Climate Change Behavior and Social Norms

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1 Sample

We collect the data in collaboration with *Pureprofile*, a leading market research company. We plan to recruit a sample of 6,000 respondents, representative of the US population in terms of gender, age, education and region. Respondents will be randomized in equal proportion and without any further stratification into one of three experimental conditions, which we describe in more detail in Section 2.2. We employ two exclusion criteria. First, we exclude respondents who do not pass an attention check (see Figure 1). Second, we exclude respondents who complete the survey in less than three minutes.

2 Design

2.1 Pre-treatment behavior and beliefs

We first collect basic demographic characteristics as well as attitudes and beliefs related to climate change. We then elicit pre-treatment normative beliefs and self-reported climate change behavior:

- Do you try to fight global warming? [Yes/No]
- Do you think that people in the United States should try to fight global warming? [Yes/No]
- Think about your friends and family. Would most of them criticize someone who does not try to fight global warming at all? [Yes/No]

On the next page, we truthfully inform our respondents that we "recently surveyed many people in the United States and asked them the same questions." We also explain that our sample is representative of the views and attitudes of people in the United States. We then ask them to guess how many respondents, out of 100 people we asked, responded with "Yes" to the three questions we asked previously. Respondents can earn up to $1 based on the accuracy of their guesses.

2.2 Treatments

We employ two information treatments. The control group proceeds without receiving any additional information.

- **Empirical beliefs treatment**: Respondents in this condition receive information about the share of Americans that try to fight global warming. Specifically, we remind our respondents that we conducted a representative survey in the US and asked people whether they try to

fight global warming. We then tell our respondents that in our survey, 62% of respondents indicated they try to fight global warming.

- **Normative beliefs treatment**: Respondents in this condition are told that 79% of Americans say that people in the US should try to fight global warming. The information is provided as in the empirical beliefs treatment.

Section 4.2 provides screenshots of the experimental instructions.

2.3 Primary outcome

Our primary outcome is an incentivized donation decision. Specifically, respondents can divide \$450 between themselves and *atmosfair*, a charitable organization that fights global warming. We provide additional information about *atmosfair*, including a description of their work, their annual expenditures to fight global warming, and their overhead cost. We then explain that it costs around \$450 to offset the yearly CO_2 emissions of a typical US citizen. We then ask respondents how much they would like to donate to *atmosfair* using a slider from \$0 to \$450. Section 4.3 provides screenshots of the experimental instructions.

2.4 Post-treatment measures

We also collect the following post-treatment measures:

- Support for policies aimed at fighting global warming.
- Empirical, first-order, and second-order normative beliefs about six specific behaviors (such as restricting meat consumption or avoid taking flights) to fight global warming.

2.5 Additional covariates

We collect additional demographic information, administer the Moral Foundations Questionnaire (Graham et al., 2011) and the Global Preference Survey (Falk et al., 2018), and measure media use.

3 Analysis

Our main specification is the following regression which we will estimate using OLS:

$$y_i = \beta_0 + \beta_1 \text{Empirical}_i + \beta_2 \text{Normative}_i + \varepsilon_i \tag{1}$$

where ε_i is an individual-specific error term. We use robust standard errors for inference. Empirical_i is a binary indicator taking value 1 if respondent i is in the "empirical beliefs" treatment, and 0 otherwise. Normative_i is a binary indicator taking value 1 if respondent i is in the "normative beliefs" treatment, and 0 otherwise.

We will test whether our treatment of providing information about the behavior of others ("empirical belief treatment") affects the amount donated to charity. We will also test whether our treatment of providing information about the normative expectations of others ("normative beliefs treatment") affects the amount donated to charity. Additionally, we test whether our information treatments affect self-reported support for policies aimed at fighting global warming and normative beliefs and expectations as listed in Section 2.4.

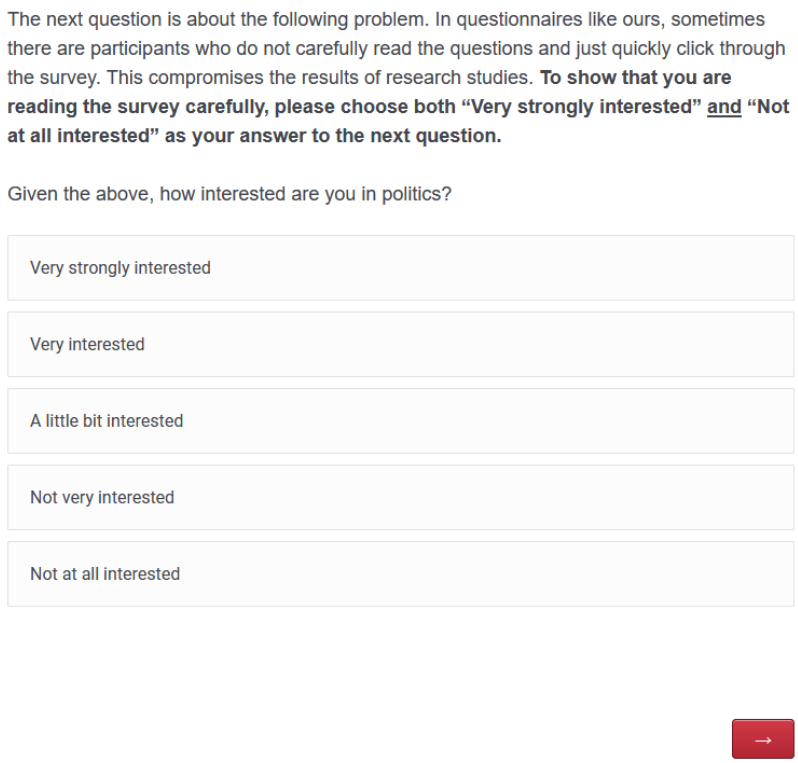
Heterogeneity We will also conduct additional analyses exploring heterogeneity in treatment effects by background characteristics of respondents, such as pre-treatment beliefs, political affiliation, demographic groups (i.e., age, gender, income, education) or experienced local weather.

4 Instructions

This section provides screenshots of the key experimental instructions.

4.1 Attention Check

Figure 1: Attention check



4.2 Treatments

4.2.1 Empirical beliefs treatment

Figure 2: Introduction

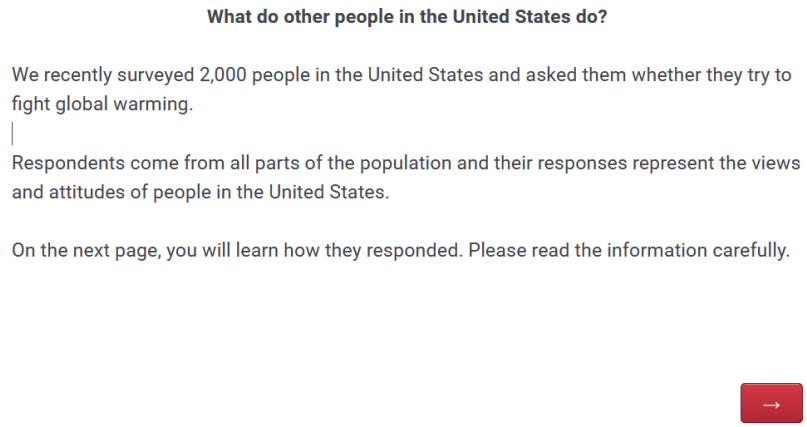
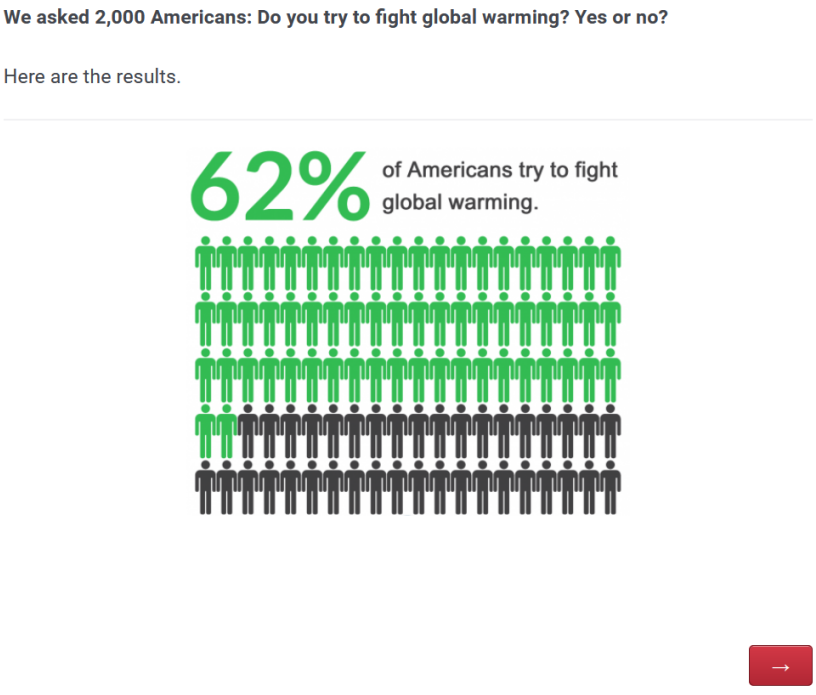


Figure 3: Information: Empirical beliefs treatment



4.2.2 Normative beliefs treatment

Figure 4: Introduction

What do other people in the United States think?

We recently surveyed 2,000 people in the United States and asked them whether they think people in the US should try to fight global warming.

Respondents come from all parts of the population and their responses represent the views and attitudes of people in the United States.

On the next page, you will learn how they responded. Please read the information carefully.

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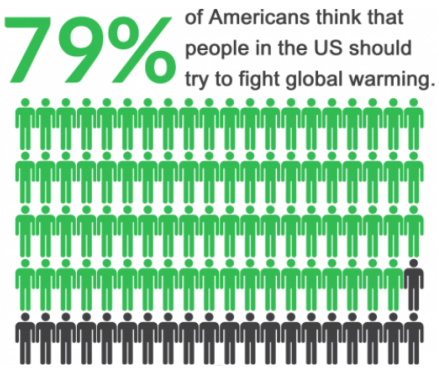
Figure 5: Information: Normative beliefs treatment

We asked 2,000 Americans: Do you think that people in the United States should try to fight global warming? Yes or no?

Here are the results.



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4.3 Donation decision

Figure 6: Donation: Explanation of incentives

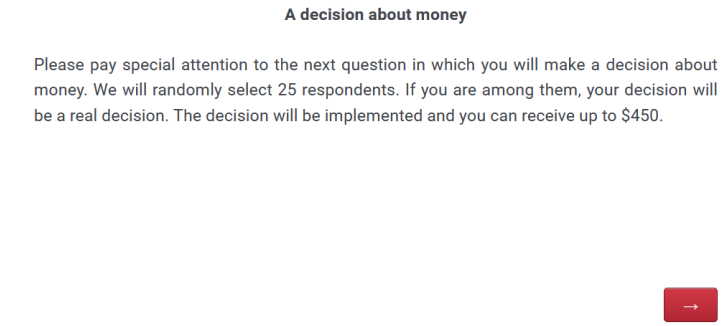
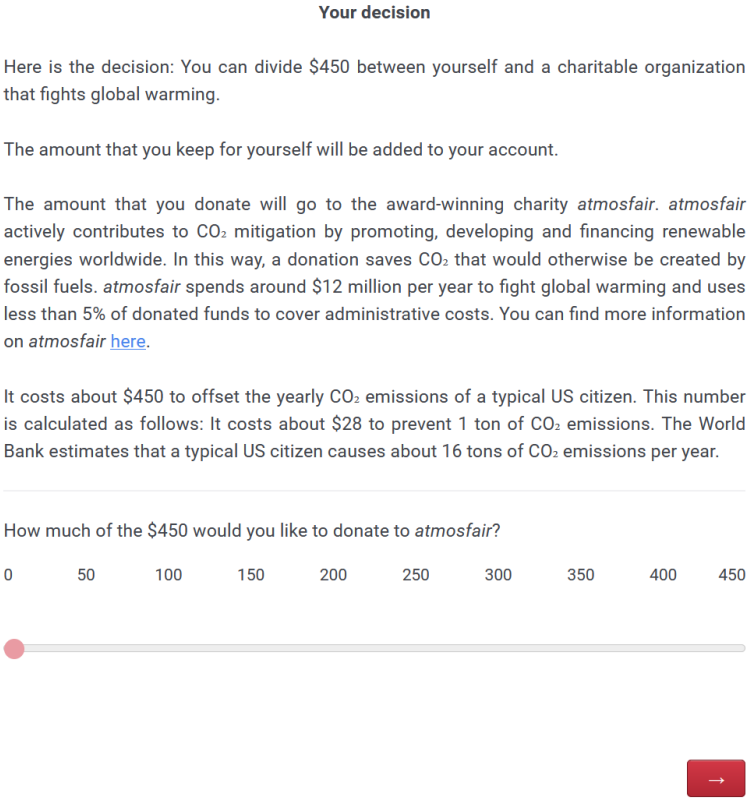


Figure 7: Donation decision



References

Falk, Armin, Anke Becker, Thomas Dohmen, Benjamin Enke, David Huffman, and Uwe Sunde, "Global Evidence on Economic Preferences," *The Quarterly Journal of Economics*, 2018, *133* (4), 1645–1692.

Graham, Jesse, Jonathan Haidt, Ravi Iyer, Spassena Koleva, Brian A. Nosek, and Peter H. Ditto, "Mapping the Moral Domain," *Journal of Personality and Social Psychology*, 2011, *101* (2), 366–385.