Covid-19, trust and solidarity in the EU Pre-analysis Plan

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Abstract

1 Motivation

The Covid-19 pandemic is an unprecedented exogenous shock that has hit the European Union largely unprepared. Initial policy responses of EU member states were mostly indrawn and included measures such as intra-EU border closures and export bans for face masks and other medical protective equipment. The asymmetric health and economic affectedness of EU member states is perceived as a threat to

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the EU internal market. Some observers argue that the Covid-19 pandemic might either bind EU member states together or, conversely, put at risk previous integration steps in the EU. The aftermath of the current crisis and the future of the European project largely depend on citizens' emotional attachment to the EU and its perceived benefits.

Against this background, this paper aims at shedding light on the question how trust and solidarity among European cititzens are affected by information treatments on a) the diffential affectedness of EU member states in the current crisis, b) the economic benefit through EU trade and c) the strength of European identity. In addition, the study will analyze how policy preferences in various domains and further attitudinal outcome variables are affected by the treatments. To that end, we will conduct online surveys in nine EU member states and two non-EU countries which will enable us to investigate differential treatment effects on trust and solidarity towards compatriots as well as citizens from EU and non-EU countries.

2 Experimental strategy

The experimental component of our research design consists of the random provision of information about COVID-19 deaths per capita in respondents' home country compared to the EU as a whole, on the EU integration through trade, on the common values EU citizens share and (as a "placebo" control treatment) on the population density of respondents' home countries.

In particular, we randomly assign respondents to one of four information treatments that they receive at the beginning of the survey, right after a short question block eliciting basic demographics.

Treatment 1 (COVID-19) provides information about the cumulative COVID-19 deaths per million people in the respondent's country of residence and in the EU as a whole. Before receiving this information, respondents are asked whether they think the cumulative COVID-19 deaths per capita in their country are higher or lower than in the EU as a whole.

Treatment 2 (EU trade) provides information about the respondent's country's share of exports going to other EU countries. Again, before receiving this information, respondents are asked about their estimate of this percentage.

Treatment 3 (EU common values) provides information about the share of respondents in the Eurobarometer survey across all EU countries regarding peace, democracy, protection of human rights and equality as fundamental and highly representative of the European project. In particular, they are told that 78% of respondents in the Eurobarometer survey mentioned at least one of these values as their

top choices. Before receiving this information, respondents are asked to guess this percentage.

Treatment 4 (Neutral) is our control treatment, in which respondents are informed about a neutral fact that is not expected to influence any of their later answers in the survey. We ask them to guess their country's population density and then inform them about the correct number.

After randomly receiving one of these information treatments, participants proceed to play two games (in random order): The Trust game and the Dictator game. Each game is played between two players (Player A and Player B), and participants are told that they will randomly be matched with another survey respondent, who can either be from their own country, from another EU country or from a Non-EU country.[1] They have to take decisions for each of these three possibilities (i.e. if their counterpart is from their own country, from another EU country or from a Non-EU country, where the order of these three decisions is randomized) and as both Player A and Player B. They know that - depending on their own decisions and those of their counterpart in the game - they can earn points in the game, and that these points will later be converted to extra payment (which will be higher, the more points they earn), in addition to the baseline remuneration they get for taking the survey. After the survey is completed we randomly match participants in pairs and randomly decide which one is Player A and which one is Player B and allocate points (and thus extra payment) according to the respective decisions made by the players.

We will now proceed with a short explanation of the two games. In both games, players take decisions which determine the allocation of points between themselves and their counterpart. In the **Trust game**, Player A has to decide between Option A1, which allocates 50 points to herself and 50 points to Player B, and Option A2, which hands over the decision to Player B, who gets 200 points and can decide how much of it to keep for himself, and how much to allocate to Player A. (However, he has to keep a minimum of 50 points for himself, and can only allocate between 0 and 150 points to Player A.) By choosing Option A2, Player A thus has the possibility to increase her own payoff, but only if she trusts in Player B to allocate more than 50 points to her. Thus, we regard the choice of Option A2 by Player A as a sign of trust towards her counterpart. In the **Dictator game**, Player A gets 200 points and decides how much to keep for herself and how much to allocate to Player B. (Player B does not make any active decisions in the Dictator game.) In this game, Player A can theoretically keep all the points for herself. Any positive amount of points that she allocates to Player B can thus be interpreted as a sign of solidarity towards

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[1]We have a companion survey project running in the Non-EU countries, where we also ask participants to play the two games and can then match pairs also across the two survey projects.

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her counterpart (and the higher the amount of points, the higher is the degree of solidarity).

After playing the two games, participants move on to answer a series of questions measuring their views in various domains (see description of our outcome variables in Section 3.1.1) and their socio-demographics.

2.1   Hypotheses

This section briefly sketches our hypotheses on how the information treatments might affect respondents' decisions in the trust and dictator game.

H1: Information provision about the COVID-19 affectedness of respondents' country as compared to the average affectedness in the EU will positively (negatively) affect respondents' solidarity in less than average (above-average) affected countries towards fellow citizens in the EU. The effect on trust is ambigous.
The Covid-19 pandemic is an exogenous shock and questions of moral hazard play less of a role as compared to the European sovereign debt crisis. We therefore expect a positive effect on solidarity for respondents in less than average affected countries. The effect on trust could go in both directions. If respondents in less than average affected countries perceive the favorable numbers of COVID-19 deaths per million people in their country as pure luck, the information treatment might have a null or even a positive effect on trust towards fellow citizens in the EU. The opposite might be true if respondents in less than average affected countries consider the unfavorable numbers of COVID-19 deaths per million people in other countries to be a result of policy failures in those countries.

H2: Information provision about the export share will positively affect respondents' solidarity and trust towards fellow citizens in the EU if respondents underestimate the importance of the EU internal market for their own country.
The information on the share of exports going to other EU countries emphasizes the economic benefit of and economic dependency of the respondents' country on the EU internal market. We expect respondents to infer that the economic well-being of other EU member states is in their own country's interest and therefore expect a positive effect on trust and solidarty.

H3: Information provision about common values European citizens con-

sider as fundamental and highly representative of the European project will positively affect respondents' solidarity and trust towards fellow citizens in the EU if respondents underestimate the share of EU respondents that agree on the stated key values.

We expect that priming European identity positively affects individual willingness to sacrifice for and contribute to the Union leading to higher trust and solidarity.

3 Empirical strategy

3.1 Variables

3.1.1 Outcome variables

We will study to what extent the information treatments affect respondents' decisions in the trust and dictator game and their views in various domains. Our key outcome variables measure to what extent the information treatments will affect:

- trust and solidarity towards compatriots, citizens in other EU countries and citizens in non-EU countries.
- views on cross-country externalities and spill-over effects in the fight against the Covid-19 pandemic and with regard to the economic recovery after the crisis
- respondents' assessment of how their government handled the Covid-19 pandemic.
- European solidarity.
- to what extent respondents feel as European citizens as compared to citizens of their country.
- views on European public goods and priorities in the next EU budget.
- trust in various national and international institutions.
- preferences concerning migration policy.
- preferences concerning the economic system.
- preferences concerning the political system.
- preferences concerning climate policy.

3.1.2 Covariates

We elicit respondents' prior beliefs about the information provided in each information treatment. This will allow us to classify respondents into different groups, depending on whether their beliefs have been shifted upwards or downwards by the information treatment they have received. In addition, we elicit respondents' posterior beliefs about the provided information, at the very end of the survey. This

will enable us to test how well our information treatments have worked in shifting/focussing people's beliefs.

Furthermore, we elicit in which province respondents live, whether they were born in their country of residence, their political orientation, education, household income, household size and employment status.

3.2 Sample and sample size

We conduct the survey in Italy, Spain, Germany, France, Poland, Sweden, Hungary, Greece, Netherlands, Serbia and Turkey. We aim at targeting 3000 individuals per country from a representative sample of the respective country's population (representative with respect to gender, age, region and income) in the EU countries and 2100 individuals in the two non-EU countries. This would imply roughly 750 individuals per country and treatment group in the EU countries. The panel, the programming of the survey, the distribution of the survey and the payments are administered by the survey company Respondi.[2]

3.3 Identification

It is important to differentiate between two sets of explanatory variables employed in our analysis. First, our main variables of interest measure the effect of the randomized information treatments presented above, henceforth called information treatments T_i. Second, we additionally account for a rich set of socio-demographic characteristics and various preference variables, henceforth referred to as individual characteristics X_i. Given that the information treatments are randomized and therefore independent of all other relevant variables, we can interpret their effects in a causal manner. The individual characteristics, however, are of an observational nature and thus we cannot exclude the possibility of omitted variable bias. Therefore, their effects should be interpreted as correlations. All of our regressions are based on some form of the following equation:

$$Y_i = \beta T_i + \gamma X_i + \epsilon_i \tag{1}$$

where Y_i measures the allocations made by respondents in the trust and dictator game and their stated views in our outcome questions.

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[2]https://www.respondi.com/EN/

3.4   Heterogeneity

We will study heterogeneity in outcomes based on the background information on our respondents collected in the survey. Specifically, we will test whether there are differences between the following groups: Political orientation (self-reported on a scale from 0 to 10, with values 0-3 indicating left-wing, 4-6 indicating centre, and 7-10 indicating right-wing), gender, income (two groups: below and above median, and alternatively three groups: below poverty line, middle-class and top ten 10%) and education (college vs. no college).