Does Public Redistribution Crowd Out Private Transfers? Evidence from Four Countries

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Abstract

Together with private transfers, centralized redistribution policies form the backbone of social welfare systems worldwide. Examining their interplay is therefore crucial for understanding and addressing inequality. We investigate the relationship between private transfers and public redistribution policies using an experiment with nearly 4000 participants from Germany, India, Indonesia and the USA. The experiment creates large inequalities, then introduces one of four centralized redistribution regimes to address the inequality. Our findings reveal that no redistribution policy changes private pro-social or anti-social transfers, compared to an environment without centralized redistribution. Structural estimates show that egotistic, rather than social motives drive private transfers, and that inequality aversion is unaffected by redistribution policies, thus explaining the lack of a private response. This suggests that governments possess an additional degree of freedom in pursuing social safety nets.

Keywords

Redistribution; Inequality Aversion; Experiments.

JEL Codes

C91; D63; O57.

1 Introduction

Evidence from the last two centuries suggests that globally, income inequality is large, growing and has important negative effects on economic growth and social welfare (Chancel and Piketty, 2021). Strategies to reduce inequality are therefore central to policy discourse around the world. Historically, there have been three primary methods of reducing inequality. The first two of these are private transfers: (*i*) the poor may destroy or take wealth from the rich; and (*ii*) the rich may make private transfers to the poor.[1] The third method, centralized public transfers, emerged as societies became more complex.

Redistribution policies underpin most social contracts, whereby citizens willingly contribute to public goods, expecting that the state will, in turn, provide for the individual in times of need (Rawls, 1971, Benabou, 2000, Rousseau, 2003). Redistribution, as a transfer from the relatively wealthy to the relatively poor, is expected to increase gross societal welfare (Fong, 2001, Klor and Shayo, 2010) and increase economic efficiency (Aghion et al., 1999, Heckman, 2011, Stiglitz, 2016, Brueckner and Lederman, 2018). As a result, centralized redistribution of income became the cornerstone of political systems (see, for example Hirth, 1978, Pennisi, 2014, Adams, 2005, Diamond, 2020) and a source of political legitimacy (Dixit and Londregan, 1995, 1996, McGuire and Olson, 1996, Finan and Schechter, 2012). However, public transfers are overlaid on existing forms of private transfers. To understand the overall effects of redistribution policies on welfare, it is, therefore, crucial to measure how centralized policies affect private transfers.

We investigate the causal impact of different forms of redistribution policies on private behavior, both pro- and anti-social, by conducting a novel experiment on a representative sample of almost 4000 participants from Germany, India, Indonesia, and the USA. These four countries are not only a balance of high and low income countries that, together, represent a significant share of the world's population but, crucially, provide global coverage of the most policy relevant combinations of preferences towards redistribution and inequality, as identified by our analysis of World Values Survey covering 91 countries (see Section 2.2 for more details on the process guiding this choice).

In our experiment, each participant is randomly assigned an income level, faces a financial shock, and is matched with another participant, before deciding whether and how much to give to or take from their matched partner. Participants, therefore, know both their own income, and that of their partner, and can decide whether to pay to increase

[1] Transfers from the rich to the poor have a long history. For example, in Islam, *Zakat* is a form of private charity given to the poor and those in need. Similarly, the Bible states: *whoever is kind to the poor lends to the Lord, and he will reward them for what they have done.*

or decrease the income of those they are partnered with, or do nothing. These decisions allow us to measure participants' pro-social behavior (when they choose to increase their partner's income) and anti-social behavior (when they choose to decrease it).

Within each country, participants are randomly assigned to one of the following redistribution policies: (*i*) *Anarchy* in which redistribution is achieved only via private transfers; (*ii*) Progressive Taxation or *Tax* where the rich are taxed and income is distributed only to the poor; (*iii*) Universal Basic Income or *UBI*, where the rich are taxed and income is distributed to all, regardless of income; (*iv*) *Effort* in which the rich are taxed and the income is redistributed to a set of the poor who put in high effort who then move up the income ladder; and (*v*) *Luck* in which the rich are taxed and the income is redistributed to a set of randomly chosen (i.e., "lucky") poor who then move up the income ladder. While there is no centralized redistribution in the *Anarchy* treatment, there is an explicit role for government policy in the other treatments: they tax and distribute the revenue thus collected. Our approach allows us to compare participants' choices in settings with public redistribution to those in *Anarchy* and enables us to causally identify the effect of public redistribution on private transfers. This response can manifest in two ways: "crowding out" where public redistribution decreases private transfers, or "crowding in" where public redistribution increases private transfers.

We selected these redistribution policies because they are the most frequently implemented. Worldwide, *Tax* is the most common policy used to finance government spending, including for redistribution. *UBI*s are increasingly proposed as an alternative or in some cases complement to income taxation. While no country has implemented a *UBI* in full, there has been a recent spike in interest in this type of redistribution system, with a number of countries implementing pilots (see Gentilini et al., 2020, Matthews, 2020). It is therefore important to understand how a future *UBI* may impact behavior especially relative to a tax. Finally, the *Effort* and *Luck* treatments help understand how different types of mobility mechanisms interact with behavior towards redistribution policies. This is particularly relevant given the variability in rates of mobility across countries (Manduca et al., 2024). We focus on effort and luck as there is substantial evidence that behavior varies when outcomes are influenced by luck or effort (Almås et al., 2020, Gangadharan et al., 2021).

We do not find any evidence of crowding out of pro-social, nor dissuasion of anti-social behaviors, as a result of the redistribution policies. We conduct a number of robustness tests and show that this finding of no private response, is a precise null effect. To explain this result, we first show that individuals' social behavior can be characterized by different behavioral types (advantageous inequality averse, disadvantageous inequality averse, inequality averse, income maximizers and others), and that the distribution of these types

is not affected by the redistribution environment. This stability explains a large part of the finding of lack of private response (no crowding out or crowding in of private transfers).[2] We then investigate two additional behavioral explanations for this result. We first explore the extent to which egotistic (e.g., warm glow), as opposed to social (e.g., pure altruism) motives drive private behavior. We do this by adapting Andreoni (1990)'s impure altruism model. Our results show that most pro-social and anti-social transfers are egotistic. Behavior driven by egotistic preferences is, by definition, not influenced by others' welfare, and so is constant across redistribution policies. However, the (small) share of private transfers driven by social motives may be potentially influenced by the redistribution regime. Due to the absence of a tax in the *Anarchy* treatment, we cannot distinguish between egotistic and social motives for private transfers in this setting. Consequently, the Andreoni (1990) model alone cannot fully explain private behavior. To address treatment differences in socially motivated transfers, we explore the importance of inequality aversion, following Fehr and Schmidt (1999).[3] Specifically, we structurally estimate individuals' levels of inequality aversion, and find limited effects of redistribution policies on inequality aversion. The lack of private response to redistribution is thus explained by (*i*) the predominance of egotistic motives in transfers, and (*ii*) the limited variation in inequality aversion across redistribution regimes, suggesting that the remaining (small) fraction of transfers driven by social preferences, is similar across redistribution regimes.

Our results can also be used to understand the effects of private transfers and redistribution policies on inequality. We find that compared to the initial level, final inequality (that is measured after all taxation and transfers) is significantly lower in all treatments with centralized redistribution. These results imply that policy makers cannot depend only on private transfers to reduce inequality: targeted centralized redistribution schemes are required. We also find that across all countries, a progressive tax policy has the greatest impact on reducing inequality, while UBI has the least.

Our study contributes to the existing literature in several different ways. We advance the literature on crowding out that finds mixed results. The first wave of this work was mostly theoretical, overlooking behavioral responses to government interventions and therefore assuming complete crowding out (Warr, 1982, Roberts, 1984). A second wave of studies, which primarily used observational data, largely found evidence of incomplete

[2]While we find no evidence of a private response to redistribution within each country, we do find significant cross-country differences in levels of private transfers. We show that these cross country differences can be explained by differences in the proportion of individual types (inequality averse, income maximizers and others) across countries.

[3]Inequality aversion is often explored as an explanation for behavior relating to redistribution and transfers. See, for example, Cappelen et al. (2013), Almås et al. (2020), Gangadharan et al. (2021).

crowding out. See, for example, Cox and Jimenez (1992), Cox and Jiminez (1993), Maitra and Ray (2003) for evidence from Peru, Philippines and South Africa respectively, in the context of private vs social transfers or Schiff (1985), Steinberg (1991), Payne (1998) on the relationship between individuals tax returns and charity donations. The reliance on observational data meant that exogenous variation in redistribution policies was rare. Redistribution policies that are actually implemented are plausibly endogenous, chosen from a range of options by countries with varied political systems and populations with distinct preferences (Alesina et al., 2001). This inherent endogeneity poses challenges to studying the causal effects of different redistribution policies on private behavior across countries.

There is also a large literature that studies charitable giving using laboratory experiments. However, these studies also offer similarly conflicting results on the causal effect of centralized redistribution. While some studies suggest that centralized interventions can have a positive impact on private transfers, i.e., evidence of crowding in, there is also evidence that public transfers lead to a decrease in private transfers, i.e., evidence of crowding out, or have no impact on private transfers (Andreoni, 1993, Payne, 1998, Brooks, 2000, Eckel et al., 2005, Andreoni and Payne, 2011).[4] While these studies provide valuable initial causal evidence of the impact of redistribution and private transfers, they are also not without limitations: for instance, they typically study only one form of redistribution (in most cases simply giving from the rich to the poor), and study only the impact of public transfers on pro-social behavior, neglecting anti-social behavior. This means that this literature has been unable to capture the full impact of centralized interventions.

We also add to the broader literature studying redistribution policies beyond crowding in/crowding out considerations (see Alesina and Glaeser, 2004, Ramcharan, 2010, Alesina and Giuliano, 2011, Karadja et al., 2017, Berg et al., 2018). This literature studies redistribution policies, mostly using non experimental data, and finds evidence of variation in preferences for redistribution. However, similar to the limitations mentioned above, these studies lack exogenous variation in policy and therefore are unable to causally identify their effects on behavior.

In contrast to the existing literature, we investigate four forms of public redistribution and their causal effect on private transfers. In addition, we examine the impact of redistribution on both private pro- and anti-social behavior, which allows for a more comprehensive investigation of the behavioral effects of these policies. Further, our study utilizes a representative and multi-country sample, which enables us to compare behavior towards these policies across countries with diverse institutional backgrounds, thus increas-

[4] Cox and Jakubson (1995) argue that the net effect is determined by whether altruistic or reciprocity motives dominate behavior.

ing the generalizability of the findings. This also allows us to understand whether and how institutional factors may interact with redistribution policies to influence individual behavior. To the best of our knowledge, this is the first study to directly compare the causal impact of different policy regimes on private transfers across countries.

The rest of the paper is organized as follows. Section 2 describes the experimental design (Section 2.1), the experimental setting (Section 2.2) and the sample (Section 2.3). Section 3 presents an overview of the choices made by the participants in the four countries. Section 4 presents the primary specification and Section 5 presents our main results on the impact of redistribution policies on private transfers. Section 6 presents explanations for why there is no private response. Section 7 analyses the impacts of the different policies on realized inequality levels and Section 8 concludes.

2 Methods

2.1 Experimental Design

The experiment has two decision-making parts, Parts 1 and 2, a real effort task between the two parts, and a post-experiment survey to collect information on participant characteristics. Participants are made aware of all stages of the experiment prior to the commencement of Part 1.

The decision-making stages were designed to understand pro- and anti-social behavior in the face of inequality across multiple redistribution regimes. Inequality between participants, within each treatment, is created in two steps (see, for example Bechtel et al., 2018, Martinangeli and Martinsson, 2020, Gangadharan et al., 2021). *First*, prior to the commencement of the experiment, participants are endowed with experimental currency units (ECUs): 100 ECUs are assigned to participants labeled as Type-A, and 25 ECUs to those labeled as Type-B. Types are randomly assigned and remain unchanged throughout the experiment. *Second*, at the beginning of each decision-making part, participants receive (with equal probability) either a negative, neutral or positive income shock, which creates additional variation in individual income. A negative shock leads to a 40% decline in income; a positive shock leads to a 100% increase in income and a neutral shock does not change the level of income. Table 1 shows the effects of these shocks and the resulting income distributions. The parameters are chosen to ensure that the post-shock income of Type-As is always higher than that of Type-Bs. There are, therefore, six possible post-shock income levels, with different levels of inequality between participants: see Table 1.[5]

[5]This post shock income level also defines the initial level of inequality in our experiment. In Section 7

Figure 1: Experimental Design

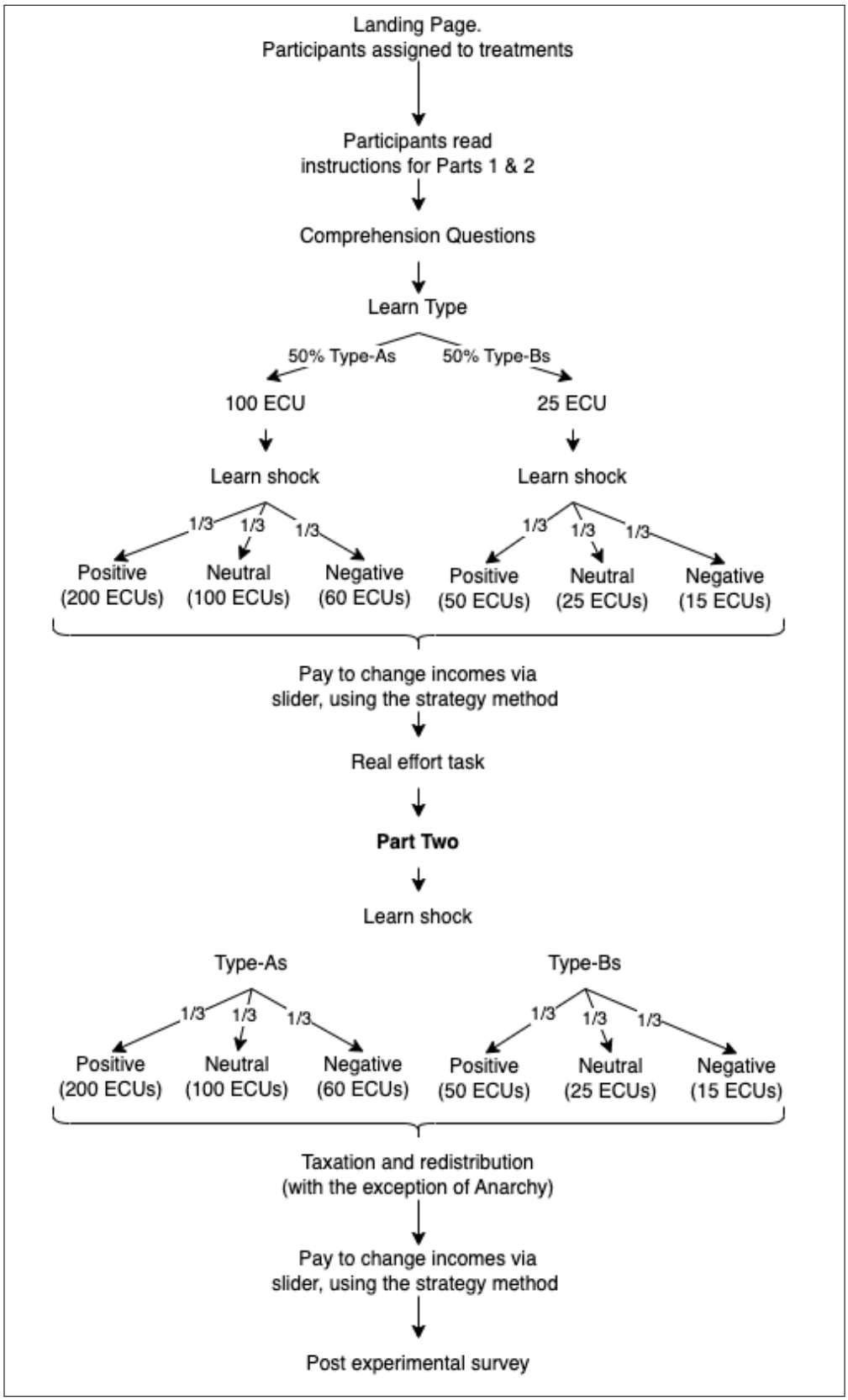


Table 1: Initial and Final Income Distribution. Part 1.

Type	Initial Income	Shock	Income Change	Final Income
(1)	(2)	(3)	(4)	(5)
B	25	Negative	−40%	15
B	25	Neutral	0%	25
B	25	Positive	100%	50
A	100	Negative	−40%	60
A	100	Neutral	0%	100
A	100	Positive	100%	200

Notes: Participants are randomly assigned to a Type (Type-A or Type-B) at the beginning of the experimental session, which is unchanged throughout the experiment. This defined their initial income. They then receive either a negative, neutral or positive income shock at the beginning of Part 1.

After receiving the shock, participants are randomly matched with another participant. They observe the post-shock income of their matched partner (and thus the inequality between them) and can pay to increase or decrease their matched partner's income. Specifically, each participant must pay a discrete amount $x \in \{0, 1, 2, 3, 4, 5\}$ to change their partner's income by $2x$.

To operationalize participants' changing their partner's income, participants are given a slider that ranges from *decrease* 5, through *no change*, to *increase* 5, in intervals of 1 unit. See an example in Figure A1 in the Appendix. Placing the slider on, for example, *increase* (respectively *decrease*) 2 would imply that participants pay 2 ECUs to increase (respectively *decrease*) their partner's income by 4 units. Moving the slider to zero leads to no change in either participant's income. Participants are also shown a table, which displays their partner's Type, the shock they received, and the current values of their own, and their partner's income. These values update dynamically as the participant moves the slider, and, like the slider itself, are blank before the participant first clicks on the slider, to avoid anchoring (or experimenter demand) effects.

The decisions just described are made simultaneously by both partners to overcome reciprocity or retaliatory motives. The strategy method is employed to ensure that we capture behavior for each respondent across all possible income levels. This means that participants are required to make decisions for each possible level of their partner's income. Participants were shown all partner-income levels in a list, where the ordering was random-

we compare this initial inequality to the final (post-tax and transfer) inequality in the different treatments to examine the effects of the different policies on aggregate inequality.

ized. To ensure non-negative incomes, the maximum amount one can pay to change the partner's income is 5 ECUs.[6] We refer to transfers made to increase the income of their matched partner as *pro-social transfers*, those to decrease the income of their matched partner as *anti-social transfers* and a transfer of 0 as *no change*. These transfers provide a measure of their pro-social and anti-social behavior. Figure 1 provides a graphical representation of the inequality generating procedure and the decision-making process.

Part 1 is identical across treatments, except that at the beginning of Part 1, and prior to making decisions, participants learn which redistribution system will be introduced in Part 2. Decisions made in Part 1 therefore allow us to investigate whether the *prospect* of different public redistribution policies affects private behavior and whether there is evidence of a private response to redistribution.

Upon completing Part 1, and before beginning Part 2, every participant completes a real-effort, counting zeros task. In this task, they must count the number of zeros in each line of randomly generated text containing 0's and 1's. Participants are given 3 minutes to complete this task. We utilize participants' performance in this task for the *Effort* treatment, described below.

Part 2 introduces the 5 Treatments, which differ in terms of the specific (centralized) redistribution policy. These are summarized in Table 2. In the *Anarchy* treatment, there is no centralized redistribution and hence Part 2 is a repeat of Part 1. In the remaining treatments (*Tax*, *UBI*, *Effort* and *Luck*), redistribution occurs after each Type experiences their income shock. The shock received in Part 2 is independent of that received in Part 1. In each of these treatment arms, a 10% tax is levied on Type-As to fund the centralized redistribution policy. In the *Tax* treatment, the tax collected is redistributed equally among the Type-Bs; in the *UBI* treatment, the tax collected is redistributed equally among both Type-As and Type-Bs; in the *Effort* treatment, the tax collected is redistributed to the Type-Bs who perform best in the real effort task and, in the *Luck* treatment, the tax collected is redistributed to a set of randomly chosen Type-Bs. The recipients of the transfer in the *Effort* treatment could be thought of as the deserving (high-effort) poor, while those in the *Luck* treatment could be thought of as the lucky poor. Once participants learn about their specific treatment, they are required to answer a set of treatment-specific comprehension questions. This ensures that participants understand the details of the treatment and also that it is made adequately salient.

Since Type-A's are taxed 10% of their post-shock income, and the shocks are evenly

[6]Type-Bs with a negative shock who pay 5 units to change their partner's income and whose partner pays 5 units to *decrease* their income by 10 units will then have $15 - 5 - 10 = 0$ ECUs, thus ensuring all participants have non-negative payoffs.

Table 2: Treatment Details

Treatment	Types	Shocks	Part 1		Part 2		
			Tax	Private Transfers	Who is Taxed	Redistribution	Private Transfers
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Anarchy	A/B	$+, -, \sim$	✗	✓	✗	✗	✓
Tax	A/B	$+, -, \sim$	✗	✓	Type-A's: 10%	Equally: All Type-B's	✓
UBI	A/B	$+, -, \sim$	✗	✓	Type-A's: 10%	Equally: All	✓
Effort	A/B	$+, -, \sim$	✗	✓	Type-A's: 10%	High Effort Type-B's	✓
Luck	A/B	$+, -, \sim$	✗	✓	Type-A's: 10%	Lucky Type-B's	✓

Notes: Type-A's begin with 100 units, Type-B's with 25. A positive shock (+) doubles income, a neutral shock ($\sim$) leaves it unchanged and a negative shock ($-$) decreases it by 40%. In the Effort and Luck treatments the High effort and Lucky Type-B's move up to become Type-A's. They are then taxed as other Type-A's. There is no centralized redistribution in the *Anarchy* treatment.

distributed, with post-shock incomes of 60 (negative), 100 (neutral) and 200 (positive), the expected tax revenue is $0.1 \times \frac{(60+100+200)}{3} = 12$ ECU per Type-A. Therefore, in the *Tax* treatment where the tax collected is redistributed to Type-B's only, and since there are an equal number of A and B Types, each Type-B receives a public transfer of 12 ECUs. In the *UBI* treatment, the same tax revenue is redistributed equally among all participants, and so each individual receives 6 ECU.

In the *Luck* and *Effort* Treatments, redistribution moves some of the Type-B's up the income ladder such that they have the same income as Type-A's. We refer to these as social mobility treatments, whereby, in *Luck*, the *lucky poor*, and in *Effort*, the *deserving poor*, escape poverty. The expected tax revenue is again $0.1 \times \frac{(60+100+200)}{3} = 12$ ECU per Type-A. To keep the amount taxed and total amount redistributed the same across all treatments, in these two treatments, 85% of Type-B's receive no redistribution while the remaining 15% receive 75 ECUs to give them the same pre-shock income as the Type-A's. In *Effort*, the 15% are chosen based on their performance in the real effort task,[7] in *Luck* they are selected at random. The income shock for the socially mobile is only realized post mobility, and they are then taxed 10% of their post-shock income, as per the Type-A's.

After taxation and learning of their new incomes, participants may, as in Part 1, pay to change their partner's income. As in Part 1, for every unit paid, the partner's income will

[7] In piloting, a threshold was calibrated to identify the highest performing 15%. Type-B's scoring above this threshold moved up.

change by 2 units, and participants can pay no more than 5 units. For payment purposes, each participant is randomly matched with another in the same country and the same treatment, and one decision is randomly chosen from either Part 1 or Part 2. This removes potential wealth effects. If Part 2 was selected for payment, participants were also paid for the real effort task (the equivalent of 2 cents per correct answer).

Our experimental design reflects the fact that private giving is often perceived as being more efficient relative to public redistribution. An example of this is the common policy of tax credits for contributing to a charity.[8] We capture this aspect through a $2:1$ ratio, a feature consistent across all the treatments in our study. This means that private giving is twice as effective as centralized transfers – 1 unit given privately increases partner income by 2 units, as opposed to 1 unit taxed which increases partner income by (at most) 1 unit. Note, in our set up there is no explicit deadweight loss from taxation. Each unit of tax collected is fully redistributed, thus preventing any efficiency loss through leakage.

2.2 Experimental Setting

The experiment was conducted online in November and December of 2022 with a total of 3941 individuals in four countries: Germany ($N = 941$), India ($N = 1013$), Indonesia ($N = 996$) and the USA ($N = 991$).[9] The panel was provided and coordinated by *Expilab* who set their own "show-up" fee. We paid an additional USD \$2.88 on average, in the USA, as a bonus payment, a value that is conservatively equivalent to USD \$6.90 per hour. To ensure that stakes are roughly equivalent across countries, the expected per-hour bonus payments were of equivalent value at purchasing power parity rates in the remaining countries (€6.0 in Germany, Rs 165 in India and Rp 30427 in Indonesia).

These four countries were chosen because they are representative of groups of countries that differ in terms of two types of preferences: preferences for government redistribution and preferences for (in)equality in the distribution of income. To identify these groups, we used data (from a set of 91 countries, taken from the most recent waves of the World Values Survey (WVS)) on two questions that asked respondents to place themselves on a 10-point Likert scale between (1) *incomes should be made more equal* to (10) *there should be greater incentives for individual effort* and on a 10-point scale between (1) *people should take more responsibility to provide for themselves* to (10) *government should take more responsibility to ensure that everyone is provided for*. The first choice measures preferences for inequality and the second measures preferences for government redistribution. We then collect a

[8] For other examples, see the experiments reported in Tepe et al. (2021).

[9] The selected sample size was pre-registered.

large set of historical characteristics of countries which are exogenous to, but plausibly predictive of, contemporary, individual preferences for inequality and redistribution. We combine these historical determinants with individual characteristics from the WVS (such as income, age, gender and education) to predict their responses to these two questions using regression tree ensembles.[10] We then aggregate these predicted, individual preferences to the country level and rank countries on preferences for redistribution and for equality.

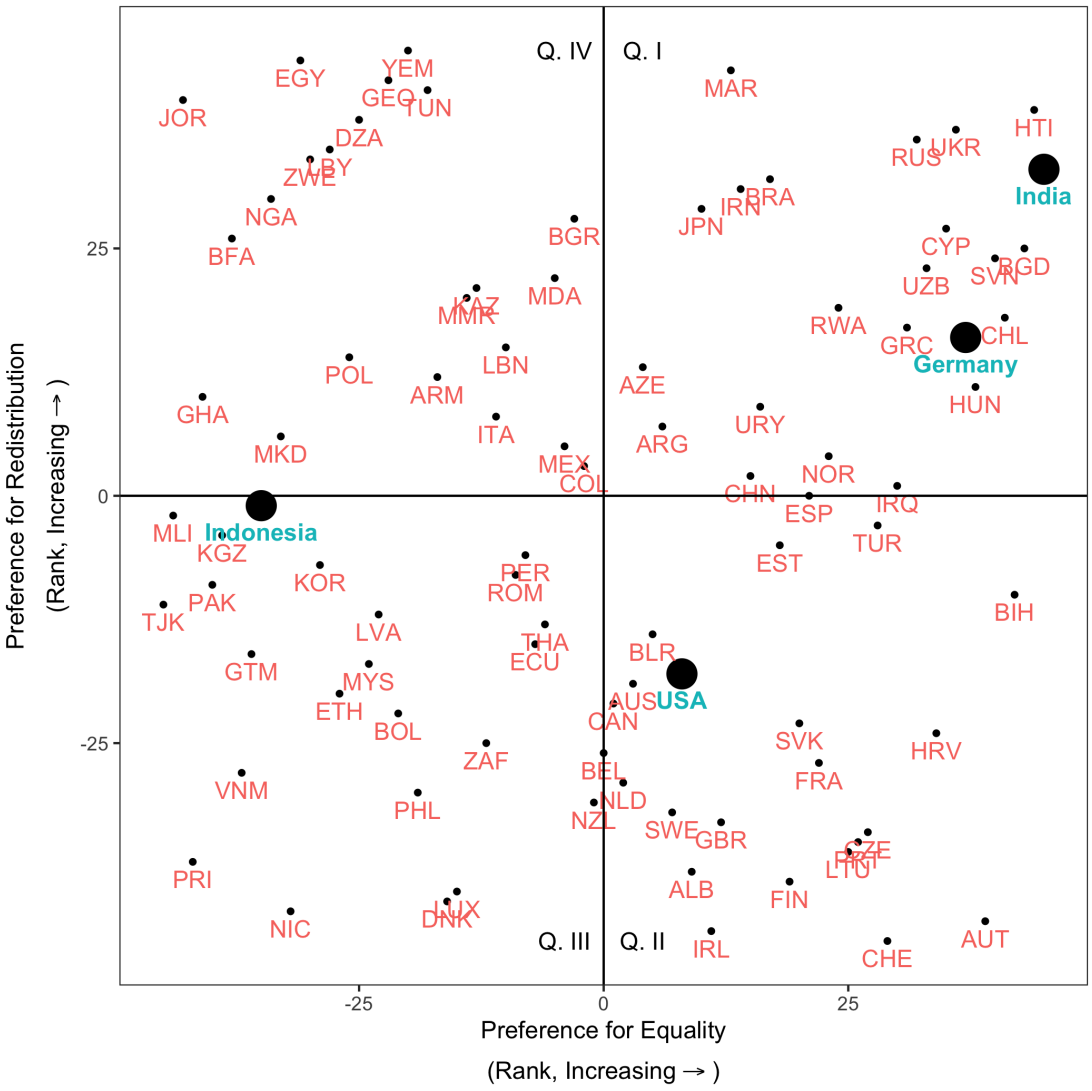
Figure 2 demeans the country-rankings and plots each country in one of four quadrants. We then chose a (large) country that was representative of each quadrant to include in the experiment. India and Germany belong to quadrant I (high preference for equality and for redistribution); the USA belongs to quadrant II (high preference for equality and low preference for redistribution) and Indonesia belongs to quadrant III (low preference for equality and low preference for redistribution). These four countries are large: 26.4% of the world's population live in these countries; more than 30% of the total population of OECD countries reside in Germany and the US and almost 26% of the population of non-OECD (developing countries) live in India and Indonesia. We chose not to include any countries from quadrant IV i.e., preferring high inequality alongside high government intervention, as we consider it to be a relatively less interesting policy combination.

In India and the USA, the experiment was conducted in English. Independent, third-party translation services translated the experiment to German and to Bahasa Indonesian for their respective surveys. Participants could complete the experiment on a phone or a computer. While there was no time limit imposed on participants, on average the study took around 25 minutes to complete. Participants were informed that they were participating in an experiment. No deception was used.

The landing page of the experiment asked respondents to provide their age, income and gender. This allows us to stratify our treatment (ie, the redistribution policy) on both gender and income within each country. We stratify on gender since evidence suggests there may be gender differences in pro-social preferences (Andreoni and Vesterlund, 2001, Croson and Gneezy, 2009, Eagly, 2009, Brañas-Garza et al., 2018, Kamas and Preston, 2021), and in anti-social preferences (for example, in the context of dishonesty and corruption, Dollar et al., 2001, Swamy et al., 2001, Friesen and Gangadharan, 2012, Debski et al., 2018, Sung, 2012). We stratify on income, as it is likely that those who directly benefit from redistribution schemes value it differently to the rich who directly pay the financing costs (Meltzer and Richard, 1981).

[10] Intuitively, regression tree ensembles use the predictor variables to recursively split observations into smaller groups whose mean value of the dependent variable is increasingly homogeneous. More specifically, we use gradient boosted trees (Chen and Guestrin, 2016) as our preferred prediction algorithm.

Figure 2: Optimal Inequality and Government Redistribution



Notes: A machine learning algorithm took individual-level responses from WVS questions on (*i*) whether incomes should be made more equal, or that there should be greater incentive for individual effort and (*ii*) whether governments should ensure everyone is provided for or individuals should provide for themselves and historical features of the home country of respondents to predict individuals preferences for inequality and government intervention. Countries were then ranked. For example, Indians prefer high levels of equality and high levels of redistribution.

Online experiments have several advantages (notably cost-efficiency and representative samples). However, there are some challenges unique to online experiments. Appendix B discusses three such challenges and how we address them in our experiment. These include bot detection, monitoring and comprehension, and attrition.

2.3 Sample

2.3.1 Sample Representativeness

Our experimental sample is nationally representative of the age and gender distributions in all four countries. Panel A of Table 3 presents the sample averages for demographic and socio-economic characteristics for each of the four countries. Participants in India and Indonesia are younger, live in larger households and are more likely to answer the experiment on a mobile phone compared to participants in Germany and the USA. In each country, close to 50% of the participants were female and most participants self-report lying between the 40^{th} and 60^{th} income percentiles. Columns 5–8 of the same panel present similar statistics for the most recent wave of the World Values Survey, showing broadly similar patterns to those found in our samples.

In addition to the decisions described in Section 2.1, our surveys collected data on beliefs for a range of questions from the WVS.[11] Panel B of Table 3 presents summary statistics for these questions for the experimental sample. Participants in India report higher preference for each of the six questions; while participants in Germany generally report lower preference. Columns 5–8 of the same table show similar statistics for responses from the latest wave of the WVS. For each country, the Spearman rank correlation of the survey questions between the experimental sample, and the WVS sample is high, at 0.43, 0.49, 0.77 and 0.71 for Germany, India, Indonesia and the USA respectively. This indicates that our experimental sample closely resembles other widely used representative samples in terms of several beliefs related to redistribution.

[11] Participants were asked to position themselves on a 1 to 10 scale, with one of the following options on either extreme: (a) Incomes should be made more equal vs. There should be greater incentives for individual effort (equality vs effort); (b) Private ownership of business and industry should be increased vs. Government ownership of business and industry should be increased (private vs government); (c) Competition is good vs. Competition is harmful (competition good vs harmful); (d) In the long run, hard work usually brings a better life vs. hard work doesn't generally bring success – it's more a matter of luck and connections (effort vs luck); (e) Generally speaking, I am politically left leaning vs. Generally speaking, I am politically right leaning (left vs right); and (f) Government should take more responsibility to ensure that everyone is provided for vs. People should take more responsibility to provide for themselves (government vs individuals).

Table 3: Sample Representativeness and Comparison to WVS

	Experimental Sample				World Values Survey†			
	Germany	**India**	**Indonesia**	**USA**	**Germany**	**India**	**Indonesia**	**USA**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Characteristics								
Age	46.20	29.85	26.95	43.76	50.92	40.76	39.42	43.56
	(14.29)	(8.31)	(7.80)	(16.16)	(17.59)	(14.47)	(13.50)	(16.25)
Female	0.48	0.48	0.51	0.51	0.49	0.35	0.53	0.46
	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.48)	(0.50)	(0.50)
Household Size‡	2.42	4.69	4.18	2.95	2.60	–	4.33	2.77
	(1.27)	(1.83)	(1.51)	(2.53)	(1.30)	–	(1.92)	(1.42)
Income Ladder⊕	4.33	5.00	4.09	5.12	5.25	3.95	4.22	5.06
	(2.04)	(2.05)	(1.87)	(2.12)	(1.67)	(2.02)	(2.43)	(1.88)
Task on Mobile⊎	0.44	0.87	0.86	0.32	–	–	–	–
	(0.50)	(0.33)	(0.35)	(0.47	–	–	–	–
Panel B: Beliefs								
Equality vs. Effort[a]	5.51	7.30	6.87	6.79	5.78	5.22	6.68	4.95
	(2.82)	(2.81)	(2.67)	(2.82)	(2.48)	(3.72)	(3.04)	(2.84)
Private vs. Government[b]	5.44	6.26	5.06	4.69	5.29	5.55	6.59	3.67
	(2.18)	(2.89)	(2.92)	(2.89)	(2.01)	(3.55)	(3.07)	(2.26)
Competition good vs. harmful[c]	3.44	4.50	4.34	4.14	3.48	2.50	4.36	3.20
	(1.97)	(3.05)	(2.50)	(2.90)	(2.14)	(2.58)	(3.09)	(2.13)
Effort vs. Luck[d]	5.11	5.09	4.65	4.66	5.31	3.36	3.95	3.77
	(2.46)	(3.20)	(3.09)	(3.00)	(2.52)	(3.10)	(2.98)	(2.53)
Left vs. Right[e]	4.87	7.00	6.29	6.05	4.78	4.23	6.37	5.22
	(1.95)	(2.51)	(2.24)	(2.82)	(1.76)	(2.82)	(2.72)	(2.51)
Government vs. Individual[f]	4.49	6.13	5.43	5.79	6.09	6.27	5.91	5.43
	(2.75)	(3.10)	(2.87)	(3.10)	(2.50)	(3.59)	(3.33)	(2.96)

Notes: †: World Values Survey responses weighted by population weights provided by the WVS. ‡: The WVS does not report household sizes in India. ⊕: Self positioning on an income ladder, with 1 being the poorest in society and 10 the richest. ⊎: The experiment was available on phone (mobile) and personal computers, mobile is the share of participants using a mobile device to participate in the experiment and the survey. This data is not available for the WVS.

For each question on beliefs, participants are asked to position themselves on a scale from 1 to 10, with one of the following options on either extreme of the scale: [a] : Incomes should be made more equal vs. There should be greater incentives for individual effort. [b] : Private ownership of business and industry should be increased vs. Government ownership of business and industry should be increased. [c] : Competition is good vs. Competition is harmful. [d] : In the long run, hard work usually brings a better life vs. hard work doesn't generally bring success - it's more a matter of luck and connections. [e] : Generally speaking, I am politically left leaning vs. Generally speaking, I am politically right leaning. [f] : Government should take more responsibility to ensure that everyone is provided for vs. People should take more responsibility to provide for themselves.

2.3.2 Sample Balance

Within each country, the sample is balanced across the different treatments. The Kruskall-Wallis (KW) test statistic presented in Table A1 shows that within each country, samples assigned to the different treatments are drawn from similar populations. Figure A2 presents the average number of 0's counted in 3 minutes (performance in the real effort task) by country and treatment. Within each country, the differences are minor and insignificant across treatments. This suggests that effort exerted is also balanced across treatments.

3 Experimental Choices

Unless explicitly noted otherwise, we present results for Part 1 of the experiment only.[12] We focus on Part 1 because all treatments are directly comparable in Part 1. Recall that in Part 2, the total tax burden on the society changes between treatments: for example, in the *Effort* and *Luck* treatments, the socially mobile Type-B individuals are taxed, leading to a larger tax burden in the social mobility treatments. This means our main analysis focuses on whether the *prospect* of different public redistribution policies affects private behavior and whether there is evidence of a response in private transfers.

Figure 3 provides an overview of participants' choices. Panel A presents the differences in the likelihood of transfer (pro- or anti-social) across countries (Panel A1) and treatments (Panel A2). Panel B presents the average transfer, conditional on choosing to make a pro- or anti-social transfer, again by country (Panel B1) and treatment (Panel B2). In these figures when we examine treatment (country) differences, we pool over countries (treatments). Panel A2 indicates that the likelihood of making transfers is similar for the *Effort*, *Anarchy* and *Tax* treatments. It also indicates similar levels of anti-social transfers across treatments: the exception being that only 16% of participants choose to make an anti-social transfer in the *UBI* treatment, compared to 19% in the other treatments. On the other hand, Panel A1, indicates large and statistically significant cross country differences in transfers. With respect to the pro-social decisions, participants in Germany are the most likely to transfer (46%), participants in Indonesia the least (31%), and participants in India and the USA transfer at a similar rate (40 and 41% respectively). The magnitude

[12] This is consistent with the pre-analysis plan, as is our primary focus on the extensive over the intensive margin. We deviate as follows from the pre-analysis plan: (*i*) in Equation (1), we include the number of comprehension questions answered incorrectly in our vector of controls, $\mathbf{Z}$. While excluding this has minimal impact, we prefer to rule out poor comprehension as an explanation for our finding of no private response; (*ii*) Equation (2), which we present as a robustness test, was not pre-specified; (*iii*) Analysis of the mechanisms (Section 6 and Appendix C) was not pre-specified. The pre-analysis plan can be found online at https://www.socialscienceregistry.org/trials/10050

of cross country differences in anti-social transfers is smaller: participants in Indonesia pay the most frequently (22%) and participants in the USA the least (16%), with participants in Germany and India in the middle at 18%.

Panel B of Figure 3 presents the average pro- and anti-social transfers, that is, the mean amount transferred, conditional on a pro- or an anti-social transfer being made. There are no statistically significant treatment differences, and the magnitude of differences across treatments is smaller than that observed in Panel A2. Figure A3 in the Appendix presents the kernel density estimates of transfers in each treatment (separately for each country), with anti-social transfers plotted in the negative domain. These figures contain a richer set of moments: they show that within countries, it is not just the mean transfer across treatments which is similar, the entire distribution is similar. Likewise, they show that there are systematic differences across countries, particularly in the right tail of the distribution. Tables A2 and A3 in the Appendix formalizes this comparison using pairwise Kolmogorov-Smirnov tests of the equality of the distributions. Cross-country differences are discussed in more detail in Appendix F.

Figure 4 is the analogue of Figure 3 for decisions made in Part 2. The patterns in Part 2 are qualitatively and quantitatively similar to those in Part 1. To formally show that decisions are similar across parts, Figure G2 takes data from Parts 1 and 2 and presents the coefficients on the Part 2 dummy from a regression of pro- and anti- social transfers on the Part 2 dummy, controlling for individual fixed effects. Separate regressions are run for each country and treatment, and the sample is restricted to decisions made when participants have the same inequality level (advantageous, disadvantageous or perfect equality) in both parts.[13]

The regression results imply that those in disadvantageous inequality are not more likely to make anti-social transfers in Part 2 than in Part 1, and those in advantageous inequality are not less likely to make pro-social transfers in Part 2. Appendix G nevertheless repeats all analysis on the Part 2 data.

Finally, we conduct standard tests of data quality: Panel A of Table E1 in Appendix E shows that individual's decisions indicate transitive preferences.[14] Panel B of Table E1 shows that there is a high level of stability of decisions in the *Anarchy* treatment between Parts 1 and 2. Finally, Table E2 in Appendix E shows that there is little evidence of 'donor fatigue' (whereby individuals who are consistently in situations of advantageous inequality

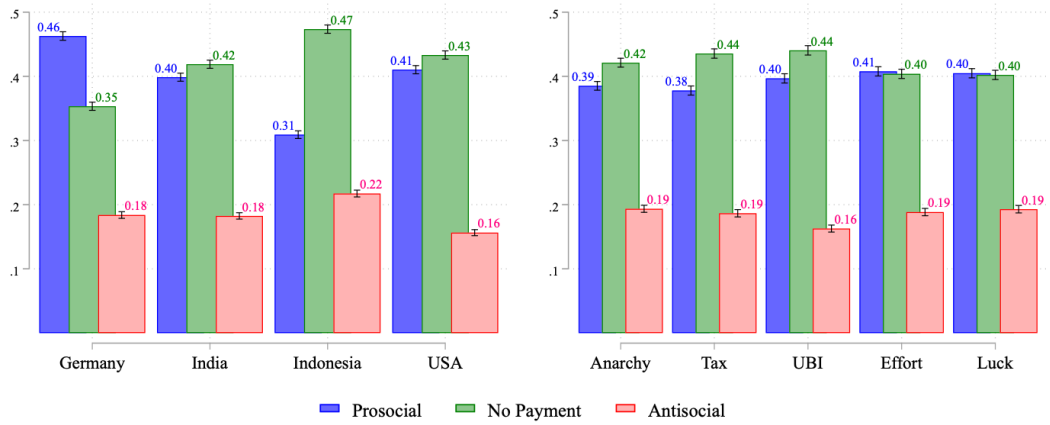
[13] Advantageous (disadvantageous) inequality refers to situations where the participant's income is greater (less) than their partner's. In perfect equality the participant's income is equal to that of their partner.

[14] Intuitively, transitivity of two pro-social transfers holds if $transfer_1 \geq transfer_2$ when partner's income $y_1 \leq y_2$, so that for a given individual, pro-social transfers are non-decreasing in inequality. See Appendix E for details.

Figure 3: Overview of Choices. Part 1

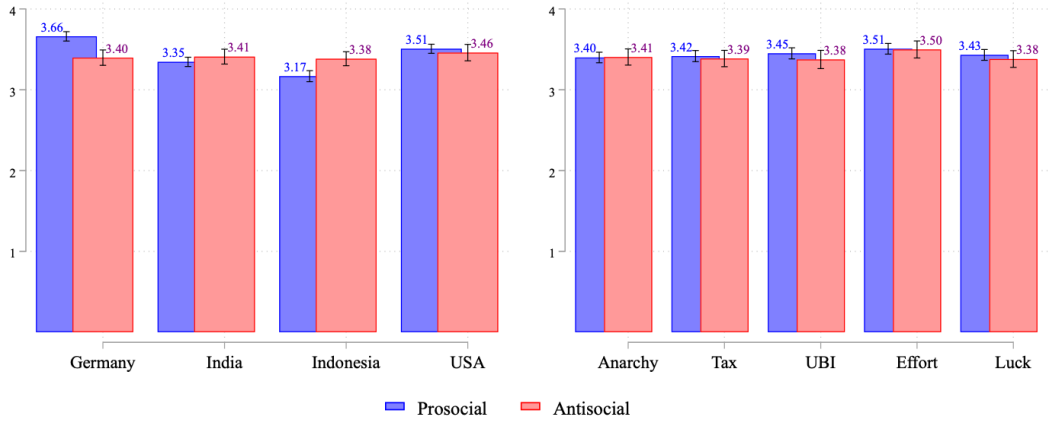
Panel A: Likelihood of Making transfers. By Country and Treatment

A1: Country Differences **A2: Treatment Differences**



Panel B: Average transfer. By Country and Treatment

B1: Country Differences **B2: Treatment Differences**

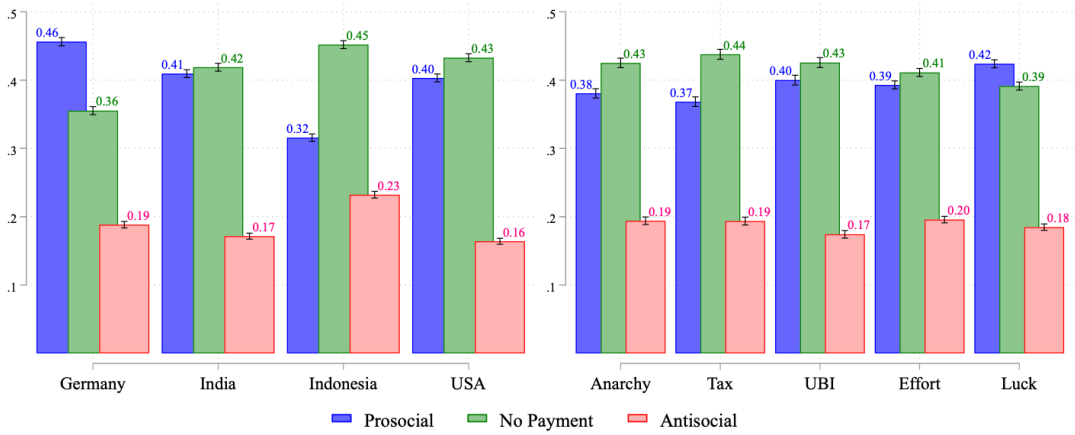


Notes: In Panel A, dark (blue) bars are the proportion of participants paying to increase and light (pink) bars are the share of those paying to decrease their partner's income, while the intermediate shade (green) is the share making a zero transfer. In Panel B, dark (blue) bars are the mean pro-social transfer (mean transfer to increase partner's income) conditional on making a pro-social transfer while light (pink) bars are the mean anti-social transfer, again conditional on making an anti-social transfer. Responses are pooled across treatments in Panels A1 and B1 and across countries in Panels A2 and B2. Error bars denote one standard error. Corresponding choices for Part 2 are presented in Figure 4.

Figure 4: Overview of Choices. Part 2

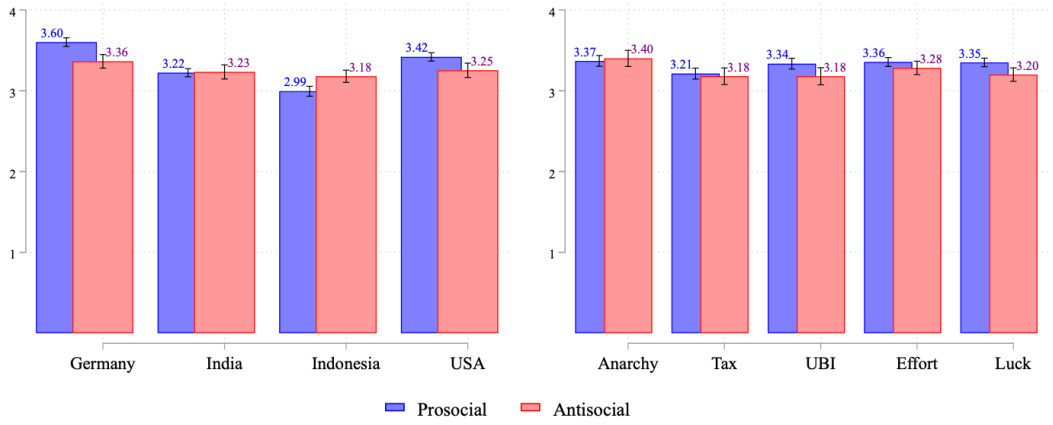
Panel A: Likelihood of Making transfers. By Country and Treatment

A1: Country Differences **A2: Treatment Differences**



Panel B: Average transfer. By Country and Treatment

B1: Country Differences **B2: Treatment Differences**



Notes: In Panel A, dark (blue) bars are the proportion of participants paying to increase and light (pink) bars are the share of those paying to decrease their partner's income, while the intermediate shade (green) is the share making a zero transfer. In Panel B, dark (blue) bars are the mean pro-social transfer (mean transfer to increase partner's income) conditional on making a pro-social transfer while light (pink) bars are the mean anti-social transfer, again conditional on making an anti-social transfer. Responses are pooled across treatments in Panels A1 and B1 and across countries in Panels A2 and B2. Error bars denote one standard error. Corresponding choices for Part 1 are presented in Figure 3.

tire of giving in later rounds), or its inverse for those consistently facing disadvantageous inequality.

4 Primary Specification

Our primary specification examines the effect of different redistribution policies on private transfers, while controlling for country and level of inequality between partners. Specifically, we compare the frequency of payment across country × treatment strata as follows:

$$\begin{aligned} y_{itce} = &\sum_{t} \beta_{1t} \text{Treatment}_t + \sum_{c} \beta_{2c} \text{Country}_c + \sum_{e} \beta_{3e} \text{Inequality}_e \\ &+ \sum_{tc} \beta_{4tc} (\text{Treatment}_t \times \text{Country}_c) + \sum_{te} \beta_{5te} (\text{Treatment}_t \times \text{Inequality}_e) \\ &+ \sum_{ce} \beta_{6ce} (\text{Country}_c \times \text{Inequality}_e) \\ &+ \sum_{tce} \beta_{7tce} (\text{Treatment}_t \times \text{Country}_c \times \text{Inequality}_e) \\ &+ \gamma \mathbf{Z}_i + \varepsilon_{itce} \end{aligned} \tag{1}$$

Here y_{itce} is the decision of individual i in treatment t in country c facing an inequality level e. In our primary specification, we include three inequality levels, that of advantageous inequality (where the subject's income is strictly greater than their partner's), of perfect equality (where the subject's income is exactly equal to that of their partner) and of disadvantageous inequality (where the subject's income is strictly less than their partner's). Our pre-analysis plan defines a more granular version of inequality, incorporating inequality fixed effects, the findings of which are discussed in Section 5.2. However, the more parsimonious definition of inequality used in equation (1) has several advantages: it is more interpretable and has the largest number of observations per inequality category, providing greater power to find treatment effects.

$\mathbf{Z}$ is a vector of additional controls including respondents' characteristics that are unbalanced across treatment arms and income and gender. Since participants' characteristics are balanced across treatments within countries (Section 2.3.1), the only additional controls we include in $\mathbf{Z}$ are fixed effects for the decision order (participants make a decision for each income level, and the ordering was randomized), reading time for the instructions (as this is useful to explain differential attrition) and comprehension (a continuous variable controlling for understanding – number of incorrect answers an individual gives on the

comprehension questions). Standard errors are clustered at the individual level.

5 Results: The Impact of Redistribution Policies on Private Transfers

5.1 Main Results

Our main results examine the impact of the different policies on the private response to redistribution. Due to the large number of interaction terms, interpreting the regression using a standard output table is difficult. Instead, Table 4 presents the difference in the frequency of transfers in the *Anarchy* treatment compared to the treatments with centralized redistribution (*Tax*, *UBI*, *Effort* and *Luck*) and the associated standard errors. Statistical significance, in this case, is a test of equality of difference in the estimated effect relative to that in the *Anarchy* treatment. For example, from equation (1), the estimated difference in transfers in the *Anarchy* treatment (A) compared to the *Tax* treatment (T) in Germany (G) with disadvantaged inequality (D) can be written as:

$$(\hat{\beta}_{1T} - \hat{\beta}_{1A}) + (\hat{\beta}_{4TG} - \hat{\beta}_{4AG}) + (\hat{\beta}_{5TD} - \hat{\beta}_{5AD}) + (\hat{\beta}_{7TGD} - \hat{\beta}_{7AGD})$$

The results are derived directly from the standard regression output and are equivalent.

The results, presented in Table 4, show very few treatment differences between the centralized redistribution treatments and *Anarchy*, using either traditional p-values, or randomization inference p-values (discussed in detail in Appendix C.1).[15] Our key result is summarized as follows:

Result 1 *There are no systematic treatment differences between centralized redistribution treatments and Anarchy i.e., there is little private response to centralized redistribution policies and there are no clear trade-offs between public and private redistribution.*

Result 1 is conservative. Throughout the analysis, we make modeling choices which make it *more* likely that we find treatment effects, thus stacking the field *against* our conclusion of no private response. *First*, despite showing (4 countries × 4 treatments × 3

[15]The exception to this is in India (Panel B of Table 4) in situations of perfect equality (Column 4). In this case, there are significantly fewer pro-social transfers, and significantly more anti-social transfers in all treatments with centralized redistribution. We therefore tentatively suggest that in India, in situations where there is no external assistance (the *Anarchy* treatment), there may be strong social norms of mutual aid among those of similar income levels, and when there is external assistance, the importance of these social norms may be weaker. This could explain both the crowding out in the pro-social and the crowding in, in the anti-social domains in this context.

Table 4: Transfer Frequency Relative to *Anarchy*. Part 1

Treatment	Pro-Social transfers: Equal (1)	Pro-Social transfers: Disadvantageous (2)	Pro-Social transfers: Advantageous (3)	Anti-Social transfers: Equal (4)	Anti-Social transfers: Disadvantageous (5)	Anti-Social transfers: Advantageous (6)
Panel A: Germany						
Anarchy	0.28	0.29	0.71	-0.02	0.27	0.05
Tax	-0.06	0.05	-0.01	0.03	-0.06	-0.04
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
	[0.12]	[0.25]	[0.76]	[0.27]	[0.18]	[0.16]
UBI	-0.01	0.06	-0.02	0.02	-0.06	-0.02
	(0.05)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
	[0.75]	[0.28]	[0.67]	[0.37]	[0.23]	[0.35]
Effort	-0.00	-0.02	0.04	0.05*	0.01	-0.03
	(0.05)	(0.04)	(0.04)	(0.03)	(0.04)	(0.03)
	[0.99]	[0.81]	[0.38]	[0.05]	[0.89]	[0.24]
Luck	0.02	0.08	0.01	-0.02	-0.08*	-0.06**
	(0.05)	(0.05)	(0.05)	(0.02)	(0.05)	(0.03)
	[0.59]	[0.05]	[0.83]	[0.44]	[0.05]	[0.04]
Panel B: India						
Anarchy	0.23	0.32	0.31	0.09	0.24	0.19
Tax	-0.10**	-0.05	-0.02	0.09***	0.05	0.04
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
	[0.02]	[0.29]	[0.65]	[0.0]	[0.21]	[0.28]
UBI	-0.06	-0.05	0.04	0.09***	0.02	0.03
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
	[0.16]	[0.34]	[0.37]	[0.0]	[0.62]	[0.36]
Effort	-0.10**	-0.07	0.04	0.08***	0.05	0.02
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
	[0.04]	[0.18]	[0.45]	[0.0]	[0.25]	[0.51]
Luck	-0.14***	-0.04	-0.04	0.10***	-0.02	0.00
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
	[0.01]	[0.51]	[0.42]	[0.0]	[0.55]	[0.9]

Continued ...

Table 4: Transfer Frequency Relative to *Anarchy*. Part 1 (Continued)

Treatment	Pro-Social transfers: Equal (1)	Pro-Social transfers: Disadvantageous (2)	Pro-Social transfers: Advantageous (3)	Anti-Social transfers: Equal (4)	Anti-Social transfers: Disadvantageous (5)	Anti-Social transfers: Advantageous (6)
Panel C: Indonesia						
Anarchy	0.18	0.3	0.4	0.14	0.3	0.19
Tax	-0.01	-0.02	-0.04	-0.01	0.02	0.01
	(0.04)	(0.04)	(0.05)	(0.03)	(0.04)	(0.03)
	[0.8]	[0.73]	[0.28]	[0.65]	[0.56]	[0.69]
UBI	0.01	-0.04	-0.00	0.03	0.06	0.01
	(0.04)	(0.04)	(0.05)	(0.04)	(0.05)	(0.03)
	[0.91]	[0.26]	[0.95]	[0.35]	[0.11]	[0.74]
Effort	-0.01	-0.01	-0.04	0.03	0.01	0.03
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.03)
	[0.91]	[0.85]	[0.33]	[0.31]	[0.95]	[0.24]
Luck	0.03	-0.05	-0.01	0.01	0.02	0.02
	(0.04)	(0.04)	(0.05)	(0.03)	(0.04)	(0.03)
	[0.45]	[0.24]	[0.71]	[0.76]	[0.63]	[0.68]
Panel D: USA						
Anarchy	0.32	0.36	0.65	0.09	0.26	0.12
Tax	0.02	0.01	-0.03	-0.03	0.02	-0.05
	(0.04)	(0.05)	(0.06)	(0.03)	(0.05)	(0.03)
	[0.55]	[0.77]	[0.54]	[0.3]	[0.56]	[0.11]
UBI	0.08*	0.04	0.06	-0.04	-0.00	-0.03
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
	[0.04]	[0.5]	[0.36]	[0.16]	[1.0]	[0.3]
Effort	0.10**	0.11**	0.06	-0.01	-0.01	-0.05
	(0.05)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
	[0.02]	[0.01]	[0.27]	[0.7]	[0.78]	[0.1]
Luck	0.02	0.10**	-0.02	-0.02	-0.01	-0.06**
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
	[0.61]	[0.02]	[0.66]	[0.44]	[0.85]	[0.04]

Notes: The *Anarchy* row shows the mean frequency of private transfers when there is no centralized redistribution. The remaining rows show the difference in the frequency of transfers in the *Anarchy* treatment relative to centralized redistribution (*Tax*, *UBI*, *Effort* and *Luck*), in a given country, and for a given level of inequality, computed using the estimates obtained from equation (1). A value of x, indicates payment frequencies are $100 \times x\%$ more frequent in the given treatment than in *Anarchy*. The regressions control for income strata, gender, comprehension and reading time. Significance levels $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$ test equality of the frequency of transfers between treatments with centralized redistribution and *Anarchy* for a given country and a given level of equality. Standard errors in parenthesis, randomization inference p-values in square brackets. Regression estimated on 23,646 observations with 3,941 clusters, pooled across treatments and countries. R-squared pro-social: 0.45, R-squared anti-social: 0.23. Table G2 in the Appendix presents the corresponding treatment effects for data from Part 2 of the experiment. The highlighted columns are of particular interest: pro-social transfers in the event of advantageous inequality (column 3) and anti-social transfers in the event of disadvantageous inequality (column 5).

inequality levels =) 48 coefficients of interest, we do not adjust our threshold for statistical significance downwards (e.g., by conducting multiple hypothesis corrections). *Second*, we use a coarse (three-level) measure of inequality. Along with the greater interpretability of this measure of inequality, it has the additional advantage of keeping sample sizes within each inequality level large, increasing the power to detect treatment differences. Despite these modelling choices, we do not find systematic treatment differences in any country.[16]

5.2 Robustness: Definitions of Inequality, the Intensive Margin and Part 2

So far, we have shown results for inequality aggregated to three levels (advantageous, equal and disadvantageous). The potential drawback of this aggregate measure of inequality is that it might hide treatment effects that occur at finer levels of inequality. In this Section, we re-estimate our primary specification varying the definition of the inequality variable.

We begin by redefining inequality to account for the possible effect of types, as being labeled Type-A or Type-B may cause ingroup favoritism in pro-social transfers, or outgroup bias in anti-social transfers. To do this, we include fixed effects for the following interactions: Type-A × Type-A (A:A); Type-A × Type-B (A:B); Type-B × Type-A (B:A) and Type-B × Type-B (B:B), and include interactions of these with inequality fixed effects. The regression specification is slightly different to that given in Equation (1), with the equality fixed effects replaced by type-pair fixed effects (E_{ij}).

[16] Our experimental design also allows us to study whether private response differs across the different public policy treatments. As stated in the pre-analysis plan, there are two pairwise treatment differences of interest: specifically those (i) between *UBI* and *Tax* and (ii) between *Luck* and *Effort*. These comparisons are of the most interest as the institutional designs are the most similar (they compare redistribution policies with and without the prospect of upward social mobility respectively). Table A4 presents the pairwise difference in transfer frequency between the *Tax* and *UBI* treatments (Panel A) and between the *Effort* and *Luck* treatments (Panel B), for each country (c) and inequality category (e). The estimating equation is given by equation (1). As the Table shows, there is very little evidence of statistically significant differences across the two sets of treatments. Appendix H reconciles this with the literature that uses *third parties* to redistribute between high and low income individuals which finds large differences in the frequency of redistribution when inequality is due to effort vis-à-vis luck (Almås et al., 2020, 2021). In short, Appendix H provides indicative evidence of differences in private transfers among those who experience social mobility, but these are not large enough to drive population-wide crowding out.

$$
\begin{aligned}
y_{itca} = & \sum_{t} \beta_{1t} \text{Treatment}_t + \sum_{c} \beta_{2c} \text{Country}_c + \sum_{a} \beta_{3a} \text{E}_{ij} \\
& + \sum_{tc} \beta_{4tc} (\text{Treatment}_t \times \text{Country}_c) + \sum_{ta} \beta_{5ta} (\text{Treatment}_t \times \text{E}_{ij} \\
& + \sum_{ca} \beta_{6ca} (\text{Country}_c \times \text{E}_{ij} + \sum_{tca} \beta_{7tca} (\text{Treatment}_t \times \text{Country}_c \times \text{E}_{ij}) \\
& + \gamma \mathbf{Z}_i + \varepsilon_{itca}
\end{aligned} \tag{2}
$$

With the exception of the type-pair fixed effects E_{ij} (A:A, A:B, B:A and B:B), all variables are as per equation (1). Table A5 shows that controlling for these types does not change our earlier conclusions of there being no private response to redistribution (i.e., Result 1 continues to hold).

In Tables A6 and A7 in the Appendix, we include interactions between type and income level. While these tables indicate a consistent pattern of no treatment effects, suggesting no private response, we note that Type-B's are somewhat more pro-social in the *UBI* treatment in the USA, India and Indonesia.

Second, we induce inequality via income shocks. The magnitude of inequality differs within type as well as across types. We therefore create a factor variable with nineteen levels, one for each level of inequality. Inequality is defined as follows:

$$
\text{Inequality} = \frac{\text{own income} - \text{partner income}}{\text{own income}}
$$

Table A8 presents the full specification as per the pre-analysis plan. It includes income tuples associated with each inequality fixed effect and so controls for any A-B type heterogeneity, and heterogeneity in transfers to those with positive vis-à-vis negative shocks that may mask aggregate treatment effects. Tables A9 and A10 present the treatment effects for each inequality level. Each of these tables, which vary the definition of inequality, shows that our primary specification does not mask treatment heterogeneity when we include inequality-pair subgroups.

Additionally, in the previous section, for clarity, we only presented decisions from Part 1 data and analysis at the extensive margin. Appendix G repeats the same analysis using data from Part 2, while Appendix I repeats the analysis along the intensive margin. In both instances, Result 1 is consistent: there is no systematic response in private transfers to redistribution policy.

6 Explanations for No Private Response

We start by establishing that our findings are of a precise null i.e., point estimates of 0 with tight standard errors, rather than large, but noisy estimates. *First*, we generate p-values for each of the treatment differences using randomization inference (see Appendix C.1 for a discussion). The randomization inference p-values are included in square brackets in Table 4. We find that randomly reassigning treatment status provides results that are no different to the results we observe, and that, by extension, treatment status has no systematic impact on individuals' private transfers. *Second*, In Appendix C.2, we calculate the minimum detectable effect (MDE) of our main estimations (with 80 percent power at the 5% significance level). We are powered to detect relatively small effect sizes: equal to or less than 0.17 standard deviations for each of the 48 treatment : *Anarchy* comparisons made in Table 4. This suggests that the null results are not due to power constraints in capturing meaningful treatment effects. *Lastly*, a lack of private response at the aggregate level may mask (large) offsetting treatment heterogeneity. In Appendix C.3 we show that there is little systematic heterogeneity in response by people with above median and below median values along different dimensions. These results, combined with the finding of a *precise* null, suggest that heterogeneity does not explain the absence of any private response.

We next examine behavioral explanations for our main result of no private response. In Section 6.1 we investigate whether individuals are of specific behavioral types which do not change in response to redistribution policies. Section 6.2 adapts the Andreoni (1990) impure altruism model to explore the extent to which egotistic, as opposed to social, motives drive private behavior. In doing so, we show that the weight in the utility function for egotism is much larger than that for social motives for private transfers. This provides a second explanation for the lack of private response. However, there remains a small share of private transfers driven by social motives that may be influenced by the redistribution regime. Additionally, we cannot separately identify social and egotistic behavior in *Anarchy* because this treatment, by definition, has no centralized redistribution. In Section 6.3 we, therefore, adapt the Fehr and Schmidt (1999) model of inequality aversion to examine whether other regarding preferences systematically differ in situations of *Anarchy* compared to treatments with centralized redistribution. We show that the absence of private response is explained by two facts (i) transfers are mostly egotistic, and egotistic motives are independent of centralized redistribution, and (ii) inequality aversion varies little across redistribution regimes, so within the residual fraction of transfers (those driven by social motives), there are few systematic differences.

6.1 Types

To understand private responses to inequality (with and without centralized redistribution policies) we follow the literature on charitable giving. This literature introduces *types* as a way to explain why some people give to different charities (De Oliveira et al., 2011). Building on this argument, Bechtel et al. (2018) use disadvantageous inequality averse and advantageous inequality averse types to explain differences in giving and in taking in the US and in Germany. Following this literature, we define an individual's type by the inequality aversion they display: (*a*) an *advantageous inequality averse* individual is someone who *always* makes pro-social private transfers to reduce advantageous inequality, but who does not *always* make transfers to reduce disadvantageous inequality; (*b*) a *disadvantageous inequality averse* individual is one who *always* makes private transfers to reduce disadvantageous inequality, but who does not *always* make transfers to reduce advantageous inequality; (*c*) *inequality averse* individuals are both advantageous and disadvantageous inequality averse, and do not make a transfer when there is perfect equality; (*d*) *own income maximizers* have a zero weight on the other in their own utility function, and so never pay to alter their matched participant's income as they have little aversion to inequality; (*e*) a residual *other* category, in which individuals do not display systematic patterns in their responses. This type, may, for example, pay to reduce some advantageous inequality, but not for all partners. These five types are mutually exclusive. Figure F1 presents the share of individuals of each given behavior type in each country. In Indonesia, there are relatively few advantageous inequality averse participants, while in Germany close to half of the participants are advantageous inequality or simply inequality averse.

If an individual's type is unaffected by treatment, we would expect the share of each of the above types to be the same across treatments. To test this, Table 5 reports the share of each type within each treatment and country. It also reports the two-sided test of equality of shares within each of the treatments with centralized redistribution relative to *Anarchy*. The shares of each type vary little within a country. This is indicative evidence that introducing centralized redistribution is insufficient to change the distribution of types, and thus may partly explain why there is no private response. This is also consistent with the related literature on the stability of social preferences, which finds evidence that social preferences are stable over contexts (Carlsson et al., 2014). Result 2 summarizes the results relating to the different types.

Result 2 *Within countries, the shares of different types are largely unresponsive to the introduction of centralized redistribution. This partly explains the lack of private response.*

In contrast, in Appendix F we show that the cross country differences in behavioral

Table 5: Behavior Types are Unaffected by Treatment

	Germany (1)	**India** (2)	**Indonesia** (3)	**USA** (4)
Income Maximisers				
Anarchy	0.11	0.30	0.23	0.25
	(0.32)	(0.46)	(0.42)	(0.43)
Tax	0.11	0.23	0.27	0.24
	(0.31)	(0.42)	(0.45)	(0.43)
UBI	0.12	0.29	0.28	0.24
	(0.32)	(0.46)	(0.45)	(0.43)
Effort	0.14	0.24	0.24	0.22
	(0.35)	(0.43)	(0.43)	(0.42)
Luck	0.09	0.20**	0.26	0.20
	(0.28)	(0.40)	(0.44)	(0.40)
Advantageous Inequality Averse				
Anarchy	0.40	0.24	0.20	0.30
	(0.49)	(0.43)	(0.40)	(0.46)
Tax	0.41	0.23	0.14	0.26
	(0.49)	(0.42)	(0.35)	(0.44)
UBI	0.38	0.23	0.13*	0.28
	(0.49)	(0.42)	(0.34)	(0.45)
Effort	0.36	0.22	0.17	0.34
	(0.48)	(0.41)	(0.38)	(0.48)
Luck	0.43	0.23	0.14	0.34
	(0.50)	(0.42)	(0.35)	(0.47)
Disadvantageous Inequality Averse				
Anarchy	0.06	0.06	0.08	0.07
	(0.23)	(0.24)	(0.27)	(0.26)
Tax	0.06	0.10	0.11	0.09
	(0.24)	(0.30)	(0.31)	(0.29)
UBI	0.07	0.06	0.06	0.08
	(0.26)	(0.25)	(0.23)	(0.27)
Effort	0.08	0.08	0.12	0.07
	(0.27)	(0.27)	(0.33)	(0.25)
Luck	0.11*	0.11	0.10	0.10
	(0.31)	(0.31)	(0.30)	(0.30)
Inequality Averse				
Anarchy	0.08	0.02	0.02	0.08
	(0.26)	(0.14)	(0.13)	(0.27)
Tax	0.07	0.02	0.06**	0.05
	(0.25)	(0.15)	(0.23)	(0.23)
UBI	0.08	0.01	0.03	0.08
	(0.26)	(0.10)	(0.18)	(0.27)
Effort	0.08	0.03	0.01	0.06
	(0.27)	(0.17)	(0.10)	(0.24)
Luck	0.02**	0.03	0.03	0.03**
	(0.15)	(0.17)	(0.16)	(0.16)

Notes: Proportion belonging to each type in each country presented. $^{***}p < 0.01,^{**} p < 0.05,^{*} p < 0.1$ test equality of proportions between treatments with centralized redistribution and *Anarchy* for a given country. Part 1 data used.

types can explain the large and prominent differences in pro- and anti-social behavior. The results presented in Table F1 show that country differences are largest in the pro-social domain and when these types are controlled for, there are few cross country differences.

6.2 Egotistic and Social Motivations

Along with classifying individuals within broad giving types, the literature on charitable giving disentangles individual behavior into its egotistic and socially motivated components (Andreoni, 1990). Egotistic concerns are purely selfish preferences, wherein there is a zero-weight on the other in an individual's utility function in behavior that may otherwise appear other-centred. The canonical example of egotistic behavior is "warm-glow giving" (Andreoni, 1989, 1990), i.e., transfers to the poor to achieve a private, feel-good benefit. Other-regarding preferences, in contrast to egotism, are defined by a non-zero weight on others' welfare in one's own utility function. Other-regarding preferences are most often discussed in the pro-social domain, and as having a weakly positive weight on the other. To see this, we turn to the workhorse model of Andreoni (1990):

$$U_i = a\ ln(x_i) + b\ ln(T_j) + c\ ln(p_i);\ a,\ b,\ c, \geq 0;\ i \neq j \tag{3}$$

In this, the original specification, U_i is individual i's utility function, x_i is own income, p_i is the private transfer from individual i to their matched partner, and T_j is the total transfer received by the matched partner j (i.e., net tax benefit received by j plus the private transfer from i to j). This functional form is particularly useful for understanding crowding out. By separating egotistic from social transfers, it provides a theoretical justification for perfectly informed, rational agents to implement more or less than perfect crowding out: private transfers are no longer perfect substitutes for centralized transfers.

While Andreoni (1990) is the workhorse model to distinguish between egotistic and social preferences, it needs to be extended to better capture decision making in our setting. *First*, in our setting, as in the real world, individuals may have other-regarding preferences in the anti-social domain, i.e., negative weights on the other's welfare. *Second*, Andreoni (1990) does not allow for the level of inequality to vary between individuals. *Finally*, in our setting, centralized redistribution is about half as efficient as private transfers (given the $2\times$ multiplier on private transfers), and while this is constant across treatments, it may inflate the measured importance of egotistic vis-a-vis social motives for pro- and for anti-social decisions. Although this design choice reflects the common perception that private

giving is more efficient than public redistribution, it implies that the coefficient on social motives is more responsive than that on egotistic motives, indicating that our results may actually under-estimate the relative importance of egotistic transfers.[17] We address the implication of this in our discussion of Table 6.

Formally, the individual derives utility from own income, and from both egotistic transfers and altruistic transfers to their matched participant. Normalizing prices, the individual's budget constraint is such that taxation, income and all private transfers must come from the individual's post-shock endowment. Individual i's problem can therefore be written as follows:

$$\text{Max}_{p_i} \quad U(x_i, p_i(e_i, a_i(T_j)), I_{i,j}) \tag{4}$$

$$\text{subject to} \quad x_i + p_i(\cdot) \leq X_i - t_i \tag{5}$$

Where x_i denotes an individual's own consumption, $I_{i,j}$ is the level of inequality between individual i and their matched partner j ($i \neq j$); e_i is the private egotistic transfer made by individual i to individual j; a_i is the other regarding transfer made by individual i to individual j and T_j is the total transfer received by the partner (that is, the private transfer from i to j plus the partner's tax benefit). Note that $\frac{\partial e_i}{\partial x_j} = 0$, i.e., the egotistic transfer is independent of j's need while $\frac{\partial a_i}{\partial T_j} \neq 0$ i.e, the other regarding transfers is a function of the net social transfer received by the matched participant j.[18] Individuals are constrained such that total expenditure does not exceed X_i, the pre-tax endowment, less t_i the tax levied on individual i. We consider the following functional form of the utility function

$$\begin{aligned} U(x_i, p_i(\cdot), I_{i,j}) = \gamma \ \text{arcsinh}(x_i) + \phi_{t,k} \ \text{arcsinh}(p_i(\cdot)) + \delta_{t,k} \ \text{arcsinh}(T_j + p_i(\cdot)) \\ + \psi_{t,k} \ \text{arcsinh}(x_i - x_j); \quad k \in \{\text{pro, anti}\} \end{aligned} \tag{6}$$

Equation (6) is an augmented version of the Andreoni (1990) utility function (equation (3)), which includes an inequality term, and the ability to estimate anti-social behavior. Here arcsinh denotes the inverse hyperbolic sine transformation.[19] The "pro-" subscript is

[17] To see this intuitively, consider warm-glow giving as the private benefit derived from giving, and utility from pure altruism as a separate mental account. When an individual pays 1 unit, they add β_{wg} utils to their warm-glow account, while adding $2 \times \beta_{pa}$ utils to their pure-altruism account.

[18] As participants are matched, if i makes no private transfer to j, the latter will not receive any private transfer, and so, we are in a "small world" setting (Andreoni, 1988), and there is no free riding in private transfers.

[19] In order for the maximum likelihood estimation to converge, it is necessary to transform consumption and inequality in particular, given that their distribution is not normal. We take the arcsinh of all remaining terms to make their effects directly comparable to changes in consumption and inequality. The arcsinh

an indicator variable for pro-social behavior, when it is equal to 1, we include only pro-social behavior and when it is equal to 0, we include only anti-social behavior and vice versa.

We write p_i as the (aggregate) private transfer made from individual i to j so that $p_i = e_i + a_i$, but the separation of p into its constituent elements e and a is not directly observable. Despite this impossibility, if private transfers change in response to the net tax benefit (i.e., the quantity of centralized redistribution received) of the matched participant, the private transfer is altruistic. Conversely, if the private transfer is unchanging in response to the net tax benefit of the matched participant, the private transfer is egotistic. Private transfers can also be a weighted combination of these two motives.

Summarising, if $\delta = 0$ and $\phi = 0$, there are no private transfers (given that own utility is unchanging in private transfers). If $\delta > 0$ and $\phi = 0$, private transfers are purely altruistic, and we should expect to see a private response. If $\delta = 0$ and $\phi > 0$, private transfers are purely egotistic, and there should be no private response. And finally, if $\delta > 0$ and $\phi > 0$, private transfers have both an altruistic and an egotistic element. In this final case, the relative magnitudes of ϕ and δ indicate the relative importance of egotistic and altruistic preferences in individuals' private transfers, and hence, the extent of private response that we expect to observe.

While capturing egotistic and altruistic preferences, our model allows treatment differences in individual behavior to come through one of four channels: (*i*) changes in the individual's budget constraint, (*ii*) matched partner's net tax benefits, (*iii*) changes in the level of inequality between individuals, and (*iv*) perception of the policy's 'fairness'. However, the model does not include a process-based theory of fairness, and so cannot provide behavioral explanations of treatment differences arising through fairness concerns. Instead, we allow δ_t to vary by redistribution rule (treatment), with any differences in δ_t being a black-box. For completeness, we also allow ϕ to vary by treatment though we hypothesize that egotistic transfers do not vary across redistributive environments (this is borne out in the data).

Turning to the literature, we draw two testable hypotheses. We state these hypotheses for the case of pro-social behavior, and test both the stated hypothesis and their inverse for the case of anti social behavior.

Hypothesis 1 $\delta_{UBI} \leq \delta_{Tax}$ *as the literature generally considers UBI to be more fair than progressive taxation* (Van Parijs, 1995, Kim, 2002), so it reduces the perceived need for private transfers.

transformation is similar to the log transformation, though does not have limit at $x = 0$.

Hypothesis 2 $\delta_{Effort} \leq \delta_{Luck}$ *as earned income (redistribution earned through high effort) is considered a more fair targeting method than is unearned redistribution (redistribution through luck)* (Piketty, 1998, Fong, 2001, Alesina and Angeletos, 2005), so it reduces the perceived need for private transfers.

Due to the mapping of social preferences (δ) to private response (as outlined above), testing Hypotheses 1 and 2 may contribute to explaining any differences in the extent of private response between treatments.

Table 6 presents the estimates from equation (6) using data collected in Part 2 of the experiment. This allows us to estimate the motivations behind participant's behavior on a set of decisions that is different from those upon which the reduced form conclusion of no private response was made.

Across all countries, γ is positive, indicating that utility is increasing in own income. Similarly, across all countries, in both the pro-social and anti-social frame, egotistic motives (ϕ) are large in magnitude and statistically significant. In India, the egotistic motives are about a quarter of the magnitude of own income, while in the remaining countries, it is closer to roughly one half. Furthermore, as hypothesised, within-country treatment differences in egotistic motives are small. Finally, across all treatments and countries, social motives (δ) are small in magnitude relative to egotistic motives. [20] Similarly, social motives have an uneven impact on individual's utility, being significant in some, but not all treatments. Our results can be summarized as follows:

Result 3 *Egotistic motives are more important in the decision to make both pro- and anti social private transfers, across all countries and treatments. This can explain the lack of private response when centralized redistribution regimes are introduced.*

Table 6 shows that Hypothesis 1 holds true for both pro-social and anti-social behavior in every treatment in every country. There is mixed evidence in support of Hypothesis 2: the hypothesis is not supported for pro-social payments in Germany or Indonesia. This may suggest that in these two countries, accounting for effort when choosing a method of redistribution is not considered fairer.

In Section 6.3, below, we further explore the differences in the values of the δ parameter by estimating inequality aversion within treatment using the canonical Fehr and Schmidt (1999) model. We estimate this separately to the Andreoni model to be able to directly compare inequality aversion in treatments with centralized redistribution to the estimates in the *Anarchy* treatment.

[20] The p-values of the test of difference between ϕ and δ are less that 0.01 for all countries and all treatments.

Table 6: Social or Egotistic Preferences?

	Germany		**India**		**Indonesia**		**USA**	
	Pro-social	Anti-social	Pro-social	Anti-social	Pro-social	Anti-social	Pro-social	Anti-social
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
γ: Own Income	2.11		3.84***		1.92*		2.86**	
	(1.30)		(0.92)		(1.14)		(1.12)	
ϕ: Egotistic Motives								
Tax	1.10***	-0.88***	1.02***	-0.83***	0.80***	-0.83***	1.14***	-0.68***
	(0.09)	(0.12)	(0.06)	(0.12)	(0.07)	(0.12)	(0.08)	(0.09)
UBI	1.34***	-1.21***	1.12***	-1.64***	0.91***	-1.64***	1.28***	-1.59***
	(0.12)	(0.13)	(0.09)	(0.19)	(0.08)	(0.19)	(0.12)	(0.18)
Effort	1.03***	-0.87***	0.91***	-0.82***	0.86***	-0.82***	1.23***	-0.98***
	(0.11)	(0.10)	(0.08)	(0.09)	(0.07)	(0.09)	(0.11)	(0.12)
Luck	0.99***	-0.87***	1.06***	-0.88***	0.85***	-0.88***	0.98***	-0.87***
	(0.09)	(0.11)	(0.10)	(0.10)	(0.07)	(0.10)	(0.09)	(0.09)
δ: Social Motives								
Tax	-0.03	-0.02	-0.20***	-0.38	-0.06	-0.38	-0.18***	-0.51
	(0.07)	(0.30)	(0.06)	(0.35)	(0.09)	(0.35)	(0.06)	(0.32)
UBI	-0.18**	0.34***	-0.19***	0.43***	-0.22***	0.43***	-0.23***	0.49***
	(0.08)	(0.12)	(0.06)	(0.11)	(0.07)	(0.11)	(0.07)	(0.10)
Effort	0.07	-0.10	-0.06	-0.13***	0.06	-0.13***	-0.06	-0.08
	(0.06)	(0.06)	(0.05)	(0.03)	(0.06)	(0.03)	(0.05)	(0.06)
Luck	0.14**	0.02	-0.06	-0.14**	-0.13***	-0.14**	0.09*	-0.05
	(0.07)	(0.06)	(0.06)	(0.07)	(0.05)	(0.07)	(0.05)	(0.05)
ψ: Inequality Aversion								
Tax	0.21**	-0.06	0.07	-0.44***	0.04	-0.44***	0.28***	0.13
	(0.08)	(0.20)	(0.06)	(0.08)	(0.08)	(0.08)	(0.07)	(0.17)
UBI	0.27***	-0.24*	0.13**	-0.45**	0.12	-0.45**	0.18**	-0.41***
	(0.06)	(0.13)	(0.07)	(0.19)	(0.08)	(0.19)	(0.07)	(0.15)
Effort	0.25***	-0.09	0.00	-0.10	0.23***	-0.10	0.29***	-0.49***
	(0.08)	(0.09)	(0.05)	(0.15)	(0.07)	(0.15)	(0.07)	(0.11)
Luck	0.19***	-0.20	0.09	0.09	0.17***	0.09	0.22***	-0.41***
	(0.06)	(0.16)	(0.07)	(0.19)	(0.05)	(0.19)	(0.07)	(0.09)
Observations	5,500		6,168		5,236		5,596	

Notes: Maximum Likelihood estimates from equation (6) estimated on responses from Part 2 presented. Utility function given in equation (7). As likelihood ratio tests cannot be conducted on clustered data (the likelihood is not the true distribution of the sample in this case), bootstrapped standard errors are shown in parentheses. Since there is no centralized redistribution in the *Anarchy* treatment, egotistic and social motives cannot be disentangled; this treatment is therefore excluded from the analysis, as are transfers of 0 since they are neither pro- nor anti- social. Significance levels: $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$.

6.3 Social Preferences and Inequality Aversion

Since social preferences can be defined as having a non-zero weight on the utility of others in one's own utility function, ($\frac{\partial U_i}{\partial x_j} \neq 0$), and inequality aversion implies that $\frac{\partial U_i}{\partial |x_i - x_j|} < 0$, it follows that differences in inequality aversion will lead to differences in social preferences between *Anarchy* and the given treatment (assuming own income is held constant).

To estimate the inequality aversion parameters on individuals' utility functions, we base our estimation on the utility function of Fehr and Schmidt (1999):

$$\begin{aligned} U_i(x_i, x_j) = \gamma \text{ arcsinh}(x_i) - \alpha_i \text{Max}\{ \text{ arcsinh}(x_j - x_i), 0 \} \\ - \beta_i \text{Max}\{ \text{ arcsinh}(x_i - x_j), 0 \}, \ i \neq j \end{aligned} \tag{7}$$

Here x_i is own consumption, x_j is the consumption of the matched partner, and we have once again taken the arcsinh transformation, for the reasons outlined in Section 6.2. α and β are parameters capturing disadvantageous and advantageous inequality respectively, with

$$\text{Max}\{x_j - x_i, 0\} = \begin{cases} 0 & \text{in situations of advantageous inequality; and} \\ x_j - x_i & \text{otherwise} \end{cases}$$

Similarly

$$\text{Max}\{x_i - x_j, 0\} = \begin{cases} 0 & \text{in situations of disadvantageous inequality; and} \\ x_i - x_j & \text{otherwise} \end{cases}$$

This specification therefore permits the estimation of disadvantageous inequality aversion (α) and disadvantageous inequality aversion (β) in a single policy environment. However, it does not allow us to capture policy effects on inequality aversion. We therefore modify the Fehr and Schmidt (1999) framework to include the equivalent of policy fixed effects:

$$\begin{aligned} U_i(x_i, x_j) = \gamma \text{ arcsinh}(x_i) - (\alpha_i + \rho_{i,p,\alpha}) \text{Max}\{ \text{ arcsinh}(x_j - x_i), 0 \} - \\ (\beta_i + \rho_{i,p,\beta}) \text{Max}\{ \text{ arcsinh}(x_i - x_j), 0 \}, \ i \neq j \end{aligned} \tag{8}$$

The difference between equations (7) and (8) comes from the $\rho_{i,p,\alpha}$ and $\rho_{i,p,\beta}$ terms. These are a set of 4 dummy variables, one for each treatment with centralized redistribution. The ρ_β term captures the additional advantageous inequality aversion for a relatively

Table 7: Baseline Inequality Aversion Estimates

	Anarchy			All Treatments		
	γ	α	β	γ	α	β
	(1)	(2)	(3)	(4)	(5)	(6)
Germany	3.41***	0.79***	1.25***	7.15***	0.68***	1.10***
	(1.17)	(0.08)	(0.10)	(0.86)	(0.03)	(0.05)
India	6.79***	0.62***	1.08***	9.13***	0.54***	0.83***
	(1.72)	(0.07)	(0.09)	(0.88)	(0.03)	(0.04)
Indonesia	5.95***	0.75***	0.83***	9.69***	0.67***	0.74***
	(1.13)	(0.07)	(0.08)	(0.89)	(0.03)	(0.04)
USA	8.08***	0.63***	1.21***	9.88***	0.65***	0.98***
	(1.70)	(0.07)	(0.10)	(0.91)	(0.03)	(0.04)

Notes: Maximum likelihood estimates on responses from Part 2 presented. Utility function given in equation (7). β is the coefficient on advantageous inequality and α that on disadvantageous inequality. A positive coefficient indicates an aversion to inequality, while a negative coefficient indicates utility is increasing in inequality. Columns 1–3 report only the decisions made in the *Anarchy* treatment, while columns 4–6 pool decisions from all treatments. Since likelihood ratio tests cannot be conducted on clustered data, bootstrapped standard errors are shown in parentheses. Significance levels: $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$.

wealthier individual under a given redistribution scheme, relative to the *Anarchy* treatment. Similarly, the ρ_α term captures the increase in disadvantageous inequality aversion in a given redistribution scheme relative to the *Anarchy* treatment.

Table 7 presents the estimates corresponding to equation (7). In columns 1–3 we restrict the sample to the *Anarchy* treatment while in columns 4–6 we include data from all treatments. We present the maximum likelihood estimates and the corresponding standard errors of α and β separately for each country, using data from Part 2 only. A positive coefficient indicates an aversion to inequality. For example, utility decreases by 0.79 units in Germany in the Anarchy condition, when advantageous inequality increases by 1 ECU. This is about a quarter of the impact a 1 unit change in income has on utility in Germany (3.41 units). In every country, advantageous inequality aversion is stronger than disadvantageous inequality aversion.

Table 8 shows the parameter estimates for equation (8). We include data from all treatments and present the estimates for α, β, $\rho_{p,\alpha}$ and $\rho_{p,\beta}$. The estimated values of α and β correspond to those for the *Anarchy* treatment and are similar to those presented in Table 7. γ is the parameter on own income. In terms of disadvantageous inequality aversion, the only statistically significant treatment effect is in the USA, where individuals are more averse to disadvantageous inequality in the *Tax* treatment. For advantageous

inequality, the *Anarchy*–centralized redistribution differences are larger, and particularly so in India and the USA, where participants are *less* advantageous inequality averse in the *UBI* and *Tax* treatments relative to *Anarchy*.

Result 4 *Within each country the distribution of preferences for inequality aversion is not systematically different across the redistribution environments, relative to Anarchy.*

Together, Sections 6.2 and 6.3 (i.e., Results 3 and 4) suggest the following behavioral explanation for no private response: Result 3 shows that egotistic preferences do not vary across treatments, and that pro- and anti- social behavior is mostly driven by these same, invariant, egotistic preferences. Result 4 then shows that for the (remaining) pro- and anti-social behavior, driven by social preferences, we should not expect to find any differences in transfers across treatments, as inequality aversion does not meaningfully vary across redistribution policies.

7 Effects on Inequality

Ultimately, the main reason for implementing redistribution policies and to engage in private transfers of income is to reduce inequality. Figure 5 therefore compares the impact of transfers and redistributive policies on the Gini coefficient across treatments. *Initial Gini* is defined with reference to participants' income levels prior to redistribution $\{200, 100, 60, 50, 25, 15\}$ and is thus constant across treatment. The *Post Tax Gini* is calculated immediately after the centralized redistribution, but prior to the private transfers, and the *Final Gini* is calculated after both the centralized redistribution and the private transfers have taken place.

A few results stand out. *First*, the centralized redistribution policies result in decreases in inequality. *Tax* leads to the largest decline, while the UBI, since it redistributes to both the A and B Types, reduces inequality by the least. *Second*, final inequality is not statistically different to post-tax inequality. This highlights that the reduction in inequality is essentially driven by centralized redistribution policies: private transfers have little role to play.[21]

Our results on inequality are summarized as follows:

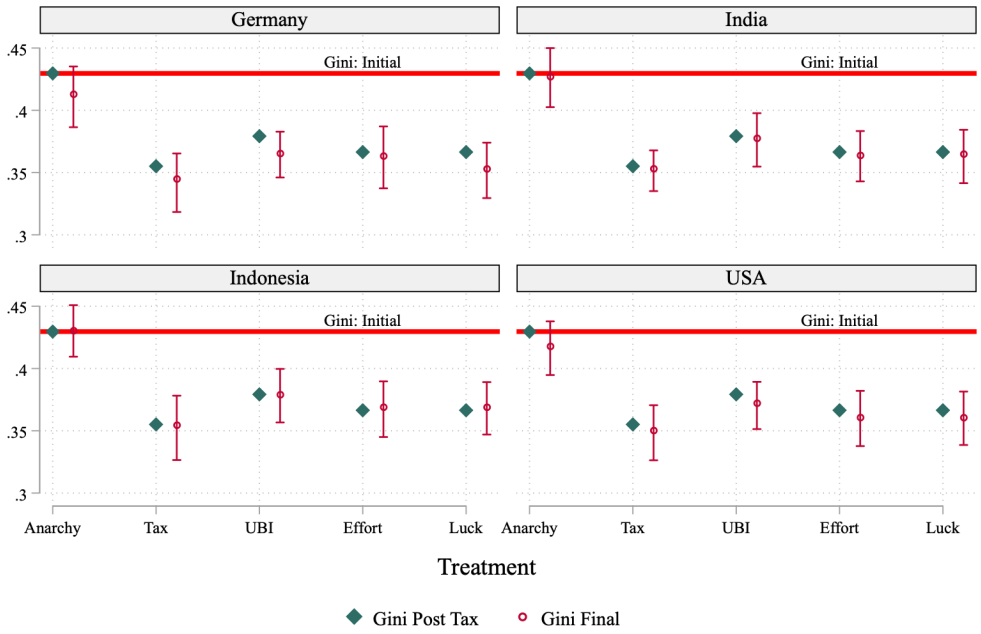
[21] Private transfers can either increase measured inequality (e.g., anti-social payments in situations of advantageous inequality) or decrease measured inequality (e.g., pro-social transfers in situations of advantageous inequality) which partly explains why even high volumes of private transfers have little impact on inequality.

Table 8: Inequality Aversion. Treatment Effects

	Germany (1)	**India** (2)	**Indonesia** (3)	**USA** (4)
γ	7.14***	9.11***	9.69***	9.89***
	(0.86)	(0.89)	(0.91)	(0.95)
α	0.72***	0.57***	0.67***	0.59***
	(0.07)	(0.07)	(0.07)	(0.07)
β	1.25***	1.06***	0.79***	1.21***
	(0.10)	(0.10)	(0.08)	(0.10)
$\rho_{p,\alpha}$				
Tax	0.02	0.02	-0.08	0.27**
	(0.11)	(0.09)	(0.10)	(0.11)
UBI	-0.02	-0.06	-0.07	0.00
	(0.10)	(0.09)	(0.10)	(0.09)
Effort	-0.02	-0.10	0.07	0.04
	(0.10)	(0.09)	(0.10)	(0.09)
Luck	-0.09	0.00	0.01	0.04
	(0.10)	(0.09)	(0.09)	(0.09)
$\rho_{p,\beta}$				
Tax	-0.21	-0.23*	-0.01	-0.29**
	(0.13)	(0.13)	(0.12)	(0.13)
UBI	-0.29**	-0.35***	-0.16	-0.30**
	(0.14)	(0.13)	(0.12)	(0.15)
Effort	-0.28**	-0.30**	-0.13	-0.26*
	(0.13)	(0.13)	(0.12)	(0.13)
Luck	0.01	-0.17	0.02	-0.22*
	(0.15)	(0.14)	(0.11)	(0.13)
Observations	11,530	13,302	13,058	12,807

Notes: Maximum likelihood estimates of equation (8) for responses pooled across all treatments from Part 2. β is the coefficient on advantageous inequality and α that on disadvantageous inequality. Standard errors in parentheses. Significance levels: $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$.

Figure 5: Effects on Inequality



Notes: The horizontal red line denotes the value of the Gini coefficient when there is no centralized redistribution. The green diamonds denote the value of the post-centralized redistribution Gini coefficient, while the red circles represent the final Gini (after taxation and private transfers) for Part 2. The error bars denote the bootstrapped (with 1000 replications) 90% confidence intervals for final Gini. Bootstrapping randomly re-partners participants.

Result 5 *Final inequality is significantly lower than initial inequality in all treatments with centralized redistribution. This difference is due to public, not private redistribution.*

These results have significant implications for policy design. Given the absence of an effect on private transfers, policymakers can more effectively employ tax-based redistribution policies to reduce inequality. More importantly however, if reducing inequality is the goal of policy makers, simply depending on private transfers is insufficient. More directed centralized redistribution policies are required.

8 Conclusion

The response of private transfers to centralized redistribution has long been debated by philosophers, political scientists and politicians alike (Brooks, 2000, Andreoni and Payne, 2011). In this paper, we present a novel experiment that provides causal evidence on the

impact of public redistribution, a defining feature of all political systems, on private transfers. In addition to studying new forms of redistribution policies (Universal Basic Income), we also study established redistribution policies of progressive tax and the possibility of social mobility through luck or effort. Along with this focus on a large number of redistributive policies, we analyze both pro- and anti-social behavior. We do so for a set of countries chosen specifically for their differences in preferences for inequality and for their preferences for the role of government in redistribution. To the best of our knowledge, this is the first study to directly compare the causal impact of different policy regimes on private transfers across countries.

Irrespective of country or of policy, we find no evidence of crowding out or in, of either pro- or anti-social behavior. We then investigate behavioral explanations for this result. We find limited effects of redistribution policies on inequality aversion. No private response is attributed to the predominantly egotistic nature of transfers which, coupled with little variation in inequality aversion across treatments, explains why the share of social transfers is largely unresponsive to redistribtuion. This finding of no crowding out in any treatment implies that the form of redistribution largely determines the final level of inequality, and that the *UBI* treatment consequently leads to the smallest decline in inequality across all treatments.

Our findings may seem counter intuitive. For instance, studies comparing the US with Nordic countries are often cited as evidence of crowding out due to their low (high) levels of social spending and accompanying high (low) levels of private donations. Similarly, administrative data has suggested significant crowding out of private transfers. Our contribution to this debate is the introduction of experimental evidence across a broad range of redistribution regimes. Overall, our results stand in contrast to the argument that lesser government intervention would lead to improved outcomes for the poor due to an associated increase in more efficient, individual charity. Instead, we find that there is no trade-off between public redistribution and private transfers.

These findings have two primary policy implications. *First*, redistribution after inequality has been created does not impact individuals' inequality aversion, and may not be sufficient to quell unrest due to *perceptions* of fundamental inequalities, even if the poorest members of society are materially better off. *Second*, policy makers have an additional degree of freedom to increase state-sponsored redistribution: those policies will not dampen private charity. Larger redistributive schemes may therefore be less costly than anticipated. Additionally, private transfers do not have any significant effect on overall inequality. The comparison of the *Anarchy* treatment and those with redistribution suggests that centralized redistribution policies are crucial for policymakers aiming to reduce

inequality. Governments and policy makers have a crucial role to play, through the design of policies in addressing inequality.

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Does Public Redistribution Crowd Out Private Transfers? Evidence from Four Countries. Appendix

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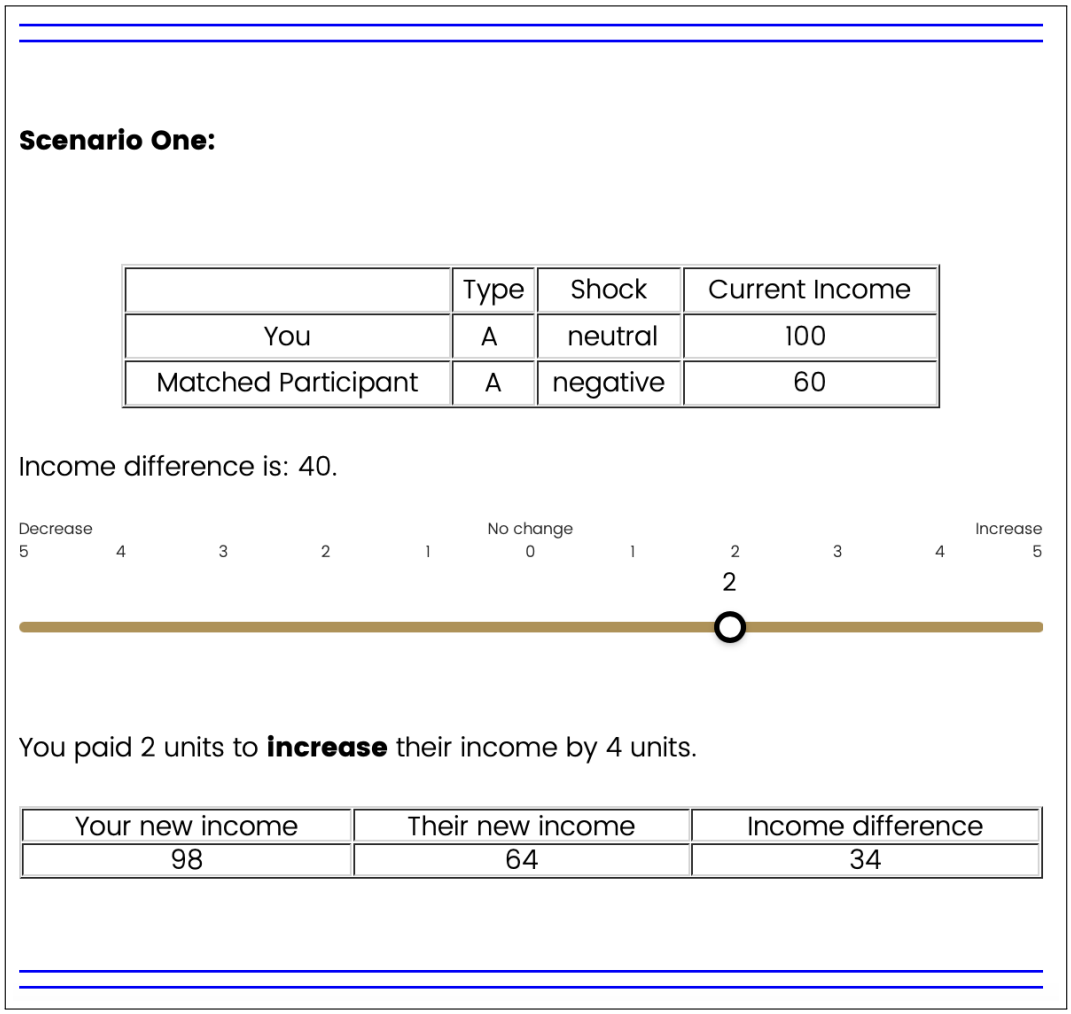
Figure A1: Slider: Example



Notes: An example of the slider presented. In this example, the participant has chosen to make a payment of 2 units to increase partner income by 4 units. The cursor is hidden on page landing so that there is no default, and the text beneath the slider dynamically updates with participant decisions. In Part 2, there is an initial taxation and redistribution phase, as discussed in Section 2.1, before being shown the slider.

Table A1: Sample Balance

	Anarchy		Tax		Effort		Luck		UBI		K-W
	N	Mean (SE)	N	Mean (SE)	N	Mean (SE)	N	Mean (SE)	N	Mean (SE)	Statistic†
		(1)		(2)		(3)		(4)		(5)	(6)
Panel A: Germany											
Female	212	0.48 (0.03)	181	0.45 (0.04)	180	0.46 (0.04)	182	0.46 (0.04)	186	0.55 (0.04)	4.76
Real income (PPP)	211	0.65 (0.03)	181	0.64 (0.04)	180	0.68 (0.04)	182	0.65 (0.03)	186	0.65 (0.04)	0.38
Age	212	46.21 (0.99)	181	45.27 (1.06)	180	47.38 (1.04)	182	46.53 (1.07)	186	45.62 (1.05)	2.56
No. children	212	1.11 (0.09)	180	1.06 (0.08)	180	1.14 (0.08)	182	1.40 (0.19)	186	1.06 (0.09)	3.23
Household size	211	2.36 (0.08)	181	2.42 (0.10)	180	2.46 (0.10)	181	2.45 (0.09)	186	2.42 (0.09)	0.84
Tertiary educated	212	0.33 (0.03)	181	0.35 (0.04)	180	0.38 (0.04)	182	0.36 (0.04)	186	0.32 (0.03)	1.97
Hours worked	160	35.05 (1.00)	140	37.21 (1.09)	119	37.46 (1.06)	128	37.69 (1.52)	134	229.86 (193.76)	4.34
Single	212	0.40 (0.03)	181	0.42 (0.04)	180	0.44 (0.04)	182	0.46 (0.04)	186	0.42 (0.04)	1.47
Mobile	212	0.47 (0.03)	181	0.42 (0.04)	180	0.39 (0.04)	182	0.41 (0.04)	186	0.48 (0.04)	5.01
WVS: All equal vs Compensate effort	212	5.49 (0.20)	181	5.49 (0.21)	186	5.23 (0.21)	180	5.77 (0.21)	182	5.60 (0.20)	3.69
WVS: Gov't vs Individual responsibility	212	4.67 (0.20)	181	4.54 (0.20)	186	4.02 (0.20)	180	4.66 (0.20)	182	4.55 (0.20)	7.64
Panel B: India											
Female	190	0.40 (0.04)	208	0.51 (0.03)	211	0.43 (0.03)	201	0.54 (0.04)	203	0.53 (0.04)	12.41**
Real income (PPP)	190	0.11 (0.06)	208	0.09 (0.03)	211	0.08 (0.04)	201	0.07 (0.01)	203	0.07 (0.02)	5.28

Continued . . .

Sample Balance (Continued)

Variable	Anarchy N	Anarchy Mean (SE) (1)	Tax N	Tax Mean (SE) (2)	Effort N	Effort Mean (SE) (3)	Luck N	Luck Mean (SE) (4)	UBI N	UBI Mean (SE) (5)	K-W Statistic† (6)
Age	190	29.08 (0.56)	208	29.86 (0.59)	211	29.46 (0.55)	201	30.15 (0.57)	203	30.68 (0.65)	3.97
No. children	189	0.88 (0.07)	206	0.92 (0.06)	208	0.93 (0.06)	198	0.86 (0.06)	202	0.95 (0.07)	1.30
Household size	190	4.89 (0.17)	207	4.57 (0.11)	210	4.80 (0.14)	201	4.52 (0.09)	202	4.66 (0.12)	1.74
Tertiary educated	190	0.86 (0.02)	208	0.88 (0.02)	211	0.94 (0.02)	201	0.89 (0.02)	203	0.89 (0.02)	7.85*
Hours worked	149	37.36 (1.97)	171	38.39 (1.61)	162	37.92 (1.61)	163	35.39 (1.74)	162	60.27 (24.52)	2.82
Single	190	0.57 (0.04)	208	0.59 (0.03)	211	0.59 (0.03)	201	0.61 (0.03)	203	0.61 (0.03)	0.94
Mobile	190	0.92 (0.02)	208	0.89 (0.02)	211	0.86 (0.02)	201	0.85 (0.03)	203	0.85 (0.03)	7.59
All equal vs Compensate effort	190	7.48 (0.19)	208	7.25 (0.19)	203	7.26 (0.20)	211	7.45 (0.19)	201	7.11 (0.21)	1.83
Gov't vs Individual responsibility	190	6.34 (0.22)	208	6.23 (0.20)	203	6.13 (0.23)	211	6.12 (0.21)	201	5.89 (0.22)	2.75
Panel C: Indonesia											
Female	249	0.48 (0.03)	189	0.54 (0.04)	184	0.47 (0.04)	195	0.51 (0.04)	179	0.55 (0.04)	4.61
Real income (PPP)	249	0.01 (0.00)	189	0.02 (0.01)	184	0.02 (0.01)	195	0.01 (0.00)	179	0.05 (0.04)	1.72
Age	249	26.45 (0.44)	189	26.71 (0.55)	184	27.18 (0.61)	195	27.60 (0.63)	179	26.95 (0.58)	0.27
No. children	248	0.69 (0.06)	189	0.62 (0.07)	184	0.74 (0.09)	195	0.61 (0.07)	179	0.77 (0.09)	2.03
Household size	248	4.02 (0.09)	189	4.16 (0.11)	184	4.30 (0.12)	195	4.13 (0.11)	179	4.35 (0.10)	4.98

Continued . . .

Sample Balance (Continued)

Variable	Anarchy N	Anarchy Mean (SE) (1)	Tax N	Tax Mean (SE) (2)	Effort N	Effort Mean (SE) (3)	Luck N	Luck Mean (SE) (4)	UBI N	UBI Mean (SE) (5)	K-W Statistic† (6)
Tertiary educated	249	0.43 (0.03)	189	0.47 (0.04)	184	0.38 (0.04)	195	0.44 (0.04)	179	0.47 (0.04)	4.66
Hours worked	166	36.60 (1.70)	118	42411.31 (42372.55)	115	36.67 (2.34)	121	50.79 (11.69)	116	40.19 (3.54)	3.42
Single	249	0.20 (0.03)	189	0.22 (0.03)	184	0.20 (0.03)	195	0.23 (0.03)	179	0.24 (0.03)	1.66
Mobile	249	0.84 (0.02)	189	0.86 (0.03)	184	0.89 (0.02)	195	0.84 (0.03)	179	0.87 (0.03)	3.17
All equal vs Compensate effort	249	6.92 (0.17)	189	6.72 (0.19)	179	6.77 (0.20)	184	6.97 (0.20)	195	6.96 (0.19)	2.11
Gov't vs Individual responsibility	249	5.59 (0.17)	189	5.04 (0.21)	179	5.54 (0.21)	184	5.60 (0.21)	195	5.35 (0.22)	5.49
Panel D: USA											
Female	198	0.48 (0.04)	200	0.52 (0.04)	198	0.49 (0.04)	196	0.53 (0.04)	199	0.51 (0.04)	1.38
Real income (PPP)	198	0.10 (0.01)	200	0.10 (0.01)	198	0.09 (0.01)	196	0.77 (0.65)	199	0.11 (0.01)	2.30
Age	198	43.15 (1.15)	200	42.39 (1.14)	198	44.40 (1.13)	196	43.67 (1.19)	199	45.24 (1.14)	3.89
No. children	198	1.38 (0.09)	200	1.28 (0.08)	197	1.45 (0.09)	196	1.37 (0.10)	199	1.43 (0.09)	2.11
Household size	198	3.11 (0.28)	200	3.19 (0.23)	198	2.79 (0.10)	195	2.84 (0.10)	199	2.80 (0.09)	2.21
Tertiary educated	198	0.67 (0.03)	200	0.67 (0.03)	198	0.70 (0.03)	196	0.61 (0.03)	199	0.64 (0.03)	3.58
Hours worked	144	36.86 (0.97)	139	37.22 (0.92)	130	43.90 (7.55)	126	37.76 (0.92)	135	37.36 (0.86)	0.85
Single	198	0.64 (0.03)	200	0.60 (0.03)	198	0.62 (0.03)	196	0.58 (0.04)	199	0.67 (0.03)	3.77

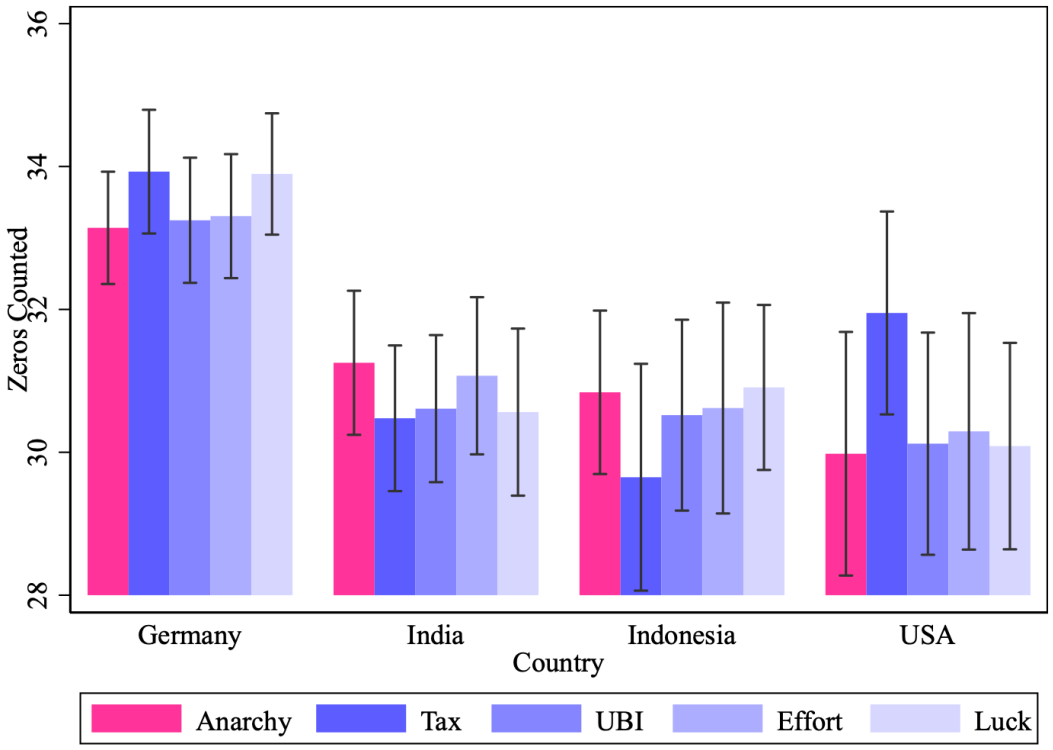
Continued . . .

Sample Balance (Continued)

Variable	Anarchy N	Anarchy Mean (SE) (1)	Tax N	Tax Mean (SE) (2)	Effort N	Effort Mean (SE) (3)	Luck N	Luck Mean (SE) (4)	UBI N	UBI Mean (SE) (5)	K-W Statistic† (6)
Mobile	198	0.33	200	0.34	198	0.28	196	0.35	199	0.31	2.85
		(0.03)		(0.03)		(0.03)		(0.03)		(0.03)	
All equal vs Compensate effort	198	6.79	200	6.83	199	7.02	198	6.69	196	6.63	1.97
		(0.20)		(0.19)		(0.20)		(0.21)		(0.20)	
Gov't vs Individual responsibility	198	5.63	200	5.93	199	5.86	198	6.12	196	5.43	6.20
		(0.22)		(0.22)		(0.22)		(0.22)		(0.22)	

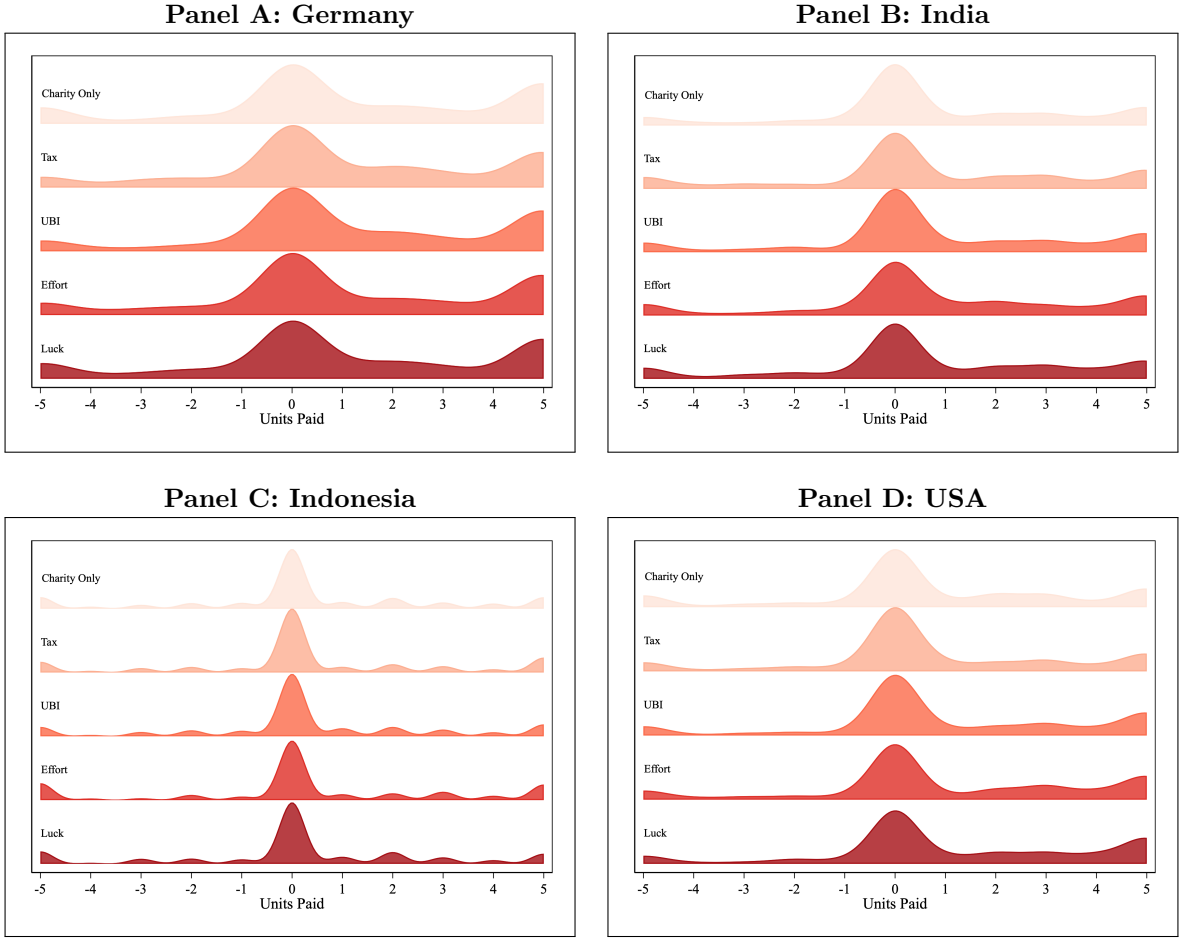
Notes: The mean value by country and treatment is presented. Corresponding standard errors in parenthesis. † The Kruskal–Wallis (K–W) statistic tests for equality in the rankings of individuals across treatments and is distributed as χ^2 with 4 degrees of freedom. Significance levels: $^{***}p < 0.01,^{**}\ p < 0.05,^{*}\ p < 0.1$. Across all countries and treatments, the only significant difference in sample composition is in India, where gender is not balanced; we control for gender in all analysis.

Figure A2: Performance in Real Effort Task, by Country and Treatment



Notes: The average number of counting zeros questions answered correctly in 3 minutes. Error bars denote ± one standard error. There are no treatment differences within countries (Kruskal-Wallis tests show that these are not statistically significant across treatments within any country, the p-values are 0.85, 0.93, 0.92 and 0.39 for Germany, India, Indonesia and the US respectively), suggesting treatments are balanced on unobservables such as ability or willingness to work hard.

Figure A3: Payment Distributions. Part 1



Notes: Ridgeplots show the distribution (kernel densities) of payments across treatments in each country. Here negative payments indicate the subject pays to decrease the partner's income, while a positive payment indicates they pay to increase the partner's income. In all countries, the most common payment is of 0 units, in Germany, there is a large concentration at +5 units, in Indonesia, very few non-zero payments are made, leading to a less smooth distribution.

Table A2: Kolmogorov-Smirnov Tests for Country Differences by Treatment. Part 1

		Germany	India	Indonesia	USA
Anarchy	Germany	1.00			
	India	0.00	1.00		
	Indonesia	0.00	0.00	1.00	
	USA	0.00	0.63	0.00	1.00
UBI	Germany	1.00			
	India	0.00	1.00		
	Indonesia	0.00	0.00	1.00	
	USA	0.00	0.06	0.00	1.00
Tax	Germany	1.00			
	India	0.00	1.00		
	Indonesia	0.00	0.00	1.00	
	USA	0.00	0.10	0.00	1.00
Effort	Germany	1.00			
	India	0.00	1.00		
	Indonesia	0.00	0.00	1.00	
	USA	0.00	0.00	0.00	1.00
Luck	Germany	1.00			
	India	0.00	1.00		
	Indonesia	0.00	0.00	1.00	
	USA	0.00	0.00	0.00	1.00

Notes: p-values from pairwise Kolmogorov-Smirnov tests for the equality of the payment distributions across countries, by treatment presented. In almost all cases, the distributions are significantly different between countries. Figure A3 plots the distributions.

Table A3: Kolmogorov-Smirnov Tests: Treatment Differences by Country. Part 1

		Anarchy	**Tax**	**UBI**	**Effort**	**Luck**
Germany	Anarchy	1.00				
	Tax	0.01	1.00			
	UBI	0.08	0.01	1.00		
	Effort	0.05	0.25	0.01	1.00	
	Luck	0.53	0.00	0.69	0.01	1.00
India	Anarchy	1.00				
	Tax	0.72	1.00			
	UBI	0.95	0.83	1.00		
	Effort	0.02	0.23	0.25	1.00	
	Luck	0.02	0.19	0.10	0.23	1.00
Indonesia	Anarchy	1.00				
	Tax	0.68	1.00			
	UBI	0.16	0.70	1.00		
	Effort	0.04	0.17	0.01	1.00	
	Luck	0.67	0.04	0.84	0.00	1.00
USA	Anarchy	1.00				
	Tax	0.15	1.00			
	UBI	0.09	0.00	1.00		
	Effort	0.00	0.00	0.46	1.00	
	Luck	0.00	0.00	0.01	0.04	1.00

Notes: p-values from pairwise Kolmogorov-Smirnov tests for the equality of the payment distributions across treatments, within each country presented. Figure A3 plots the distributions. The p-values show that the distributions are statistically significantly different.

Table A4: Pairwise Difference in Transfer Frequency.

	Pro-social transfers			Anti-social transfers		
	Equal	**Disadvantageous**	**Advantageous**	**Equal**	**Disadvantageous**	**Advantageous**
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Treatments without Social Mobility. *Tax* vs *UBI*						
Germany	0.08*	0.03	0.01	-0.06**	-0.02	-0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.02)
India	-0.04	0.01	-0.03	0.01	-0.07**	-0.04
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
Indonesia	0.04	-0.03	0.03	0.03	-0.01	0.01
	(0.04)	(0.04)	(0.05)	(0.03)	(0.04)	(0.03)
USA	-0.00	0.09*	0.01	0.01	-0.03	-0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.02)
Panel B: Treatments with Social Mobility. *Effort* vs *Luck*						
Germany	0.01	-0.07	0.07	0.04	0.08*	-0.00
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
India	-0.04	-0.02	-0.00	-0.01	0.02	-0.01
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
Indonesia	-0.01	0.03	-0.04	0.00	-0.05	0.02
	(0.04)	(0.04)	(0.05)	(0.04)	(0.05)	(0.03)
USA	0.02	0.07	-0.00	0.02	-0.01	-0.02
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.02)

Notes: Pairwise difference in pro- and anti-social transfers in the extensive margin between *Tax* and *UBI* treatments (Panel A) and *Effort* and *Luck* treatments (Panel B) presented. Estimating equation is given by equation (1). Part 1 data used. Standard errors are in parenthesis. Significance levels $^{***}p < 0.01,^{**} p < 0.05,^{*} p < 0.1$.

Table A5: A:B Types. Treatment Effects

	Pro-social Payments				Anti-social Payments			
	A:A	**A:B**	**B:A**	**B:B**	**A:A**	**A:B**	**B:A**	**B:B**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Germany								
Anarchy	-0.10	0.70	-0.20	0.43	-0.16	0.06	0.05	0.09
Tax	0.01	-0.03	0.04	0.02	-0.01	-0.03	-0.10*	-0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.06)	(0.03)
UBI	0.08	0.01	0.10*	-0.03	-0.07**	-0.03	-0.14**	-0.01
	(0.05)	(0.05)	(0.06)	(0.05)	(0.03)	(0.03)	(0.06)	(0.03)
Effort	-0.02	-0.05	0.06	0.05	0.00	-0.00	-0.11**	-0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.04)	(0.04)	(0.06)	(0.03)
Luck	0.05	0.03	-0.03	-0.04	-0.01	-0.04	0.02	0.03
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.06)	(0.04)
India								
Anarchy	-0.23	0.26	-0.15	0.28	-0.09	0.22	-0.02	0.20
Tax	-0.03	-0.00	-0.08	-0.09	0.07*	0.06	0.05	0.03
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)	(0.04)
UBI	-0.08	-0.03	-0.07	-0.07	0.05	0.03	-0.03	-0.02
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Effort	0.03	0.06	-0.05	-0.09	0.06	0.02	0.02	0.05
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Luck	0.00	0.07	-0.09	-0.10*	0.08**	0.02	0.04	0.04
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Indonesia								
Anarchy	-0.19	0.35	-0.21	0.30	-0.10	0.21	0.07	0.25
Tax	-0.05	-0.02	0.01	-0.04	0.07*	0.01	-0.01	-0.03
	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
UBI	0.02	0.05	-0.05	-0.09*	0.07*	0.01	-0.02	-0.00
	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
Effort	0.01	0.02	-0.01	-0.09*	0.06	0.03	0.01	0.03
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
Luck	-0.04	-0.02	0.02	-0.04	0.10***	0.01	-0.04	0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
USA								
Anarchy	-0.00	0.64	-0.13	0.36	-0.09	0.14	-0.02	0.17
Tax	0.00	-0.04	0.00	0.01	-0.03	-0.04	0.02	-0.01
	(0.06)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
UBI	-0.05	-0.06	0.11*	0.16***	-0.04	-0.07**	-0.00	-0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.03)	(0.03)	(0.06)	(0.04)
Effort	0.05	0.06	0.03	0.08	-0.03	-0.04	0.03	-0.04
	(0.06)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.03)
Luck	0.05	0.02	0.13**	0.15**	-0.05	-0.06*	0.02	-0.01
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.06)	(0.04)

Notes: Difference estimates presented. The *Anarchy* Treatment is the baseline group and the *Anarchy* row shows the mean frequency of private transfers when there is no centralized redistribution. A:A: Type-A × Type-A; A:B: Type-A × Type-B; B:A: Type-B × Type-A; B:B: Type-B × Type-B; Significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* Treatment for a particular country and for a given level of inequality.

Table A6: A:B Types. Equality FE. Pro-social Payments

	A:A			A:B			B:A			B:B		
	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Germany												
Anarchy	-0.23	-0.24	0.20	–	–	0.73	–	-0.19	–	0.30	0.36	0.69
Tax	-0.06	0.05	-0.02	–	–	-0.03	–	0.04	–	-0.05	0.08	0.06
	(0.06)	(0.07)	(0.07)	–	–	(0.05)	–	(0.05)	–	(0.07)	(0.09)	(0.08)
UBI	0.03	0.11	0.06	–	–	0.00	–	0.10*	–	0.01	-0.02	-0.04
	(0.06)	(0.07)	(0.07)	–	–	(0.05)	–	(0.06)	–	(0.07)	(0.08)	(0.08)
Effort	-0.09*	0.01	-0.01	–	–	-0.05	–	0.06	–	0.06	0.06	0.09
	(0.05)	(0.07)	(0.07)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.09)	(0.08)
Luck	0.03	0.07	0.08	–	–	0.03	–	-0.03	–	-0.04	-0.11	0.04
	(0.06)	(0.07)	(0.07)	–	–	(0.05)	–	(0.05)	–	(0.07)	(0.08)	(0.08)
India												
Anarchy	-0.27	-0.24	-0.18	–	–	0.28	–	-0.15	–	0.24	0.30	0.38
Tax	-0.07	0.01	-0.00	–	–	-0.00	–	-0.08	–	-0.14**	-0.03	-0.10
	(0.06)	(0.08)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.09)	(0.09)
UBI	-0.13**	-0.02	-0.07	–	–	-0.03	–	-0.07	–	-0.14**	0.02	-0.08
	(0.06)	(0.08)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.09)	(0.09)
Effort	0.01	-0.05	0.13*	–	–	0.06	–	-0.05	–	-0.13*	-0.03	-0.12
	(0.07)	(0.08)	(0.07)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.08)	(0.09)
Luck	-0.05	0.03	0.05	–	–	0.07	–	-0.09	–	-0.14**	-0.08	-0.09
	(0.06)	(0.08)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.08)	(0.09)
Indonesia												
Anarchy	-0.35	-0.16	-0.04	–	–	0.38	–	-0.21	–	0.22	0.33	0.41
Tax	0.02	-0.11	-0.07	–	–	-0.02	–	0.01	–	-0.05	-0.00	-0.07
	(0.05)	(0.08)	(0.08)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.08)	(0.08)
UBI	0.09*	-0.04	-0.02	–	–	0.05	–	-0.05	–	-0.04	-0.05	-0.18**
	(0.05)	(0.08)	(0.08)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.08)	(0.07)
Effort	0.07	-0.06	-0.02	–	–	0.02	–	-0.01	–	-0.06	-0.12	-0.08
	(0.05)	(0.07)	(0.08)	–	–	(0.05)	–	(0.05)	–	(0.06)	(0.08)	(0.08)
Luck	0.04	-0.06	-0.11	–	–	-0.02	–	0.02	–	-0.05	-0.03	-0.04
	(0.05)	(0.07)	(0.08)	–	–	(0.05)	–	(0.05)	–	(0.06)	(0.07)	(0.08)
USA												
Anarchy	-0.13	-0.11	0.22	–	–	0.66	–	-0.12	–	0.29	0.34	0.51
Tax	0.06	0.03	-0.09	–	–	-0.04	–	0.00	–	-0.02	0.02	0.02
	(0.07)	(0.08)	(0.09)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.07)	(0.09)
UBI	-0.01	0.01	-0.14*	–	–	-0.06	–	0.10*	–	0.05	0.20**	0.24***
	(0.06)	(0.07)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.06)	(0.08)	(0.09)
Effort	0.07	0.10	0.01	–	–	0.06	–	0.03	–	0.08	0.03	0.11
	(0.07)	(0.08)	(0.08)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.07)	(0.09)
Luck	0.07	0.06	0.04	–	–	0.02	–	0.12**	–	0.12*	0.12	0.20**
	(0.06)	(0.07)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.08)	(0.09)

Notes: Difference estimates presented. The *Anarchy* Treatment is the baseline group and the *Anarchy* row shows the mean frequency of private transfers when there is no centralized redistribution. Estimating equation given by equation (2). Significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for that country, for a given level of inequality and type dyad (E_{ij}). Controls included for gender, income, comprehension, time taken and question order.

Table A7: A:B Types. Equality FE. Anti-social Payments

	A:A			A:B			B:A			B:B		
	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Germany												
Anarchy	-0.27	-0.03	-0.18	–	–	0.05	–	0.05	–	-0.02	0.20	0.05
Tax	0.02	0.03	-0.05	–	–	-0.03	–	-0.10*	–	0.05	-0.04	-0.06
	(0.04)	(0.08)	(0.04)	–	–	(0.03)	–	(0.06)	–	(0.04)	(0.07)	(0.05)
UBI	-0.03	-0.01	-0.15***	–	–	-0.03	–	-0.14**	–	-0.02	0.02	-0.05
	(0.03)	(0.07)	(0.04)	–	–	(0.03)	–	(0.06)	–	(0.03)	(0.08)	(0.05)
Effort	0.01	0.05	-0.03	–	–	-0.00	–	-0.11**	–	0.03	-0.03	-0.09*
	(0.04)	(0.08)	(0.05)	–	–	(0.04)	–	(0.06)	–	(0.04)	(0.07)	(0.05)
Luck	0.05	-0.03	-0.07	–	–	-0.04	–	0.02	–	0.05	0.01	0.01
	(0.04)	(0.07)	(0.05)	–	–	(0.03)	–	(0.06)	–	(0.04)	(0.07)	(0.06)
India												
Anarchy	-0.17	-0.01	-0.08	–	–	0.20	–	-0.02	–	0.09	0.24	0.23
Tax	0.10**	0.09	-0.01	–	–	0.06	–	0.04	–	0.07*	0.00	0.01
	(0.04)	(0.08)	(0.05)	–	–	(0.05)	–	(0.05)	–	(0.04)	(0.07)	(0.06)
UBI	0.13***	0.01	0.01	–	–	0.03	–	-0.03	–	0.07	-0.02	-0.08
	(0.04)	(0.07)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.04)	(0.07)	(0.06)
Effort	0.09**	0.04	0.04	–	–	0.02	–	0.02	–	0.10**	0.00	0.05
	(0.04)	(0.07)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.06)	(0.07)
Luck	0.11**	0.07	0.04	–	–	0.02	–	0.04	–	0.05	0.06	0.00
	(0.05)	(0.08)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.04)	(0.07)	(0.07)
Indonesia												
Anarchy	-0.13	-0.03	-0.15	–	–	0.20	–	0.06	–	0.16	0.29	0.26
Tax	-0.01	0.15**	0.10*	–	–	0.01	–	-0.01	–	-0.02	0.00	-0.07
	(0.04)	(0.07)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.07)	(0.06)
UBI	0.04	0.11	0.09*	–	–	0.01	–	-0.02	–	-0.02	0.03	-0.02
	(0.05)	(0.07)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.07)	(0.06)
Effort	0.03	0.10	0.07	–	–	0.03	–	0.01	–	0.04	0.15*	-0.11*
	(0.05)	(0.07)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.08)	(0.06)
Luck	0.01	0.14*	0.16***	–	–	0.01	–	-0.04	–	0.06	0.01	-0.02
	(0.05)	(0.07)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.07)	(0.06)
USA												
Anarchy	-0.14	0.06	-0.17	–	–	0.13	–	-0.02	–	0.07	0.27	0.14
Tax	-0.08**	0.04	-0.02	–	–	-0.04	–	0.02	–	0.02	0.01	-0.08*
	(0.04)	(0.08)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.04)	(0.07)	(0.05)
UBI	-0.07	-0.02	-0.03	–	–	-0.07**	–	-0.00	–	0.03	-0.04	-0.06
	(0.04)	(0.08)	(0.04)	–	–	(0.04)	–	(0.06)	–	(0.04)	(0.07)	(0.05)
Effort	-0.05	-0.05	-0.00	–	–	-0.04	–	0.03	–	-0.03	-0.07	-0.01
	(0.04)	(0.08)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.03)	(0.06)	(0.06)
Luck	-0.04	-0.10	-0.03	–	–	-0.06*	–	0.02	–	0.01	-0.02	-0.02
	(0.04)	(0.07)	(0.05)	–	–	(0.04)	–	(0.06)	–	(0.04)	(0.07)	(0.06)

Notes: Difference estimates presented. The *Anarchy* Treatment is the baseline group and the *Anarchy* row shows the mean frequency of private transfers when there is no centralized redistribution. Estimating equation given by equation (2). Significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for that country, for a given level of inequality and type diad (E_{ij}). Controls included for gender, income, comprehension, time taken and question order.

Table A8: Inequality Levels

Inequality	**Income Pairs**
(1)	(2)
-12.3%	(15,200)
-7.0%	(25,200)
-5.7%	(15,100)
-3.0%	(50,200); (25,100); (15,60)
-2.3%	(15,50); (60,200)
-1.4%	(25,60)
-1.00%	(100,200); (25,50); (50,100)
-0.7%	(60,100); (15,25)
-0.2%	(50,60)
0%	(100,100); (60,60); (15,15); (50,50); (25,25); (200,200)
0.17%	(60,50)
0.4%	(25,15); (100,60)
0.5%	(200,100); (50,25); (100,50)
0.6%	(60,25)
0.7%	(50,15); (200,60)
0.75%	(200,50); (100,25); (60,15)
0.85%	(100,15)
0.88%	(200,25)
0.93%	(200,15)

Notes: Column 1 is the inequality of income between a subject making a decision and their matched partner expressed as a percentage of own income i.e., Inequality $= (\frac{\text{own income} - \text{partner income}}{\text{own income}}) \times 100$. Each tuple in Column 2 represents an experimental income pairing. The first given element of each tuple is the experimental income of the subject making the choice, the second element is the experimental income of the partner.

Table A9: Full Inequality Specification. Pro-social Payments. Treatment Differences. Part 1.

	-12.3% (1)	**-7.0%** (2)	**-5.7%** (3)	**-3.0%** (4)	**-2.3%** (5)	**-1.4%** (6)	**-1.0%** (7)	**-0.7%** (8)	**-0.2%** (9)	**0%** (10)	**0.17%** (11)	**0.4%** (12)	**0.5%** (13)	**0.6%** (14)	**0.7%** (15)	**0.75%** (16)	**0.85%** (17)	**0.88%** (18)	**0.93%** (19)
Germany																			
Anarchy	0.33	0.15	0.34	0.31	0.34	0.24	0.28	0.31	0.34	0.28	0.60	0.64	0.72	0.82	0.65	0.81	0.67	0.81	0.70
Tax	0.08	0.20**	0.01	0.04	0.06	0.08	0.05	0.09	-0.14	-0.06	0.08	-0.02	-0.04	-0.02	0.14*	-0.09	0.05	-0.08	-0.02
	(0.12)	(0.10)	(0.12)	(0.07)	(0.09)	(0.11)	(0.06)	(0.09)	(0.11)	(0.04)	(0.13)	(0.08)	(0.07)	(0.11)	(0.08)	(0.06)	(0.11)	(0.10)	(0.11)
UBI	0.05	0.15	0.15	0.11*	0.07	0.11	0.06	0.07	-0.04	0.02	0.12	0.05	-0.09	0.10	0.13*	-0.09	-0.02	0.04	0.12
	(0.12)	(0.09)	(0.13)	(0.07)	(0.09)	(0.11)	(0.06)	(0.09)	(0.12)	(0.05)	(0.13)	(0.08)	(0.07)	(0.10)	(0.08)	(0.06)	(0.11)	(0.10)	(0.10)
Effort	0.01	0.25**	0.06	0.07	-0.03	0.17	0.06	0.02	-0.05	-0.02	0.03	0.04	-0.01	-0.23**	0.10	-0.13**	0.01	-0.09	0.05
	(0.12)	(0.11)	(0.12)	(0.07)	(0.08)	(0.12)	(0.07)	(0.08)	(0.12)	(0.05)	(0.12)	(0.09)	(0.07)	(0.12)	(0.08)	(0.06)	(0.12)	(0.10)	(0.10)
Luck	-0.16	0.14	-0.13	-0.03	-0.09	0.12	0.05	-0.02	-0.05	-0.00	0.05	0.12	0.02	-0.06	0.12	-0.03	0.02	0.08	0.13
	(0.11)	(0.11)	(0.11)	(0.07)	(0.08)	(0.13)	(0.07)	(0.08)	(0.11)	(0.05)	(0.11)	(0.08)	(0.07)	(0.10)	(0.08)	(0.06)	(0.12)	(0.09)	(0.10)
India																			
Anarchy	0.34	0.35	0.32	0.37	0.24	0.32	0.33	0.30	0.30	0.24	0.21	0.34	0.31	0.36	0.35	0.33	0.21	0.31	0.37
Tax	-0.02	0.01	0.02	-0.14**	0.09	-0.14	-0.08	-0.04	-0.06	-0.11**	0.08	-0.07	0.05	-0.01	-0.06	-0.11	0.07	0.12	-0.09
	(0.13)	(0.13)	(0.13)	(0.07)	(0.09)	(0.13)	(0.07)	(0.09)	(0.11)	(0.05)	(0.12)	(0.09)	(0.07)	(0.13)	(0.08)	(0.07)	(0.12)	(0.11)	(0.12)
UBI	-0.02	-0.06	-0.02	-0.13*	0.03	-0.10	-0.04	-0.01	0.03	-0.14***	-0.12	-0.14	-0.00	-0.08	-0.03	-0.02	0.10	0.04	-0.20*
	(0.13)	(0.13)	(0.13)	(0.07)	(0.09)	(0.13)	(0.07)	(0.09)	(0.12)	(0.05)	(0.12)	(0.09)	(0.07)	(0.13)	(0.08)	(0.07)	(0.11)	(0.11)	(0.11)
Effort	-0.01	-0.06	-0.02	-0.06	0.06	-0.02	-0.11	-0.06	-0.06	-0.06	0.07	-0.09	0.11	-0.13	0.02	0.04	0.06	0.22**	0.13
	(0.12)	(0.13)	(0.12)	(0.07)	(0.09)	(0.13)	(0.07)	(0.09)	(0.12)	(0.05)	(0.13)	(0.09)	(0.07)	(0.13)	(0.09)	(0.07)	(0.12)	(0.11)	(0.11)
Luck	-0.10	0.00	-0.14	-0.11	0.01	-0.06	-0.04	-0.09	-0.07	-0.10**	0.08	0.02	0.01	0.07	-0.03	0.06	0.33***	0.02	-0.10
	(0.13)	(0.12)	(0.13)	(0.07)	(0.09)	(0.12)	(0.07)	(0.09)	(0.12)	(0.05)	(0.12)	(0.09)	(0.07)	(0.13)	(0.08)	(0.07)	(0.12)	(0.11)	(0.11)
Indonesia																			
Anarchy	0.26	0.40	0.28	0.30	0.31	0.25	0.32	0.34	0.28	0.19	0.40	0.41	0.43	0.36	0.45	0.43	0.36	0.37	0.43
Tax	0.17	-0.08	0.22*	-0.00	-0.01	0.06	-0.08	-0.05	-0.09	-0.01	0.05	-0.09	-0.09	0.03	-0.04	-0.07	0.02	0.08	-0.04
	(0.13)	(0.11)	(0.13)	(0.06)	(0.09)	(0.10)	(0.06)	(0.09)	(0.09)	(0.04)	(0.13)	(0.08)	(0.06)	(0.13)	(0.08)	(0.07)	(0.11)	(0.12)	(0.12)
UBI	-0.06	-0.28**	-0.03	-0.01	0.01	-0.11	-0.08	-0.04	-0.00	0.03	-0.05	-0.10	-0.06	0.14	-0.09	-0.01	0.02	0.17	0.07
	(0.10)	(0.11)	(0.10)	(0.06)	(0.08)	(0.11)	(0.06)	(0.08)	(0.10)	(0.04)	(0.12)	(0.09)	(0.07)	(0.12)	(0.08)	(0.07)	(0.12)	(0.11)	(0.11)
Effort	-0.02	-0.23**	0.12	-0.00	-0.00	-0.01	-0.10	-0.07	-0.02	0.01	-0.03	-0.09	-0.09	0.24**	0.01	0.01	-0.05	0.19*	-0.01
	(0.11)	(0.11)	(0.12)	(0.06)	(0.08)	(0.11)	(0.06)	(0.08)	(0.11)	(0.04)	(0.12)	(0.08)	(0.06)	(0.12)	(0.08)	(0.07)	(0.11)	(0.11)	(0.11)
Luck	-0.00	0.08	-0.09	-0.01	-0.04	0.05	0.04	-0.11	0.06	-0.00	-0.08	-0.09	-0.00	0.03	-0.07	-0.02	-0.06	-0.01	-0.11
	(0.10)	(0.12)	(0.09)	(0.06)	(0.08)	(0.11)	(0.06)	(0.07)	(0.11)	(0.04)	(0.12)	(0.08)	(0.07)	(0.12)	(0.08)	(0.07)	(0.11)	(0.11)	(0.11)
USA																			
Anarchy	0.34	0.36	0.41	0.37	0.34	0.32	0.42	0.37	0.38	0.34	0.50	0.58	0.68	0.64	0.64	0.74	0.70	0.73	0.66
Tax	0.05	0.03	0.04	-0.04	-0.02	0.03	-0.00	0.07	0.02	0.02	0.03	0.05	-0.08	0.13	-0.09	-0.05	-0.13	-0.08	-0.03
	(0.10)	(0.10)	(0.11)	(0.06)	(0.08)	(0.10)	(0.07)	(0.08)	(0.12)	(0.05)	(0.13)	(0.08)	(0.07)	(0.13)	(0.09)	(0.07)	(0.12)	(0.12)	(0.12)
UBI	0.24**	0.04	0.15	0.11	0.15*	0.04	-0.04	0.22***	0.08	0.02	-0.01	0.04	-0.04	0.07	0.04	-0.07	-0.19	0.01	-0.04
	(0.11)	(0.11)	(0.12)	(0.07)	(0.08)	(0.11)	(0.06)	(0.08)	(0.12)	(0.04)	(0.13)	(0.09)	(0.07)	(0.13)	(0.09)	(0.07)	(0.12)	(0.12)	(0.12)
Effort	-0.01	-0.01	-0.04	0.04	0.03	0.11	0.06	0.07	0.07	0.08*	0.17	0.02	0.04	0.13	0.13	0.00	-0.06	0.09	0.22*
	(0.10)	(0.10)	(0.11)	(0.06)	(0.08)	(0.11)	(0.07)	(0.08)	(0.12)	(0.05)	(0.13)	(0.08)	(0.07)	(0.13)	(0.09)	(0.07)	(0.11)	(0.12)	(0.12)
Luck	0.14	0.09	0.11	0.08	0.13	0.23**	0.06	0.10	0.19	0.10**	0.04	-0.02	0.06	-0.04	0.22**	-0.03	0.04	0.20*	0.17
	(0.11)	(0.11)	(0.12)	(0.07)	(0.08)	(0.12)	(0.07)	(0.08)	(0.13)	(0.05)	(0.12)	(0.09)	(0.07)	(0.12)	(0.09)	(0.07)	(0.12)	(0.11)	(0.12)

Notes: Difference estimates presented. Part 1 data used. The *Anarchy* Treatment is the baseline group and the Anarchy row shows the mean frequency of private transfers when there is no centralized redistribution. Here, the inequality level is defined as the percentage difference between the participant and their partner's post-shock income (see Table A8. Significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for each country, for a given level of inequality. Regressions control for income, gender and comprehension.

Table A10: Full Inequality Specification. Anti-social Payments. Treatment Differences. Part 1.

	-12.3% (1)	**-7.0%** (2)	**-5.7%** (3)	**-3.0%** (4)	**-2.3%** (5)	**-1.4%** (6)	**-1.0%** (7)	**-0.7%** (8)	**-0.2%** (9)	**0%** (10)	**0.17%** (11)	**0.4%** (12)	**0.5%** (13)	**0.6%** (14)	**0.7%** (15)	**0.75%** (16)	**0.85%** (17)	**0.88%** (18)	**0.93%** (19)
Germany																			
Anarchy	0.19	0.46	0.23	0.31	0.22	0.33	0.22	0.23	0.24	-0.02	0.06	0.08	0.02	0.00	0.11	0.03	0.00	0.05	0.03
Tax	-0.07	-0.23*	-0.14	-0.10	-0.01	-0.11	0.02	-0.07	0.04	0.03	0.03	-0.05	0.01	-0.00	-0.17***	-0.02	-0.05	-0.01	-0.04
	(0.11)	(0.12)	(0.11)	(0.07)	(0.09)	(0.12)	(0.07)	(0.08)	(0.12)	(0.03)	(0.09)	(0.06)	(0.04)	(0.07)	(0.05)	(0.04)	(0.07)	(0.07)	(0.08)
UBI	-0.01	-0.20*	-0.05	-0.16**	-0.05	-0.13	0.00	-0.08	-0.07	-0.02	-0.03	-0.10*	-0.05	-0.02	-0.18***	-0.00	0.01	-0.03	-0.13*
	(0.12)	(0.12)	(0.12)	(0.07)	(0.08)	(0.12)	(0.06)	(0.08)	(0.12)	(0.02)	(0.07)	(0.06)	(0.03)	(0.05)	(0.06)	(0.04)	(0.07)	(0.08)	(0.07)
Effort	-0.02	-0.24*	-0.14	-0.18***	-0.04	-0.04	0.02	0.03	0.04	0.02	-0.02	-0.08	-0.03	0.15	-0.11*	0.00	-0.03	0.05	-0.04
	(0.11)	(0.13)	(0.11)	(0.07)	(0.08)	(0.13)	(0.07)	(0.08)	(0.12)	(0.03)	(0.08)	(0.07)	(0.04)	(0.09)	(0.06)	(0.04)	(0.07)	(0.08)	(0.08)
Luck	0.21*	-0.25*	0.08	-0.01	0.05	-0.12	0.00	-0.04	0.13	0.05*	-0.07	-0.09	0.03	0.06	-0.10	-0.02	0.02	-0.13**	-0.05
	(0.12)	(0.13)	(0.12)	(0.07)	(0.08)	(0.13)	(0.07)	(0.08)	(0.12)	(0.03)	(0.06)	(0.06)	(0.04)	(0.06)	(0.06)	(0.04)	(0.08)	(0.05)	(0.08)
India																			
Anarchy	0.15	0.33	0.20	0.20	0.21	0.25	0.23	0.28	0.16	0.08	0.34	0.20	0.20	0.22	0.15	0.17	0.24	0.16	0.06
Tax	0.09	-0.19*	0.01	0.08	0.06	0.06	0.02	0.06	0.15	0.09***	-0.02	0.01	-0.02	0.05	0.01	0.10*	-0.06	-0.01	0.25***
	(0.10)	(0.11)	(0.10)	(0.06)	(0.07)	(0.12)	(0.06)	(0.08)	(0.10)	(0.03)	(0.12)	(0.08)	(0.05)	(0.10)	(0.06)	(0.06)	(0.10)	(0.07)	(0.09)
UBI	0.03	-0.19*	0.11	0.02	0.02	-0.09	-0.06	0.00	-0.07	0.10***	0.00	-0.01	-0.04	0.05	-0.01	0.03	-0.07	-0.04	0.13
	(0.10)	(0.11)	(0.12)	(0.06)	(0.08)	(0.11)	(0.05)	(0.08)	(0.08)	(0.03)	(0.12)	(0.07)	(0.05)	(0.11)	(0.06)	(0.05)	(0.10)	(0.07)	(0.08)
Effort	0.12	-0.07	0.06	0.02	0.04	-0.00	0.02	-0.03	0.09	0.09***	-0.12	-0.04	0.00	0.08	0.13*	0.02	-0.14	0.08	0.18**
	(0.10)	(0.12)	(0.10)	(0.06)	(0.07)	(0.11)	(0.06)	(0.08)	(0.10)	(0.03)	(0.11)	(0.07)	(0.05)	(0.11)	(0.07)	(0.05)	(0.09)	(0.08)	(0.08)
Luck	0.05	-0.16	0.16	0.07	0.10	0.03	0.02	0.05	0.06	0.08***	0.00	-0.02	0.02	-0.01	0.06	0.01	-0.22**	0.09	0.13*
	(0.10)	(0.11)	(0.12)	(0.06)	(0.08)	(0.11)	(0.06)	(0.08)	(0.10)	(0.03)	(0.12)	(0.07)	(0.05)	(0.10)	(0.07)	(0.05)	(0.09)	(0.09)	(0.08)
Indonesia																			
Anarchy	0.27	0.34	0.35	0.27	0.24	0.44	0.27	0.25	0.30	0.13	0.27	0.23	0.18	0.26	0.13	0.13	0.25	0.17	0.08
Tax	-0.05	-0.00	-0.08	-0.00	0.15*	-0.05	0.04	-0.01	0.04	-0.01	-0.04	-0.03	-0.02	0.01	0.03	0.06	-0.21**	0.11	0.19**
	(0.12)	(0.11)	(0.12)	(0.06)	(0.09)	(0.11)	(0.06)	(0.08)	(0.10)	(0.03)	(0.11)	(0.07)	(0.05)	(0.11)	(0.06)	(0.05)	(0.08)	(0.10)	(0.10)
UBI	0.06	-0.02	0.02	0.00	0.11	-0.14	-0.03	0.11	-0.01	0.01	0.02	-0.05	0.01	-0.02	0.06	0.09*	-0.12	0.02	0.04
	(0.11)	(0.13)	(0.12)	(0.06)	(0.08)	(0.13)	(0.06)	(0.08)	(0.10)	(0.03)	(0.11)	(0.08)	(0.05)	(0.11)	(0.06)	(0.05)	(0.10)	(0.08)	(0.07)
Effort	0.23*	-0.07	0.04	0.06	0.20**	-0.26**	-0.02	0.21**	-0.02	0.03	0.12	-0.06	-0.01	-0.15*	0.03	0.08	-0.07	-0.02	0.15*
	(0.12)	(0.12)	(0.12)	(0.07)	(0.08)	(0.11)	(0.06)	(0.09)	(0.11)	(0.04)	(0.12)	(0.07)	(0.05)	(0.09)	(0.06)	(0.05)	(0.10)	(0.08)	(0.09)
Luck	-0.01	-0.14	-0.12	0.03	0.12	-0.20*	-0.02	0.16**	-0.05	0.03	0.15	0.04	-0.01	-0.09	0.10	0.01	-0.05	-0.01	0.20**
	(0.10)	(0.11)	(0.11)	(0.06)	(0.08)	(0.11)	(0.06)	(0.08)	(0.10)	(0.04)	(0.11)	(0.07)	(0.05)	(0.09)	(0.07)	(0.05)	(0.10)	(0.09)	(0.10)
USA																			
Anarchy	0.28	0.19	0.29	0.24	0.34	0.18	0.24	0.27	0.14	0.08	0.23	0.10	0.09	0.18	0.09	0.10	0.04	0.09	0.14
Tax	0.12	0.03	0.07	0.03	0.05	-0.03	-0.05	0.03	-0.00	-0.03	-0.08	-0.09*	-0.03	-0.18**	-0.03	-0.04	0.09	-0.05	-0.06
	(0.11)	(0.10)	(0.11)	(0.06)	(0.09)	(0.09)	(0.06)	(0.08)	(0.10)	(0.03)	(0.10)	(0.05)	(0.04)	(0.07)	(0.06)	(0.04)	(0.08)	(0.06)	(0.09)
UBI	-0.18*	0.17	-0.06	-0.01	-0.09	0.06	0.04	-0.05	0.05	-0.02	-0.13	-0.05	-0.03	-0.12	-0.04	-0.05	-0.02	-0.09*	-0.13*
	(0.10)	(0.12)	(0.11)	(0.06)	(0.08)	(0.11)	(0.06)	(0.08)	(0.10)	(0.03)	(0.09)	(0.06)	(0.04)	(0.08)	(0.06)	(0.04)	(0.07)	(0.05)	(0.08)
Effort	0.06	-0.06	0.06	0.04	-0.02	0.00	-0.03	-0.04	0.00	-0.04	-0.09	0.03	0.01	-0.05	-0.07	-0.04	0.03	-0.02	-0.19***
	(0.12)	(0.09)	(0.12)	(0.06)	(0.09)	(0.10)	(0.06)	(0.08)	(0.10)	(0.03)	(0.10)	(0.06)	(0.04)	(0.10)	(0.05)	(0.04)	(0.07)	(0.07)	(0.07)
Luck	-0.01	0.08	-0.01	0.04	-0.09	0.04	-0.05	-0.08	0.04	-0.01	-0.11	0.07	-0.07**	-0.08	-0.07	-0.05	-0.04	-0.04	-0.13*
	(0.11)	(0.11)	(0.11)	(0.07)	(0.08)	(0.10)	(0.06)	(0.08)	(0.10)	(0.03)	(0.09)	(0.07)	(0.03)	(0.09)	(0.05)	(0.04)	(0.06)	(0.07)	(0.08)

Notes: Difference estimates presented. Part 1 data used. The *Anarchy* Treatment is the baseline group and the Anarchy row shows the mean frequency of private transfers when there is no centralized redistribution. Here, the inequality level is defined as the percentage difference between the participant and their partner's post-shock income (see Table A8. Significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for each country, for a given level of inequality. Regressions control for income, gender and comprehension.

B Protocol relevant to Online Experiments

While online experiments allow nationally representative populations and sample sizes much larger than typical laboratory experiments, they present some unique challenges.

First among these is bot detection. In addition to the panel provider's protocol to only recruit human participants to their database, we included hidden questions in the HTML and CSS code of the survey to detect survey taking algorithms. These hidden questions were not displayed to human respondents but naive survey-taking algorithms read and respond to the hidden code.[22] We dropped all observations where survey taking algorithms were detected.

Second, online participants are more challenging to monitor and assess for comprehension. Therefore, we designed a set of comprehension questions for Parts 1 and 2 to ensure participants understood the instructions. For instance, they were asked *open-ended* comprehension questions, which required them to enter the correct number of ECUs the partner would receive in response to an *image* of a slider showing the amount they paid to change the partner's income.[23] Participants were required to answer all questions correctly before proceeding to the next page. If an answer was incorrect, we provided hints to improve comprehension. Participants were not allowed to progress until they had correctly answered all the comprehension questions.

The *third* challenge to online experiments is that attrition (defined as participants dropping out of the survey after commencing) is higher than in the laboratory, possibly reflecting the fact that the costs for participants to exit the experiment are lower: for example, if comprehension is difficult, or the experiment too long, participants may simply quit. This form of attrition is not generally discussed in the literature. Appendix D examines whether rates of attrition in the different countries vary by treatment (when controlling for reading time, gender, and income strata). Table D1 in Appendix D shows that there is evidence of differential rates of attrition by treatment in Germany and India. However, controlling for the time taken to read instructions largely explains differences in rates of attrition across treatment and we therefore control for reading time in all regressions. Our results are also robust to inverse-probability weighting to correct for attrition. See Table D2 in Appendix D.

[22] The code prevents the question from appearing on the web page, but leaves it intact in the raw HTML. Survey taking algorithms which read the code thus answer the question, while humans cannot.

[23] Note that we used a jpeg image and *not* a slider class object to confuse survey taking algorithms.

C Additional Explanations for No Private Response

C.1 Randomisation Inference

To provide further evidence of precise null effects, we generate p-values for each of the treatment differences using randomisation inference. To do so, we, first, calculate the true size of the treatment effect between the *Anarchy* treatment and every other treatment (from Table 4). Then, for each treatment separately, we randomly allocate individuals either to that treatment, or to the *Anarchy* treatment, thereby breaking any relationship between treatment and transfer behavior.[24] After this random reallocation of treatment status, we re-estimate the treatment effects. We repeat this process 1,000 times and each time we save the treatment effects. Finally, we calculate the randomisation inference p-value as the share of iterations for which the absolute value of the treatment effect (that is, the difference in transfer frequency between the Anarchy treatment and the index treatment) is greater than the absolute value of the true (without re-assignment) treatment effect.

The randomisation inference p-values are included in square brackets in Table 4. Our conclusions remain the same: we find no difference between the treatments with centralized redistribution and *Anarchy* using these p-values. In particular, randomly reassigning treatment status provides results that are no different to the results we observe. This provides further evidence that there is no private response in our data.

C.2 Minimum Detectable Effect

To rule out low power as an explanation for the absence of treatment effects, we follow Haushofer and Shapiro (2016) and calculate the minimum detectable effect (MDE) of our main estimations (with 80 percent power at the 5% significance level). Specifically, the MDE is given by:

$$MDE = (t_{1-k} + t_{\frac{\alpha}{2}}) \times \frac{\sigma}{(Np(1-p))^{1/2}} \tag{C1}$$

Here t_{1-k} is the value of the t-statistic required to obtain 80% power; $t_{\frac{\alpha}{2}}$ is the critical t-value required to achieve 5% significance level; P is the fraction of the sample that we treated and $\frac{\sigma}{(Np(1-p))^{1/2}}$ is the standard error of the treatment coefficient. In our case $p = 0.5$ (since we are estimating pairwise treatment effect differences), $t_{1-k} = 0.84$ and $t_{\frac{\alpha}{2}} = 1.96$. This MDE simplifies to a multiple of the standard error of the treatment coefficient ($E(\hat{\beta})$):

$$MDE = 2.8 \times SE(\hat{\beta})$$

Table C1 presents the MDE for each treatment effect (in standard deviations) vis-a-vis the Anarchy condition, and are directly comparable with Table 4.

We are powered to detect relatively small effect sizes: equal to or less than 0.14 standard deviations in each cell. This suggests that the null results are not driven by a small sample size.

C.3 Heterogeneity in Response

No private response at the aggregate level may mask large treatment heterogeneity. If, for instance, private pro-social behavior is reduced among politically conservative individuals and increased by a similar magnitude among politically liberal individuals, we may measure no aggregate private response. If heterogeneity in treatment effects were masking countervailing private responses, we would not observe precise null results. We test this formally by estimating the following equation:

[24] When we do this, for, say, the $UBI - Anarchy$ Treatment pair, we do not reassign individuals from any other treatment to a new treatment. Re-assignment is of individuals, not of observations, and is stratified by country and type.

Table C1: Minimum Detectable Effect

	Pro-social Payments			Anti-social Payments		
	Equal	**Disadvantageous**	**Advantageous**	**Equal**	**Disadvantageous**	**Advantageous**
	(1)	(2)	(3)	(4)	(5)	(6)
Germany						
Anarchy	–	–	–	–	–	–
Tax	0.11	0.14	0.14	0.08	0.14	0.08
UBI	0.14	0.14	0.14	0.06	0.14	0.08
Effort	0.14	0.14	0.14	0.08	0.14	0.08
Luck	0.14	0.11	0.11	0.08	0.11	0.08
India						
Anarchy	–	–	–	–	–	–
Tax	0.14	0.14	0.14	0.08	0.11	0.11
UBI	0.14	0.14	0.14	0.08	0.11	0.11
Effort	0.14	0.14	0.14	0.08	0.11	0.11
Luck	0.14	0.14	0.14	0.08	0.11	0.11
Indonesia						
Anarchy	–	–	–	–	–	–
Tax	0.11	0.11	0.14	0.08	0.11	0.08
UBI	0.11	0.11	0.14	0.08	0.11	0.08
Effort	0.11	0.11	0.14	0.11	0.14	0.08
Luck	0.11	0.11	0.14	0.11	0.11	0.08
USA						
Anarchy	–	–	–	–	–	–
Tax	0.11	0.14	0.17	0.08	0.14	0.08
UBI	0.11	0.14	0.14	0.08	0.14	0.08
Effort	0.14	0.14	0.14	0.08	0.11	0.08
Luck	0.14	0.14	0.14	0.08	0.14	0.08

Notes: Each cell represents the MDE from regression output of Table 4, in standard deviations that we are powered to capture at the 5% level. On average, we are powered to capture effect sizes of 0.11 standard deviations, and are powered to capture effect sizes of at least 0.17 standard deviations in each cell.

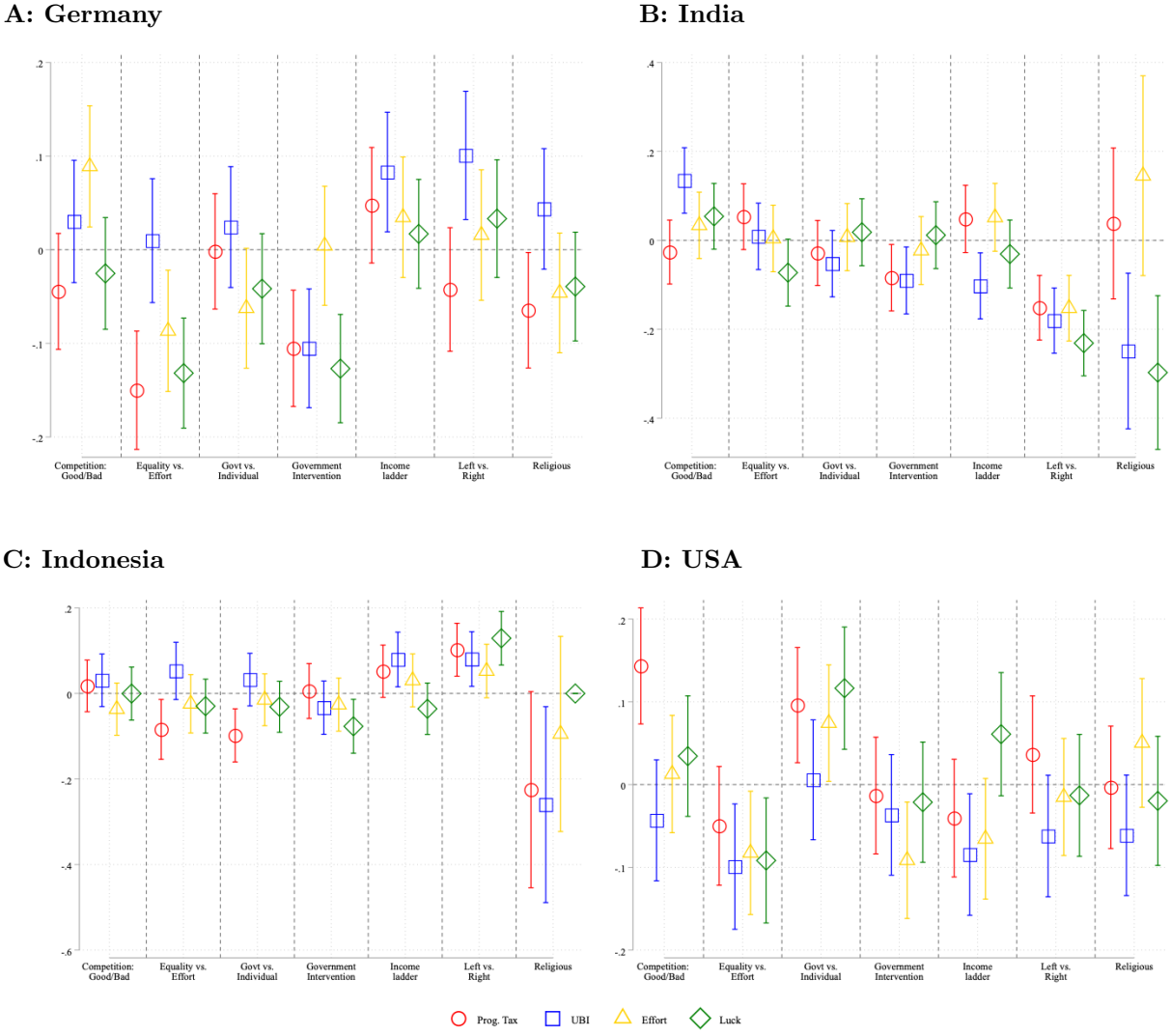
$$y_{itce} = \sum_t \beta_{1t}\text{Treatment}_t + \sum_c \beta_{2c}\text{Country}_c + \sum_e \beta_{3e}\text{Inequality}_e + \sum_t \beta_{4t}(\text{Treatment}_t \times \text{D}) + \gamma \mathbf{Z}_i + \varepsilon_{itce} \tag{C2}$$

Equation (C2) is a restricted version of equation (1). We include a dummy variable, D equal to 1 if an individual is above the median value (in their country) for one of the following WVS questions: "Equality vs. Effort", "Private vs. Government", "Competition: Good vs. Harmful", "Effort vs. Luck", "Left vs. Right", "Government vs. Individual" and belief in God.[25]

For each country, Figures C1 and C2 in the Appendix plots β_{4t}, the interaction between the values dummy, and the treatment. It presents the additional treatment effect experienced by individuals above the median of the values questions, showing formally, that there is little systematic heterogeneity in response by people with above median and below median values. These results suggest that heterogeneity does not explain the absence of any private response.

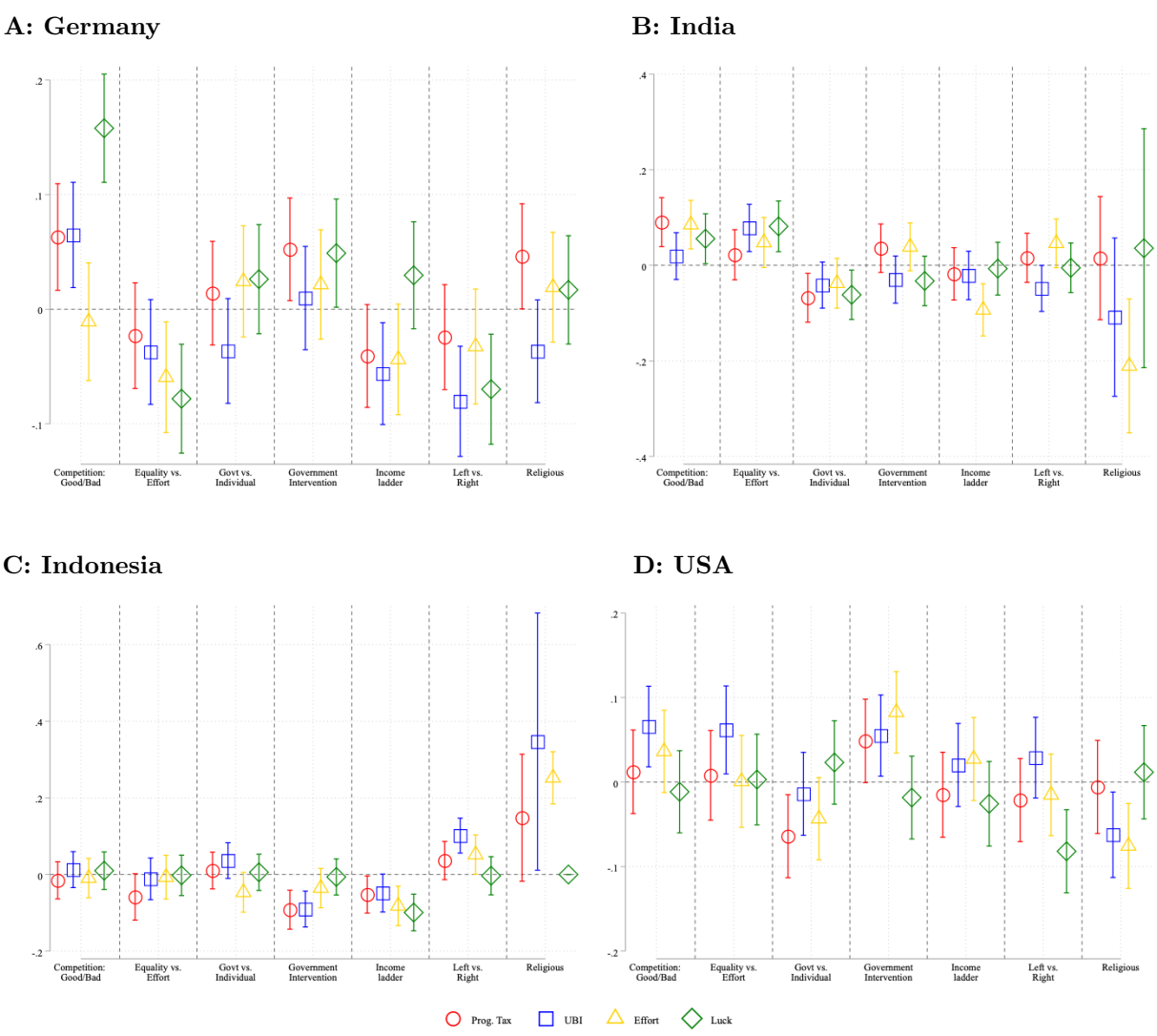
[25]These variables are defined in Table A1. See Section 2.3.1 for more details. Note that this specification was not pre-registered, we nevertheless report it to eliminate another plausible explanation of the absence of treatment effects.

Figure C1: Heterogeneity and crowding out of Pro-social Transfers



Notes: The coefficient on the interaction of the dummy for whether an individual is above their country median in terms of the relevant social value, and the treatment dummy from Equation (C2) is presented. Errors bars represent ± 1 standard error.

Figure C2: Heterogeneity and crowding out of Anti-social Transfers



Notes: The coefficient on the interaction of the dummy for whether an individual is above their country median in terms of the relevant social value, and the treatment dummy from Equation (C2) is presented. Errors bars represent ± 1 standard error.

D Attrition

We test for attrition using Equation (D1). We include controls for income and gender stratum as well as the time taken to read instructions because participants may drop out when forced to read detailed instructions, and instruction complexity varied by treatment.

$$\text{Attrited}_{it} = \beta_0 + \beta_1 T_t + \beta_3 \text{Female} + \beta_4 \text{Income} + \beta_6 \text{Time} + \epsilon_{it} \tag{D1}$$

The dependent variable Attrited = 1 if a respondent learns their treatment condition and drops out, is 0 if they finish the survey and is missing otherwise. Income strata differ by country. Table D1 indicates that in most countries, treatment does not predict attrition. In India, where it is the strongest predictor, we note that all treatments with centralized redistribution have similar affect relative to the Anarchy Treatment. Attrition varies by treatment but differentially across countries. For example, in India and the US, attiirition rates are lower and generally statistically significantly so in treatments with centralized redistribution relative to the Anarchy Treatment. In Germany on the other hand, attrition rates are higher in treatments with centralized redistribution, though the effect is statistically significant only in the Effort Treatment. There are no systematic patterns in Indonesia.

Table D1: Attrition

	Germany (1)	**India** (2)	**Indonesia** (3)	**USA** (4)
Tax	0.020	-0.12***	-0.028	-0.036
	(0.036)	(0.036)	(0.035)	(0.036)
UBI	-0.023	-0.073**	-0.017	-0.066*
	(0.037)	(0.035)	(0.035)	(0.037)
Effort	0.071**	-0.11***	0.023	-0.062*
	(0.036)	(0.036)	(0.034)	(0.037)
Luck	0.038	-0.041	-0.012	-0.080**
	(0.036)	(0.035)	(0.034)	(0.037)
Time taken (mins)	-0.00082*	-0.0022**	-0.0028***	0.00022
	(0.00043)	(0.0011)	(0.00080)	(0.00023)
Female	✓	✓	✓	✓
Income Strata	✓	✓	✓	✓
Observations	1,819	1,912	1,925	1,425
R-squared	0.042	0.023	0.015	0.085

Notes: Attrited = 1 if a respondent learns their treatment and drops out, is 0 if they finish the survey and is missing if they begin the experiment, but drop out prior to learning information specific to their treatment. Income strata differ by country. Significance levels $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$.

Since treatment remains predictive of attrition, particularly in India, we also compute and present the inverse probability weighted (IPW) estimates (see Fitzgerald et al., 1998) that corrects for differential rates of attrition. Probability weights are generated from regressing attrition on treatment, comprehension, gender, an A-type dummy, income strata and age. Probability weights are generated from regressing attrition on treatment, comprehension, gender, a type dummy, income strata and age. The corresponding estimates that correct for differential rates of attrition are presented in Table D2. Table D2 shows that, while in India, there remain large treatment effects in anti-social payments when there is perfect equality,

treatment differences otherwise attenuate when we account for potential selection into treatments by inverse probability weighting. As there are less treatment effects when using IPW, and consistent with erring on the side of making modelling choices which enlarge treatment differences, we do not use IPW in the main body of the paper.

Table D2: Treatment Effects with IPW correction. Extensive Margin. Part 1.

	Pro-social Payments			Anti-social Payments		
	Equal	**Disadvantageous**	**Advantageous**	**Equal**	**Disadvantageous**	**Advantageous**
	(1)	(2)	(3)	(4)	(5)	(6)
Germany						
Anarchy	0.32	0.31	0.75	-0.02	0.27	0.05
Tax	-0.02	0.09*	-0.05	0.03	-0.06	-0.04
	(0.06)	(0.05)	(0.06)	(0.03)	(0.05)	(0.03)
UBI	0.00	0.12**	0.03	-0.02	-0.08*	-0.06**
	(0.05)	(0.05)	(0.05)	(0.02)	(0.05)	(0.03)
Effort	-0.01	0.08	-0.01	0.02	-0.06	-0.02
	(0.05)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Luck	0.04	0.01	0.08*	0.05*	0.01	-0.03
	(0.06)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
India						
Anarchy	0.24	0.31	0.32	0.09	0.24	0.19
Tax	-0.09*	-0.05	-0.02	0.09***	0.05	0.04
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
UBI	-0.13***	-0.03	-0.04	0.10***	-0.02	0.00
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
Effort	-0.05	-0.04	0.05	0.09***	0.02	0.03
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
Luck	-0.08	-0.04	0.04	0.08***	0.05	0.02
	(0.05)	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)
Indonesia						
Anarchy	0.19	0.30	0.40	0.14	0.30	0.19
Tax	-0.03	-0.01	-0.05	-0.01	0.02	0.01
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
UBI	0.02	-0.06	-0.01	0.01	0.02	0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
Effort	-0.02	-0.03	-0.01	0.03	0.06	0.01
	(0.04)	(0.05)	(0.05)	(0.04)	(0.05)	(0.03)
Luck	0.01	0.00	-0.03	0.03	0.01	0.03
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.03)
USA						
Anarchy	0.29	0.35	0.62	0.09	0.26	0.12
Tax	-0.01	0.03	-0.09	-0.03	0.02	-0.05
	(0.05)	(0.06)	(0.07)	(0.03)	(0.05)	(0.03)
UBI	0.06	0.10	-0.01	-0.02	-0.01	-0.06**
	(0.06)	(0.07)	(0.08)	(0.03)	(0.05)	(0.03)
Effort	0.09	0.07	0.04	-0.04	-0.00	-0.03
	(0.06)	(0.07)	(0.07)	(0.03)	(0.04)	(0.03)
Luck	0.15**	0.10	0.05	-0.01	-0.01	-0.05
	(0.07)	(0.07)	(0.07)	(0.03)	(0.05)	(0.03)

Notes: Each panel shows treatment effects on the extensive margin of payments from Equation (1). Inverse Probability Weighting used. Income strata, gender, comprehension, reading time and question order controlled for. Significance levels $^{***}p < 0.01$,** $p < 0.05$,* $p < 0.1$ test equality between treatments with centralized redistribution and *Anarchy* for a given country and level of equality. Regression are run on 23,646 observations with 3,941 clusters, pooled across treatments and countries. R-squared is 0.46 in the pro-social frame, and 0.21 in the anti-social frame.

E Tests of Data Quality

Transitive Preferences: Individuals who are inconsistent in their decisions made across inequality levels may be considered to be violating transitivity. For example, in Part 1, an individual with a 200 ECU endowment may choose to make a pro-social payment of 5 units to an individual with 100 ECUs, thus indicating a strong aversion of advantageous inequality. This same individual could also choose to make an anti-social payment (or, indeed, any pro-social payment less than 5 units) to an individual with an income less than 100 units, which would indicate a preference for advantageous inequality. In our context, this indicates intransitive preferences, payments which show both an affinity and aversion for a given type (advantageous or disadvantageous) of inequality. Panel A of Table E1 presents the proportion of individuals in each country, in the *Anarchy* treatment, who display intransitive preferences following this definition. The share of participants violating transitivity is low in all countries.

Table E1: Data Quality I: Transitivity and Stability of Preferences

	Germany (1)	**India** (2)	**Indonesia** (3)	**USA** (4)
Intransitive Decisions				
Mean	0.11	0.18	0.14	0.09
St. Dev.	(0.31)	(0.39)	(0.35)	(0.29)
Time Taken†	-0.06	-0.03	0.01	-0.01
Stability of Preferences				
Pearson Correlation	0.67	0.50	0.44	0.72

Notes: Sample restricted to *Anarchy* treatment. In Panel A, Part 1 data is used. in transitive preferences occur when a participant makes separate payments, one that increases a given type of inequality, and another that decreases this same type of inequality. † shows the correlation coefficients between time taken to complete the experiment, and whether an individual exhibits intransitive preferences in the *Anarchy* treatment. Panel B presents the Pearson correlation between decisions made in Part 1 and in Part 2. The sample is restricted to the *Anarchy* treatment, and to subjects who received the same shock in both Parts and therefore decision made in Part 1 are directly comparable to those in Part 2.

As an additional test, we present the raw correlation between time taken to complete the experiment, and the presence of transitivity violations. A negative correlation may indicate that participants try to maximise their hourly income by completing the experiment as quickly as possible, at the expense of thoughtful consideration of the answers given. We also present in Panel A of Table E1 the correlation coefficients between time taken to complete the experiment, and whether an individual violates transitivity in the Anarchy Treatment in each country. Once again, it is very low, indicating that few respondents are trading off speed for accuracy.

Stable Preferences: Another concern is that preferences are not stable. To quantify this, Panel B of Table E1 in the Appendix report the Pearson correlation for the payments made in Parts 1 and 2 for individuals in the Anarchy Treatment who received the same shock in Parts 1 and 2. By restricting to this sample, we ensure the economic environment, and the level of inequality between the two income pairs used in the correlation are identical. The correlation coefficients are high indicating that preferences are stable across Parts 1 and 2.

Donor Fatigue & Pauper Frustration: Finally, we address two potential concerns about changes in behavior over time. The first of these concerns is that 'donor fatigue' may kick in and the relatively wealthy tire of pro-social

payments to the less wealthy. The second concern is that less wealthy types may become increasingly frustrated with facing disadvantageous inequality, and so tend toward more anti-social behavior in later periods.

To address these potential concerns, we estimate equation (E1). The sample is restricted to the Anarchy Treatment so that everything between Parts 1 and 2 are held constant.

$$y_{ic} = \beta_0 + \beta_1 \text{Part 2} + \beta_2 C_c + \beta_3 E_e + \epsilon_{ice} \tag{E1}$$

Here y_{ic} is the decision of individual i in country c. Part 2 is a dummy variable = 1 if the decision was made in Part 2, 0 otherwise; C_c are country dummies and E_e the inequality fixed effects. We are interested in $\hat{\beta}_1$. This is the most parsimonious specification that includes both Part, country and inequality fixed effects. Table E2 in the Appendix presents the corresponding regression results. $\hat{\beta}_1$ is not statistically significantly different from 0 in either column (i.e., for both pro- and anti-social payments). This implies that decision made in Part 2 are no different to those made in Part 1. It is similarly close to zero in other, less parsimonious specifications which include a vector of individual level controls and country × equality × Part 2 interactions. There is therefore no evidence of donor fatigue or increased frustration leading to changes in payment frequency.

From the preceding discussion on transitivity, stability and donor fatigue, which show that preferences are largely stable and of high quality (transitive), it therefore follows, that any difference in choices made in Part 2, are due to the treatments.

Table E2: Data Quality II: Donor Fatigue

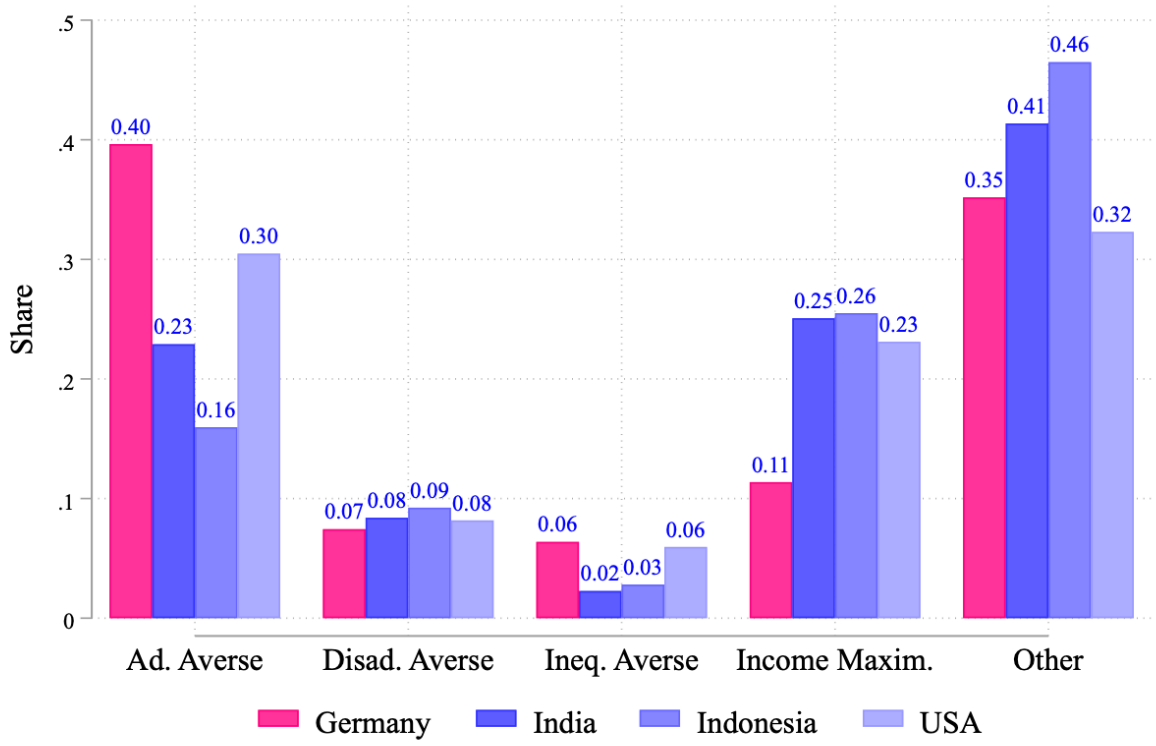
	Pro-social (1)	**Anti-social** (2)
Part 2	-0.03	-0.02
	(0.02)	(0.02)
India	-0.36***	0.10
	(0.11)	(0.06)
Indonesia	-0.36***	0.17***
	(0.10)	(0.05)
USA	-0.14	0.05
	(0.10)	(0.06)
Disadvantageous	0.09***	0.19***
	(0.02)	(0.02)
Advantageous	0.28***	0.04***
	(0.02)	(0.01)
Observations	10,188	10,188
R-squared	0.09	0.06

Notes: Data from Parts 1 and 2 used. Sample restricted to *Anarchy* treatment. Estimation equation given by equation (E1). Regressions control for income, gender, comprehension and time taken. Robust standard errors in parentheses. Significance levels: $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$.

F Country Differences

In Figure 3, we noted large cross country differences in pro-social behavior, and somewhat smaller, but still prominent differences in anti-social behavior. In Section 6.1, we noted large cross country differences in the shares of behavioral types across countries. In this section, we now explain these differences.

Figure F1: Inequality Aversion: Types by Country



Notes: An advantageous (disadvantageous) inequality averse individual *always* pays to reduce advantageous (disadvantageous) inequality, but does not *always* pay to reduce disadvantageous (advantageous) inequality. Inequality averse individuals are both advantageous and disadvantageous inequality averse, and do *not* make a transfer when there is perfect equality. Income maximisers never make a private transfer, and so maximise their own income. Other is the residual type. Part 1 decisions only.

To formalise this, column 1 of Table F1 regresses individual decisions on a set of country dummies. In the pro-social domain, the coefficients on these country differences are large and statistically significant: relative to Germany, on average individuals are significantly less pro-social in India, Indonesia and the USA. In the anti-social domain, the country differences are smaller, but some pairwise country differences remain significant: while participants in India are as willing to engage in anti-social transfer as participants in Germany, those in Indonesia are significantly more likely to engage in anti-social transfers and participants in the USA are significantly less likely to engage in anti-social transfers. Building on Section 6.1, we now formalise the impact that behavioral types have on country differences. To do so, we estimate Equation (F1) by introducing behavioral types one-by-one, and interacting the behavioral type with the country fixed effects.[26] This specification isolates the residual effect of country differences once the effects of a particular behavioral type have been accounted for (the residual effect is the coefficient on the country dummy). Finally, in column 7, we include all behavioral types at once. The country fixed effects in this specification are the unexplained country differences when all behavioral types have been accounted for (that is, the country differences in decisions made for the residual type).

[26] This specification (and exploration of country differences more broadly) was not pre-specified.

Specifically, we estimate:

$$y_{ic} = \sum_{c} \beta_{1c} \text{Country}_c + \sum_{i} \beta_{2i} \text{Type}_i + \sum_{ci} \beta_{3ci} (\text{Country}_c \times \text{Type}_i) + \gamma \mathbf{Z}_i + \varepsilon_{ic} \tag{F1}$$

As previously, the vector $\mathbf{Z}$ includes a female dummy as gender was stratified on, a measure of comprehension, and question order. Type_i contains a set of dummy variables that denote the individuals' type defined by the inequality aversion they display. The types are defined in Section 6.1.

Column 2 controls for advantageous inequality averse types, and the country fixed effects are therefore the country-wise difference in transfer frequency for individuals who are not advantageous inequality averse. In this column, the country differences are mostly unchanged in the pro-social domain, but now Indonesia is no longer different from Germany and India in the anti-social domain. This indicates that a large driver between cross country differences in the anti-social domain is due to country effects changing the distribution of advantageous inequality averse types. Columns 3 and 4 include controls for disadvantageous inequality aversion and inequality aversion respectively; the magnitude of country differences among the reference population (those who are not disadvantageous inequality averse) changes little. Column 5 controls for income maximising types, and shows a large decrease in both the magnitude and the significance of pro-social transfers relative to Column 1, that is, of the sample within each country who are not income maximisers, the country differences are smaller. Country differences in the anti-social domain are, however, larger. Unsurprisingly, given that we argue that most country differences come through the effects on the distribution of behavioral types, in column 6, when we include controls for the residual type (and hence, the country dummies become the differences in the decisions of advantageous inequality averse, disadvantageous inequality averse, inequality averse and profit maximising types), country differences are still significant and larger than in Column 1.

Finally, in column 7, when we control for all behavior types, and the country fixed effects show the differences in decisions made between countries by the residual types, there are no country differences in the pro-social domain, and country differences in the anti-social domain are less statistically significant. The exception is Indonesia, which remains less pro-social and more anti-social. However, even in the case of Indonesia, the magnitude of the difference in pro-social behavior is reduced by half.

In summary, Table F1 shows that country differences are largest in the pro-social domain. It further shows that this is due to the distribution of behavior types across countries: when these types are controlled for, there are few cross country differences, and the remaining statistically significant country differences are much smaller in magnitude. That is, behavior in the residual type shows little systematic difference between countries, and that the country effect is to alter the distribution of types.

Table F1: Country Differences in Transfers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pro-social							
India	-0.07***	-0.06***	-0.06***	-0.07***	0.00	-0.12***	0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Indonesia	-0.15***	-0.10***	-0.15***	-0.16***	-0.11***	-0.22***	-0.07***
	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
USA	-0.05***	-0.08***	-0.04***	-0.05***	0.01	-0.08***	-0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
R-squared	0.04	0.22	0.05	0.04	0.21	0.04	0.32
Anti-social							
India	0.00	-0.02	-0.01	0.01	0.04***	-0.02	0.01
	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Indonesia	0.04***	-0.00	0.02**	0.04***	0.09***	0.01	0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
USA	-0.03**	-0.04***	-0.03***	-0.03***	-0.00	-0.03**	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
R-squared	0.01	0.05	0.12	0.02	0.08	0.03	0.21
Ad. Ineq. Averse	✗	✓	✗	✗	✗	✗	✓
Disad. Ineq. Averse	✗	✗	✓	✗	✗	✗	✓
Inequality Averse	✗	✗	✗	✓	✗	✗	✓
Income Maximiser	✗	✗	✗	✗	✓	✗	✓
Other	✗	✗	✗	✗	✗	✓	✗
Clusters	3,941	3,941	3,941	3,941	3,941	3,941	3,941
Observations	23,646	23,646	23,646	23,646	23,646	23,646	23,646

Notes: Estimating equation given by equation (F1). Germany is the omitted country. Controls included for gender, comprehension and question order. An *advantageous (disadvantageous) inequality averse* individual always pays to reduce advantageous (disadvantageous) inequality and is not disadvantageous (advantageous) inequality averse. *Inequality averse* individuals are both advantageous and disadvantageous inequality averse. *Income maximisers* maximise their own payoff, and never make a transfer to the matched participant. *Other types* are none of the above. Types are mutually exclusive. Pooled data from Part 1 decisions used. Regressions also include Type dummies and interactions of the Country dummies with the Type dummies. In column 7, Other is the reference category. Standard errors in parentheses. Significance levels: $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$.

G Results from Part 2

In this section, we reproduce all tables shown previously with choices made in Part 1 data, with choices made in Part 2.

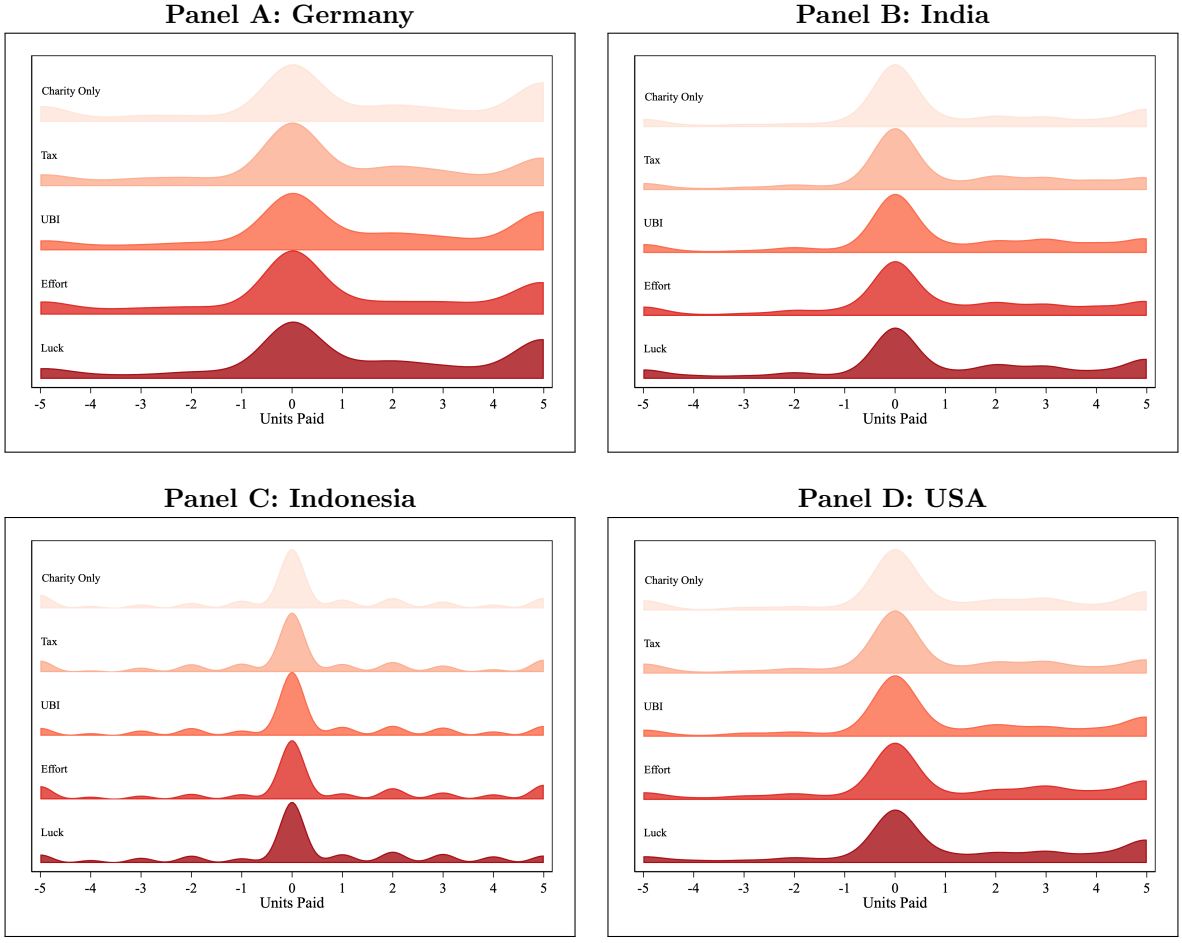
Recall that Figure 4 showed remarkable similarity in aggregate payment decisions to those presented in Figure 3. Along the extensive margin, therefore, the magnitude of any differences between Parts 1 and 2 is very small, and not statistically significant. The only pattern of note comes through the intensive margin, where, conditional on making a payment (be it pro- or anti-social), the mean payment made is slightly lower in Part 2, across all countries and across all treatments. This is a levels shift, and all patterns noted above are unchanged in Part 2. Figure G1, where we present the payment distributions in Part 2, when compared with Figure A3, visually shows where in the distribution this levels shift in the intensive margin originate. *First*, in the Anarchy treatment, there is a large shift in the behavior of Indonesians toward zero payment. There is a similar, though smaller shift toward zero payment in India in the Tax treatment. Other countries change little in their payment decisions in the Anarchy, UBI and Tax treatments. In the Effort Treatment, the distribution changes very little between Parts 1 and 2. *Second*, somewhat larger changes are observable in the Luck treatment. In Indonesia, in Part 2, there is a large density of payments around zero in the Luck treatment. In other countries, there are fewer instances of anti-social payments of 5, and fewer pro-social payments of 5 units. There is a offsetting increase in the number of pro-social payments $\in [0, 4]$.

Table G1: Choices by Country and Treatment. Part 2.

	Germany			**India**			**Indonesia**			**USA**		
	Pro (1)	Anti (2)	Zero (3)	Pro (4)	Anti (5)	Zero (6)	Pro (7)	Anti (8)	Zero (9)	Pro (10)	Anti (11)	Zero (12)
Anarchy	0.46	0.19	0.34	0.38	0.16	0.46	0.31	0.25	0.44	0.39	0.16	0.45
	(0.50)	(0.40)	(0.48)	(0.49)	(0.37)	(0.50)	(0.46)	(0.43)	(0.50)	(0.49)	(0.37)	(0.50)
Tax	0.42	0.20	0.38	0.39	0.15	0.46	0.30	0.25	0.44	0.36	0.18	0.47
	(0.49)	(0.40)	(0.49)	(0.49)	(0.36)	(0.50)	(0.46)	(0.44)	(0.50)	(0.48)	(0.38)	(0.50)
UBI	0.48	0.18	0.34	0.41	0.16	0.43	0.31	0.21	0.48	0.40	0.15	0.45
	(0.50)	(0.39)	(0.47)	(0.49)	(0.37)	(0.50)	(0.46)	(0.41)	(0.50)	(0.49)	(0.35)	(0.50)
Effort	0.42	0.20	0.38	0.42	0.18	0.40	0.33	0.23	0.44	0.40	0.17	0.42
	(0.49)	(0.40)	(0.49)	(0.49)	(0.39)	(0.49)	(0.47)	(0.42)	(0.50)	(0.49)	(0.38)	(0.49)
Luck	0.49	0.17	0.34	0.44	0.19	0.38	0.33	0.22	0.46	0.45	0.16	0.39
	(0.50)	(0.38)	(0.47)	(0.50)	(0.39)	(0.48)	(0.47)	(0.41)	(0.50)	(0.50)	(0.37)	(0.49)

Notes: Frequency of payment by country and treatment. Standard deviations in parentheses. 28,287 observations. Choices from Part 2 only.

Figure G1: Payment Distributions. Part 2



Notes: Ridgeplots show the distribution (kernel densities) of payments across treatments in each country. Negative payments indicate the subject pays to decrease the partner's income, while a positive payment indicates they pay to increase the partner's income. In all countries, the most common payment is of 0 units, in Germany, there is a large concentration at +5 units, in Indonesia, very few non-zero payments are made, leading to a less smooth distribution.

Table G2: Treatment Effects. Extensive Margin. Part 2.

	Pro-Social Payments			Anti-Social Payments		
Treatment	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Germany						
Anarchy	0.29	0.37	0.77	0.01	0.32	0.07
Tax	-0.03	0.00	-0.07	0.03	-0.06	0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
UBI	0.01	0.05	-0.00	0.03	-0.06	-0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Effort	0.04	-0.03	-0.14***	0.12***	-0.09*	0.04
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Luck	-0.00	-0.03	0.03	0.04*	-0.04	-0.02
	(0.04)	(0.05)	(0.04)	(0.02)	(0.05)	(0.03)
Panel B: India						
Anarchy	0.17	0.32	0.35	0.13	0.22	0.17
Tax	-0.03	-0.06	-0.03	0.06*	0.00	0.05
	(0.05)	(0.05)	(0.06)	(0.03)	(0.04)	(0.04)
UBI	-0.02	-0.05	-0.04	0.05	0.03	0.05
	(0.05)	(0.06)	(0.06)	(0.03)	(0.04)	(0.04)
Effort	0.00	-0.06	-0.01	0.08**	0.08**	0.03
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
Luck	0.00	-0.07	0.06	0.08**	0.08*	0.04
	(0.04)	(0.06)	(0.05)	(0.03)	(0.05)	(0.03)
Panel C: Indonesia						
Anarchy	0.18	0.29	0.39	0.19	0.34	0.19
Tax	0.01	-0.05	-0.02	0.03	-0.00	0.09**
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)
UBI	0.01	-0.05	-0.01	0.00	-0.04	0.04
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)
Effort	0.03	0.00	-0.03	0.07*	-0.04	0.05
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.03)
Luck	0.03	0.01	-0.04	0.00	-0.01	0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
Panel D: USA						
Anarchy	0.29	0.33	0.63	0.05	0.25	0.1
Tax	-0.03	-0.01	-0.03	0.03	0.01	0.01
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
UBI	0.06	0.08	-0.05	-0.01	-0.03	-0.00
	(0.04)	(0.05)	(0.05)	(0.02)	(0.05)	(0.03)
Effort	0.10**	0.06	-0.03	0.03	0.00	0.00
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Luck	0.07*	0.09*	0.02	0.02	0.01	0.01
	(0.04)	(0.05)	(0.05)	(0.02)	(0.05)	(0.03)

Notes: Part 2 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. Each panel shows treatment effects on the extensive margin of payments from Equation (1), relative to Anarchy. Controls included for income strata, gender, comprehension, reading time and question order. Significance levels $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$ test equality between treatments with centralized redistribution and *Anarchy* for a given country and level of equality. Regression run on 28,287 observations with 3,941 clusters, pooled across treatments and countries.

Table G3: A:B Types. Treatment Effects. Extensive Margin. Part 2.

	Pro-social Payments				Anti-social Payments			
	A:A	**A:B**	**B:A**	**B:B**	**A:A**	**A:B**	**B:A**	**B:B**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Germany								
Anarchy	0.47	0.79	0.41	0.48	0.13	0.07	0.32	0.15
Tax	-0.04	-0.12**	0.01	-0.02	0.02	0.05	-0.09	-0.03
	(0.05)	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.06)	(0.04)
UBI	0.07	-0.04	0.04	0.04	-0.05	0.02	-0.05	-0.04
	(0.05)	(0.06)	(0.06)	(0.05)	(0.03)	(0.03)	(0.06)	(0.04)
Effort	0.00	-0.21***	-0.00	-0.06	-0.01	0.04	-0.05	0.04
	(0.05)	(0.05)	(0.06)	(0.05)	(0.04)	(0.03)	(0.06)	(0.04)
Luck	0.08*	-0.13***	0.02	0.02	-0.01	0.04	-0.14**	0.00
	(0.05)	(0.05)	(0.06)	(0.05)	(0.04)	(0.03)	(0.05)	(0.04)
India								
Anarchy	0.28	0.32	0.34	0.27	0.14	0.19	0.22	0.20
Tax	-0.04	-0.05	-0.06	-0.04	0.09**	0.03	0.01	-0.01
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
UBI	-0.02	-0.06	-0.03	-0.04	0.08**	0.07	0.00	0.00
	(0.06)	(0.06)	(0.07)	(0.06)	(0.04)	(0.05)	(0.05)	(0.04)
Effort	-0.02	-0.05	-0.06	-0.03	0.13***	0.05	0.03	0.06
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Luck	-0.00	0.00	-0.06	-0.00	0.11***	0.06	0.04	0.05
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Indonesia								
Anarchy	0.27	0.40	0.32	0.27	0.19	0.18	0.34	0.31
Tax	-0.01	-0.10*	-0.03	0.02	0.08*	0.14***	-0.01	-0.04
	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.04)
UBI	0.02	-0.02	-0.06	-0.04	0.09**	0.07*	-0.05	-0.10**
	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
Effort	0.05	-0.09*	-0.02	-0.02	0.02	0.08**	-0.03	-0.01
	(0.05)	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
Luck	-0.02	-0.14***	0.03	0.05	0.08*	0.10***	-0.09**	-0.06
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
USA								
Anarchy	0.45	0.64	0.32	0.37	0.14	0.12	0.24	0.14
Tax	0.01	-0.04	-0.01	-0.04	0.04	0.00	0.01	0.01
	(0.06)	(0.06)	(0.05)	(0.05)	(0.04)	(0.03)	(0.05)	(0.04)
UBI	-0.01	-0.12*	0.11*	0.09	-0.02	0.01	-0.02	-0.02
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.03)	(0.05)	(0.03)
Effort	0.04	-0.12**	0.11*	0.01	0.00	0.03	-0.05	0.07*
	(0.06)	(0.06)	(0.06)	(0.05)	(0.04)	(0.03)	(0.05)	(0.04)
Luck	0.00	-0.13**	0.20***	0.13**	0.00	0.02	-0.05	0.05
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.03)	(0.05)	(0.04)

Notes: Part 2 data used. Difference estimates presented. The *Anarchy* Treatment is the baseline group. Significance levels $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* Treatment for that country, for a given level of inequality.

Table G4: A:B Types. Equality FE. Extensive Margin. Pro-social Payments. Part 2.

	A:A			A:B			B:A			B:B		
	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Germany												
Anarchy	0.24	0.28	0.76	–	–	0.80	–	0.37	–	0.34	0.43	0.70
Tax	-0.00	0.04	-0.05	–	0.41***	-0.10*	–	-0.00	0.78***	-0.06	-0.02	-0.05
	(0.05)	(0.07)	(0.08)	–	(0.10)	(0.06)	–	(0.06)	(0.11)	(0.07)	(0.08)	(0.09)
UBI	0.04	0.05	0.08	–	–	-0.04	–	0.04	–	-0.03	0.07	0.06
	(0.06)	(0.07)	(0.07)	–	–	(0.06)	–	(0.06)	–	(0.06)	(0.08)	(0.08)
Effort	0.01	0.02	-0.05	0.29***	0.35***	-0.07	0.42***	-0.06	0.43***	0.03	-0.07	-0.20**
	(0.06)	(0.07)	(0.08)	(0.08)	(0.09)	(0.05)	(0.09)	(0.06)	(0.10)	(0.07)	(0.08)	(0.08)
Luck	0.07	0.07	0.09	0.35***	0.28***	0.03	0.21**	-0.01	0.69***	-0.11*	-0.10	0.04
	(0.06)	(0.07)	(0.07)	(0.08)	(0.08)	(0.05)	(0.08)	(0.06)	(0.10)	(0.06)	(0.07)	(0.08)
India												
Anarchy	0.17	0.28	0.33	–	–	0.35	–	0.32	–	0.18	0.34	0.37
Tax	-0.01	-0.03	-0.03	–	0.25***	-0.06	–	-0.06	0.45***	-0.06	-0.09	-0.02
	(0.06)	(0.08)	(0.09)	–	(0.09)	(0.06)	–	(0.06)	(0.10)	(0.06)	(0.09)	(0.09)
UBI	0.01	-0.06	0.01	–	–	-0.06	–	-0.03	–	-0.04	-0.08	0.01
	(0.06)	(0.08)	(0.09)	–	–	(0.06)	–	(0.07)	–	(0.07)	(0.09)	(0.09)
Effort	-0.02	-0.10	0.04	0.14**	0.21***	0.03	0.24**	-0.05	0.11	0.05	-0.04	-0.13
	(0.06)	(0.08)	(0.09)	(0.06)	(0.07)	(0.06)	(0.10)	(0.07)	(0.10)	(0.07)	(0.08)	(0.08)
Luck	-0.03	-0.03	0.07	0.20***	0.25***	0.06	0.17**	-0.07	0.46***	0.01	-0.08	0.00
	(0.06)	(0.08)	(0.09)	(0.06)	(0.07)	(0.06)	(0.08)	(0.07)	(0.10)	(0.07)	(0.09)	(0.09)
Indonesia												
Anarchy	0.14	0.25	0.34	–	–	0.42	–	0.29	–	0.22	0.30	0.37
Tax	0.02	-0.07	0.11	–	0.17**	-0.09	–	-0.02	0.38***	-0.00	-0.04	0.04
	(0.05)	(0.06)	(0.09)	–	(0.07)	(0.06)	–	(0.05)	(0.09)	(0.06)	(0.07)	(0.08)
UBI	0.09	-0.04	0.03	–	–	-0.02	–	-0.05	–	-0.08	-0.05	0.01
	(0.06)	(0.07)	(0.08)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.07)	(0.08)
Effort	0.06	0.05	0.05	0.20***	0.26***	-0.03	0.25***	-0.01	0.24***	0.00	0.01	-0.09
	(0.05)	(0.07)	(0.08)	(0.05)	(0.06)	(0.06)	(0.09)	(0.06)	(0.08)	(0.06)	(0.07)	(0.08)
Luck	0.03	0.04	-0.10	0.19***	0.29***	-0.11*	0.30***	-0.00	0.52***	-0.00	0.02	0.05
	(0.05)	(0.07)	(0.07)	(0.05)	(0.06)	(0.06)	(0.07)	(0.06)	(0.09)	(0.06)	(0.07)	(0.07)
USA												
Anarchy	0.25	0.39	0.65	–	–	0.67	–	0.30	–	0.33	0.32	0.52
Tax	0.07	-0.00	0.02	–	0.49***	-0.04	–	-0.03	0.56***	-0.12**	-0.01	-0.04
	(0.06)	(0.09)	(0.09)	–	(0.09)	(0.06)	–	(0.05)	(0.09)	(0.06)	(0.07)	(0.08)
UBI	0.06	-0.03	-0.04	–	–	-0.12*	–	0.11*	–	0.08	0.07	0.15*
	(0.06)	(0.08)	(0.09)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.08)	(0.08)
Effort	0.11*	-0.04	0.04	0.40***	0.35***	-0.02	0.50***	0.09	0.38***	0.04	0.08	-0.05
	(0.06)	(0.08)	(0.09)	(0.06)	(0.06)	(0.06)	(0.10)	(0.06)	(0.11)	(0.06)	(0.07)	(0.08)
Luck	0.09	-0.01	-0.00	0.34***	0.40***	-0.04	0.42***	0.17**	0.68***	0.07	0.09	0.15**
	(0.06)	(0.08)	(0.09)	(0.05)	(0.06)	(0.06)	(0.07)	(0.07)	(0.08)	(0.07)	(0.08)	(0.08)

Notes: Part 2 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. We interact type diad fixed effects (A:A, A:B, B:A, B:B) with inequality level fixed effects (equal, disadvantageous and advantageous). As such, the significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for that country, for a given level of inequality and type diad. The exception to this is in columns 4,7 and 9 where estimation for the *Anarchy* treatment is not possible (e.g., Column 9 estimates private transfers in situations of advantageous inequality between a B-type and an A-type, and absent centralized redistribution, A-types are always wealthier than B-types), and so significance levels refer to the test against a null of zero private transfers. Controls included for gender, income, comprehension, time taken and question order. Regression run on 28287 observations and 3941 clusters.

Table G5: A:B Types. Equality FE. Anti-social Payments. Extensive Margin. Part 2.

	A:A			A:B			B:A			B:B		
	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Germany												
Anarchy	0.04	0.34	0.09	–	–	0.05	–	0.34	–	-0.00	0.29	0.12
Tax	0.03	-0.02	-0.02	–	0.25***	0.05	–	-0.09	0.10	0.02	-0.06	0.00
	(0.04)	(0.08)	(0.05)	–	(0.09)	(0.04)	–	(0.06)	(0.08)	(0.03)	(0.08)	(0.06)
UBI	0.05	-0.07	-0.09**	–	–	0.02	–	-0.05	–	0.02	-0.06	-0.08
	(0.04)	(0.07)	(0.04)	–	–	(0.03)	–	(0.06)	–	(0.03)	(0.07)	(0.05)
Effort	0.02	-0.05	-0.02	0.04	0.24***	0.01	0.31***	-0.07	0.30***	0.21***	-0.10	0.04
	(0.04)	(0.08)	(0.05)	(0.05)	(0.07)	(0.03)	(0.08)	(0.06)	(0.09)	(0.05)	(0.07)	(0.05)
Luck	0.03	-0.04	-0.03	0.04	0.33***	0.00	0.07	-0.06	0.04	0.07*	-0.01	-0.06
	(0.04)	(0.08)	(0.05)	(0.05)	(0.07)	(0.03)	(0.06)	(0.06)	(0.06)	(0.04)	(0.08)	(0.05)
India												
Anarchy	0.12	0.22	0.13	–	–	0.17	–	0.24	–	0.15	0.22	0.19
Tax	0.11**	0.05	0.06	–	0.22***	0.05	–	-0.02	0.29***	0.00	-0.02	0.04
	(0.05)	(0.06)	(0.05)	–	(0.06)	(0.04)	–	(0.05)	(0.08)	(0.05)	(0.06)	(0.07)
UBI	0.10**	0.10	0.05	–	–	0.07	–	0.00	–	-0.01	0.04	-0.02
	(0.04)	(0.07)	(0.05)	–	–	(0.05)	–	(0.05)	–	(0.05)	(0.07)	(0.06)
Effort	0.11**	0.20***	0.09	0.23***	0.37***	0.02	0.16**	0.04	0.22**	0.03	0.06	0.03
	(0.05)	(0.07)	(0.06)	(0.05)	(0.06)	(0.04)	(0.07)	(0.05)	(0.10)	(0.05)	(0.06)	(0.06)
Luck	0.15***	0.09	0.08	0.21***	0.34***	0.05	0.21***	0.08	0.16***	0.02	0.08	0.02
	(0.05)	(0.07)	(0.06)	(0.05)	(0.07)	(0.04)	(0.06)	(0.06)	(0.06)	(0.05)	(0.07)	(0.06)
Indonesia												
Anarchy	0.14	0.29	0.20	–	–	0.16	–	0.35	–	0.24	0.37	0.26
Tax	0.06	0.09	0.01	–	0.36***	0.15***	–	-0.02	0.29***	-0.01	-0.06	-0.01
	(0.05)	(0.07)	(0.07)	–	(0.08)	(0.05)	–	(0.05)	(0.08)	(0.06)	(0.07)	(0.07)
UBI	0.10*	0.12	0.04	–	–	0.07	–	-0.05	–	-0.10*	-0.18***	-0.04
	(0.05)	(0.08)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.06)	(0.07)
Effort	0.05	0.01	0.01	0.26***	0.33***	0.06	0.33***	-0.03	0.30***	0.07	-0.09	0.02
	(0.05)	(0.07)	(0.06)	(0.05)	(0.06)	(0.04)	(0.09)	(0.06)	(0.09)	(0.06)	(0.07)	(0.06)
Luck	0.05	0.15**	-0.00	0.21***	0.41***	0.07*	0.19***	-0.06	0.16***	-0.06	-0.08	-0.07
	(0.05)	(0.07)	(0.06)	(0.04)	(0.06)	(0.04)	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.06)
USA												
Anarchy	0.08	0.28	0.10	–	–	0.09	–	0.25	–	0.03	0.26	0.08
Tax	0.03	0.03	0.00	–	0.29***	-0.00	–	0.02	0.10*	0.03	-0.05	0.08
	(0.04)	(0.08)	(0.05)	–	(0.08)	(0.03)	–	(0.06)	(0.05)	(0.03)	(0.07)	(0.05)
UBI	-0.02	-0.03	-0.03	–	–	0.01	–	-0.02	–	-0.01	-0.06	-0.00
	(0.04)	(0.08)	(0.05)	–	–	(0.03)	–	(0.05)	–	(0.03)	(0.07)	(0.05)
Effort	-0.01	0.05	-0.05	0.06*	0.33***	-0.00	0.06	-0.03	0.13	0.10**	-0.02	0.05
	(0.04)	(0.08)	(0.05)	(0.03)	(0.06)	(0.03)	(0.05)	(0.05)	(0.08)	(0.04)	(0.06)	(0.05)
Luck	-0.02	-0.03	0.01	0.07**	0.27***	-0.01	0.07*	-0.00	0.14***	0.05	0.01	0.05
	(0.04)	(0.08)	(0.05)	(0.03)	(0.05)	(0.03)	(0.04)	(0.06)	(0.05)	(0.04)	(0.07)	(0.05)

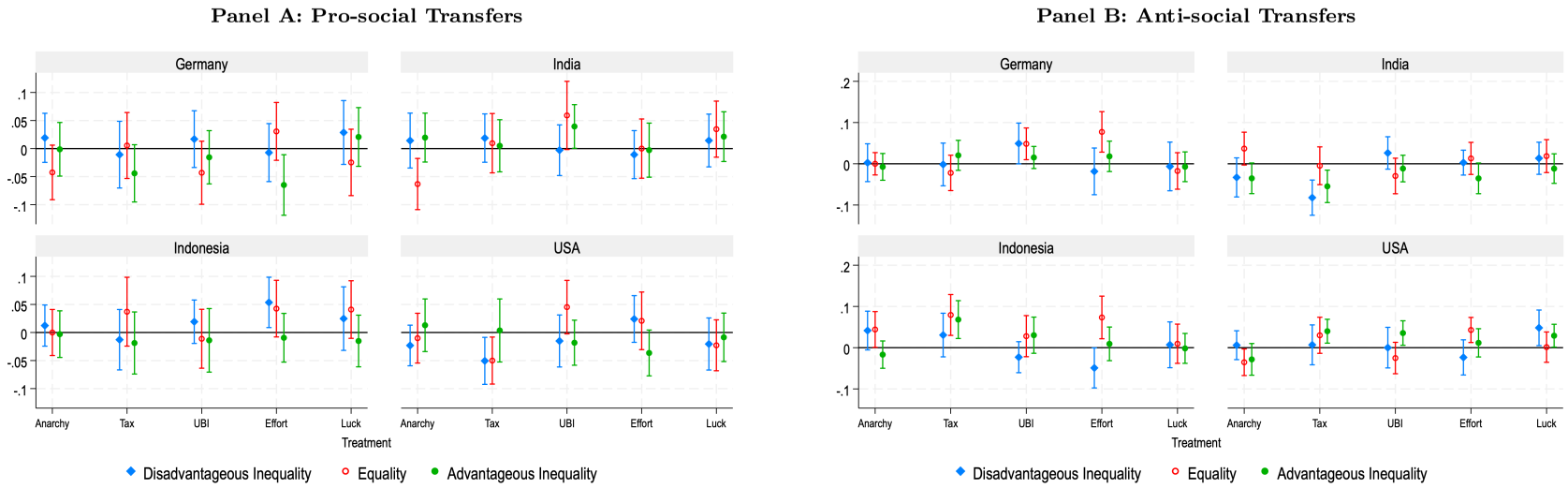
Notes: Part 2 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. We interact type diad fixed effects (A:A, A:B, B:A, B:B) with inequality level fixed effects (equal, disadvantageous and advantageous). As such, the significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the Anarchy treatment for that country, for a given level of inequality and type diad. The exception to this is in columns 4,7 and 9 where estimation for the Anarchy treatment is not possible (e.g., Column 9 estimates private transfers in situations of advantageous inequality between a B-type and an A-type, and absent centralized redistribution, A-types are always wealthier than B-types), and so significance levels refer to the test against a null of zero private transfers. Controls included for gender, income, comprehension, time taken and question order. Regression run on 28287 observations and 3941 clusters.

Table G6: Treatment Effects with IPW correction. Extensive Margin. Part 2.

	Pro-social Payments			Anti-social Payments		
	Equal	**Disadvantageous**	**Advantageous**	**Equal**	**Disadvantageous**	**Advantageous**
	(1)	(2)	(3)	(4)	(5)	(6)
Germany						
Anarchy	0.29	0.37	0.77	0.01	0.32	0.07
Tax	-0.03	0.00	-0.07	0.03	-0.06	0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
UBI	0.01	0.05	-0.00	0.03	-0.06	-0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Effort	0.04	-0.03	-0.14***	0.12***	-0.09*	0.04
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Luck	-0.00	-0.03	0.03	0.04*	-0.04	-0.02
	(0.04)	(0.05)	(0.04)	(0.02)	(0.05)	(0.03)
India						
Anarchy	0.17	0.32	0.35	0.13	0.22	0.17
Tax	-0.03	-0.06	-0.03	0.06*	0.00	0.05
	(0.05)	(0.05)	(0.06)	(0.03)	(0.04)	(0.04)
UBI	-0.02	-0.05	-0.04	0.05	0.03	0.05
	(0.05)	(0.06)	(0.06)	(0.03)	(0.04)	(0.04)
Effort	0.00	-0.06	-0.01	0.08**	0.08**	0.03
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
Luck	0.00	-0.07	0.06	0.08**	0.08*	0.04
	(0.04)	(0.06)	(0.05)	(0.03)	(0.05)	(0.03)
Indonesia						
Anarchy	0.18	0.29	0.39	0.19	0.34	0.19
Tax	0.01	-0.05	-0.02	0.03	-0.00	0.09**
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)
UBI	0.01	-0.05	-0.01	0.00	-0.04	0.04
	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)
Effort	0.03	0.00	-0.03	0.07*	-0.04	0.05
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.03)
Luck	0.03	0.01	-0.04	0.00	-0.01	0.02
	(0.04)	(0.05)	(0.05)	(0.03)	(0.04)	(0.03)
USA						
Anarchy	0.29	0.33	0.63	0.05	0.25	0.10
Tax	-0.03	-0.01	-0.03	0.03	0.01	0.01
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
UBI	0.06	0.08	-0.05	-0.01	-0.03	-0.00
	(0.04)	(0.05)	(0.05)	(0.02)	(0.05)	(0.03)
Effort	0.10**	0.06	-0.03	0.03	0.00	0.00
	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Luck	0.07*	0.09*	0.02	0.02	0.01	0.01
	(0.04)	(0.05)	(0.05)	(0.02)	(0.05)	(0.03)

Notes: Part 2 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. Specifically, the Anarchy row show the mean transfer frequency when there is no centralized redistribution. Each panel shows treatment effects on the extensive margin of payments from Equation 1, relative to *Anarchy*. Income strata, gender, comprehension and reading time controlled for. Significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ test equality between treatments with centralized redistribution and *Anarchy* for a given country and level of equality. Regression run on 28287 observations with 3941 clusters, pooled across treatments and countries. R-squared is 0.45 in the pro-social frame, and 0.23 in the anti-social frame. Inverse Probability Weighting used.

Figure G2: Difference Estimates. Part 1 vs Part 2



Notes: Coefficient estimates and 90% confidence intervals for a regression of pro- or anti-social transfer on Part 2 dummy. Regressions include individual fixed effects. Sample restricted to choices made with the same inequality level (advantageous, disadvantageous or perfect equality) in both parts. Separate regressions are run for each country and treatment. Standard errors are clustered at the individual level.

H Social Mobility in Part 2

While existing evidence on the extent of crowding out is mixed, recent research finds people are more willing to help those who are poor due to bad luck than those who are poor because they put in little effort: that is, this work finds pairwise treatment differences between *Luck* and *Effort* (Almås et al., 2020, 2021). Their study contrasts luck and effort by examining a third party's willingness to redistribute. In contrast, our design focuses on the impact of income mobility via luck and effort, specifically how individuals perceive and respond to moving up the income distribution through these different means. Our experimental design is more similar to Gangadharan et al. (2021) who study anti-social behavior when individuals move up the income ladder through luck rather than effort. They show that tendency is particularly pronounced among low-income individuals, who are less likely to engage in anti-social behavior when their upward mobility is attributed to effort. The focus of our paper is different: we study whether mobility via luck or effort impacts crowding out.

To more directly compare our results to Almås et al. (2020, 2021) and Gangadharan et al. (2021), we study responses in Part 2. We do this because, in the studies just mentioned, redistribution between high and low income types has been realized prior to redistribution choices. To test for differences between Luck and Effort once public redistribution has been implemented, we estimate equation (H1). The only difference between equations (1) and (H1) is that the latter includes a dummy variable, M_m, indicating whether the subject was socially mobile, and a series of associated interactions between this dummy variable, and the inequality, country and treatment fixed effects. Note that exogeneity of M_m is necessary to include it in the interaction terms. In the Luck Treatment, whether a B-type moves up the income ladder is clearly exogenous. In the Effort Treatment, subjects are told that the 15% with the highest score on a counting zero's effort task will move up the ladder, they therefore believe that whether they move up is exogenous, as they have no control over others' effort.

$$\begin{aligned} y_{itce} = \beta_1 T_t + \beta_2 C_c + \beta_3 E_e + \beta_4 M_m + \beta_{5tc} \sum_{tc} (T_t \times C_c) + \beta_{6te} \sum_{te} (T_t \times E_e) \\ + \beta_{7tm} \sum_{tm} (T_t \times M_m) + \beta_{8ec} \sum_{ec} (E_e \times C_c) + \beta_{9cm} \sum_{cm} (C_c \times M_m) \\ + \beta_{10em} \sum_{em} (E_e \times M_m) + \beta_{11tce} \sum_{tce} (T_t \times C_c \times E_e) + \beta_{12tcm} \sum_{tcm} (T_t \times C_c \times M_m) \\ + \beta_{13tme} \sum_{tme} (T_t \times M_m \times E_e) + \beta_{14mce} \sum_{mce} (M_m \times C_c \times E_e) \\ + \beta_{15tcem} \sum_{tcem} (T_t \times C_c \times E_e \times M_m) \\ + \beta_{16c} \text{ Comprehension}_{ic} + \gamma \mathbf{Z}_i + \epsilon_{itce} \end{aligned} \tag{H1}$$

The corresponding regression results are presented in Table H1 and show that there are no statistically significant treatment differences among those who are immobile, and some treatment differences among those who are socially mobile. As such, as is consistent with the body of existing work (specifically, Gangadharan et al., 2021), any treatment differences between Luck and Effort come through the behavior of those who realize upward social mobility. In our setting however, only 15% of B-types, or 7.5% of the total sample realize upward mobility. We therefore face power constraints estimating treatment differences in this sample. Furthermore, 7.5% is not a large enough share of the sample to drive aggregate treatment effects. That said, there is sufficient power to note that in Column 6 (Table H1), individuals who are socially mobile due to luck are much more likely to give to those worse off than them, and this is consistent within each country.

Direct comparisons with Almås et al. (2020) and Almås et al. (2021) is not possible as in these papers, it is an independent third party who makes the redistribution decision over allocations between two unknown individuals, rather than a participant reallocating their own money. Nevertheless, consistent with this literature, our results also broadly supports the argument that individuals prefer greater equality in situations of realised luck, than in situations of realised efforts.

Table H1: Social Mobility

Inequality		Pro-social Payments						Anti-social Payments					
		Equal		Disadvantageous		Advantageous		Equal		Disadvantageous		Advantageous	
		Immobile	Mobile	Immobile	Mobile	Immobile	Mobile	Immobile	Mobile	Immobile	Mobile	Immobile	Mobile
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Germany	Effort	0.22	0.40	0.32	0.30	0.48	0.45	0.09	0.33	0.17	0.42	0.04	0.24
	Luck	0.09	-0.21***	0.07	0.01	0.20	0.28***	0.09	-0.27***	0.07	0.07	0.15*	-0.18***
		(0.10)	(0.08)	(0.08)	(0.10)	(0.14)	(0.07)	(0.09)	(0.07)	(0.07)	(0.11)	(0.09)	(0.05)
India	Effort	0.22	0.31	0.32	0.28	0.23	0.24	0.17	0.06	0.23	0.14	0.27	0.11
	Luck	0.01	-0.10	-0.02	-0.08	-0.01	0.21**	-0.02	0.07	-0.01	0.26**	-0.04	0.03
		(0.09)	(0.11)	(0.08)	(0.13)	(0.10)	(0.10)	(0.06)	(0.06)	(0.06)	(0.12)	(0.08)	(0.05)
Indonesia	Effort	0.25	0.30	0.36	0.34	0.35	0.30	0.16	0.30	0.20	0.17	0.20	0.21
	Luck	-0.02	0.02	-0.00	0.07	-0.03	0.21**	-0.08	-0.20**	0.01	-0.01	-0.03	-0.12*
		(0.09)	(0.09)	(0.07)	(0.13)	(0.11)	(0.09)	(0.07)	(0.10)	(0.06)	(0.11)	(0.10)	(0.06)
USA	Effort	0.32	0.55	0.42	0.44	0.58	0.43	0.14	0.03	0.19	0.23	0.13	0.10
	Luck	0.10	-0.11	0.04	0.03	0.03	0.28***	-0.11*	0.04	0.02	0.12	-0.04	0.01
		(0.09)	(0.11)	(0.08)	(0.15)	(0.13)	(0.09)	(0.06)	(0.05)	(0.07)	(0.13)	(0.08)	(0.05)

Notes: Part 2 data used. Difference estimates presented. The *Effort* treatment is the baseline group, and so the coefficient on *Effort* is the frequency of payment within a cell, while the coefficient on *Luck* is the difference between luck and effort. Significance levels $^{***}p < 0.01$,** $p < 0.05$,* $p < 0.1$ refer to the test of equality between the *Effort* and *Luck* treatments for a given country and inequality level.

I Replication on the Intensive Margin

In this section, we replicate all tables to date, both in the main body of the paper, and the additional tables in the appendix. In so doing, we show that there is no impact on private transfers on the intensive margin.

Table I1: Choices by Country and Treatment. Part 1.

	Germany		**India**		**Indonesia**		**USA**	
	Pro (1)	Anti (2)	Pro (3)	Anti (4)	Pro (5)	Anti (6)	Pro (7)	Anti (8)
Anarchy	3.70	-3.64	3.39	-3.18	3.10	-3.27	3.34	-3.56
	(1.51)	(1.56)	(1.42)	(1.60)	(1.48)	(1.61)	(1.43)	(1.59)
Tax	3.55	-3.27	3.39	-3.56	3.35	-3.33	3.36	-3.35
	(1.50)	(1.47)	(1.41)	(1.48)	(1.52)	(1.56)	(1.48)	(1.60)
UBI	3.63	-3.30	3.39	-3.56	3.06	-3.12	3.58	-3.59
	(1.54)	(1.63)	(1.45)	(1.49)	(1.53)	(1.58)	(1.42)	(1.56)
Effort	3.74	-3.29	3.23	-3.38	3.42	-3.80	3.65	-3.48
	(1.49)	(1.56)	(1.52)	(1.65)	(1.48)	(1.55)	(1.33)	(1.55)
Luck	3.68	-3.42	3.36	-3.36	2.95	-3.41	3.58	-3.31
	(1.53)	(1.58)	(1.39)	(1.57)	(1.47)	(1.57)	(1.43)	(1.61)

Notes: Mean pro- (anti-) social transfer, conditional on making a pro- (anti-) social transfer by country and treatment, standard deviations in parentheses. 13,699 observations. Choices from Part 1 only.

Table I2: Treatment Effects. Intensive Margin.

	Pro-Social Payments			Anti-Social Payments		
Treatment	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Germany						
Anarchy	2.91	3.25	3.65	3.31	3.36	2.99
Tax	-0.11	-0.41	0.10	-0.35	-0.50**	0.10
	(0.34)	(0.26)	(0.17)	(0.65)	(0.22)	(0.42)
UBI	0.19	0.25	-0.02	-0.73	-0.22	-0.35
	(0.31)	(0.28)	(0.17)	(0.76)	(0.26)	(0.40)
Effort	0.26	-0.06	0.22	-1.46**	-0.15	-0.36
	(0.33)	(0.28)	(0.17)	(0.62)	(0.25)	(0.39)
Luck	-0.19	-0.02	0.16	-0.73	-0.17	-0.05
	(0.33)	(0.29)	(0.16)	(0.66)	(0.24)	(0.37)
Panel B: India						
Anarchy	2.76	2.96	3.29	3.03	3.32	2.60
Tax	0.31	0.14	-0.41**	0.17	0.36	0.76**
	(0.26)	(0.22)	(0.19)	(0.55)	(0.25)	(0.30)
UBI	0.11	-0.07	-0.22	0.19	0.25	0.99***
	(0.28)	(0.23)	(0.20)	(0.56)	(0.26)	(0.33)
Effort	-0.31	-0.27	-0.30	0.33	0.09	0.51
	(0.26)	(0.22)	(0.21)	(0.57)	(0.27)	(0.34)
Luck	0.31	-0.10	-0.27	0.15	-0.02	0.51
	(0.26)	(0.21)	(0.19)	(0.55)	(0.28)	(0.31)
Panel C: Indonesia						
Anarchy	2.85	2.75	3.08	3.06	3.34	2.80
Tax	0.00	0.45*	0.23	0.20	-0.08	0.12
	(0.35)	(0.24)	(0.20)	(0.43)	(0.26)	(0.28)
UBI	-0.35	0.06	-0.04	-0.76**	-0.26	0.05
	(0.32)	(0.26)	(0.23)	(0.38)	(0.25)	(0.28)
Effort	0.20	0.34	0.31	0.69*	0.30	0.60**
	(0.34)	(0.27)	(0.20)	(0.38)	(0.27)	(0.29)
Luck	-0.50	-0.03	-0.10	-0.16	0.22	-0.07
	(0.34)	(0.22)	(0.21)	(0.38)	(0.26)	(0.25)
Panel D: USA						
Anarchy	2.81	2.64	3.49	2.46	3.76	2.64
Tax	-0.20	0.26	-0.06	0.08	-0.48*	0.05
	(0.28)	(0.24)	(0.19)	(0.55)	(0.25)	(0.37)
UBI	0.38	0.55**	0.04	0.12	-0.14	0.57
	(0.27)	(0.22)	(0.19)	(0.54)	(0.24)	(0.42)
Effort	0.25	0.58***	0.16	0.97	-0.28	0.34
	(0.26)	(0.21)	(0.18)	(0.63)	(0.26)	(0.33)
Luck	0.20	0.62***	0.10	-0.31	-0.37	-0.11
	(0.26)	(0.21)	(0.20)	(0.46)	(0.27)	(0.34)

Notes: Each panel shows difference estimates on the intensive margin of payments from Equation 1. Specifically, the *Anarchy* row shows the mean value of the private transfers, conditional on there being a non-zero private transfer, when there is no centralized redistribution. Controls included for income strata, gender, comprehension, reading time and question order. Significance levels $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$ test equality between treatments with centralized redistribution and *Anarchy* for a given country and level of equality. Regression run on 23,646 observations with 3,941 clusters, pooled across treatments and countries. Part 1 data used.

Table I3: Country Differences in Payments – Intensive Margin

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pro Social							
India	-0.29***	-0.06	-0.29***	-0.31***	-0.29***	-0.41***	0.01
	(0.08)	(0.10)	(0.08)	(0.08)	(0.08)	(0.09)	(0.11)
Indonesia	-0.48***	-0.24**	-0.49***	-0.49***	-0.48***	-0.51***	-0.19*
	(0.07)	(0.09)	(0.08)	(0.08)	(0.07)	(0.10)	(0.11)
Germany	-0.15**	0.00	-0.16**	-0.19**	-0.15**	-0.21**	-0.03
	(0.07)	(0.10)	(0.07)	(0.07)	(0.07)	(0.09)	(0.11)
Clusters	2,738	2,738	2,738	2,738	2,738	2,738	2,738
Observations	9,323	9,323	9,323	9,323	9,323	9,323	9,323
R-squared	0.03	0.04	0.03	0.03	0.03	0.05	0.06
Anti Social							
India	0.09	0.13	0.01	0.09	0.09	0.12	0.12
	(0.10)	(0.11)	(0.11)	(0.11)	(0.10)	(0.15)	(0.13)
Indonesia	0.07	0.09	0.01	0.09	0.07	0.10	0.15
	(0.09)	(0.10)	(0.10)	(0.10)	(0.09)	(0.14)	(0.12)
Germany	0.07	0.15	-0.05	-0.02	0.07	0.27**	-0.12
	(0.10)	(0.11)	(0.11)	(0.11)	(0.10)	(0.13)	(0.13)
Clusters	1,844	1,844	1,844	1,844	1,844	1,844	1,844
Observations	4,376	4,376	4,376	4,376	4,376	4,376	4,376
R-squared	0.04	0.04	0.07	0.06	0.04	0.09	0.11
Ad. Ineq. Averse	✗	✓	✗	✗	✗	✗	✓
Disad. Ineq. Averse	✗	✗	✓	✗	✗	✗	✓
Inequality Averse	✗	✗	✗	✓	✗	✗	✓
Income Maximiser	✗	✗	✗	✗	✓	✗	✓
Other	✗	✗	✗	✗	✗	✓	✗

Notes: Germany is the omitted country. Controls included for gender, comprehension and question order. An *advantageous (disadvantageous) inequality averse* individual always pays to reduce advantageous (disadvantageous) inequality and is not disadvantageous (advantageous) inequality averse. *Inequality averse* individuals are both advantageous and disadvantageous inequality averse. *Income maximisers* maximise their own payment, and never make a payment to the matched participant. *Other types* are none of the above. Types are mutually exclusive. Pooled data from Part 1 decisions used. Regressions also include Type dummies and interactions of the Country dummies with the Type dummies. In column 7, Other is the reference category. As previously, we exclude payments of 0, so that we consider country differences in payments, conditional on a non-zero payment occurring. Standard errors in parentheses. Significance levels: $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$.

Table I4: A:B Types. Equality FE. Pro-social Payments. Intensive Margin.

	A:A			A:B			B:A			B:B		
	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Germany												
Anarchy	-0.23	-0.24	0.20	–	–	0.73	–	-0.19	–	0.30	0.36	0.69
Tax	-0.06	0.05	-0.02	–	–	-0.03	–	0.04	–	-0.05	0.08	0.06
	(0.06)	(0.07)	(0.07)	–	–	(0.05)	–	(0.05)	–	(0.07)	(0.09)	(0.08)
UBI	0.03	0.11	0.06	–	–	0.00	–	0.10*	–	0.01	-0.02	-0.04
	(0.06)	(0.07)	(0.07)	–	–	(0.05)	–	(0.06)	–	(0.07)	(0.08)	(0.08)
Effort	-0.09*	0.01	-0.01	–	–	-0.05	–	0.06	–	0.06	0.06	0.09
	(0.05)	(0.07)	(0.07)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.09)	(0.08)
Luck	0.03	0.07	0.08	–	–	0.03	–	-0.03	–	-0.04	-0.11	0.04
	(0.06)	(0.07)	(0.07)	–	–	(0.05)	–	(0.05)	–	(0.07)	(0.08)	(0.08)
India												
Anarchy	-0.27	-0.24	-0.18	–	–	0.28	–	-0.15	–	0.24	0.30	0.38
Tax	-0.07	0.01	-0.00	–	–	-0.00	–	-0.08	–	-0.14**	-0.03	-0.10
	(0.06)	(0.08)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.09)	(0.09)
UBI	-0.13**	-0.02	-0.07	–	–	-0.03	–	-0.07	–	-0.14**	0.02	-0.08
	(0.06)	(0.08)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.09)	(0.09)
Effort	0.01	-0.05	0.13*	–	–	0.06	–	-0.05	–	-0.13*	-0.03	-0.12
	(0.07)	(0.08)	(0.07)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.08)	(0.09)
Luck	-0.05	0.03	0.05	–	–	0.07	–	-0.09	–	-0.14**	-0.08	-0.09
	(0.06)	(0.08)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.08)	(0.09)
Indonesia												
Anarchy	-0.35	-0.16	-0.04	–	–	0.38	–	-0.21	–	0.22	0.33	0.41
Tax	0.02	-0.11	-0.07	–	–	-0.02	–	0.01	–	-0.05	-0.00	-0.07
	(0.05)	(0.08)	(0.08)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.08)	(0.08)
UBI	0.09*	-0.04	-0.02	–	–	0.05	–	-0.05	–	-0.04	-0.05	-0.18**
	(0.05)	(0.08)	(0.08)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.08)	(0.07)
Effort	0.07	-0.06	-0.02	–	–	0.02	–	-0.01	–	-0.06	-0.12	-0.08
	(0.05)	(0.07)	(0.08)	–	–	(0.05)	–	(0.05)	–	(0.06)	(0.08)	(0.08)
Luck	0.04	-0.06	-0.11	–	–	-0.02	–	0.02	–	-0.05	-0.03	-0.04
	(0.05)	(0.07)	(0.08)	–	–	(0.05)	–	(0.05)	–	(0.06)	(0.07)	(0.08)
USA												
Anarchy	-0.13	-0.11	0.22	–	–	0.66	–	-0.12	–	0.29	0.34	0.51
Tax	0.06	0.03	-0.09	–	–	-0.04	–	0.00	–	-0.02	0.02	0.02
	(0.07)	(0.08)	(0.09)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.07)	(0.09)
UBI	-0.01	0.01	-0.14*	–	–	-0.06	–	0.10*	–	0.05	0.20**	0.24***
	(0.06)	(0.07)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.06)	(0.08)	(0.09)
Effort	0.07	0.10	0.01	–	–	0.06	–	0.03	–	0.08	0.03	0.11
	(0.07)	(0.08)	(0.08)	–	–	(0.06)	–	(0.05)	–	(0.06)	(0.07)	(0.09)
Luck	0.07	0.06	0.04	–	–	0.02	–	0.12**	–	0.12*	0.12	0.20**
	(0.06)	(0.07)	(0.08)	–	–	(0.06)	–	(0.06)	–	(0.07)	(0.08)	(0.09)

Notes: Part 1 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. We interact type diad fixed effects (A:A, A:B, B:A, B:B) with inequality level fixed effects (equal, disadvantageous and advantageous). As such, the significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for that country, for a given level of inequality and type diad. Controls included for gender, income, comprehension and time taken. Note that some combinations of type and inequality fixed effect are omitted (e.g. all Type-As have strictly more income than all Type-Bs, so will never have perfect equality of income). Regressions run on 9323 observations and 2738 clusters.

Table I5: A:B Types. Equality FE. Anti-social Payments. Intensive Margin.

	A:A			A:B			B:A			B:B		
	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous	Equal	Disadvantageous	Advantageous
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Germany												
Anarchy	-0.27	-0.03	-0.18	–	–	0.05	–	0.05	–	-0.02	0.20	0.05
Tax	0.02	0.03	-0.05	–	–	-0.03	–	-0.10*	–	0.05	-0.04	-0.06
	(0.04)	(0.08)	(0.04)	–	–	(0.03)	–	(0.06)	–	(0.04)	(0.07)	(0.05)
UBI	-0.03	-0.01	-0.15***	–	–	-0.03	–	-0.14**	–	-0.02	0.02	-0.05
	(0.03)	(0.07)	(0.04)	–	–	(0.03)	–	(0.06)	–	(0.03)	(0.08)	(0.05)
Effort	0.01	0.05	-0.03	–	–	-0.00	–	-0.11**	–	0.03	-0.03	-0.09*
	(0.04)	(0.08)	(0.05)	–	–	(0.04)	–	(0.06)	–	(0.04)	(0.07)	(0.05)
Luck	0.05	-0.03	-0.07	–	–	-0.04	–	0.02	–	0.05	0.01	0.01
	(0.04)	(0.07)	(0.05)	–	–	(0.03)	–	(0.06)	–	(0.04)	(0.07)	(0.06)
India												
Anarchy	-0.17	-0.01	-0.08	–	–	0.20	–	-0.02	–	0.09	0.24	0.23
Tax	0.10**	0.09	-0.01	–	–	0.06	–	0.04	–	0.07*	0.00	0.01
	(0.04)	(0.08)	(0.05)	–	–	(0.05)	–	(0.05)	–	(0.04)	(0.07)	(0.06)
UBI	0.13***	0.01	0.01	–	–	0.03	–	-0.03	–	0.07	-0.02	-0.08
	(0.04)	(0.07)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.04)	(0.07)	(0.06)
Effort	0.09**	0.04	0.04	–	–	0.02	–	0.02	–	0.10**	0.00	0.05
	(0.04)	(0.07)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.06)	(0.07)
Luck	0.11**	0.07	0.04	–	–	0.02	–	0.04	–	0.05	0.06	0.00
	(0.05)	(0.08)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.04)	(0.07)	(0.07)
Indonesia												
Anarchy	-0.13	-0.03	-0.15	–	–	0.20	–	0.06	–	0.16	0.29	0.26
Tax	-0.01	0.15**	0.10*	–	–	0.01	–	-0.01	–	-0.02	0.00	-0.07
	(0.04)	(0.07)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.07)	(0.06)
UBI	0.04	0.11	0.09*	–	–	0.01	–	-0.02	–	-0.02	0.03	-0.02
	(0.05)	(0.07)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.07)	(0.06)
Effort	0.03	0.10	0.07	–	–	0.03	–	0.01	–	0.04	0.15*	-0.11*
	(0.05)	(0.07)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.08)	(0.06)
Luck	0.01	0.14*	0.16***	–	–	0.01	–	-0.04	–	0.06	0.01	-0.02
	(0.05)	(0.07)	(0.06)	–	–	(0.04)	–	(0.05)	–	(0.05)	(0.07)	(0.06)
USA												
Anarchy	-0.14	0.06	-0.17	–	–	0.13	–	-0.02	–	0.07	0.27	0.14
Tax	-0.08**	0.04	-0.02	–	–	-0.04	–	0.02	–	0.02	0.01	-0.08*
	(0.04)	(0.08)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.04)	(0.07)	(0.05)
UBI	-0.07	-0.02	-0.03	–	–	-0.07**	–	-0.00	–	0.03	-0.04	-0.06
	(0.04)	(0.08)	(0.04)	–	–	(0.04)	–	(0.06)	–	(0.04)	(0.07)	(0.05)
Effort	-0.05	-0.05	-0.00	–	–	-0.04	–	0.03	–	-0.03	-0.07	-0.01
	(0.04)	(0.08)	(0.05)	–	–	(0.04)	–	(0.05)	–	(0.03)	(0.06)	(0.06)
Luck	-0.04	-0.10	-0.03	–	–	-0.06*	–	0.02	–	0.01	-0.02	-0.02
	(0.04)	(0.07)	(0.05)	–	–	(0.04)	–	(0.06)	–	(0.04)	(0.07)	(0.06)

Notes: Part 1 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. We interact type diad fixed effects (A:A, A:B, B:A, B:B) with inequality level fixed effects (equal, disadvantageous and advantageous). As such, the significance levels $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for that country, for a given level of inequality and type diad. Controls included for gender, income, comprehension and time taken. Note that some combinations of type and inequality fixed effect are omitted (e.g. all Type-As have strictly more income than all Type-Bs so will never have perfect equality of income). Regressions run on 4376 observations and 1844 clusters.

Table I6: A:B Types. Treatment Effects. Intensive Margin.

	Pro-social Payments				Anti-social Payments			
	A:A	**A:B**	**B:A**	**B:B**	**A:A**	**A:B**	**B:A**	**B:B**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Germany								
Anarchy	-0.10	0.70	-0.20	0.43	-0.16	0.06	0.05	0.09
Tax	0.01	-0.03	0.04	0.02	-0.01	-0.03	-0.10*	-0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.06)	(0.03)
UBI	0.08	0.01	0.10*	-0.03	-0.07**	-0.03	-0.14**	-0.01
	(0.05)	(0.05)	(0.06)	(0.05)	(0.03)	(0.03)	(0.06)	(0.03)
Effort	-0.02	-0.05	0.06	0.05	0.00	-0.00	-0.11**	-0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.04)	(0.04)	(0.06)	(0.03)
Luck	0.05	0.03	-0.03	-0.04	-0.01	-0.04	0.02	0.03
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.03)	(0.06)	(0.04)
India								
Anarchy	-0.23	0.26	-0.15	0.28	-0.09	0.22	-0.02	0.20
Tax	-0.03	-0.00	-0.08	-0.09	0.07*	0.06	0.05	0.03
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)	(0.04)
UBI	-0.08	-0.03	-0.07	-0.07	0.05	0.03	-0.03	-0.02
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Effort	0.03	0.06	-0.05	-0.09	0.06	0.02	0.02	0.05
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Luck	0.00	0.07	-0.09	-0.10*	0.08**	0.02	0.04	0.04
	(0.05)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Indonesia								
Anarchy	-0.19	0.35	-0.21	0.30	-0.10	0.21	0.07	0.25
Tax	-0.05	-0.02	0.01	-0.04	0.07*	0.01	-0.01	-0.03
	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
UBI	0.02	0.05	-0.05	-0.09*	0.07*	0.01	-0.02	-0.00
	(0.05)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
Effort	0.01	0.02	-0.01	-0.09*	0.06	0.03	0.01	0.03
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
Luck	-0.04	-0.02	0.02	-0.04	0.10***	0.01	-0.04	0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
USA								
Anarchy	-0.00	0.64	-0.13	0.36	-0.09	0.14	-0.02	0.17
Tax	0.00	-0.04	0.00	0.01	-0.03	-0.04	0.02	-0.01
	(0.06)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)
UBI	-0.05	-0.06	0.11*	0.16***	-0.04	-0.07**	-0.00	-0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.03)	(0.03)	(0.06)	(0.04)
Effort	0.05	0.06	0.03	0.08	-0.03	-0.04	0.03	-0.04
	(0.06)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.03)
Luck	0.05	0.02	0.13**	0.15**	-0.05	-0.06*	0.02	-0.01
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.06)	(0.04)

Notes: Part 1 data used. Difference estimates presented. the *Anarchy* Treatment is the baseline group. Significance levels $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* Treatment for that country, for a given level of inequality. e.g., conditional on an anti-social payment being made, they are of smaller size in the Effort vis-a-vis Anarchy condition, in Germany, when a B-type is paired with an A-type.

Table I7: Full Inequality Specification. Pro-social Payments. Treatment Differences. Intensive Margin.

	-12.3%	**-7.0%**	**-5.7%**	**-3.0%**	**-2.3%**	**-1.4%**	**-1.0%**	**-0.7%**	**-0.2%**	**0%**	**0.17%**	**0.4%**	**0.5%**	**0.6%**	**0.7%**	**0.75%**	**0.85%**	**0.88%**	**0.93%**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Germany																			
Anarchy	3.74	3.09	3.51	3.19	3.42	2.49	3.53	3.71	2.71	3.03	3.01	3.35	3.69	3.79	3.88	3.86	4.09	4.27	4.65
Tax	-0.95	0.12	-0.62	-0.25	-0.51	-0.11	-0.70	-0.74	0.86	-0.08	-0.27	-0.12	-0.01	-0.11	0.19	0.36	0.17	-0.07	0.07
	(0.61)	(0.94)	(0.70)	(0.43)	(0.46)	(0.61)	(0.43)	(0.49)	(0.93)	(0.35)	(0.42)	(0.34)	(0.27)	(0.43)	(0.27)	(0.22)	(0.41)	(0.32)	(0.25)
UBI	-0.14	0.71	0.14	0.60	0.16	0.08	-0.41	0.33	1.60**	0.21	-0.25	-0.45	0.26	-0.04	0.16	0.09	0.10	-0.17	-0.23
	(0.63)	(1.00)	(0.62)	(0.40)	(0.47)	(0.68)	(0.42)	(0.46)	(0.73)	(0.31)	(0.41)	(0.31)	(0.27)	(0.44)	(0.28)	(0.23)	(0.40)	(0.36)	(0.31)
Effort	-0.49	0.37	-0.89	0.23	-0.61	0.88	-0.09	-0.37	0.84	0.29	0.10	0.38	0.16	-0.10	0.15	0.37	0.73**	0.04	-0.31
	(0.66)	(0.97)	(0.57)	(0.43)	(0.47)	(0.72)	(0.46)	(0.47)	(0.71)	(0.33)	(0.44)	(0.34)	(0.26)	(0.52)	(0.30)	(0.23)	(0.31)	(0.33)	(0.32)
Luck	0.00	0.18	0.81	0.23	0.35	0.17	-0.30	-0.73	0.00	-0.19	-0.26	0.08	0.09	0.30	0.30	0.40*	0.69**	-0.01	-0.32
	(0.93)	(1.16)	(0.67)	(0.48)	(0.50)	(0.83)	(0.50)	(0.48)	(0.74)	(0.34)	(0.39)	(0.35)	(0.27)	(0.36)	(0.27)	(0.22)	(0.35)	(0.32)	(0.30)
India																			
Anarchy	3.04	2.76	3.66	2.95	3.16	2.46	3.26	3.03	2.70	2.88	2.13	3.16	3.47	3.00	3.61	3.38	4.38	3.70	3.72
Tax	0.64	0.67	0.63	0.13	0.01	0.23	-0.25	-0.04	0.26	0.30	0.79	-0.29	-0.45	-0.31	-0.30	-0.53*	-0.98*	-0.57	-0.41
	(0.56)	(0.60)	(0.53)	(0.34)	(0.42)	(0.60)	(0.35)	(0.44)	(0.61)	(0.27)	(0.56)	(0.39)	(0.30)	(0.54)	(0.34)	(0.31)	(0.55)	(0.50)	(0.48)
UBI	0.30	0.11	0.16	0.13	0.24	0.33	-0.50	-0.20	-0.34	0.09	0.63	-0.09	-0.47	0.00	-0.06	-0.16	-1.03**	-0.34	0.21
	(0.68)	(0.63)	(0.54)	(0.35)	(0.44)	(0.67)	(0.33)	(0.46)	(0.62)	(0.29)	(0.61)	(0.38)	(0.30)	(0.57)	(0.33)	(0.31)	(0.44)	(0.49)	(0.48)
Effort	-0.40	-0.13	-0.69	-0.26	-0.28	-0.18	-0.41	-0.02	-0.28	-0.30	0.34	-0.12	-0.46	0.29	-0.39	-0.32	-1.18**	-0.36	-0.01
	(0.58)	(0.58)	(0.57)	(0.33)	(0.43)	(0.56)	(0.34)	(0.42)	(0.68)	(0.26)	(0.62)	(0.39)	(0.32)	(0.57)	(0.34)	(0.32)	(0.50)	(0.47)	(0.44)
Luck	-0.00	0.53	-0.54	0.16	-0.06	-0.13	-0.47	-0.47	0.33	0.29	0.63	-0.21	-0.43	-0.01	-0.44	-0.26	-0.82*	0.00	0.21
	(0.64)	(0.55)	(0.70)	(0.33)	(0.43)	(0.52)	(0.33)	(0.44)	(0.62)	(0.27)	(0.59)	(0.40)	(0.31)	(0.54)	(0.33)	(0.30)	(0.48)	(0.49)	(0.44)
Indonesia																			
Anarchy	3.25	2.49	2.74	3.06	3.08	2.46	2.67	2.67	2.47	2.94	2.85	3.20	3.16	2.87	3.21	3.01	4.23	3.46	3.49
Tax	0.97	1.19**	0.69	0.21	0.37	0.44	0.22	0.62	-0.08	-0.01	0.20	-0.27	0.20	1.40***	0.64*	0.42	-0.15	-0.47	-0.28
	(0.72)	(0.58)	(0.78)	(0.38)	(0.53)	(0.65)	(0.41)	(0.57)	(0.73)	(0.35)	(0.63)	(0.38)	(0.33)	(0.49)	(0.35)	(0.34)	(0.50)	(0.50)	(0.57)
UBI	0.04	0.85	0.33	-0.43	0.15	0.03	-0.11	0.66	-0.41	-0.36	0.42	0.08	-0.23	-0.00	-0.14	0.14	-0.66	-0.43	-0.01
	(0.94)	(1.15)	(0.67)	(0.42)	(0.48)	(0.70)	(0.41)	(0.50)	(0.58)	(0.33)	(0.58)	(0.43)	(0.33)	(0.63)	(0.40)	(0.32)	(0.60)	(0.45)	(0.51)
Effort	0.76	0.99	0.62	-0.01	-0.21	0.18	0.53	0.71	-0.07	0.19	0.21	0.62*	-0.03	0.14	-0.05	0.80***	-0.24	0.25	0.23
	(0.63)	(0.64)	(0.80)	(0.43)	(0.47)	(0.75)	(0.40)	(0.56)	(0.71)	(0.35)	(0.64)	(0.36)	(0.34)	(0.55)	(0.34)	(0.28)	(0.56)	(0.47)	(0.52)
Luck	-0.96	0.45	-0.12	-0.66*	-0.25	0.65	0.13	0.43	0.10	-0.53	-0.46	-0.54	-0.12	-0.22	0.14	0.30	-1.05*	-0.33	0.48
	(0.66)	(0.53)	(0.67)	(0.35)	(0.45)	(0.65)	(0.37)	(0.49)	(0.58)	(0.34)	(0.58)	(0.40)	(0.33)	(0.59)	(0.38)	(0.32)	(0.57)	(0.61)	(0.62)
USA																			
Anarchy	2.92	2.51	2.37	2.64	3.04	2.04	2.57	3.20	2.98	2.92	3.36	3.02	3.25	3.71	3.69	3.71	3.96	4.24	4.59
Tax	0.62	-0.08	1.11*	0.20	0.62	1.52***	0.01	-0.26	-1.11	-0.24	-0.29	0.12	0.44	-0.17	-0.33	0.02	0.05	-0.61	-1.00***
	(0.61)	(0.73)	(0.60)	(0.42)	(0.55)	(0.56)	(0.35)	(0.49)	(0.73)	(0.28)	(0.61)	(0.33)	(0.29)	(0.52)	(0.34)	(0.27)	(0.40)	(0.43)	(0.36)
UBI	0.16	0.30	1.48***	0.53	0.32	2.25***	0.25	0.01	0.18	0.38	0.26	0.12	0.10	-0.62	0.04	0.08	0.06	0.08	-0.13
	(0.54)	(0.67)	(0.53)	(0.37)	(0.44)	(0.48)	(0.37)	(0.42)	(0.69)	(0.28)	(0.59)	(0.33)	(0.30)	(0.52)	(0.32)	(0.26)	(0.45)	(0.36)	(0.33)
Effort	0.74	0.43	1.21*	0.75**	0.71*	0.86*	0.36	0.26	0.28	0.22	0.13	0.26	0.15	0.52	-0.07	0.43*	0.08	0.02	-0.50
	(0.70)	(0.74)	(0.62)	(0.36)	(0.43)	(0.52)	(0.30)	(0.45)	(0.63)	(0.26)	(0.53)	(0.33)	(0.28)	(0.44)	(0.30)	(0.24)	(0.37)	(0.36)	(0.37)
Luck	0.05	1.25**	0.59	0.77**	0.13	1.50***	0.67**	0.11	0.54	0.17	0.00	0.40	0.23	0.01	0.23	0.00	-0.19	-0.34	-0.36
	(0.62)	(0.54)	(0.57)	(0.35)	(0.43)	(0.49)	(0.33)	(0.41)	(0.67)	(0.27)	(0.57)	(0.34)	(0.29)	(0.50)	(0.32)	(0.28)	(0.43)	(0.40)	(0.36)

Notes: Part 1 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. Here, the inequality level is defined as the percentage difference between the participant and their partner's post-shock income. As such, the significance levels $^{***}p < 0.01$,** $p < 0.05$,* $p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for each country, for a given level of inequality. Income, gender and incorrect comprehension coefficients are omitted. Table A8 shows the income levels associated with each inequality fixed effect.

Table I8: Full Inequality Specification. Anti-social Payments. Treatment Differences. Intensive Margin.

	-12.3% (1)	**-7.0%** (2)	**-5.7%** (3)	**-3.0%** (4)	**-2.3%** (5)	**-1.4%** (6)	**-1.0%** (7)	**-0.7%** (8)	**-0.2%** (9)	**0%** (10)	**0.17%** (11)	**0.4%** (12)	**0.5%** (13)	**0.6%** (14)	**0.7%** (15)	**0.75%** (16)	**0.85%** (17)	**0.88%** (18)	**0.93%** (19)
Germany																			
Anarchy	3.32	3.50	3.18	3.19	3.58	2.65	3.73	3.31	3.35	3.29	1.71	2.59	3.24	3.94	3.05	3.48	4.86	1.98	3.10
Tax	-0.68	-1.56***	-0.52	-0.66	-0.82*	0.33	-0.40	-0.26	-0.05	-0.29	2.07***	0.63	-0.69	-1.65**	-0.03	-0.25	-0.62	1.11	0.16
	(0.74)	(0.50)	(0.63)	(0.42)	(0.44)	(0.55)	(0.36)	(0.52)	(0.75)	(0.68)	(0.75)	(0.76)	(0.75)	(0.77)	(0.92)	(0.65)	(0.40)	(1.16)	(1.14)
UBI	-0.17	-0.01	-0.57	-0.44	-0.70	0.93	-0.11	-0.39	-0.61	-0.72	0.79	-0.25	-0.53	0.59	-0.70	-0.94	-2.36***	1.59*	1.69**
	(0.69)	(0.51)	(0.73)	(0.43)	(0.56)	(0.58)	(0.37)	(0.63)	(0.72)	(0.78)	(1.02)	(0.84)	(1.01)	(0.55)	(1.11)	(0.63)	(0.65)	(0.91)	(0.70)
Effort	-0.20	-0.20	0.77	-0.02	-0.23	0.56	-0.17	-0.65	-0.36	-1.37**	0.46	0.11	-0.86	-0.50	-0.49	-0.41	-3.39***	0.99	-1.24
	(0.64)	(0.60)	(0.52)	(0.42)	(0.51)	(0.60)	(0.38)	(0.51)	(0.82)	(0.64)	(0.59)	(0.79)	(0.89)	(0.81)	(0.73)	(0.66)	(0.58)	(1.07)	(0.99)
Luck	-0.23	-0.59	-0.27	0.06	-0.19	-0.02	-0.45	-0.42	0.29	-0.65	1.10	-0.30	-0.38	-1.80**	-0.11	-0.11	-1.01**	-1.98*	0.72
	(0.57)	(0.77)	(0.63)	(0.38)	(0.46)	(0.79)	(0.40)	(0.55)	(0.68)	(0.69)	(1.35)	(1.03)	(0.76)	(0.82)	(0.60)	(0.62)	(0.45)	(1.03)	(0.87)
India																			
Anarchy	4.35	1.62	3.14	3.61	4.22	2.78	3.86	2.53	2.82	3.00	2.69	2.90	2.61	2.99	3.00	2.27	2.54	1.22	2.16
Tax	-1.37**	1.03	0.29	0.00	-0.88*	1.03*	-0.19	1.05*	1.22	0.15	0.90	0.44	0.61	0.46	0.46	0.93*	1.09	1.61**	0.82
	(0.56)	(1.03)	(0.79)	(0.39)	(0.47)	(0.57)	(0.46)	(0.55)	(0.91)	(0.58)	(0.73)	(0.68)	(0.57)	(0.79)	(0.65)	(0.50)	(0.78)	(0.66)	(0.90)
UBI	-0.42	1.36	0.23	-0.13	-0.95*	1.31**	-0.07	0.50	1.20	0.13	0.74	0.73	0.93	0.67	-0.04	1.42***	1.25*	2.36**	1.28
	(0.43)	(1.14)	(0.81)	(0.42)	(0.57)	(0.57)	(0.43)	(0.59)	(1.42)	(0.58)	(0.67)	(0.66)	(0.64)	(0.76)	(0.77)	(0.52)	(0.72)	(0.96)	(0.99)
Effort	-1.61***	0.97	0.08	-0.36	-0.32	0.08	-0.55	0.68	1.65*	0.33	2.08***	-0.46	0.28	-0.13	0.13	0.90	-0.24	2.22***	0.67
	(0.52)	(0.80)	(0.87)	(0.43)	(0.42)	(0.79)	(0.46)	(0.58)	(0.91)	(0.60)	(0.54)	(0.59)	(0.62)	(0.87)	(0.67)	(0.57)	(0.94)	(0.61)	(0.97)
Luck	-0.61	1.83***	-0.93	-0.38	-0.97**	0.80	-0.73	0.90	0.17	0.13	0.43	0.64	0.13	0.17	0.23	0.46	-1.83***	1.37**	1.97**
	(0.53)	(0.70)	(0.90)	(0.41)	(0.47)	(0.61)	(0.50)	(0.58)	(1.05)	(0.58)	(0.71)	(0.66)	(0.53)	(0.91)	(0.59)	(0.58)	(0.52)	(0.58)	(0.86)
Indonesia																			
Anarchy	2.78	3.61	2.76	3.44	2.77	3.71	3.25	3.18	3.58	3.01	2.52	2.88	2.59	1.80	2.94	3.27	2.89	3.30	2.48
Tax	-0.10	-0.75	-1.62**	-0.00	0.20	-0.95*	0.13	0.36	0.43	0.15	-0.03	0.17	-0.15	1.12	0.05	0.11	0.42	-0.71	0.21
	(0.90)	(0.60)	(0.65)	(0.40)	(0.53)	(0.55)	(0.40)	(0.68)	(0.57)	(0.45)	(0.96)	(0.61)	(0.53)	(0.87)	(0.51)	(0.59)	(1.33)	(0.64)	(0.82)
UBI	0.93	-0.74	0.39	-0.43	0.14	-1.00*	-0.99**	0.16	-0.27	-0.76*	-0.39	-0.48	0.33	0.56	-0.39	0.22	-0.32	-1.20*	1.36
	(0.62)	(0.80)	(0.81)	(0.44)	(0.56)	(0.58)	(0.42)	(0.53)	(0.65)	(0.40)	(0.86)	(0.62)	(0.45)	(0.91)	(0.54)	(0.55)	(1.13)	(0.69)	(0.87)
Effort	0.72	-0.76	0.47	0.07	0.67	0.52	0.34	0.71	0.03	0.67*	1.27*	0.33	0.38	2.62***	0.28	0.25	0.87	-0.61	1.07
	(0.68)	(0.73)	(0.72)	(0.42)	(0.51)	(0.78)	(0.43)	(0.48)	(0.75)	(0.40)	(0.77)	(0.67)	(0.56)	(0.48)	(0.66)	(0.54)	(0.87)	(0.83)	(0.78)
Luck	0.86	-0.98	0.01	0.17	0.76	-0.07	0.45	-0.13	0.79	-0.16	0.15	0.05	0.23	0.59	-0.24	-0.71	-0.21	-1.55***	0.40
	(0.75)	(0.90)	(0.84)	(0.39)	(0.48)	(0.67)	(0.40)	(0.55)	(0.61)	(0.40)	(0.80)	(0.56)	(0.47)	(0.91)	(0.53)	(0.52)	(0.79)	(0.58)	(0.76)
USA																			
Anarchy	3.86	3.76	4.37	3.50	3.74	3.16	3.49	3.46	4.20	2.34	3.02	2.56	2.40	1.08	3.20	2.52	4.05	3.56	1.77
Tax	-1.09*	-0.43	-1.89***	-0.33	-0.43	-0.99	-0.48	0.28	0.05	0.06	0.81	0.32	-0.57	-1.08**	0.38	-0.96*	-1.82**	-0.31	1.09
	(0.58)	(0.65)	(0.50)	(0.39)	(0.40)	(0.87)	(0.50)	(0.43)	(1.00)	(0.57)	(1.02)	(1.04)	(0.65)	(0.50)	(0.87)	(0.54)	(0.92)	(0.86)	(1.02)
UBI	-0.42	-0.05	-1.53**	-0.21	-0.54	-0.05	0.51	-0.07	-0.31	0.14	0.05	0.24	0.51	1.24**	0.17	0.86	0.91	-3.56***	0.04
	(0.72)	(0.53)	(0.60)	(0.41)	(0.55)	(0.89)	(0.38)	(0.52)	(0.82)	(0.56)	(0.79)	(0.89)	(1.01)	(0.57)	(0.66)	(0.76)	(0.71)	(0.73)	(0.63)
Effort	-1.11*	-0.55	-1.77***	-0.43	-0.18	-0.24	0.10	0.41	0.72	0.94	-0.52	0.99	0.50	1.55***	0.75	0.28	-2.14**	-2.76***	-1.77***
	(0.64)	(0.61)	(0.54)	(0.39)	(0.47)	(0.89)	(0.41)	(0.49)	(0.73)	(0.65)	(1.02)	(0.63)	(0.75)	(0.52)	(0.76)	(0.63)	(1.04)	(0.83)	(0.62)
Luck	-1.31**	-0.38	-0.98**	-0.00	-0.95**	1.00	0.08	-0.58	-0.83	-0.32	-0.10	0.00	-1.65**	1.02	-0.59	-0.35	-1.49	-1.07	2.19**
	(0.62)	(0.68)	(0.49)	(0.38)	(0.46)	(0.85)	(0.49)	(0.57)	(0.97)	(0.48)	(0.99)	(0.66)	(0.66)	(0.65)	(0.76)	(0.62)	(1.33)	(1.28)	(0.96)

Notes: Part 1 data used. Difference estimates presented. The *Anarchy* treatment is the baseline group. Here, the inequality level is defined as the percentage difference between the participant and their partner's post-shock income. As such, the significance levels $^{***}p < 0.01$,$^{**}p < 0.05$,$^{*}p < 0.1$ refer to the test of equality between treatments with centralized distribution and the *Anarchy* treatment for each country, for a given level of inequality. Income, gender and incorrect comprehension coefficients are omitted. Table A8 shows the income levels associated with each inequality fixed effect.