Discussion Paper Series – CRC TR 224

Discussion Paper No. 773
Project A 01

# Morality and Climate Policy Attitudes

Lasse S. Stötzer[1]
Florian Zimmermann[2]

August 2026

[1]IZA and European Commission, Joint Research Centre (JRC), Brussels,Email: lasse.stoetzer@ec.europa.eu
[2]University of Bonn and Max Planck Institute for Behavioral Economics, Email: florian.zimmermann@uni bonn.de

Support by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) through CRC TR 224 is gratefully acknowledged.

# Morality and Climate Policy Attitudes

Lasse S. Stötzer & Florian Zimmermann*

July 20, 2026

**Abstract**

This paper studies the moral roots of climate policy attitudes. We fielded a survey with a representative sample in the US to study the predictive power of moral universalism in explaining heterogeneity in specific climate policy attitudes. Our results reveal that universalism significantly relates to support for various policy measures that prevail in current policy debates in most countries, including domestic policies such as a carbon tax and a green infrastructure program, as well as international policies such as international burden-sharing. This pattern is replicated in simple bystander allocation decisions where respondents are asked to decide "who should pay" to fight climate change or to mitigate the adverse consequences of global warming. Open-text elicitations further corroborate these results and identify moral universalism as a key aspect of how people reason about climate policies.

*Stötzer: IZA and European Commission, Joint Research Centre (JRC), Brussels, lasse.stoetzer@ec.europa.eu. Zimmermann: University of Bonn and Max Planck Institute for Behavioral Economics, florian.zimmermann@uni-bonn.de. Most of this work was completed before Stötzer joined the JRC. The views expressed are purely those of the authors and may not in any circumstances be regarded as stating an official position of the European Commission. Funding by the Deutsche Forschungsgemeinschaft (DFG) through CRC TR 224 (Project A01) and under Germany's Excellence Strategy - EXC 2126/1 - 390838866 is gratefully acknowledged. Preregistered AsPredicted #121586.

# 1 Introduction

Climate change is arguably one of the biggest challenges humankind faces. Swift policy action is required to reduce greenhouse gas emissions, and currently implemented policies are estimated to be insufficient to limit global warming to 1.5 or 2 degrees Celsius (IPCC, 2023). Recent global surveys document large public support for climate action (Dechezleprêtre et al., 2025; Andre et al., 2024a,b), and economists tend to agree on the most efficient policy instruments to reduce emissions (Stiglitz et al., 2017). Yet support often weakens when policies become concrete and public support for specific policy measures tends to be relatively low.

In this paper, we study the role of moral worldviews in explaining support for climate policy measures. Specifically, we examine the relationship between moral universalism - the belief that moral obligations extend equally to all people - and support for a range of specific climate policies and complement this with reasoning data from open text responses.[1] We argue that moral universalism is particularly relevant in the climate domain, as climate change presents a profoundly global challenge. Individuals with stronger universalist orientations are more likely to endorse ambitious climate actions, including policies that benefit people beyond their in-groups.

We implement a comprehensive online survey experiment with a broadly representative sample of the US population. The survey consists of several modules. We measure the extent to which respondents support or oppose specific climate policies. These policies are selected to cover both domestic and international policies that prevail in political discussions in most countries. Policies include a carbon tax with cash transfers, a green infrastructure program, and several international burden-sharing agreements. The policies are always explained to respondents in detail, and support for each policy is then measured on a Likert scale. In a robustness experiment, we employ a more quantitative policy measure in which respondents allocate money to different dimensions of the government budget and show that this yields similar results. Moral universalism is measured via an experimentally validated, survey based short measurement module (Enke et al., 2022).[2] Respondents complete three allocation games in which they are asked to split a hypothetical sum between a member of an in-group and a randomly selected stranger. To probe the robustness of our results and to gain insights into people's underlying reasoning, we implemented secondary outcome measures. Our "who should pay" measures provide insights into people's first-order con-

[1] Enke et al. (2023) study how moral universalism relates to attitides about environmental protection. Andre et al. (2024b) relate moral universalism to willingness to act against climate change.

[2] Recent research has demonstrated that universalist values are predictive of left-wing policy views and voting (Graham et al., 2009; Kivikangas et al., 2021; Enke, 2020; Enke et al., 2023, 2024).

cerns regarding two central questions of climate change policy: (i) Who should bear the costs of fighting climate change? (ii) Who should pay for disasters caused by climate change? In a series of decisions, respondents are tasked with splitting the costs of a hypothetical donation between two randomly selected people who differ in nationality (US versus outside the US). The advantage of the "who should pay" measures is that, unlike views about concrete policy proposals that are likely influenced by the media, political persuasion, and party identity, we can elicit people's uncontaminated and unprimed thoughts while maintaining focus on central questions in the discussion of climate policies. Furthermore, the simple structure of these questions lends itself to measuring people's underlying reasoning. To do so, after eliciting these decisions we explored respondents' underlying reasoning through open-text responses. This approach, following methodologies used in Stantcheva (2021) and Andre et al. (2026), allowed respondents to freely articulate their thoughts and reasoning. We analyzed these responses with the help of research assistants (as well as the large language model ChatGPT), who were tasked and trained to categorize the responses into various mental models, using a detailed coding manual. Finally, we elicit basic sociodemographics, economic preferences (Becker et al., 2023), as well as basic beliefs and general knowledge about climate change.

We find that universalism is significantly correlated with support for all international and domestic policy measures to combat climate change in our survey. This holds even after controlling for a rich set of sociodemographics, economic preferences (including trust, risk attitudes, patience, altruism, and reciprocity), as well as respondents' general views and knowledge about climate change. Our "who should pay" measures confirm these results. Universalism significantly correlates with respondents' attitudes toward how the costs of climate action and disaster relief should be allocated. Finally, the analysis of respondents' open-text responses reveals that reasoning differs along the universalism–particularism continuum: group- or place-based arguments become less frequent, while arguments based on inequalities in available resources become more frequent as a person leans further toward universalism. Taken together, our results highlight an important relation between moral values and climate policy attitudes that goes beyond material self-interest or ignorance. Specifically, moral universalism robustly explains heterogeneity in support of climate policies.

We contribute to a large body of evidence on attitudes toward climate policies, to which factors these attitudes are related, and how to foster support for these policies.[3] Drews and van den Bergh

[3]Stoetzer and Zimmermann (2024) study the determinants of climate denial, which of course generally diminishes

(2016) review empirical and experimental findings about what shapes public support for climate policies. Most of the existing work focuses on the study of carbon pricing. People doubt the effectiveness of the policy (Bó et al., 2018; Uyduranoglu and Ozturk, 2020; Kallbekken and Sælen, 2011), are concerned about equity and potential harm towards lower income groups (Dietz and Atkinson, 2010; Brannlund and Persson, 2012; Ewald et al., 2022; Maestre-Andrés et al., 2019), hold misconceptions about its economic implications (Thalmann, 2004; Jagers and Hammar, 2009), or all of the previous (Douenne and Fabre, 2022). Using an incentivized, large-scale experiment, Woerner et al. (2024) show how support for carbon prices is strictly related to how the collected money is employed. We add to this literature by (i) introducing the role of people's morality (ii) studying a much broader set of climate policies, and (iii) by anaylzing people's underlying reasoning about climate policies.[4]

This paper builds on highly influential work in moral psychology that put forward a positive framework of morality (Haidt, 2012; Graham et al., 2013, 2009). Moral universalism, or it's counterparts group loyalty and "us versus them" thinking is a key aspect of this framework. Enke (2020) studies the role of universalism for voting behavior, focusing on both politicians and voters. Closest to our paper are Enke et al. (2023) and Andre et al. (2024b). Enke et al. (2023) study how moral universalism relates to political ideology, including attitudes towards environmental protection. Andre et al. (2024b) provide evidence on the misperception of climate norms. While not the focus of their paper, they show that moral universalism relates to willingness to act against climate change. None of these papers has studied how moral universalism is related to attitudes towards specific climate policies or studied underlying reasoning with open text responses.

The rest of the paper is structured as follows. Section 2 describes the basic survey design. Section

support for climate policies.

[4]A substantial stream of literature studies the effect of information provision on policy support Stantcheva (2021) study other policies on top of carbon pricing, a non-electric cars ban, and a green infrastructure program, through a large-scale survey. Among other things, they show that information provision effectively increases willingness to pay to offset emissions and support for climate policies, independently of individual prior beliefs and knowledge. Andre et al. (2024a) report global evidence on how people misperceive climate norms. Andre et al. (2024b) provide similar evidence from the US. D'Acunto et al. (2022) show how information that makes policies to be perceived as redistributive effectively increases support for those policies and vice versa. Tarduno (2020) conducts a field experiment in the context of popular voting on regulation concerning green energy production and finds that voters significantly react to information about policy effectiveness. Mildenberger et al. (2022) show how voters misperceive tax rebate amounts from carbon pricing and that correcting those misperceptions has a significant but small effect on voters, mostly driven by political affiliation. Pace et al. (2025) document, within a representative sample of US respondents, that uncertainty about CO2 emission from common consumer products is large and pervasive. However, through an incentivized experiment, they find no relation between uncertainty about emissions and consumption of polluting goods, suggesting that information provision may have a limited effect on consumption choices. This is consistent with Imai et al. (2022), who do not document any significant effect of information provision about CO2 emissions of beef on the demand for it.

3 presents results on policy attitudes. Section 4 reports results on the "who should pay" measures and on respondents' reasoning. Section 5 concludes.

# 2 Survey Design

The survey included the following key components: (i) two attention checks to ensure high-quality responses; (ii) a brief sociodemographic questionnaire; (iii) a series of "who should pay" allocation tasks accompanied by open-ended questions capturing participants' reasoning; (iv) a validated measure of moral universalism; and (v) an extended questionnaire assessing climate policy preferences, climate change beliefs and knowledge, as well as economic preferences.

## 2.1 Measurements

**Moral Universalism.** To measure universalism, we implement the experimentally validated survey-based short module developed by Enke et al. (2022). Respondents completed three allocation games in which they are asked to split a hypothetical sum of \$100 between a member of their in-group and a randomly selected stranger. The average amount allocated to the stranger across the three decisions serves as our continuous measure of universalism. For ease of interpretation, we standardize this measure to have a mean of zero and a standard deviation of one. In addition, we create a binary indicator, *Universalist*, coded as 1 if the average allocation to the stranger is greater than or equal to \$50 and 0 otherwise.[5]

**Policy Preferences.** Policy views were measured using standard 5-point Likert-scale items, in which respondents indicated their level of support for several climate policies: (i) an international carbon budget, (ii) national green infrastructure programs, (iii) a national carbon tax, and (iv) different variants of international burden-sharing. For the green infrastructure program and the carbon tax policy, we additionally asked respondents to evaluate perceived fairness, to identify which societal groups would financially benefit or lose and to assess whether their own household would be better or worse off. The questions are based on Dechezleprêtre et al. (2025). Appendix E provides an overview of the full wording of all items. In a robustness check, we measure policy preferences in a more quantitative format by allowing respondents to choose their desired government spending across different policy categories (Enke et al. (2023)). See Section 3 and Appendix A.2 for details.

[5]Distribution of the average amount allocated to the stranger across the three decisions: 51.2% gave, on average, less than \$50 to the stranger; 25.8% split the money evenly; and 23.0% gave, on average, more than \$50 to the stranger. Thus, 48.8% of respondents are classified as Universalists and 51.2% as Communitarians.

**"Who Should Pay" and Open-Ended Questions.** For the "Who Should Pay" measures, participants were randomly assigned to one of two survey arms: *Climate Action* or *Climate Disaster*.

*Climate Action.* Participants were asked to allocate the cost of a hypothetical $100 donation for climate change mitigation between two individuals who differed in their country of residence. The individuals were described as representative members of their respective national populations. We focused on two country pairings: (i) US vs. India and (ii) US vs. the Philippines. The donation was designated for atmosfair, an award-winning charity supporting $CO_2$ mitigation through renewable energy projects. The order in which the two individuals were introduced was randomized. After the allocation task, participants answered an open-ended question explaining their reasoning.[6] We interpret respondents' allocations as an indication of how they believe the costs of combating climate change should be distributed across countries.

*Climate Disaster.* Participants were asked to allocate the cost of a hypothetical $100 donation for climate disaster relief between two individuals from different countries. As before, both individuals were introduced as representative members of their respective national populations. The donation was designated to support communities affected by recent climate-related disasters. Respondents were instructed to assume that neither individual had been directly affected by the disaster. We focused on two country pairings: (i) US vs. Germany and (ii) US vs. Pakistan. In the first pairing, participants responded to a scenario involving flash flooding in Germany's Ahr Valley, with the donation directed to Aktion Deutschland Hilft. In the second, the context was the 2022 Pakistan floods, with the donation directed to the UN World Food Programme. Analogous to the *Climate Action* arm, the order in which the two individuals were introduced was randomized. After each allocation task, participants answered an open-ended question explaining their reasoning. We interpret people's responses as a measure of how they believe the costs of disasters caused by climate change should be distributed.

*Open-Ended Responses.* To leverage the richness of answers to the open-ended questions, we developed a tailored coding scheme to classify underlying reasoning and to identify the prevalence of group-based arguments. In total, we classified 4,011 open-ended text responses using a combination of trained research assistants and large language models. Appendix E.2 provides more details on the classification of the open-ended responses.

[6] In both survey arms, we also elicited two additional bystander donation decisions and corresponding open-ended responses. In these additional comparisons, the two individuals differed not by nationality, but by age and income. Each respondent saw three randomly selected decisions out of a total of four. For the purposes of this paper, these within-country comparisons are not analyzed. For completness, we still report the findings in Appendix D.

**Covariates.** We collect information on a range of sociodemographic characteristics, including participants' age, gender, place of birth, ethnicity, location (US state and urban agglomeration), highest level of education, employment status, household income, ideological self-placement on a left–right scale, and political affiliation. To measure individual-level economic preferences, we use six experimentally validated items from the Global Preferences Survey (Falk et al., 2018), and standardize each variable. Beliefs and knowledge about climate change are measured following Dechezleprêtre et al. (2025) and Leiserowitz et al. (2023). Specifically, we ask whether participants believe climate change is happening and what they believe is causing it. Based on these responses, we construct a binary indicator, *Climate Change Skepticism*, which indicates whether a participant's views diverge from the scientific consensus. We measure participants' *Climate Change Concern* by running a principal components analysis (PCA) on questions regarding their worry about climate change and whether they think it will harm the United States and developing countries.[7] Additionally, we ask participants to rank the United States, China, India, and the European Union by their total and per-capita emissions. From these rankings, we derive a binary indicator, *Misinformed Emission Levels*, coded as 1 if a participant underestimates both the total and per-capita emissions of the United States.

## 2.2 Procedure and Logistics

Using Prolific's online panel, we administered a survey to 1,337 US participants (673 in the *Climate Action* arm and 664 in the *Climate Disaster* arm). The survey was implemented in Qualtrics. The sample was stratified to broadly match the US population with respect to gender, age, and ethnicity. On average, participants spent about 26 minutes completing the survey. Data were collected in February 2023.

**Pre-Registration.** We pre-registered our survey on AsPredicted (AsPredicted #121586). Since our study was to some extent exploratory, the pre-registration pertains primarily to the design and some directions for analyses, rather than to a detailed final empirical strategy. Specifically, the pre-registration details the design of all conditions reported in this paper, as well as planned sample sizes, exclusion criteria, elicited variables and outlines possible directions of analyses.[8] In Appendix D we provide more details on the pre-registration, clarify when and why we deviate from

[7] Following Leiserowitz et al. (2023), the two harm questions included the option "I don't know." As this response does not map meaningfully onto an ordinal scale of perceived harm, we exclude respondents who selected this option from the PCA. This results in a loss of approximately 3% of responses. In our analyses, we present results both with and without the PCA-based measure.

[8] We collected three more responses than planned in the pre-registration.

the pre-registration and report additional results that are not part of the main text.

**Quality Control.** We employed several pre-registered methods to ensure high response quality. Our survey included two attention checks to verify that participants read the instructions. In both tests, participants were asked to provide a pre-specified answer to a simple question. If both attention checks were answered incorrectly, the respondent was immediately screened out of the survey. We also tracked completion time. In each arm separately, we excluded from the main analysis participants who finished the survey in less than one-third of the arm-specific median duration. A possible concern with online surveys is the use of AI. Notice that our main survey was conducted only shortly after the first release of ChatGPT where usage was likely not yet widespread. Also, recent evidence on data quality in online surveys in the age of AI suggests high levels of data quality for Prolific respondents (Celebi et al. (2026)).

# 3 Results Policy Views

Our descriptive results on policy views confirm the commonly found pattern that while general support for climate action is high, support for specific actions tends to be lower. 86.2% of respondents agree (somewhat or strongly) with the statement that "the United States should take measures to fight climate change." However, when it comes to specific policies, just over half of respondents (54.9%) support a carbon tax with cash transfers, 77.5% support a green infrastructure program, and 65.6% support an international carbon budget.

## 3.1 Universalism: Impact on Policy Views

To study the impact of universalism on respondents' policy views, we conduct two analyses: (i) OLS regressions with standardized universalism as the key predictor, using support for each policy as the outcome (logit estimates as robustness checks); and (ii) a heterogeneity analysis based on the binary *Universalist* indicator.

For each of the three policies, we estimate three OLS specifications: (i) without controls; (ii) with Control Set 1 plus Control Set 2; and (iii) with Control Set 1 only. Control Set 1 includes dummies for age groups, gender, education, income, US state and area of residence, birthplace, race & ethnicity, party affiliation, employment status, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of people's misinformation about emission levels and climate change skepticism. Control Set 2 adds respondents' concern about climate change. We

include these controls because each is a plausible common cause of both universalism and policy support. Some of these variables, namely party affiliation and climate change concern, may additionally themselves be partly shaped by a universalist orientation. We hence view controlling for them therefore as conservative, as it may remove part of the association we aim to measure. As described in Section 2, including our *Climate Change Concern* measure results in a loss of data. The data loss is not random: participants for whom we cannot construct the *Climate Change Concern* variable significantly more often identify as Republicans or Independents and express higher levels of climate change skepticism.[9] Given the trade-off between data loss (when including *Climate Change Concern*) and the risk of omitting a theoretically important covariate, we report estimates both with Control Sets 1+2 on the restricted sample and with Control Set 1 only on the full sample. Table 1 presents the OLS results. Appendix Table A1 presents ordered logit estimates and Table A2 reports estimates that also include respondents who were previously excluded for speeding through the survey (not pre-registered). In Appendix C, we report specifications that introduce the controls in finer sequential steps.

Higher levels of universalism are significantly correlated with higher support for all three policies. In the regression without controls, a one standard deviation increase in universalism is associated with an increase in support for an international carbon budget by 13.8%, for a green infrastructure program by 11.2%, and for a carbon tax with cash transfers by 14.4%. This relationship is robust, as shown by ordered logit regressions and by OLS regressions with our different sets of controls.

To better illustrate heterogeneity along the universalism–particularism continuum, we focus on our binary *Universalist* indicator. As shown in Figure 1 and detailed in Appendix Table A3, significant differences emerge in support for the three policies between universalists and communitarians. Considering the share of respondents who (somewhat or strongly) support each policy, the share is 6.2 to 9.9 percentage points higher among universalists. These differences are statistically significant ($p < 0.01$). The pattern of relative support across policies is the same for both groups: a green infrastructure program is the most favored, while a carbon tax with cash transfers is the least

[9] We lose around 3% of responses in total. To assess the impact of this loss on the coefficient, we re-estimate the specifications without *Climate Change Concern* on the subsample for which the variable is available (Appendix Table A18). Restricting the sample changes the universalism coefficient only slightly, suggesting that the difference between specifications with and without *Climate Change Concern* mostly reflects the control itself rather than the change in sample. But because those we lose are not a random subset, we cannot fully rule out a residual role for selection.

Table 1: Universalism — Policy Views

| | International | | | Domestic | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Carbon Budget | | | Green Infrastructure | | | Carbon Tax | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Universalism | 0.369*** | 0.0921*** | 0.200*** | 0.338*** | 0.0446** | 0.159*** | 0.328*** | 0.0719** | 0.157*** |
| | (0.0350) | (0.0290) | (0.0328) | (0.0319) | (0.0223) | (0.0282) | (0.0373) | (0.0337) | (0.0352) |
| Constant | 2.682*** | 0.878*** | 2.841*** | 3.013*** | 0.828*** | 2.925*** | 2.274*** | 1.144*** | 2.729*** |
| | (0.0350) | (0.191) | (0.190) | (0.0319) | (0.147) | (0.164) | (0.0373) | (0.222) | (0.204) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No | No | Yes | No |
| $R^2$ | 0.0772 | 0.459 | 0.287 | 0.0780 | 0.606 | 0.366 | 0.0551 | 0.353 | 0.261 |
| Adj. $R^2$ | 0.0765 | 0.447 | 0.274 | 0.0773 | 0.598 | 0.353 | 0.0544 | 0.339 | 0.246 |
| $N$ | 1328 | 1287 | 1328 | 1329 | 1288 | 1329 | 1329 | 1288 | 1329 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are support for three policies (international carbon budget, national green infrastructure programs, national carbon tax), measured on a 5-point Likert scale (from 'Strongly oppose' to 'Strongly support'). Universalism is the standardized average of three measures (see text). Control Set 1 include dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes our PCA for Climate Change Concerns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

popular. Among universalists, the share of supporters between these two policies falls by 21.2 percentage points; among communitarians, the drop is 24.8 percentage points.

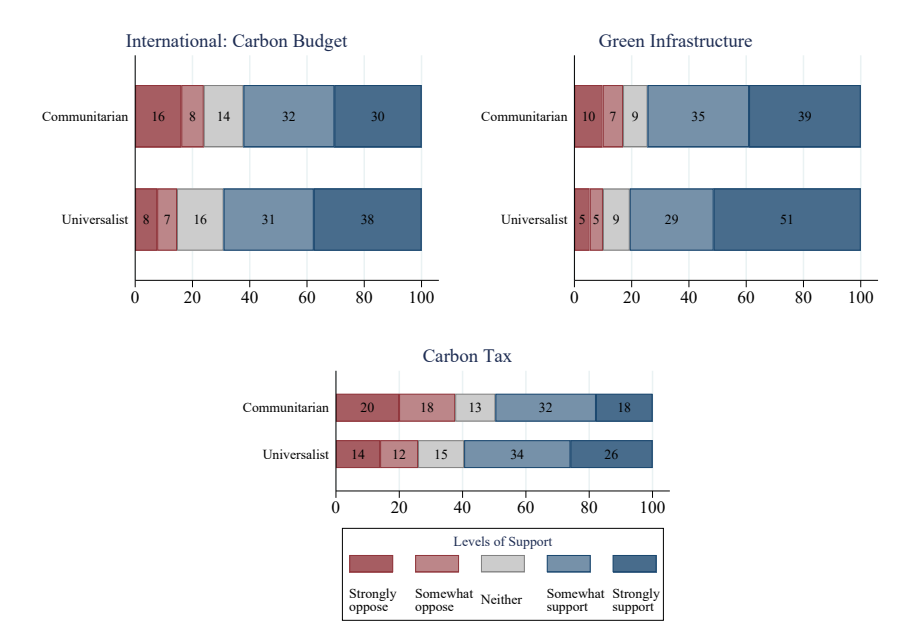



Figure 1: Heterogeneity in policy support by *Universalist*

**Result 1** *Higher levels of universalism are significantly correlated with greater support for both international and domestic policies.*

We run several additional analyses to further illustrate how people's attitudes toward specific climate policies differ along the universalism–particularism continuum:

**Carbon Budget Divisions.** First, we focus on five different methods for dividing the carbon budget among countries. Support for the "Carbon Budget" policy measures respondents' agreement with the concept that the maximum global greenhouse gas emissions should be distributed among nations. Under this policy, countries exceeding their allocated budget would be required to compensate those emitting less than their share. However, the pivotal and potentially contentious aspect of such a policy lies in determining how the global carbon budget should be divided. As summarized in Table A4, for all five proposed divisions, universalists tend to support these divisions more than communitarians. The differences are most pronounced for divisions grounded in responsibility (countries with greater past emissions receive lower shares), need (countries more vulnerable to climate damages receive higher shares), and ability to pay (higher-income countries receive lower shares).

**Perceptions of Climate Policies.** To get a first glimpse into respondents' underlying reasoning about climate policies, we asked how they perceived the two domestic climate policies in terms of fairness and whom they perceived as winners and losers of such policies. Universalists and communitarians exhibit striking and significant differences in their evaluations of the policies. Universalists rate both domestic policies as fairer (for both policies, 0.29 on a 0-4 scale per 1 SD increase in universalism; $p < 0.001$) and are more likely to see themselves and various societal subgroups (based on income, age, and rural residence) as winners (between 0.10 and 0.29 on a 0-5 scale per 1 SD increase in universalism; $p < 0.001$).

**Policy Spending.** An additional experiment further underscores the robustness of our results. Instead of qualitative measures of policy support, this experiment elicits *quantitative* support for climate policy. Respondents were asked to allocate the federal budget across three categories: "Fight Against Climate Change," "Police and Law Enforcement," and "Foreign Aid." Specifically, we asked: "How much money would you have the federal government collect on average from each American in order to spend on each of the following three categories of expenditure in the federal budget?" Based on these three responses, we construct a measure of relative climate spending. We measure moral universalism as in the main survey and use the same set of controls. We estimate

the same three regression specifications with relative spending as the outcome.[10] As Table A5 shows, moral universalism is positively correlated with quantitative support for climate policy.[11] See Appendix A.2 for details on the logistics and procedures of the experiment.

# 4 "Who Should Pay" - Robustness and Reasoning Patterns

Public perceptions of who should bear the costs of climate change reflect core beliefs about fairness, responsibility, and global equity. Questions such as whether people in high-emitting countries like the United States should pay more than those in lower-emitting countries tap into normative views about historical responsibility, economic capacity, and development rights. These attitudes are critical for understanding public support for international burden-sharing and the political feasibility of equitable climate policies. In addition, "who should pay" questions, unlike views about concrete policy proposals, allow us to elicit people's uncontaminated and unprimed thoughts. Furthermore, the simple structure of these questions lends itself to measuring people's underlying reasoning using open-text formats.

**Robustness.** We first document that moral universalism is also related to people's "who should pay" attitudes about climate action and disaster relief. Consistent with the analysis before, for each of the four decisions we run three OLS regressions: (i) without controls; (ii) with Control Set 1 plus Control Set 2; and (iii) with Control Set 1 only. We relegate results and further details to the Appendix ( B). Table A6 presents the results for the Climate Disaster donations, and Table A7 presents the results for the Climate Action donations.

**Result 2** *The donation decisions are strongly correlated with universalism. In all four donation decisions, higher universalism scores are associated with higher costs allocated to the US citizen.*

To make the impact of universalism more tangible, we focus on the binary *Universalist* indicator. Except for the US vs. Philippines decision, a consistent pattern emerges: universalists allocate, on average, a significantly higher share to the US citizen, choose 50/50 splits more often, and are more likely to assign more than half of the costs to the US citizen.[12] Table A10 summarizes these findings.

[10] The additional experiment was pre-registered under AsPredicted #192877.

[11] The correlation is no longer statistically significant when we control for our measure of Climate Change Concern. As in our main experiment, constructing and controlling for the pre-registered Climate Change Concern index leads to sample loss; in this experiment we lose 6.5% of observations, raising concerns about nonrandom data loss.

[12] The US vs. Philippines decision is the exception, where the mean share allocated to the US citizen is nearly identical across groups. One plausible explanation is that universalists select 50/50 splits more frequently; when average allocations exceed an equal split, dichotomizing the universalism measure can compress observable differences.

**Reasoning.** People's answers to the open-ended questions offer unprimed insights into their first-order concerns. To reveal heterogeneity in reasoning, we conduct the following analyses: (i) measure the relationship between the prevalence of group- or place-based arguments and universalism; and (ii) compare factor frequencies between universalists and communitarians (based on the binary *Universalist* indicator).

Across the four decisions, universalism is significantly negatively correlated with the likelihood that respondents base their answers on group- or place-based arguments (see Table 2). This difference is particularly tangible when focusing on our binary *Universalist* measure for the two Climate Disaster decisions, where the likelihood of using group- or place-based arguments is 21 and 18 percentage points higher for communitarians (US vs. Germany: 61% vs. 40%; US vs. Pakistan: 43% vs. 25%), showing that such reasoning is less pronounced among universalists than communitarians. Other notable differences: in line with the higher share of 50/50 splits among universalists compared to communitarians, the factor "Equal Accountability" plays a more prominent role for universalists. Our regressions further reveal that the likelihood of the factor "Available Resources" is - with the exception of the US vs. Germany comparison - positively correlated with our universalism measure.[13] Appendix B includes figures and tables summarizing reasoning in the whole sample, as well as heterogeneity by the *Universalist* indicator.

**Result 3** *Respondents' first-order concerns differ significantly along the universalism–particularism continuum: more universalist people base their cost allocation decisions less often on group- or place-based arguments. Other differences include the frequency of equality notions and reasoning based on inequalities in wealth-enhancing resources.*

Consistent with this, the continuous universalism measure is significantly correlated with allocations in the US vs. Philippines case.

[13] A universalist morality emphasizes equal treatment and impartiality — hence one might expect 50/50 splits to dominate among universalists in our sample. While the share of 50/50 splits is higher for universalists than for communitarians, the percentage choosing this distribution is strictly less than half (ranges from 29.23% [US vs. Pakistan] to 40.82% [US vs. India]). Why do many universalists choose an unequal split of costs? The two hypothetical people were introduced as randomly selected from populations representative of their countries. Thus, it is likely that they differ in income, wealth, and access to wealth-enhancing resources such as education. The open-ended responses indicate that inequality concerns play a large role; for universalists, differences in wealth-enhancing resources seem to trump strict equality considerations. This aligns with the strong correlation between the likelihood that a participant cites the factor "Available Resources" and our universalism measure. Dependent variable: dummy "Available Resources"; variable of interest: standardized moral universalism. US vs. India: 0.11 (p-value: 0.000); US vs. Philippines: 0.06 (p-value: 0.013); US vs. Germany: 0.02 (p-value: 0.231); US vs. Pakistan: 0.05 (p-value: 0.012). The only exception is Germany, which is the comparison where differences in resources plausibly play the smallest role.

Table 2: Universalism and Group- and Place-based arguments

| | Climate Action | | Climate Disaster | |
|---|---|---|---|---|
| | US vs. India | US vs. Philippines | US vs. Germany | US vs. Pakistan |
| Universalism | -0.026*** | -0.032*** | -0.118*** | -0.130*** |
| | (0.009) | (0.006) | (0.021) | (0.021) |
| Constant | 0.036*** | 0.021*** | 0.505*** | 0.339*** |
| | (0.008) | (0.006) | (0.023) | (0.022) |
| $R^2$ | 0.018 | 0.052 | 0.064 | 0.083 |
| Adj. $R^2$ | 0.016 | 0.050 | 0.062 | 0.081 |
| $N$ | 464 | 459 | 464 | 442 |

*Notes*: OLS coefficients with standard errors in parentheses. The outcome is a binary indicator equal to one if the respondent's open-ended reasoning is coded as based on group- or place-based arguments, and zero otherwise; each column reports a separate regression for one donation decision. Universalism is the standardized average of three measures (see text). $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

# 5 Concluding Remarks

This study offers novel insights into the moral underpinnings of public support for specific climate policies that pervade current public debates. By focusing on moral universalism - the extent to which individuals view moral obligations as extending equally to all people - we provide evidence that moral values, beyond economic preferences or factual knowledge, are associated with attitudes toward climate action. Drawing on a large, representative survey experiment in the United States, we find that individuals with stronger universalist orientations are significantly more likely to support a wide range of domestic and international climate policies. This association remains robust even after accounting for a rich set of demographic, economic, and cognitive factors.

Our findings underscore the critical role of universalist moral reasoning in shaping how individuals allocate responsibility for both mitigating climate change and managing its consequences. In our "who should pay" tasks, universalist respondents more readily accepted domestic responsibility and endorsed redistributive approaches that favor those with fewer resources. The open-ended responses further reveal systematic differences in moral reasoning, with universalists prioritizing fairness and global equity, whereas communitarian respondents more often emphasize national-group boundaries or merit-based justifications.

These findings have important implications for both research and policy. They broaden the analytical lens through which public support for climate action is understood, highlighting that attitudes towards climate policies are not only economically or politically motivated or driven by (lack of)

knowledge, but also deeply moral in nature. Our results identify moral universalism as an important factor in explaining variation in climate policy support. Furthermore, they help in explaining why specific climate policies might resonate with some societal groups but not others. More broadly, this paper contributes to a growing literature that explores not just *what* people think about climate policies, but *why*. By unpacking the mental models underlying climate policy attitudes, we can move toward climate strategies that are not only effective but also broadly legitimate.

Future work could explore communication strategies and policy framings that appeal to universalist values. Emphasizing global solidarity or intergenerational justice may resonate more strongly with some segments of the population and help build broader coalitions in favor of ambitious climate action. Conversely, understanding the moral reservations of those with more communitarian outlooks may inform more inclusive policy narratives.

## References


Andre, P., T. Boneva, F. Chopra, and A. Falk (2024a). Globally representative evidence on the actual and perceived support for climate action. *Nature Climate Change 14*(2), 253–259.

Andre, P., T. Boneva, F. Chopra, and A. Falk (2024b). Misperceived social norms and willingness to act against climate change. *Review of Economics and Statistics*, 1–46.

Andre, P., I. Haaland, C. Roth, M. Wiederholt, and J. Wohlfart (2026). Narratives about the macroeconomy. *Review of Economic Studies*, rdag014.

Bó, E. D., P. D. Bó, and E. Eyster (2018). The Demand for Bad Policy when Voters Underappreciate Equilibrium Effects. *The Review of Economic Studies 85*(2), 964–998.

Becker, A., T. Dohmen, A. Falk, D. Huffman, and U. Sunde (2023). The preference survey module: A validated instrument for measuring risk, time, and social preferences. *Management Science 69(4)*, 1935–1950.

Brannlund, R. and L. Persson (2012). To tax, or not to tax: preferences for climate policy attributes. *Climate Policy 12*(6), 704–721.

Celebi, C., C. Exley, S. Harrs, H. Kivimaki, M. Serra-Garcia, and J. Yusof (2026). Mission possible: The collection of high-quality data. CESifo Working Paper 12535, CESifo, Munich.

D'Acunto, F., S. Moehrle, F. Neumeier, A. Peichl, and M. Weber (2022). How to Finance Climate Change Policies? Evidence from Consumers' Beliefs. CESifo Working Paper Series 9727, CESifo.

Dechezleprêtre, A., A. Fabre, T. Kruse, B. Planterose, A. Sanchez Chico, and S. Stantcheva (2025). Fighting climate change: International attitudes toward climate policies. *American Economic Review 115*(4), 1258–1300.

Dietz, S. and G. Atkinson (2010). The equity-efficiency trade-off in environmental policy: Evidence from stated preferences. *Land Economics 86*(3).

Douenne, T. and A. Fabre (2022, February). Yellow vests, pessimistic beliefs, and carbon tax aversion. *American Economic Journal: Economic Policy 14*(1), 81–110.

Drews, S. and J. van den Bergh (2016). What explains public support for climate policies? a review of empirical and experimental studies. *Climate Policy 16*(7), 855–876.

Enke, B. (2020). Moral values and voting. *Journal of Political Economy 128*(10), 3679–3729.

Enke, B., R. Fisman, L. M. Freitas, and S. Sun (2024). Universalism and political representation: evidence from the field. *American Economic Review: Insights 6*(2), 214–229.

Enke, B., R. Rodríguez-Padilla, and F. Zimmermann (2022). Moral universalism: Measurement and economic relevance. *Management Science 68*(5), 3590–3603.

Enke, B., R. Rodríguez-Padilla, and F. Zimmermann (2023). Moral universalism and the structure of ideology. *Review of Economic Studies 90*(4), 1934–1962.

Ewald, J., T. Sterner, and E. Sterner (2022). Understanding the resistance to carbon taxes: Drivers and barriers among the general public and fuel-tax protesters. *Resource and Energy Economics 70*(C).

Falk, A., A. Becker, T. Dohmen, B. Enke, D. Huffman, and U. Sunde (2018). Global evidence on economic preferences. *The Quarterly Journal of Economics 133*(4), 1645–1692.

Gilardi, F., M. Alizadeh, and M. Kubli (2023). Chatgpt outperforms crowd workers for text-annotation tasks. *Proceedings of the National Academy of Sciences 120*(30), e2305016120.

Graham, J., J. Haidt, S. Koleva, M. Motyl, R. Iyer, S. P. Wojcik, and P. H. Ditto (2013). Moral foundations theory: The pragmatic validity of moral pluralism. In P. Devine and A. Plant (Eds.), *Advances in Experimental Social Psychology*, Volume 47, pp. 55–130. Burlington: Academic Press.

Graham, J., J. Haidt, and B. A. Nosek (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology 96*(5), 1029–1046.

Haidt, J. (2012). *The Righteous Mind: Why Good People Are Divided by Politics and Religion*. New York: Vintage.

Imai, T., D. D. Pace, P. Schwardmann, J. van der Weele, and D. D. Pace (2022). Correcting Consumer Misperceptions about CO2 Emissions. CESifo Working Paper Series 10138, CESifo.

IPCC (2023). Ipcc ar6 synthesis report: Climate change 2023. Report.

Jagers, S. and H. Hammar (2009, 03). Environmental taxation for good and for bad: The efficiency and legitimacy of sweden's carbon tax. *Environmental Politics 18*, 218–237.

Kallbekken, S. and H. Sælen (2011). Public acceptance for environmental taxes: Self-interest, environmental and distributional concerns. *Energy Policy 39*(5), 2966–2973.

Kivikangas, J. M., B. Fernández-Castilla, S. Järvelä, N. Ravaja, and J.-E. Lönnqvist (2021). Moral foundations and political orientation: Systematic review and meta-analysis. *Psychological Bulletin 147*(1), 55–94.

Leiserowitz, A., E. Maibach, S. Rosenthal, J. Kotcher, S. Lee, M. Verner, M. Ballew, J. Carman, T. Myers, M. Goldberg, et al. (2023). Climate change in the american mind: beliefs & attitudes, spring 2023. *Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication*.

Maestre-Andrés, S., S. Drews, and J. Van Den Bergh (2019). Perceived fairness and public acceptability of carbon pricing: a review of the literature. *Climate policy 19*(9), 1186–1204.

Mildenberger, M., E. Lachapelle, K. Harrison, and I. Stadelmann-Steffen (2022, 02). Limited impacts of carbon tax rebate programmes on public support for carbon pricing. *Nature Climate Change 12*.

Pace, D. D., T. Imai, P. Schwardmann, and J. J. van der Weele (2025). Uncertainty about carbon impact and the willingness to avoid co2 emissions. *Ecological Economics 227*, 108401.

Stantcheva, S. (2021). Understanding tax policy: How do people reason? *Quarterly Journal of Economics 136(4)*, 2309–2369.

Stiglitz, J. E., N. Stern, M. Duan, O. Edenhofer, G. Giraud, G. M. Heal, E. L. L. Rovere, A. Morris, E. Moyer, M. Pangestu, et al. (2017). Report of the high-level commission on carbon prices. Report.

Stoetzer, L. and F. Zimmermann (2024). A representative survey experiment of motivated climate change denial. *Nature Climate Change 14*, 198–204.

Tarduno, M. (2020). What Drives Support for Inefficient Environmental Policies? Evidence from a Nevada Ballot Initiative. Working paper.

Thalmann, P. (2004). The public acceptance of green taxes: 2 million voters express their opinion. *Public Choice 119*(1), 179–217.

Uyduranoglu, A. and S. S. Ozturk (2020). Public support for carbon taxation in Turkey: drivers and barriers. *Climate Policy 20*(9), 1175–1191.

Woerner, A., T. Imai, D. D. Pace, and K. M. Schmidt (2024). How to increase public support for carbon pricing with revenue recycling. *Nature Sustainability 7*(12), 1633–1641.

# Online Appendix

## A Policy Views

### A.1 Support for Policies

Table A1: Universalism — Policy Views (Ordered Logit)

| | International | | | Domestic | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Carbon Budget | | | Green Infrastructure | | | Carbon Tax | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Universalism | 0.488*** | 0.154*** | 0.310*** | 0.527*** | 0.133** | 0.322*** | 0.444*** | 0.143** | 0.277*** |
| | (0.0532) | (0.0590) | (0.0557) | (0.0554) | (0.0635) | (0.0595) | (0.0517) | (0.0572) | (0.0543) |
| *Thresholds* | | | | | | | | | |
| cut1 | -2.063*** | 0.260 | -2.692*** | -2.592*** | 0.434 | -2.934*** | -1.639*** | 0.00935 | -2.554*** |
| | (0.0865) | (0.385) | (0.325) | (0.106) | (0.412) | (0.346) | (0.0745) | (0.375) | (0.314) |
| cut2 | -1.462*** | 1.254*** | -1.991*** | -1.926*** | 1.771*** | -2.139*** | -0.778*** | 1.231*** | -1.535*** |
| | (0.0709) | (0.387) | (0.320) | (0.0823) | (0.415) | (0.338) | (0.0599) | (0.379) | (0.310) |
| cut3 | -0.641*** | 2.484*** | -1.015*** | -1.279*** | 3.015*** | -1.323*** | -0.176*** | 2.008*** | -0.822*** |
| | (0.0588) | (0.392) | (0.317) | (0.0674) | (0.422) | (0.334) | (0.0560) | (0.381) | (0.308) |
| cut4 | 0.718*** | 4.344*** | 0.603* | 0.226*** | 5.611*** | 0.691** | 1.329*** | 3.860*** | 0.928*** |
| | (0.0593) | (0.402) | (0.316) | (0.0565) | (0.444) | (0.332) | (0.0676) | (0.386) | (0.307) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No | No | Yes | No |
| *N* | 1328 | 1287 | 1328 | 1329 | 1288 | 1329 | 1329 | 1288 | 1329 |

*Notes*: Ordered logit estimates; standard errors in parentheses. Dependent variables are support for three policies (international carbon budget, national green infrastructure programs, national carbon tax), measured on a 5-point Likert scale (from "Strongly oppose" to "Strongly support"). Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A2: Universalism — Policy Views (Whole Sample)

| | International | | | Domestic | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Carbon Budget | | | Green Infrastructure | | | Carbon Tax | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Universalism | 0.367*** | 0.0936*** | 0.200*** | 0.337*** | 0.0468** | 0.158*** | 0.323*** | 0.0714** | 0.155*** |
| | (0.0349) | (0.0289) | (0.0326) | (0.0318) | (0.0223) | (0.0281) | (0.0372) | (0.0336) | (0.0351) |
| Constant | 2.678*** | 0.892*** | 2.852*** | 3.009*** | 0.832*** | 2.925*** | 2.272*** | 1.176*** | 2.754*** |
| | (0.0349) | (0.190) | (0.190) | (0.0318) | (0.147) | (0.163) | (0.0372) | (0.222) | (0.204) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No | No | Yes | No |
| $R^2$ | 0.076 | 0.458 | 0.288 | 0.0772 | 0.605 | 0.367 | 0.0535 | 0.350 | 0.259 |
| Adj. $R^2$ | 0.0757 | 0.447 | 0.275 | 0.0765 | 0.597 | 0.355 | 0.0528 | 0.337 | 0.245 |
| $N$ | 1336 | 1294 | 1336 | 1337 | 1295 | 1337 | 1337 | 1295 | 1337 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are support for three policies (international carbon budget, national green infrastructure programs, national carbon tax), measured on a 5-point Likert scale (from "Strongly oppose" to "Strongly support"). Universalism is the standardized average of three measures (see text). Control Set 1 include dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes our PCA for Climate Change Concerns. $^{*}$ $p < 0.10$, $^{**}$ $p < 0.05$, $^{***}$ $p < 0.01$.

Table A3: Share of Respondents who Support Climate Policies (somewhat/strongly)

| | Share supporting (%) | | | Coef. on Universalist |
|---|---|---|---|---|
| | All | Universalists | Communitarians | Reg. |
| *International burden sharing* | | | | |
| Carbon budget | 65.61 | 69.17 | 62.19 | 0.07*** |
| *Domestic policies* | | | | |
| Green infrastructure | 77.50 | 80.67 | 74.45 | 0.06*** |
| Carbon tax | 54.93 | 49.63 | 59.51 | 0.10*** |

*Notes*: "Share supporting" is the percent answering *somewhat* or *strongly* support. "Universalists" and "Communitarians" are defined by the binary *Universalist* measure. "Reg." reports the coefficient (in percentage points) from a regression of Support (binary) on *Universalist*.$^{*}$ $p < 0.10$, $^{**}$ $p < 0.05$, $^{***}$ $p < 0.01$.

Table A4: Share of Respondents who Support Carbon Budget Divisions (somewhat/strongly)

| | Share supporting (%) | | | Coef. on Universalist |
|---|---|---|---|---|
| | All | Universalists | Communitarians | Reg. |
| Division I (proportional to population) | 65.37 | 66.87 | 61.89 | 0.05* |
| Division II (proportional to current emissions) | 28.21 | 29.29 | 27.92 | 0.01 |
| Division III (past emissions ⇒ lower shares) | 41.94 | 45.55 | 39.14 | 0.06** |
| Division IV (more hurt ⇒ higher shares) | 40.45 | 42.94 | 35.60 | 0.07*** |
| Division V (higher GDP ⇒ lower shares) | 36.87 | 38.65 | 29.10 | 0.10*** |

*Notes*: "Share supporting" is the percent answering *somewhat* or *strongly* support. "Universalists"/"Communitarians" are defined by the binary *Universalist* measure. "Reg." reports the coefficient (in percentage points) from a regression of Support (binary) on *Universalist*. See Appendix E for details on the Divisions. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## A.2 Policy Spending.

**Procedure and Logistics** We pre-registered this survey on the AsPredicted registry (AsPredicted #192877). The pre-registration specifies the survey design, target sample size, and elicited variables. The survey was conducted via Prolific with stratified quotas to broadly match the U.S. adult population on gender, age, ethnicity, party identification, and income. We collected data from 500 U.S. respondents in October 2024. The average completion time was about 10 minutes.

We included two attention checks that required respondents to select a prespecified answer to a trivial question; participants who failed both checks were screened out immediately. We also tracked completion time and excluded respondents who finished the survey in under one-third of the median duration. One participant was excluded for speeding. In addition, six respondents entered zero for all three spending items, which made the construction of the relative spending outcome impossible; these cases are excluded from analyses.

**Results.** As in the main experiment, we estimate three OLS specifications: (1) no controls, (2) with Control Set 1 + Control Set 2, and (3) with Control Set 1 only. Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions about emission levels and climate change skepticism. Control Set 2 additionally includes respondents' concern about climate change. As before, constructing the pre-registered PCA index of climate change concerns reduces the usable sample; in this experiment the loss is more substantial, 6.5% of the original observations are lost when including peoples' concerns. Attrition is nonrandom: those who drop out are less likely to identify as Democrats and are significantly more skeptical about anthropogenic climate change. Table A5 summarizes results from OLS regressions of moral universalism on relative climate policy spending.

Table A5: Universalism — relative Climate Policy Spending

| | (1) | (2) | (3) |
|---|---|---|---|
| Universalism | 0.0609*** | 0.00787 | 0.0262*** |
| | (0.00992) | (0.00921) | (0.00979) |
| Constant | 0.356*** | 0.0976* | 0.384*** |
| | (0.00983) | (0.0572) | (0.0560) |
| Control Set 1 | No | Yes | Yes |
| Control Set 2 | No | Yes | No |
| $R^2$ | 0.0712 | 0.478 | 0.330 |
| Adj. $R^2$ | 0.0693 | 0.447 | 0.294 |
| $N$ | 493 | 461 | 493 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variable is the relative spending allocated to climate change. Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

# B Who should pay

For each of the four decisions we run three OLS regressions: (i) without controls; (ii) with Control Set 1 plus Control Set 2; and (iii) with Control Set 1 only.[14] As an additional data-quality screen, we exclude responses whose open-text explanations were inconsistent with the recorded donation decision, nonsensical, or missing. Although not pre-registered, this screen reduces noise and improves the precision of reported findings. Appendix B reports results from specifications that include both flagged observations and respondents who sped through the survey, and Appendix E.2 provides background on the classification process.

Table A6: Universalism — Climate Disaster

| | Climate Disaster | | | | | |
|---|---|---|---|---|---|---|
| | US vs. Germany | | | US vs. Pakistan | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Universalism | 6.175*** | 4.724*** | 5.740*** | 9.724*** | 5.901*** | 6.966*** |
| | (1.025) | (1.165) | (1.124) | (1.347) | (1.389) | (1.365) |
| Constant | 30.61*** | 33.32*** | 45.38*** | 49.52*** | 64.35*** | 74.29*** |
| | (1.102) | (7.850) | (6.912) | (1.432) | (9.986) | (8.906) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No |
| $R^2$ | 0.0728 | 0.177 | 0.164 | 0.106 | 0.283 | 0.264 |
| Adj. $R^2$ | 0.0708 | 0.126 | 0.116 | 0.104 | 0.235 | 0.220 |
| $N$ | 464 | 450 | 464 | 442 | 422 | 442 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are the two Climate Disaster donation allocations (share of a hypothetical $100 donation assigned to the U.S. citizen). Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity),and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

[14] Control Set 1 includes dummies for age groups, gender, education, income, US state and area of residence, birthplace, race & ethnicity, party affiliation, employment status, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of people's misinformation about emission levels and climate change skepticism. As before, we also run an analysis including the second set of controls, a PCA-based measure of people's concern about climate change.

Table A7: Universalism — Climate Action

| | Climate Action | | | | | |
|---|---|---|---|---|---|---|
| | US vs. India | | | US vs. Philippines | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Universalism | 6.804*** | 5.109*** | 5.739*** | 3.727*** | 2.225** | 2.955*** |
| | (0.960) | (1.009) | (0.986) | (0.972) | (1.009) | (0.991) |
| Constant | 59.80*** | 53.22*** | 64.90*** | 65.68*** | 63.66*** | 70.90*** |
| | (0.899) | (5.966) | (5.098) | (0.908) | (6.092) | (5.280) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No |
| $R^2$ | 0.0980 | 0.226 | 0.207 | 0.0311 | 0.176 | 0.165 |
| Adj. $R^2$ | 0.0960 | 0.178 | 0.161 | 0.0290 | 0.125 | 0.117 |
| $N$ | 464 | 451 | 464 | 459 | 449 | 459 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are the two climate action donation allocations (share of a hypothetical $100 donation assigned to the U.S. citizen). Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Universalism — Climate Action (Whole Sample)

| | Climate Action | | | | | |
|---|---|---|---|---|---|---|
| | US vs. India | | | US vs. Philippines | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Universalism | 4.390*** | 2.638*** | 3.180*** | 2.785*** | 1.267 | 1.843* |
| | (0.934) | (0.972) | (0.952) | (1.007) | (1.067) | (1.039) |
| Constant | 59.55*** | 53.61*** | 64.58*** | 63.68*** | 60.81*** | 65.79*** |
| | (0.904) | (6.082) | (5.103) | (0.943) | (6.523) | (5.483) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No |
| $R^2$ | 0.0421 | 0.158 | 0.142 | 0.0150 | 0.101 | 0.0995 |
| Adj. $R^2$ | 0.0401 | 0.111 | 0.0975 | 0.0130 | 0.0514 | 0.0524 |
| $N$ | 505 | 492 | 505 | 504 | 494 | 504 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are the two Climate Action donation allocations (share of a hypothetical $100 donation assigned to the U.S. citizen). Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation,economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A9: Universalism — Climate Disaster (Whole Sample)

| | Climate Disaster | | | | | |
|---|---|---|---|---|---|---|
| | US vs. Germany | | | US vs. Pakistan | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Universalism | 6.093*** | 5.016*** | 5.828*** | 9.353*** | 6.369*** | 7.157*** |
| | (1.032) | (1.142) | (1.112) | (1.287) | (1.351) | (1.333) |
| Constant | 31.59*** | 38.32*** | 48.11*** | 47.98*** | 62.85*** | 72.13*** |
| | (1.109) | (7.916) | (7.038) | (1.374) | (9.710) | (8.688) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No |
| $R^2$ | 0.0653 | 0.168 | 0.156 | 0.0964 | 0.229 | 0.210 |
| Adj. $R^2$ | 0.0634 | 0.121 | 0.112 | 0.0946 | 0.184 | 0.168 |
| $N$ | 501 | 485 | 501 | 497 | 475 | 497 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are the two Climate Disaster donation allocations (share of a hypothetical $100 donation assigned to the U.S. citizen). Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A10: Heterogeneity in Climate Action and Disaster Decisions by *Universalist*

| | Climate Action | | | | Climate Disaster | | | |
|---|---|---|---|---|---|---|---|---|
| | US vs. India | | US vs. Philippines | | US vs. Germany | | US vs. Pakistan | |
| | (U) | (C) | (U) | (C) | (U) | (C) | (U) | (C) |
| N | 245 | 219 | 244 | 215 | 202 | 262 | 244 | 247 |
| Mean (Std. Dev.) | 62.74 (18.54) | 58.31 (21.67) | 65.93 (17.71) | 66.25 (21.61) | 34.96 (23.86) | 25.90 (24.23) | 55.89 (29.17) | 42.98 (32.48) |
| 50/50 Split | 40.82 | 39.73 | 38.11 | 29.30 | 39.11 | 25.95 | 29.23 | 20.24 |
| >50 US citizen | 54.69 | 47.49 | 60.66 | 64.65 | 11.88 | 8.78 | 46.15 | 34.82 |

*Notes*: (U) = Universalist, (C) = Communitarian defined by the binary *Universalist*. "50/50 Split" and ">50 US citizen" are percentages.

**Climate Action: US vs. India** Figure A1 illustrate the distribution of the costs allocated to the US citizen and the frequency of the different factors. Tables A11 list the three most commonly used 'narratives' in the donation decision.[15] Figure A2 illustrates the heterogeneity - based on the binary *Universalist* - in the distribution of cost allocations and the factor frequencies.

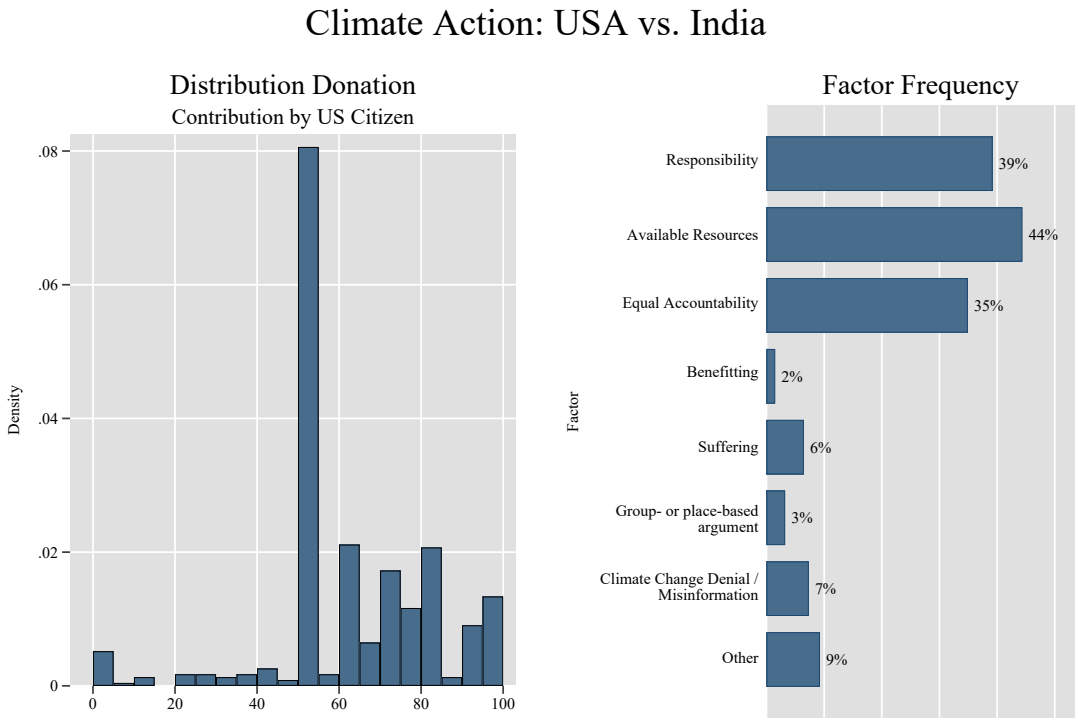



Figure A1: Distribution of Donations in US vs. India decision

[15] As a 'narrative', we describe the collection of factors a respondent-based their answers on. While most answers are based on one factor, some are based on more. Thus, a narrative can be 'Available Resources' - answers that are based on one factor - or 'Responsibility + Available Resources' - answers based on two factors. Of course, answers can also be based on more than two factors.

Table A11: Three most common narratives US vs. IND

| No | Narrative | Share | Mean Donation | Example |
|---|---|---|---|---|
| 1 | Equal Accountability | 23.92% | 50.23 | "Climate change and the human response is the same regardless of where a person lives." |
| 2 | Available Resources | 19.40% | 75.84 | "The United States has a more robust economy and a person living here generally would have a larger income than someone from India. [...] I believe it would be less of a hardship for someone from the US to make a larger contribution." |
| 3 | Responsibility + Available Resources | 14.44% | 75.54 | "1) In general, people in The United States are more affluent than people in India. They have higher incomes. more savings, and more opportunities to earn money than people in India. 2) People in The United States generally consume more in their daily lives than people in India. They eat more, travel more, go out to eat more, etc. This means that American people contribute more to climate change, so they should contribute more to solving it." |

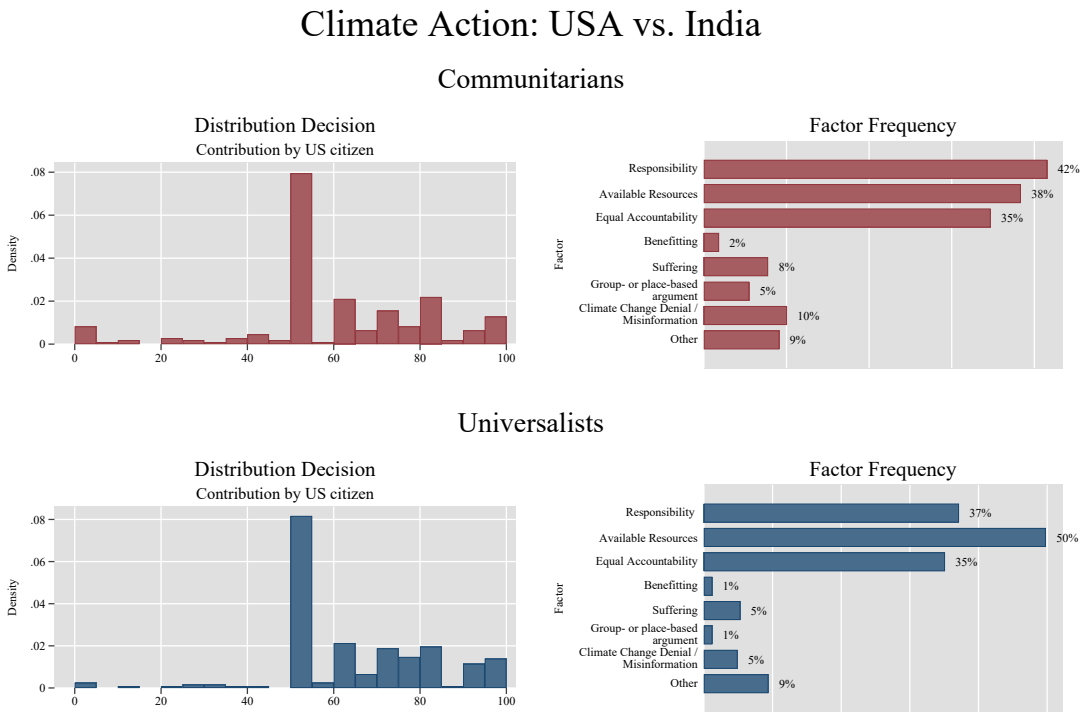



Figure A2: Distribution and reasoning by *Universalist* in US vs. India decision

**Climate Action: US vs. Philippines** Figure A3 illustrate the distribution of the costs allocated to the US citizen and the frequency of the different factors. Tables A12 list the three most commonly used 'narratives' in the donation decision. Figure A4 illustrates the heterogeneity - based on the binary *Universalist* - in the distribution of cost allocations and the factor frequencies.

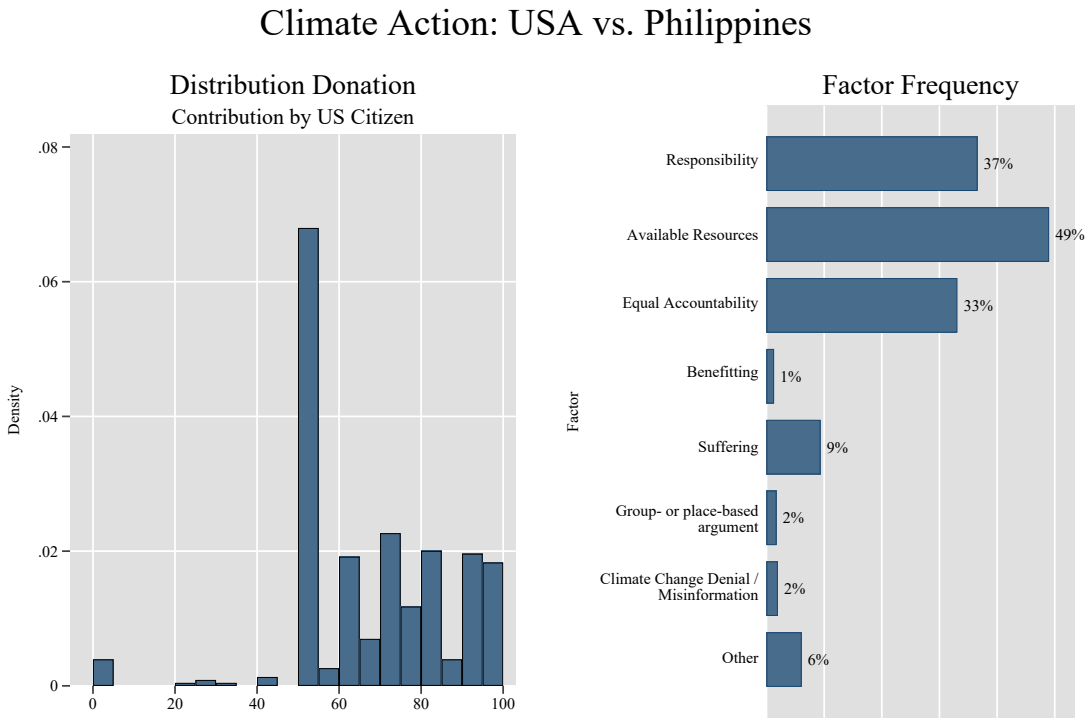



Figure A3: Distribution of Donations in US vs. Philippines decision

Table A12: Three most common narratives US vs. PHI

| No | Narrative | Share | Mean Donation | Example |
|---|---|---|---|---|
| 1 | Available Resources | 24.40% | 74.71 | "A higher income and a more developed country should contribute more to fighting climate change." |
| 2 | Equal Accountability | 22.00% | 50 | "I am indifferent on the background of the person. We should all contribute to helping the cause." |
| 3 | Responsibility + Available Resources | 16.78% | 82.66 | "The United States produces more greenhouse gases than the Philippines, therefore the US contributes more to global warming and climate change. Additionally, the average citizen in the US has more money than the average person in the Philippines. Because the US is a bigger threat to climate change and in general is wealthier, it should pay more." |

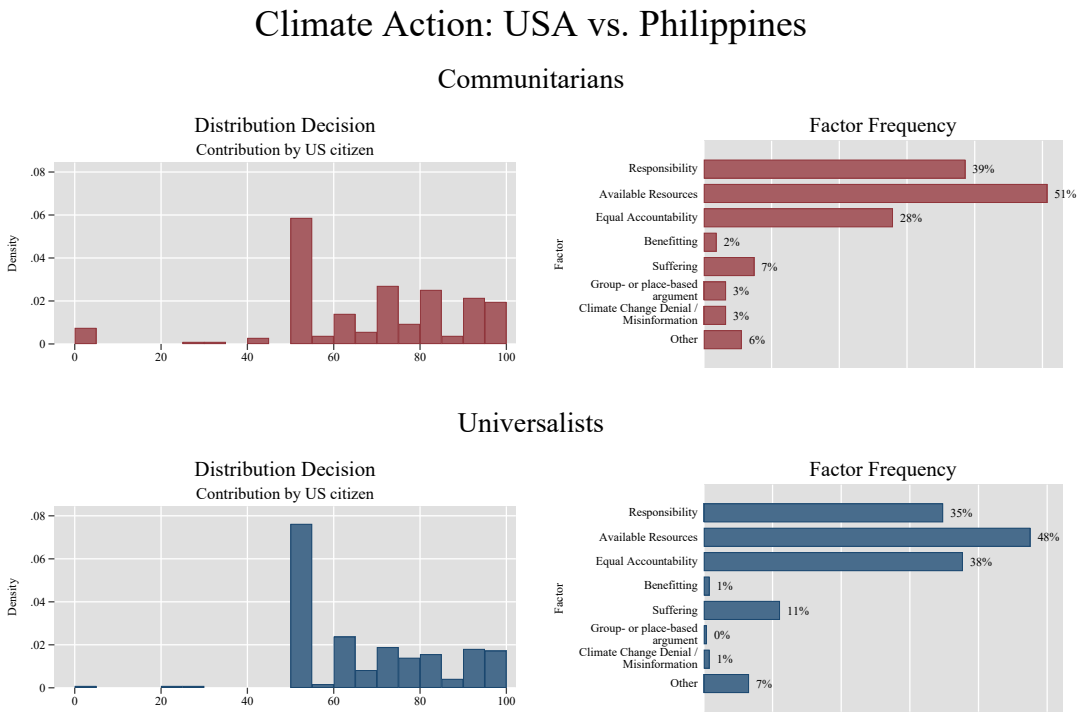



Figure A4: Distribution and reasoning by *Universalist* in US vs. Philippines decision

**Climate Disaster: US vs. Germany** Figure A5 illustrate the distribution of the costs allocated to the US citizen and the frequency of the different factors. Tables A13 list the three most commonly used 'narratives' in the donation decision. Figure A6 illustrates the heterogeneity - based on the binary *Universalist* - in the distribution of cost allocations and the factor frequencies.

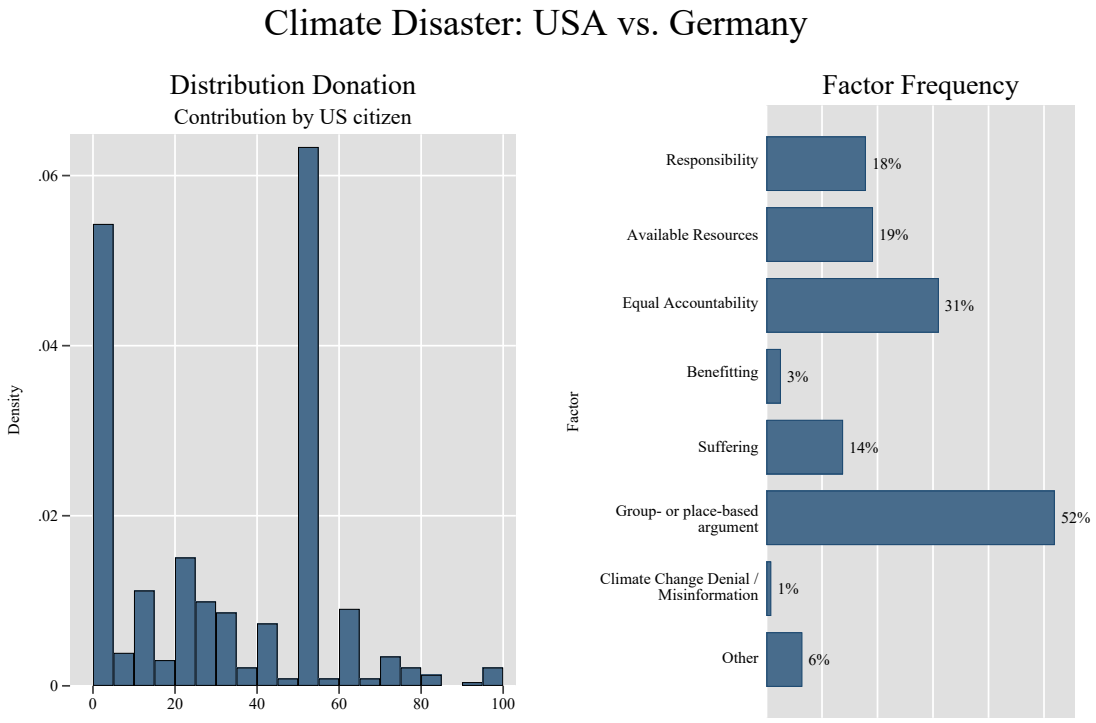



Figure A5: Distribution of Donations in US vs. Germany decision

Table A13: Three most common narratives US vs. Ger

| | Narrative | Share | Mean Donation | Example |
|---|---|---|---|---|
| 1 | Group- or place-based argument | 28.45% | 10.20 | "This is going to be a brief answer, my apologies, I am going to admit outright that I'm biased since I'm American, so I don't feel the American should have to foot the bill. It's not that I'm greedy or anything, but this is a German problem." |
| 2 | Equal Accountability | 20.91% | 49.54 | "I feel that we are all responsible for one another in life. Regardless of country, city, ethnic background, age, or anything else, we are all equal and all deserve to live a safe life, with our needs met. Therefore, the German and American are equally responsible for helping the people who are in need after these floods." |
| 3 | Available Resources + Group- or place-based argument | 6.90 % | 8.31 | "Germany is one of the richest countries in Europe. They can afford to pay for their own disasters. And it is their country can take care of themselves. People in the United States are more removed from this situation. A nice donation would be fine. But let the Germans take care of the Germans." |

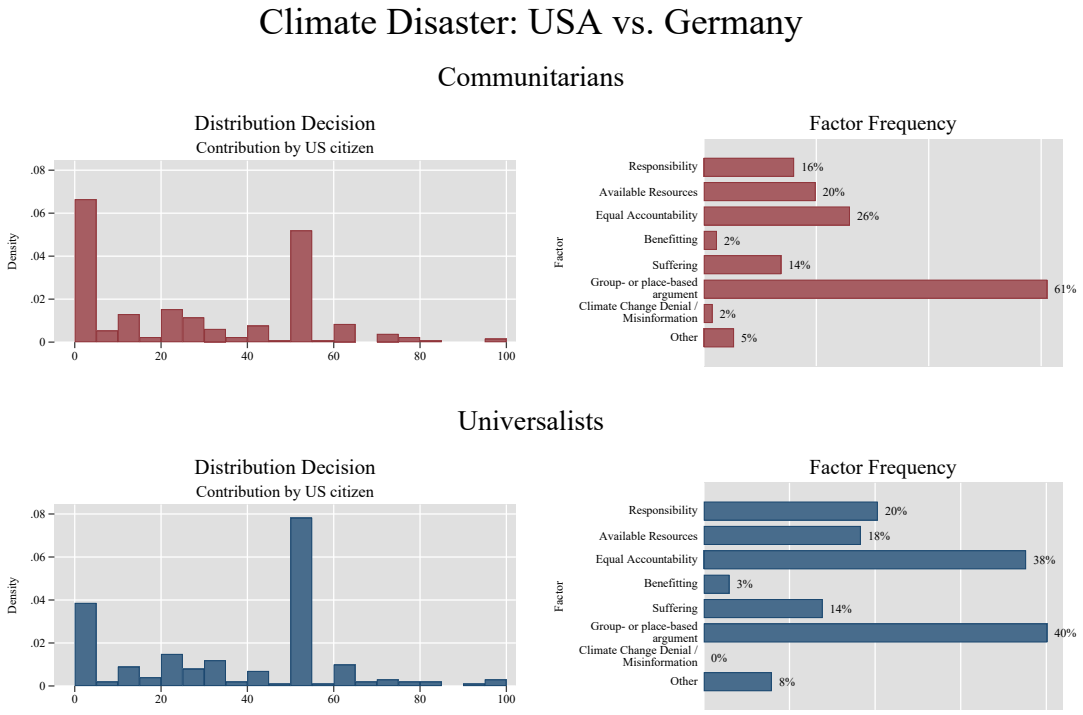



Figure A6: Distribution and reasoning by *Universalist* in US vs. Germany decision

**Climate Action: US vs. Pakistan** Figure A7 illustrate the distribution of the costs allocated to the US citizen and the frequency of the different factors. Tables A14 list the three most commonly used 'narratives' in the donation decision. Figure A8 illustrates the heterogeneity - based on the binary *Universalist* - in the distribution of cost allocations and the factor frequencies.

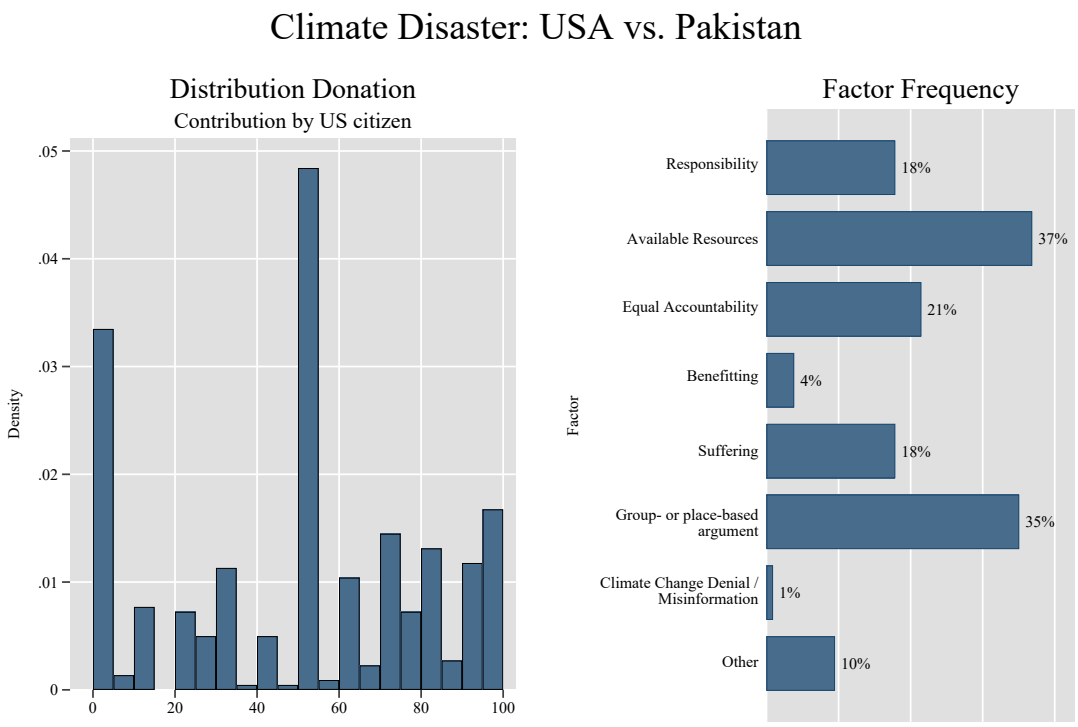



Figure A7: Distribution of Donations in US vs. Pakistan decision

Table A14: Three most common narratives US vs. PAK

| | Narrative | Share | Mean Donation | Example |
|---|---|---|---|---|
| 1 | Available Resources | 16.97% | 74.71 | "The average income of someone in Pakistan is quite low so I only had them pay a little bit. The average American can more easily afford it." |
| 2 | Group- or place-based argument | 16.29% | 82.66 | "I believe in a help yourself first culture. First, tend to the necessities of your own country before giving hand outs. [...]" |
| 3 | Equal Accountability | 15.84% | 50 | "I think we can all contribute to a cause. The ability for a person to contribute depends on his or her values, and not where he or she lives. A person who lives anywhere in the world can help a cause based on his or her willingness and desire to help." |

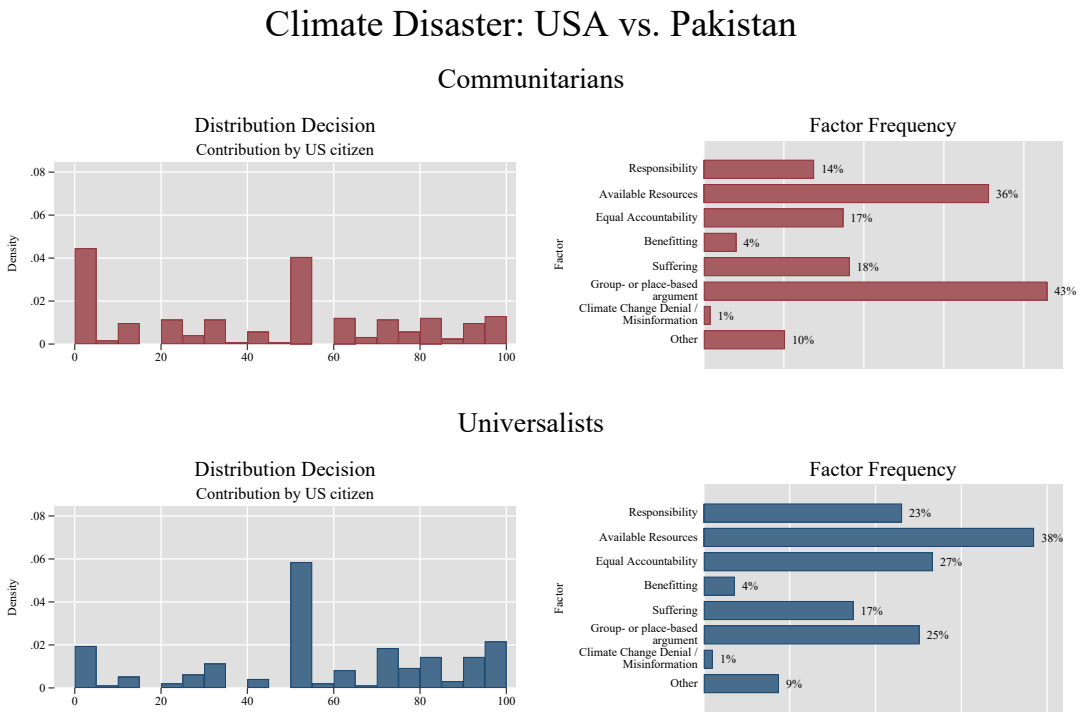



Figure A8: Distribution and reasoning by *Universalist* in US vs. Pakistan decision

# C Controls and Robustness

This Appendix aims to add further details to the results reported in Section 3 and to make transparent how the estimated relationship between universalism and policy support responds to the inclusion of controls, and to further assess the robustness of our results. We proceed in three steps: (i) We introduce our controls in more sequential steps than in the main body of the paper; (ii) because our measure of climate change concern is available only for a subset of respondents, we run the specifications without Control Set 2 across the full and restricted samples; (iii) we plot the coefficients for our specification with Control Set 1.

Table A15: Universalism — International Carbon Budget (Step-by-Step Controls)

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|---|
| Universalism | 0.369*** | 0.355*** | 0.271*** | 0.242*** | 0.237*** | 0.200*** | 0.0921*** |
| | (0.0350) | (0.0349) | (0.0335) | (0.0333) | (0.0334) | (0.0328) | (0.0290) |
| Constant | 2.682*** | 3.138*** | 2.307*** | 2.423*** | 2.521*** | 2.841*** | 0.878*** |
| | (0.0350) | (0.173) | (0.185) | (0.184) | (0.191) | (0.190) | (0.191) |
| Demographics | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Party affiliation | No | No | Yes | Yes | Yes | Yes | Yes |
| Economic preferences | No | No | No | Yes | Yes | Yes | Yes |
| Climate Change misperceptions | No | No | No | No | Yes | Yes | Yes |
| Climate change skepticism | No | No | No | No | No | Yes | Yes |
| Climate change concern | No | No | No | No | No | No | Yes |
| $R^2$ | 0.0772 | 0.108 | 0.214 | 0.247 | 0.249 | 0.287 | 0.459 |
| Adj. $R^2$ | 0.0765 | 0.0982 | 0.204 | 0.234 | 0.236 | 0.274 | 0.447 |
| $N$ | 1328 | 1328 | 1328 | 1328 | 1328 | 1328 | 1287 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are support for international carbon budget, measured on a 5-point Likert scale (from "Strongly oppose" to "Strongly support"). Universalism is the standardized average of three measures (see text). Controls are added cumulatively across columns. Demographics comprise dummies for age groups, sex, education, income, state and area of residence, birthplace, and race & ethnicity; economic preferences comprise trust, risk, patience, altruism, and positive & negative reciprocity. Columns (2)–(6) together correspond to Control Set 1, and column (7) additionally includes Control Set 2 (the PCA index of climate change concern) in the notation of Table 1. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A16: Universalism — Domestic Green Infrastructure (Step-by-Step Controls)

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|---|
| Universalism | 0.338*** | 0.327*** | 0.232*** | 0.203*** | 0.201*** | 0.159*** | 0.0446** |
| | (0.0319) | (0.0320) | (0.0296) | (0.0292) | (0.0292) | (0.0282) | (0.0223) |
| Constant | 3.013*** | 3.356*** | 2.405*** | 2.500*** | 2.560*** | 2.925*** | 0.828*** |
| | (0.0319) | (0.159) | (0.163) | (0.161) | (0.168) | (0.164) | (0.147) |
| Demographics | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Party affiliation | No | No | Yes | Yes | Yes | Yes | Yes |
| Economic preferences | No | No | No | Yes | Yes | Yes | Yes |
| Climate change misperceptions | No | No | No | No | Yes | Yes | Yes |
| Climate change skepticism | No | No | No | No | No | Yes | Yes |
| Climate change concern | No | No | No | No | No | No | Yes |
| $R^2$ | 0.0780 | 0.101 | 0.263 | 0.306 | 0.307 | 0.366 | 0.606 |
| Adj. $R^2$ | 0.0773 | 0.0910 | 0.254 | 0.293 | 0.294 | 0.353 | 0.598 |
| $N$ | 1329 | 1329 | 1329 | 1329 | 1329 | 1329 | 1288 |

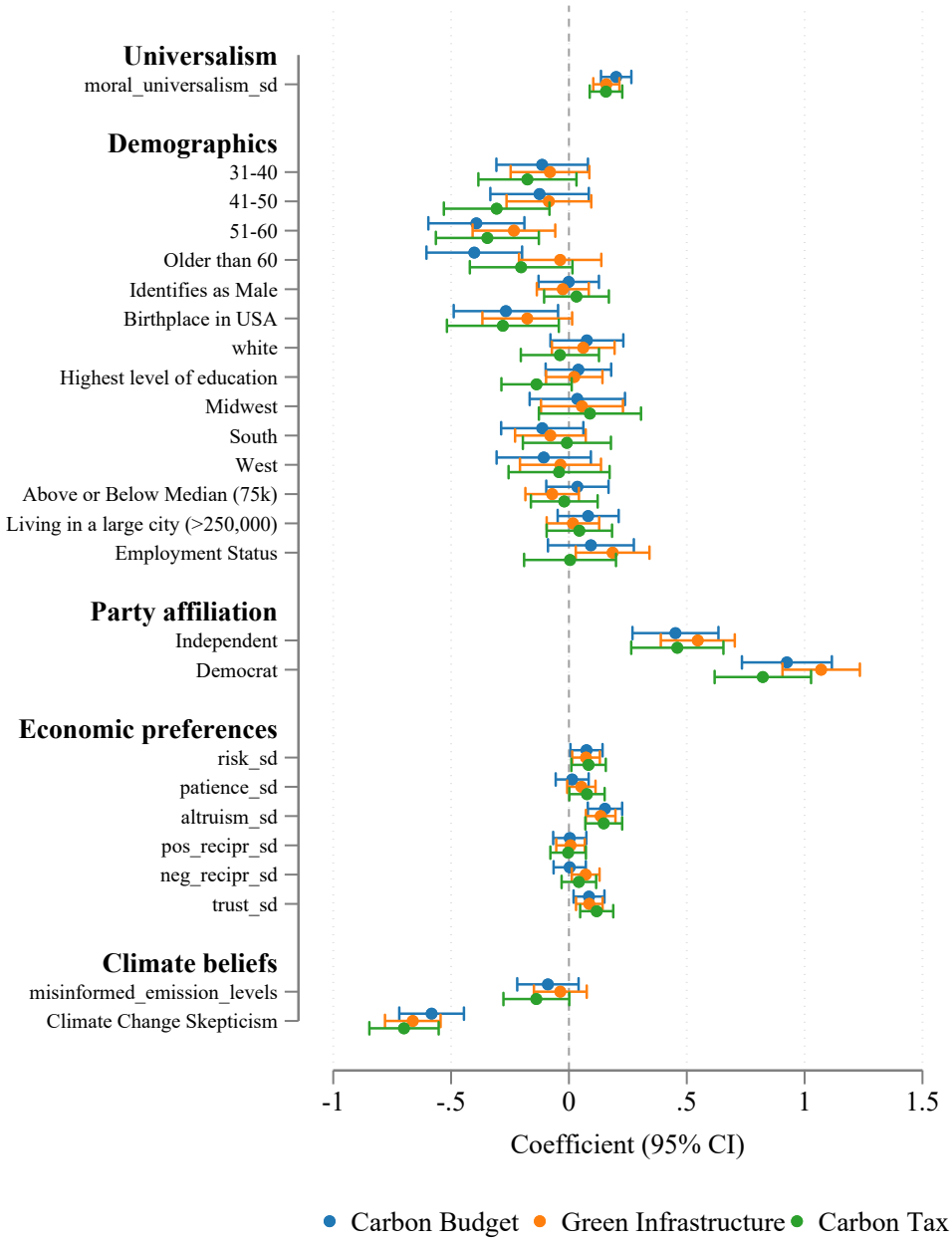
*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are support for green infrastructure program, measured on a 5-point Likert scale (from "Strongly oppose" to "Strongly support"). Universalism is the standardized average of three measures (see text). Controls are added cumulatively across columns. Demographics comprise dummies for age groups, sex, education, income, state and area of residence, birthplace, and race & ethnicity; economic preferences comprise trust, risk, patience, altruism, and positive & negative reciprocity. Columns (2)–(6) together correspond to Control Set 1, and column (7) additionally includes Control Set 2 (the PCA index of climate change concern) in the notation of Table 1. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A17: Universalism — Domestic Carbon Tax (Step-by-Step Controls)

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|---|
| Universalism | 0.328*** | 0.323*** | 0.243*** | 0.208*** | 0.202*** | 0.157*** | 0.0719** |
| | (0.0373) | (0.0374) | (0.0365) | (0.0360) | (0.0360) | (0.0352) | (0.0337) |
| Constant | 2.274*** | 2.886*** | 2.064*** | 2.202*** | 2.344*** | 2.729*** | 1.144*** |
| | (0.0373) | (0.186) | (0.201) | (0.198) | (0.206) | (0.204) | (0.222) |
| Demographics | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Party affiliation | No | No | Yes | Yes | Yes | Yes | Yes |
| Economic preferences | No | No | No | Yes | Yes | Yes | Yes |
| Climate change misperceptions | No | No | No | No | Yes | Yes | Yes |
| Climate change skepticism | No | No | No | No | No | Yes | Yes |
| Climate change concern | No | No | No | No | No | No | Yes |
| $R^2$ | 0.0551 | 0.0778 | 0.163 | 0.207 | 0.211 | 0.261 | 0.353 |
| Adj. $R^2$ | 0.0544 | 0.0673 | 0.152 | 0.193 | 0.197 | 0.246 | 0.339 |
| $N$ | 1329 | 1329 | 1329 | 1329 | 1329 | 1329 | 1288 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are support for carbon tax with cash transfers, measured on a 5-point Likert scale (from "Strongly oppose" to "Strongly support"). Universalism is the standardized average of three measures (see text). Controls are added cumulatively across columns. Demographics comprise dummies for age groups, sex, education, income, state and area of residence, birthplace, and race & ethnicity; economic preferences comprise trust, risk, patience, altruism, and positive & negative reciprocity. Columns (2)–(6) together correspond to Control Set 1, and column (7) additionally includes Control Set 2 (the PCA index of climate change concern) in the notation of Table 1. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure A9: Control Coefficients Across Policies




*Notes*: Coefficients from the specification including Control Set 1, excluding climate change concern, estimated separately for each of the three policies. Universalism is the standardized average of three allocation decisions; economic preferences are standardized. Markers are point estimates and horizontal bars are 95% confidence intervals. Reference categories: age 18–30, Northeast, Republican.

Table A18: Universalism — Full vs. Restricted Sample (Selection Check)

| | No controls | | Control Set 1 | |
|---|---|---|---|---|
| | Full | Restricted | Full | Restricted |
| *International Carbon Budget* | | | | |
| Universalism | 0.369*** | 0.349*** | 0.200*** | 0.187*** |
| | (0.0350) | (0.0352) | (0.0328) | (0.0330) |
| $N$ | 1328 | 1287 | 1328 | 1287 |
| *Domestic Green Infrastructure* | | | | |
| Universalism | 0.338*** | 0.315*** | 0.159*** | 0.146*** |
| | (0.0319) | (0.0318) | (0.0282) | (0.0282) |
| $N$ | 1329 | 1288 | 1329 | 1288 |
| *Domestic Carbon Tax* | | | | |
| Universalism | 0.328*** | 0.310*** | 0.157*** | 0.148*** |
| | (0.0373) | (0.0379) | (0.0352) | (0.0358) |
| $N$ | 1329 | 1288 | 1329 | 1288 |

*Notes*: OLS estimates; standard errors in parentheses. Each panel reports the coefficient on universalism for one policy. "Full" uses the entire sample; "Restricted" uses the subsample for which the climate change concern index is available. "No controls" includes only universalism; "Control Set 1" includes the full set of controls excluding climate change concern (see Tables A15–A17). Within each specification, restricting the sample leaves the coefficient nearly unchanged, indicating that the attenuation under the full model reflects the controls rather than sample selection. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

# D Pre-registrations

Our main study was pre-registered under AsPredicted #121586. Given the descriptive and, to some extent, exploratory nature of the study, we pre-registered the survey design, the elicited variables, the sample size, and the exclusion criteria in particular. We adhere to all of these in the paper (we collected three more responses than planned). Despite the exploratory nature of the study, we also specified three broad lines of analysis, without specifying precise statistical approaches. We deviate from this pre-registration in two key ways.

First, we had specified that we would compare the different bystander decisions. Second, in both survey arms (climate action and climate disaster), we additionally elicited two further bystander donation decisions, along with corresponding open-ended responses, in which the two individuals differed by age and income rather than by the dimension used in the main analysis. Each respondent viewed three randomly selected decisions out of a total of four. The age and income dimensions were motivated by the ongoing fairness debate concerning the fair distribution of climate-related burdens along these two dimensions. Because our analysis now focuses primarily on the role of moral universalism, and because it remains unclear whether age and income are strong triggers of in-group/out-group ("us versus them") thinking in this context, we ultimately excluded these dimensions from the main analysis. For completeness, however, we report results for both lines of analysis below.

For the age and income dimensions, we follow the specification used in the main part of the paper. Note that, under this specification, even if age and income were to trigger strong in-group/out-group thinking, it is unclear what pattern we should expect for the universalism coefficient, since there is no clear in-group/out-group assignment for respondents along these dimensions.

Table A19: Overview of the Bystander Donation Decisions

| Decision | Persons compared | Donation | Outcome: payment attributed to | *N* | Mean | SD | Median |
|---|---|---|---|---|---|---|---|
| *Panel A: Climate Action* | | | | | | | |
| US vs. India | Resident of the US vs. resident of India | *atmosfair* ($CO_2$ mitigation) | US citizen | 464 | 60.65 | 20.18 | 60 |
| US vs. Philippines | Resident of the US vs. resident of the Philippines | *atmosfair* ($CO_2$ mitigation) | US citizen | 459 | 66.08 | 19.61 | 65 |
| Age | American younger than 30 vs. American older than 55 | *atmosfair* ($CO_2$ mitigation) | Older person (>55) | 469 | 53.37 | 18.15 | 50 |
| Income | American in the lower vs. the upper 50% of the income distribution | *atmosfair* ($CO_2$ mitigation) | Wealthier person | 447 | 72.04 | 17.90 | 70 |
| *Panel B: Climate Disaster* | | | | | | | |
| US vs. Germany | Resident of the US vs. resident of Germany | *Aktion Deutschland Hilft* (flash flooding, Ahr Valley, Germany) | US citizen | 464 | 29.85 | 24.46 | 30 |
| US vs. Pakistan | Resident of the US vs. resident of Pakistan | *UN World Food Programme* (2022 Pakistan floods) | US citizen | 442 | 48.67 | 31.69 | 50 |
| Age | American younger than 30 vs. American older than 55 | *Florida Disaster Fund* (Hurricane Ian, United States) | Older person (>55) | 443 | 55.01 | 16.37 | 50 |
| Income | American in the lower vs. the upper 50% of the income distribution | *Florida Disaster Fund* (Hurricane Ian, United States) | Wealthier person | 408 | 74.85 | 18.95 | 75 |

*Notes*: Overview of all bystander donation decisions. In each decision, respondents split the cost of a hypothetical $100 donation between two individuals, each randomly selected from a group representative of the respective population. Each respondent was randomly assigned three of the four decisions within their survey arm, so sample sizes differ across decisions. The outcome is the dollar amount (out of $100) attributed to the person indicated. Statistics are computed on the samples used in the corresponding regressions, which exclude respondents who completed the survey in less than one-third of the arm-specific median duration, as well as responses whose open-text explanations were inconsistent with the recorded donation decision, nonsensical, or missing (see Appendix B). The nationality decisions are analyzed in the main text; the age and income decisions are reported in Appendix D.

Table A20: Universalism — Climate Action: Age and Income

| | Climate Action | | | | | |
|---|---|---|---|---|---|---|
| | Age | | | Income | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Universalism | 3.356*** | 2.086** | 2.188** | 1.664* | -0.322 | -0.0945 |
| | (0.875) | (0.922) | (0.901) | (0.850) | (0.873) | (0.840) |
| Constant | 53.11*** | 55.65*** | 55.03*** | 71.94*** | 70.44*** | 73.73*** |
| | (0.829) | (5.800) | (4.806) | (0.846) | (5.720) | (4.838) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No |
| $R^2$ | 0.0306 | 0.148 | 0.136 | 0.00854 | 0.215 | 0.211 |
| Adj. $R^2$ | 0.0285 | 0.0960 | 0.0870 | 0.00631 | 0.165 | 0.164 |
| $N$ | 469 | 454 | 469 | 447 | 437 | 447 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are the two additional climate action donation allocations: the share of a hypothetical $100 donation assigned to the older person (>55; columns 1–3) and to the wealthier person (columns 4–6). Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. Each respondent was randomly assigned three of the four bystander decisions, so sample sizes differ across decisions. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Climate Action: Age and Income. In the age decision, respondents allocate on average $53.4 of the $100 donation to the older person (median $50, SD 18.1; N=469). In the income decision, they allocate on average $72.0 to the wealthier person (median $70, SD 17.9; N=447N=447 N=447). Table A20 reports the relationship with universalism. Universalism predicts the age allocation, though the coefficient is smaller than for the nationality decisions. For the income allocation, universalism is at best weakly related without controls and unrelated once controls are included. Turning to the most common narratives. On both decisions, arguments turn overwhelmingly on available resources (41.4% of respondents for age, 72.7% for income). Group- or place-based arguments are essentially absent (2.1% and 0.2%, respectively).

Climate Disaster: Age and Income. Respondents allocate on average $55.0 of the $100 donation to the older person (median $50, SD 16.4; N=443) and $74.9 to the wealthier person (median $75, SD 19.0; N=408). Universalism predicts neither allocation, in either the raw or the controlled specification (Table A21). As in the Action arm, reasoning turns on available resources (48.3% of respondents for age, 77.7% for income) rather than group membership, and group- or place-based arguments are essentially absent (1.1% and 0.5%, respectively). We note one difference from the nationality decisions in this arm: the age and income decisions were framed around a domestic

Table A21: Universalism — Climate Disaster: Age and Income

| | Climate Disaster | | | | | |
|---|---|---|---|---|---|---|
| | Age | | | Income | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Universalism | 0.642 | -0.328 | -0.671 | 0.928 | -0.838 | -0.0159 |
| | (0.810) | (0.855) | (0.832) | (0.965) | (1.012) | (1.005) |
| Constant | 55.07*** | 60.47*** | 59.55*** | 74.87*** | 65.48*** | 80.00*** |
| | (0.782) | (5.503) | (4.864) | (0.939) | (6.618) | (5.904) |
| Control Set 1 | No | Yes | Yes | No | Yes | Yes |
| Control Set 2 | No | Yes | No | No | Yes | No |
| $R^2$ | 0.00142 | 0.138 | 0.139 | 0.00227 | 0.168 | 0.127 |
| Adj. $R^2$ | -0.000841 | 0.0820 | 0.0869 | -0.000188 | 0.109 | 0.0695 |
| $N$ | 443 | 428 | 443 | 408 | 396 | 408 |

*Notes*: OLS estimates; standard errors in parentheses. Dependent variables are the two additional climate disaster donation allocations: the share of a hypothetical $100 donation assigned to the older person (>55; columns 1–3) and to the wealthier person (columns 4–6). Unlike the nationality decisions in the Climate Disaster arm (which concern floods in Germany and Pakistan), the age and income decisions were framed around a domestic disaster (Hurricane Ian, with donations to the Florida Disaster Fund). Comparisons across decision types in this arm therefore differ in disaster context as well as in the attribute distinguishing the two individuals. Universalism is the standardized average of three measures (see text). Control Set 1 includes dummies for age groups, sex, education, income, state and area of residence, birthplace, race & ethnicity, party affiliation, economic preferences (trust, risk, patience, altruism, positive & negative reciprocity), and measures of misperceptions and skepticism about climate change. Control Set 2 includes the PCA index of climate change concerns. Each respondent was randomly assigned three of the four bystander decisions, so sample sizes differ across decisions. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

disaster (Hurricane Ian, with donations to the Florida Disaster Fund), whereas the decisions in the main part of the paper concern floods in Germany and Pakistan. Therefore, Climate Disaster decisions for the age and income scenario differ both in disaster context and presence of a national boundary.

The additional robustness experiment where we study quantitative policy attitudes was pre-registered under AsPredicted #192877. Since this is a robustness exercise, it more concretely specifies the analyses. We follow this pre-specification, with the addition that we report results with and without controling for climate change concerns.

# E Survey Design

## E.1 Outcome Measures

Table A22: Outcome Measures

| Outcome | # Items | Scale(s) | Details |
|---|---|---|---|
| Fight Climate Change | 1 | 5-pt agree (0–4) | PV1 |
| Green Infrastructure | 4 | support (0–4); fairness (0–4); winners (0–5); HH win/lose (0–5) | PV2 |
| Carbon Tax | 4 | support (0–4); fairness (0–4); winners (0–5); HH win/lose (0–5) | PV3 |
| Carbon Budget | 1 | support (0–4) | PV4 |
| Division 1: Population proportional | 2 | support (0–4); fairness (0–4) | IBS1 |
| Division 2: Current emissions proportional | 2 | support (0–4); fairness (0–4) | IBS2 |
| Division 3: Past emitters get less | 2 | support (0–4); fairness (0–4) | IBS3 |
| Division 4: Vulnerable countries get more | 2 | support (0–4); fairness (0–4) | IBS4 |
| Division 5: Richer countries get less | 2 | support (0–4); fairness (0–4) | IBS5 |
| Climate Action | 2 | $100 donation; Open-ended text | WSP1 |
| Climate Disaster | 2 | $100 donation; Open-ended text | WSP2 |

### PV1. Fight Climate Change

*Introduction*

—

*Question(s)*

Do you agree with the following statement: The United States should take measures to fight climate change.

*Scale* Strongly disagree (0) — Strongly agree (4)

### PV2. Green Infrastructure

*Introduction*

A green infrastructure program is a large public investment program, financed by additional public debt, to accomplish the transition needed to cut greenhouse gas emissions. Investments concern renewable power plants, public transport, thermal

renovation of buildings, and sustainable agriculture. We will now ask you a few questions regarding this specific policy.

*Question(s)*

(1) Do you support or oppose a green infrastructure program?

(2) Do you agree or disagree with the following statement: A green infrastructure program is fair?

(3) In your view, would the following groups win or lose financially with a green infrastructure program? (Income—low/middle/high, rural areas, Age—younger 30/older 55)

(4) Do you think that your household would win or lose financially from a green infrastructure program?

*Scale(s)*

(1) Strongly oppose (0) — Strongly support (4)

(2) Strongly disagree (0) — Strongly agree (4)

(3) Lose a lot (0) — Win a lot (5)

(4) Lose a lot (0) — Win a lot (5)

**PV3. Carbon Tax**

*Introduction*

To fight climate change, the government can make greenhouse gas emissions costly to change equipment and reduce emissions. Under a carbon tax with cash transfers, products that emit greenhouse gases are taxed (e.g., gasoline price increases by about 40 cents per gallon). Revenues are redistributed equally to adults, regardless of income (about $600 per year). We will now ask you a few questions regarding this specific policy.

*Question(s)*

(1) Do you support or oppose a carbon tax with cash transfers?

(2) Do you agree or disagree with: A carbon tax with cash transfers is fair?

(3) Who would win or lose financially? (Income—low/middle/high, rural areas, Age—younger 30/older 55)

(4) Would your household win or lose financially under a carbon tax with cash transfers?

*Scale(s)* (1) Strongly oppose (0) — Strongly support (4)

(2) Strongly disagree (0) — Strongly agree (4)

(3) Lose a lot (0) — Win a lot (5)

(4) Lose a lot (0) — Win a lot (5)

**PV4. Carbon Budget**

*Introduction*

The Paris Agreement aims to keep warming "well below +2 °C." There is a maximum global carbon budget. Each country could aim to emit less than a national share. Countries emitting more than their share would pay a fee to countries emitting less than their share.

*Question(s)*

Do you support such a policy?

*Scale* Strongly oppose (0) — Strongly support (4)

**IBS1. Division 1: Population proportional**

*Introduction*

The emission share of a country should be proportional to its population, so that each human has an equal right to emit.

*Question(s)*

(1) Support or oppose the proposal?

(2) The emission share proportional to population is a fair way to divide the carbon budget.

*Scale(s)* (1) 0–4; (2) 0–4 (see PV scales)

**IBS2. Division 2: Current emissions proportional**

*Introduction*

The emission share of a country should be proportional to its current emissions, so those who already emit more have more rights to emit.

*Question(s)*

As above for support and fairness.

*Scale(s)* (1) 0–4; (2) 0–4

**IBS3. Division 3: Past emitters get less**

*Introduction*

Countries that have emitted more since 1990 should receive a lower emission share.

*Question(s)*

As above for support and fairness.

*Scale(s)* (1) 0–4; (2) 0–4

**IBS4. Division 4: Vulnerable countries get more**

*Introduction*

Countries that will be hurt more by climate change should receive a higher emission share.

*Question(s)*

Fairness assessment only.

*Scale* 0–4

**IBS5. Division 5: Richer countries get less**

*Introduction*

Countries with higher GDP per capita should receive a lower emission share.

*Question(s)*

As above for support and fairness.

*Scale(s)* (1) 0–4; (2) 0–4

**WSP1. Climate Action**

*Introduction*

Persons: You have to divide the costs between the following two people: The first

person is a randomly-selected person who lives in the United States, the other one is a randomly-selected person who lives in India // Philippines. We randomly select the two persons from two distinct groups. The first group represents the population of the United States and the second group represents the population of India // Philippines. Each group is representative of the respective population (United States and India // Philippines, respectively) in terms of age, income, gender, education, emitting behavior, and more. Donation:The money will be given to the award-winning charity atmosfair. atmosfair actively contributes to CO2 mitigation by promoting, developing and financing renewable energies worldwide.

*Question(s)*

(1) You must decide how to split the cost of a $100 donation to help fight climate change between the two people below. Randomly-selected Person who lives in the United States should pay: : [Number] Randomly-selected Person who lives in India // Philippines should pay: : [Number] (2) Which factors caused your decision? Please think carefully about your answer and respond in full sentences, your response will be very useful.

**WSP2. Climate Disaster**

*Introduction*

You have to decide how to split the costs for a 100-dollar donation that helps communities recover from the consequences of the severe floods in the Ahr Valley (Germany). The floods were the deadliest natural disaster in Germany for 60 years. Over half of the local population was affected by the flooding - thousands lost their homes. The total cost of the damage is estimated to be over 10 billion euros. Persons: You have to divide the costs between the following two people: The first person is a randomly-selected person who lives in Germany, the other one is a randomly-selected person who lives in the United States. Neither person was directly affected by the climate disaster. We randomly select the two persons from two distinct groups. The first group represents the population of Germany and the second group represents the population of the United States. Each group is representative of the respective population (Germany and the United States, respectively) in terms of age, income,

gender, education, emitting behavior, and more. Donation: The money will be given to Aktion Deutschland Hilft. Aktion Deutschland Hilft is a connection of German aid agencies for humanitarian aid, with the target of helping more efficiently through coordination of efforts in case of a disaster. They are helping families who lost their homes in the floods to rebuild.

*Differences in US vs. Pakistan*

You have to decide how to split the costs for a 100-dollar donation that helps communities recover from the consequences of the devastating floods in Pakistan. Over 2 Million people were left homeless or are living in temporary camps. The floods' economic costs are estimated to be more than 10 percent of the country's annual GDP. Persons: You have to divide the costs between the following two people: The first person is a randomly-selected person who lives in the United States, the other one is a randomly-selected person who lives in Pakistan. [...] Donation: The money will be given to the UN World Food Programme. The UN World Food Programme is the world's largest humanitarian organization saving lives in emergencies and using food assistance to build a pathway to peace, stability and prosperity for people recovering from disasters and the impact of climate change. They support the government of Pakistan as it mobilizes to provide immediate food assistance to families in the areas hit worst by the flooding.

*Question(s)*

(1) You must decide how to split the cost of a $100 donation that will help the affected communities recover from the effects of the climate disaster between the two people below. Randomly-selected Person who lives in the United States should pay: : [Number] Randomly-selected Person who lives in Germany // Pakistan should pay: : [Number] (2) Which factors caused your decision? Please think carefully about your answer and respond in full sentences, your response will be very useful.

## E.2 Classification Exercise

We start by defining a set of factors upon which the answers are build on. These factors are designed to encompass the major aspects underlying respondents' reasoning. We derive them from reasons commonly cited in both experts and public debates on how to share the costs of combating climate

change, as well as by examining a random subset of the text responses. Factors include considerations grounded in notions of responsibility for climate change to evaluations based on available resources, where arguments hing on disparities in income, wealth or other wealth-enhancing capacities. Other factors include 'equal accountability' - participants assert that responsibility for climate change and its mitigation are equally shared - or group- and place-based arguments, reflecting preferences for aiding those within the same nation, age group, or income bracket. Table A23 provides an overview of the factors used in our coding scheme.

Table A23: Factors

| Factor | Explanation | Example |
|---|---|---|
| Responsibility | The participant based their answer on differences in responsibility for Climate Change. | "The United States contributes more CO2 to the climate change, so they should pay more to fix climate change." |
| Available Resources | The participant based their argument on differences in available resources. | "Older people generally have more income available than younger people who are just starting out" |
| Equal Accountability | A participant argues that everyone is equally responsible or that the varying attribute (Nation/Age/Income) does not play a role in their decision. | "No matter where they're located, climate change is a problem for everyone. So both should pay the same amount." |
| Benefitting | For their decision, a participant factors in who benefits from Climate Change or the donation. | "Older individuals have contributed more to (and benefitted more from) the environmental damage that has led to the climate crisis." |
| Suffering | For their decision, a participant factors in who suffers from Climate Change or the donation. | "People in the Philippines are already vulnerable to the day-to-day costs of climate change - on their weather, on the islands' vulnerability to rising sea levels and rising ocean temperatures. Asking them to also bear the monetary cost, over the US with its high emissions, is silly." |
| Group- or place-based argument | The participant based their argument on which group they and the people belong to. **Climate Action - Between Countries**: Participant gives preferential treatment to people who belong to the same nation.**Climate Disaster - Between Countries**: Participant argues that people should prioritize helping others close to home. | "Strictly a jingoistic decision on my part– Americans have paid through the nose to prop us people and nations around the world... so in this case they should be able to keep their wallets in their pockets." |
| Climate Change Denial / Misinformation | A participant bases their argument on climate change denial or misinformation about climate change. | "The climate is changing. The climate has always been changing. The client will continue to change. I believe humans are not the driving factor and climate change. If somebody has to pay for the decisions that are currently being made, I figure it should be an even split." |
| Other | A participant based their argument on other reasons that do not fit into the above categories. | "Pakistan is our enemy. It is unfortunate for the rank-and-file citizenry, but we can't help them so that they can assist our terrorist enemies again." |
| Exclude | A participant gives a contradicting, no or nonsensical answer. | "i gave money to the people who need it the most" |

Importantly, respondents first-order concerns can be based on more than one factor. For the coding exercise, we asked the annotar to select every factor that applies to the text at hand. In addition to the open-text the annotar was presented with the respective donation decision.

Our coding exercise has three rounds. (i) In a first step, a trained annotator (student assistant) will categorize all open-ended texts. The annotator goes through a preparation phase in which they receive a manual including examples and detailed instructions. (ii) As a second round, we will make use of the large language model ChatGPT and implement a zero-shot ChatGPT classification (see Gilardi et al. (2023)).[16].(iii) In a final step, we take care of all cases were a conflic occurs by revisiting it and making a final decision.[17]

Our mix of human and artifical inteligence combines several advantages. Coding by a trained human is able to capture the often complex causal reasoning of humans. At the same time, Gilardi et al. (2023) showcases that ChatGPT out-perform manual classification done by crowd workers while having significantly lower per-annotation costs.

**Quality of coded data.** We assess the quality of the coded data in two ways. First, on average 91.58 % of the open-response answers were assigned a factor. In other words, around 8.42 % of the responses were marked as nonsensical or non-existent.[18] In a second step, we calculate the correlation between the first and second round annotation. If the human refers to a factor, the chance that open-ai did too ranges from 79% to 87%.[19]

[16]Following Gilardi et al. (2023), we won't train our model (one-shot) and use the ChapGPT API to feed the open-ended texts one by one to the model. Further, we make sure that the results are not affected by the previous annotations by creating a new chat session for each text. The temperature was set to 0.2.

[17]Conflict resolution was conducted by a member of the research team.

[18]Percentage of nonsensical or non-existent answers per answer block: CA US vs India: 39/505 (7.72%), CA US vs. PHI: 44/504 (8.73%), CD US vs. GER: 33/501 (6.59%), CD US vs Pak: 53/497 (10.66 %)

[19]All numbers: CA US vs. India: 86.2%, CA US vs. Philippines 86.9%, CD US vs. Germany 79.1%, CD US vs. Pakistan 79.4%