Partisanship, Beliefs, and Support for COVID-19 policies (#45024)

Author(s)

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1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

The main aim of this study is to understand the key factors that predict the demand for non-pharmaceutical interventions (NPIs) aimed at controlling the spread of the new coronavirus in the United States. We consider two potential variables: 1) people's expectations about the pandemic's severity (beliefs); and 2) people's support to the Democratic or Republican parties (partisanship). We hypothesize that beliefs will not correlate with individual differences in the demand for NPIs while we predict a strong correlation between partisanship and demand for NPIs. To experimentally manipulate beliefs, we will run a classic anchoring paradigm with some participants considering a high anchor, low anchor or no anchor (see point 4 for details). This manipulation will experimentally induce heterogeneity in people's expectations.

3) Describe the key dependent variable(s) specifying how they will be measured.

The key dependent variable will be the demand for NPIs as evaluated through a 7-item scale. We will ask participants to rate their agreement (on a scale from 0 to 7, where 0 means "I strongly disagree" and 7 means "I strongly agree") with the following statements: 1) All schools in the United States should reopen before the end of 2020, 2) All non-essential public events should be banned until a vaccine is found, 3) The Federal Government should track the location of people infected with COVID-19 using a mobile phone app, 4) Wearing a mask in public spaces should be optional, 5) People over 70 years old should not be allowed to leave their homes until a vaccine is found, 6) People should request permission to the Federal Government to travel from one state to another, 7) Until a vaccine is found, the Federal Government should not allow mass protests in the United States. The variable "demand for NPIs" will be defined as the average rating across all seven items where we will reverse code items 1 and 4. The order of presentation of these items will be randomized.

The two main independent variables will be beliefs and partisanship. Beliefs will be quantified as the forecasted number of new COVID-19 deaths in the week between 27 July and 2 August (in log10 units). These forecasts will be incentivized for accuracy.

Partisanship will be quantified by a single pre-treatment item where people will indicate their preference between the Democratic vs. Republican Party on a 11-point slider with one extreme indicating "I strongly prefer the Democratic Party" and the other extreme reading "I strongly prefer the Republican Party".

4) How many and which conditions will participants be assigned to?

There will be six conditions in this experiment.

In Condition 1, we will use a "low anchor" on COVID-19 deaths. We will ask participants whether they think there will be more or less than 40 new deaths in the upcoming week, and then ask them to estimate the number of new deaths. In the following screen, participants will forecast the number of new COVID-19 cases in the same week.

In Condition 2, we will use a "high anchor" on COVID-19 deaths. We will ask participants whether they think there will be more or less than 400,000 new deaths in the upcoming week, and then ask them to estimate the number of new deaths. In the following screen, participants will forecast the number of new COVID-19 cases in the same week.

In Condition 3, we will not anchor people's expectations. This will serve as a control for Conditions 1 and 2. We will ask people to forecast the number of new deaths in the upcoming week. In the following screen, participants will forecast the number of new COVID-19 cases in the same week.

In Condition 4, we will use a "low anchor" on COVID-19 cases. We will ask participants whether they think there will be more or less than 8,000 new cases in the upcoming week, and then ask them to estimate the number of new cases. In the following screen, participants will forecast the number of new COVID-19 deaths in the same week.

In Condition 5, we will use a "high anchor" on COVID-19 deaths. We will ask participants whether they think there will be more or less than 8,000,000 new cases in the upcoming week, and then ask them to estimate the number of new cases. In the following screen, participants will forecast the number of new COVID-19 deaths in the same week.

In Condition 6, we will not anchor people's expectations. This will serve as a control for Conditions 5 and 6. We will ask people to forecast the number of new cases in the upcoming week. In the following screen, participants will forecast the number of new COVID-19 deaths in the same week.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We hypothesize that beliefs will not correlate with demand for NPIs. To test this hypothesis, we will calculate the Spearman rank correlation coefficient between these two variables. We predict a non-significant (p>.05) correlation indicating absence of evidence for a correlation. To test for evidence of absence of such effect, we will calculate the Bayes Factor between the null hypothesis (no correlation) and the alternative hypothesis (non-zero correlation).

We hypothesize that partisanship will correlate with demand for NPIs. To test this hypothesis, we will calculate the Spearman rank correlation coefficient between these two variables. We predict a significant ($p<.05$) correlation indicating evidence against the null hypothesis (no correlation). To measure the relative strength of evidence between the null hypothesis (no correlation) and the alternative hypothesis (non-zero correlation), we will calculate the Bayes Factor.

To measure the relative contribution of beliefs, partisanship, and other variables to the demand for NPIs, we will perform a multivariate regression analysis. Above and beyond the two main independent variables mentioned in point 3, we will include demographic (age, gender and education) and experimental (dummy variables using as a reference the control conditions 3 and 6) variables.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
We will discard data from participants who fail a simple attention check in the experiment and proceed with data collection until meeting the target sample size.

We will also discard data from inconsistent responses. For example, if a participant states that they expect less than 40 new deaths and then forecasts more than 40 new deaths, we will remove that participant from our analysis.

Finally, we will discard data from participants who provide forecasts in deaths or cases which are more than 3 S.D. away from the mean of the population distribution of beliefs (after log-transformation).

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.
We will collect data from N=630 participants from a sample collected in Prolific (https://www.prolific.co/). This sample will be representative of the US population in terms of age, gender and ethnicity (https://researcher-help.prolific.co/hc/en-gb/articles/360019236753-Representative-Samples-on-Prolific). The target sample size proceeds from aiming at collecting N=100 data-points per condition and allowing an extra 5% to discard outlier or inconsistent responses (see point 6 above).

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
We will evaluate whether or not anchoring deaths (conditions 1 and 2) leads to higher number of forecasted cases, and also whether or not anchoring cases (conditions 4 and 5) leads to higher number of forecasted deaths. This second-order anchoring manipulation can then be used as an additional source of heterogeneity in people's beliefs.