hline \end{gathered}$ |  | 0.05 $(0.21)$ |  | $-0.02$ |
| Treatment CZ | -0.11 | 0.15 | 0.05 | 0.31 | ${ }^{-0.02}$ | $0.62^{* *}$ | 0.03 | 0.28 |
|  | (0.18) | (0.20) | (0.20) | (0.20) | (0.22) | (0.22) | (0.45) | (0.48) |
| Treatment DA | $\begin{aligned} & -0.32 \\ & (0.19) \end{aligned}$ |  | $\begin{aligned} & -0.01 \\ & (0.16) \end{aligned}$ |  | $\begin{aligned} & -0.22 \\ & (0.20) \end{aligned}$ |  | $\begin{aligned} & -0.31 \\ & (0.46) \end{aligned}$ |  |
| Treatment DE | ${ }_{-0.10}$ | -0.17 | ${ }_{-0.09}$ | 0.05 | ${ }_{-0.54}$ | 0.19 | 0.81 | 0.00 |
|  | (0.35) | (0.15) | (0.38) | (0.14) | (0.43) | (0.18) | (0.62) | (0.27) |
| Treatment EL | $0.51$ | $\begin{aligned} & -0.02 \\ & (0.10) \end{aligned}$ | $\begin{gathered} 1.41 \\ (0.90) \end{gathered}$ | $\begin{aligned} & -0.09 \\ & (0.15) \end{aligned}$ | $\begin{aligned} & 1.03 \\ & (0.53) \end{aligned}$ | $0.05$ | $\begin{gathered} 0.21 \\ (1.66) \end{gathered}$ | $\begin{aligned} & -0.27 \\ & (0.29) \end{aligned}$ |
| Treatment IRE | 0.05 |  | 0.01 |  | -0.07 |  | 0.30 |  |
|  | (0.11) |  | (0.11) |  | (0.13) |  | (0.27) |  |
| Treatment ES | $\begin{gathered} 0.03 \\ (0.17) \end{gathered}$ | $\underset{(0.17)}{-0.29}$ | $\begin{gathered} 0.26 \\ (0.16) \end{gathered}$ | $\begin{gathered} -0.28 \\ (0.18) \end{gathered}$ | $\begin{gathered} 0.10 \\ (0.17) \end{gathered}$ | $\begin{gathered} -0.28 \\ (0.19) \end{gathered}$ | $\begin{gathered} 0.38 \\ (0.31) \end{gathered}$ | $\begin{gathered} -0.14 \\ (0.36) \end{gathered}$ |
| Treatment FR | 0.27 | 0.03 | -0.17 | 0.01 |  |  |  |  |
|  | (0.37) | (0.14) | (0.35) | (0.13) | (0.39) | (0.16) | (0.58) | (0.29) |
| Treatment IT | -0.01 | 0.14 $(0.20)$ |  | 0.14 $(0.20)$ | -0.12 | $\begin{aligned} & 0.22 \\ & (0.21) \end{aligned}$ | $\begin{aligned} & 0.13 \\ & (0.33) \end{aligned}$ | ${ }^{-0.02}$ |
| Treatment NL | (0.16) -0.15 | (0.20) | $(0.17)$ -0.14 | (0.20) | $(0.18)$ -0.09 | (0.21) | (0.33) |  |
| Treatment | (0.19) |  | (0.16) |  | (0.19) |  | (0.39) |  |
| Treatment PL | 0.20 | -0.12 | 0.33 | 0.18 | -0.01 | 0.06 | 1.79 | 0.09 |
|  | (0.44) | (0.14) | (0.51) | (0.14) | (0.46) | (0.15) | (0.97) | (0.25) |
| Treatment SV | $\begin{gathered} -0.05 \\ (0.18) \end{gathered}$ | $\begin{aligned} & 0.21 \\ & (0.70) \end{aligned}$ | $\begin{gathered} 0.13 \\ (0.17) \end{gathered}$ | $\begin{aligned} & 0.72 \\ & (0.57) \end{aligned}$ | $\begin{gathered} -0.18 \\ (0.20) \end{gathered}$ | $\begin{gathered} 0.31 \\ (0.75) \end{gathered}$ | $\begin{gathered} -0.36 \\ (0.39) \end{gathered}$ | $\begin{aligned} & -0.02 \\ & (1.47) \end{aligned}$ |
| Bias | Negative | Positive | Negative | Positive | Negative | Positive | Negative | Positive |
| Controls | Full | Full | Full | Full | Full | Full | Full | Full |
| $\mathrm{R}^{2}$ | 0.22 | 0.15 | 0.13 | 0.06 | 0.17 | 0.08 | 0.08 | 0.04 |
| Num. obs. | 2743 | 2925 | 2734 | 2915 | 2733 | 2911 | 2730 | 2911 |

Table A12: Regressions of redistribution preferences on GDP rank information treatment, by country.

Table A13: Regressions of outcomes on information treatment in the national condition - interaction effects, by country.

|  | Reduce Inequality | Reduce Inequality | Corona Bonds | Corona Bonds | Solidarity Fund | Solidarity Fund | Donated Tickets | Donated Tickets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Treatment x Natl. Id. BG | $-2.33^{* * *}$ | $0.83$ | $1.01$ | 1.31 $(1.14)$ | $-0.24$ |  | $-1.14$ | $\begin{aligned} & -1.16 \\ & (2.20) \end{aligned}$ |
| Treatment x Natl. Id. CZ | $\begin{gathered} (0.64) \\ 1.11 \end{gathered}$ | $\begin{gathered} (1.14) \\ 0.75 \end{gathered}$ | $\begin{gathered} (0.69) \\ 0.22 \end{gathered}$ | $(1.14)$ -0.29 | $\begin{aligned} & (0.68) \\ & -0.47 \end{aligned}$ | $\begin{gathered} (1.17) \\ 1.43 \end{gathered}$ | $\begin{aligned} & (1.14) \\ & -0.68 \end{aligned}$ | $\begin{aligned} & (2.20) \\ & -0.89 \end{aligned}$ |
|  | (0.62) | (0.81) | (0.74) | (0.63) | (0.74) | (0.76) | (1.75) | (1.68) |
| Treatment x Natl. Id. DA | $\begin{aligned} & -0.61 \\ & (0.42) \end{aligned}$ | $\begin{aligned} & -0.26 \\ & (0.79) \end{aligned}$ | $\begin{aligned} & -0.58 \\ & (0.57) \end{aligned}$ | $\begin{gathered} 1.17 \\ (0.81) \end{gathered}$ | $\begin{gathered} -0.11 \\ (0.80) \end{gathered}$ | $\begin{gathered} 0.58 \\ (0.79) \end{gathered}$ | $\begin{array}{r} -0.19 \\ (1.64) \end{array}$ | $\begin{aligned} & -1.88 \\ & (1.76) \end{aligned}$ |
| Treatment x Natl. Id. DE | 0.52 | -0.53 | -0.08 | -0.41 | 0.21 | 0.23 | -0.96 | 0.88 |
|  | (0.43) | (0.51) | (0.45) | (0.70) | (0.55) | (0.70) | (0.79) | (1.19) |
| Treatment x Natl. Id. EL | $0.15$ | $\begin{gathered} 0.15 \\ (0.31) \end{gathered}$ | $0.62$ | $0.88$ | $0.70$ | $0.76$ | $\begin{gathered} 1.96 \\ (1.42 \end{gathered}$ | $0.27$ |
| Treatment x Natl. Id. IRE | $(0.52)$ 0.20 $(0.47)$ | $\begin{array}{r}(0.31) \\ -0.20 \\ \hline\end{array}$ | (0.28) 0.27 $(0.38)$ | (0.48) 0.42 $(0.44)$ | (0.53) 0.33 $(0.63)$ | (0.46) -0.63 $(0.62)$ | (1.51 | (0.96) <br> -0.03 <br> 1.27$)$ |
|  | (0.47) | (0.55) | (0.38) | (0.44) | (0.63) | (0.62) | (1.12) | (1.27) |
| Treatment x Natl. Id. ES | $\begin{gathered} 0.77 \\ (0.42) \end{gathered}$ | $\begin{aligned} & -0.02 \\ & (0.49) \end{aligned}$ | $\begin{gathered} 0.02 \\ (0.43) \end{gathered}$ | $\begin{gathered} 0.01 \\ (0.44) \end{gathered}$ | $\begin{gathered} 0.10 \\ (0.46) \end{gathered}$ | $\begin{gathered} 0.32 \\ (0.48) \end{gathered}$ | $\begin{gathered} 0.87 \\ (0.97) \end{gathered}$ | $\begin{aligned} & -0.06 \\ & (0.91) \end{aligned}$ |
| Treatment x Natl. Id. FR | -0.18 | -0.38 | -1.08 | -0.25 | -0.55 | -0.23 | 2.32 | -0.90 |
|  | (0.70) | (0.71) | (0.56) | (0.80) | (0.67) | (0.81) | (1.61) | (1.44) |
| Treatment x Natl. Id. IT | -0.05 | 0.35 | -0.94 | -0.32 | -0.24 | -0.12 | -0.03 | 1.26 |
|  | (0.61) | (0.47) | (0.71) | (0.48) | (0.72) | (0.47) | (1.33) | (1.00) |
| Treatment x Natl. Id. NL | 0.20 | -0.46 | $-1.31^{*}$ | -0.88 | -0.45 | -0.71 | $-3.20{ }^{*}$ | -0.24 |
|  | (1.11) | (0.82) | (0.66) | (0.56) | (1.09) | (0.71) | (1.35) | (1.66) |
| Treatment x Natl. Id. PL | $-1.27{ }^{*}$ | 0.28 | $-1.04 *$ | 0.46 | -0.72 | $1.20$ | $-1.02$ | $-0.63$ |
| Treatment x Natl. Id. SV | $(0.50)$ $-1.38^{*}$ | (0.65) 0.41 | $(0.46)$ -0.71 | $(0.71)$ -0.42 | $(0.56)$ -1.03 | $\begin{gathered} (0.84) \\ -0.67 \end{gathered}$ | $\begin{gathered} (0.95) \\ -2.27 \end{gathered}$ | $(1.14)$ |
| Treatment x Natl. Id. SV | $(0.58)$ | $(0.76)$ | (0.53) | (0.67) | (0.78) | (0.76) | (1.50) | (1.38) |
| Bias | Negative | Positive | Negative | Positive | Negative | Positive | Negative | Positive |
| Controls | Full | Full | Full | Full | Full | Full | Full | Full |
| $\mathrm{R}^{2}$ | 0.19 | 0.21 | 0.09 | 0.05 | 0.15 | 0.10 | 0.09 | 0.07 |
| Num. obs. | 3084 | 2940 | 3072 | 2933 | 3070 | 2935 | 3072 | 2929 |

Table A14: Regressions of outcomes on information treatment in the European condition - interaction effects, by country.

## G Analysis of Survey Comments

We use the following prompt for the GPT-4 API:
"The following are 100 comments left by respondent at the end of a survey. Some respondents received information on their position in their nation's or the EU's income distribution (e.g., that they have a household income higher than $70 \%$ of all EU households). Other respondents received information on how rich their nation is relative to ther EU member states, in terms of GDP per capita. Return 1 if the comment mentions something related to this information. For example, the respondent could voice surprise. The respondent does not need to mention the information per se; any surprise is almost certainly related to the information provided, as there was little else of interest in the survey. Return 0 if the comment does not seem related to the information. This includes cases where the comment is just random letters. Return 100 labels, not more. Comments: [Comments] Labels:".

We used OpenAI's API, with temperature set to 0.2.


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    ${ }^{\dagger}$ Corresponding author. Department of Political Science and Centre for the ExperimentalPhilosophical Study of Discrimination (CEPDISC), Aarhus University, Denmark. julians@ps.au.dk.
    ${ }^{\ddagger}$ Sociology Department, University of Konstanz, Konstanz, Germany.
    ${ }^{\S}$ Department of Politics and Public Administration, University of Konstanz, Konstanz, Germany.
    IDepartment of Politics and Public Administration, University of Konstanz, Konstanz, Germany.

[^1]:    ${ }^{1}$ Note that we explicitly asked respondents for their net income and performed a purchase-power adjustment.

