Choice and personal responsibility: What is a morally relevant choice? *

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Abstract

The principle that people should be held responsible for the consequences of their choices is a fundamental moral ideal in Western societies. We study experimentally how far-reaching this principle is when people consider income inequalities. Specifically, we study whether third-party spectators hold people personally responsible for choices that do not satisfy minimal conditions for personal responsibility commonly argued in the philosophical literature. The paper offers two main findings. First, we find strong evidence of the minimal conditions being violated. If individuals have made a nominal or forced choice, then third-party spectators are significantly more willing to implement an income inequality than in a situation where individuals have not made any choice. Second, we find a political divide between the right and the left in how to understand the idea of personal responsibility. The introduction of a nominal or forced choice has a very strong effect on the redistributive behavior of right-wing spectators, while it does not have a statistically significant effect on left-wing spectators. We argue that these findings shed important light on the present heated political debate on personal responsibility and redistributive policies.

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1 Introduction

The principle that people should be held responsible for the consequences of their choices is a fundamental moral ideal in Western societies, but the interpretation and application of this principle have for centuries been a heated political issue (Greenfield, 2011). In fact, it has been argued that American politics in recent years has become "a personal responsibility" crusade (Hacker, 2006), where for example the significant drop in government transfers to single parents and families with nonemployed members appears to be rooted in the presumption that these groups have not taken personal responsibility for their situation.[1] The principle of personal responsibility has also become a prominent notion in health policy debates in many industrialised countries, where lifestyle-related diseases, including high cholesterol and obesity, contribute importantly to the burden of disease and costs of health-care. Indeed, it has been argued that much of the political discourse on life-style related diseases rests on how to understand personal responsibility (Wikler, 2002; Brownell, Kersh, Ludwig, Post, Puhl, Schwartz, and Willett, 2010).

The political debate on personal responsibility has been mirrored in the philosophical literature, where a common view is that a person is responsible for an outcome to the extent that he or she is causally responsible for it on the basis of an autonomous choice (Vallentyne, 2008). This view outlines two minimal conditions for assigning personal responsibility, *causal responsibility* and *autonomous choice*. In this paper, we examine experimentally whether people respect these minimal conditions when making distributive choices, by studying whether they hold others responsible for the outcome of a choice in situations where these conditions are not met. Specifically, we test whether people satisfy the following restrictions on what is a morally relevant choice for personal responsibility:

- A person **should not be held responsible** for the outcome of a choice if:
  - the person could not have changed the likelihood of the outcome by choosing differently (**no causal responsibility**), or
  - the person could only have avoided the outcome at unreasonably large cost (**no autonomous choice**).[2]

In the experiment, we examine the behavior of third-party spectators who decide whether to redistribute income between two other participants who have done the same

[1] See Robert A. Moffitt's Presidential Address to the Population Association of America "The Deserving Poor, the Family, and the U.S. Welfare System" (Moffitt, 2015).

[2] There is an extensive philosophical literature on how to define an autonomous choice, sometimes referred to as voluntary choice, see for example Scanlon (1998); Olsaretti (2004); Vallentyne (2008). The present study focuses on one aspect of an autonomous choice, that is, whether there is an acceptable alternative to the chosen option in the person's choice set. It is also commonly argued in the philosophical literature that an autonomous choice requires that the person is fully informed and has the capacity to reflect and act upon his or her beliefs, desires and intentions.

task, but have randomly been assigned different earnings. We use a between-individual treatment design, with a *base* treatment and two *choice* treatments. In the base treatment, the participants make no choice and their earnings are determined by a lottery which gives one participant earnings and the other participant no earnings. The spectator then has to decide whether to redistribute income from the individual with earnings to the individual with no earnings. In the choice treatments, the participants make a choice before their earnings are determined, but this choice does not meet the minimal conditions for assigning personal responsibility. In the *nominal choice* treatment, participants choose between two lotteries that are identical ex ante, and thus they are not in a position to change the likelihood of the possible outcomes. Consequently, they are not causally responsible for the outcome. In the *forced choice* treatment, participants choose between a lottery and a safe alternative, where the safe alternative is almost as bad as the worst outcome in the lottery and the expected value of the lottery is 16 times higher than the value of the safe alternative. Participants can thus only avoid the lottery at unreasonably large cost, and, consequently, they have not exercised an autonomous choice when choosing the lottery. In sum, if the spectators endorse the minimal conditions for assigning personal responsibility, then the introduction of a nominal or forced choice should not affect the redistribution decision. In this case, we would expect the same level of income inequality being implemented in the choice treatments as in the base treatment.

The paper offers two main findings. First, we find strong evidence of the minimal conditions for assigning personal responsibility being violated in the experiment. The presence of a forced choice or a nominal choice significantly increases the willingness of spectators to accept income inequality between the participants. The introduction of a forced choice causes an increase in implemented income inequality by almost 60 percent relative to the base treatment, and the introduction of a nominal choice causes an increase in implemented inequality by almost 80 percent. These effects reflect that the spectators transfer less to the person with no earnings, which means that he or she to a greater extent is held responsible for the bad outcome in the choice treatments. Second, we find a strong interaction effect between the spectator's political view and the presence of a choice. The introduction of a nominal or forced choice has a very strong effect on the redistributive behavior of right-wing spectators, while it does not have a statistically significant effect on the left-wing spectators.

The results suggest that the political divide between the right and the left reflects a divide on how to understand the idea of personal responsibility. Left-wing people seem to endorse the minimal requirements outlined in the philosophical literature, while right-wing people seem to have a more far-reaching understanding of the idea of personal responsibility. The distributive behavior of right-wing spectators in our study is consistent with the view that people should be held responsible for the consequences of their choices, as long as it is the case ex post that they could have avoided them by choosing differently and independent of the costs of doing so. In both the nominal and forced choice treatment, it is true ex post that the person with no earnings could have avoided this outcome by choosing differently. It would, however, not have influenced

the ex ante probabilities in the nominal choice treatment, and it would have been extremely costly ex ante to choose the safe alternative in the forced choice treatment. The behavior of the left-wing spectators, on the other hand, is consistent with the view that people should only be held responsible for outcomes for which they are ex ante causally responsible and that derive from autonomous choices.

Our study contributes to the growing literature on how fairness considerations shape individual behavior (Konow, 2000; Cherry, Frykblom, and Shogren, 2002; **?**; Cappelen, Drange Hole, Sørensen, and Tungodden, 2007; **?**; Konow, Saijo, and Akai, 2009; Almås, Cappelen, Sørensen, and Tungodden, 2010; Cappelen, Moene, Sørensen, and Tungodden, 2013b). The main focus in the previous studies has been on distributive behavior in situations where people clearly have made autonomous choices and are ex ante causally responsible for the outcome, and it has been shown that a large majority of people in these cases seem to hold individuals personally responsible for such choices. The present paper is the first study of whether people's views on personal responsibility satisfy the two minimal conditions of autonomous choice and causal responsibility. The paper also relates to the emerging literature on how markets affect moral behavior, where several studies have provided evidence of markets eroding moral behavior (Vohs, Mead, and Goode, 2006; Sandel, 2012; Besley, 2013; Falk and Szech, 2013; Bartling and Weber, 2013; **?**). Our results suggest that the introduction of markets may change people's perceptions of whether individuals are personally responsible for their present situation. A defining feature of any market is that people make choices, and our results therefore suggest that markets may reduce people's willingness to redistribute income, even in cases where individuals' market choices do not meet minimal requirements of autonomy or causal responsibility. Finally, our study relates to the findings in Savani and Rattan (2012), who demonstrate that highlighting the concept of choice makes people less supportive of redistributive policies by activating the belief that life outcomes are caused by individual choices. We show that the presence of choice makes people more willing to accept inequalities even when individuals are not causally responsible for the outcome.

The paper is organized as follows: Section 2 describes the experimental design, Section 3 reports the results, while Section 4 concludes. Additional analysis and the complete instructions are provided in the Supplementary Material.

2 Sample and experimental design

We first describe the experimental procedures and the sample, before we detail the different treatments.

2.1 Experimental procedures and sample

The experiment was conducted in a computer lab using a web-based interface and neither subjects nor experimenters could associate decisions with particular participants.

The incentivised part of the experiment had three phases: a work phase, an earnings phase, and a redistribution phase. In the work phase, the participants worked on a real effort task; in the earnings phase, the payment for the real effort task was determined; and in the redistribution phase, each participant acted as a third-party spectator and decided whether to redistribute earnings between two other participants in the treatment. After the incentivized part of the experiment was completed, we asked the participants to write a short text about what motivated their decision as spectator in the redistribution phase. We also collected background information about age, gender, and political affiliation (i.e., which party they voted for in the last general election). Finally, the participants completed a three-item cognitive reflection test measuring the ability to correct for incorrect intuitive answers through reflection (Frederick, 2005).

All payments were made in cash immediately after the experiment, where special care was taken to ensure anonymity in the payment procedure. The computer assigned a payment code to each of the participants, and a group of assistants who were not present in the lab during the experiment prepared envelopes containing the payments corresponding to each payment code. After bringing the envelopes to the lab, the assistants immediately left and the envelopes were handed out in accordance with the payment codes. This procedure was explained to all participants at the start of the experiment. Average payment was 475 NOK (approximately 135 USD), including a 100 NOK show-up fee.

We recruited a total of 422 participants from the general student population enrolled at the University of Bergen and at the Norwegian School of Economics. At the beginning of the experiment, each participant was randomly assigned to one of three treatments. The participants were on average 22.7 years, 54% were males, and they scored on average 1.6 out of 3 on the cognitive reflection test. 41% of the participants self-reported to support one of the two right-parties in Norway, which is close to the distribution of votes in the last election in Norway. The treatments were balanced with respect to gender, age, cognitive reflection, and party affiliation.[3]

2.2 Base treatment

In the work phase, the participants worked on a descrambling real effort task. The participants were given sets of five words, for example "IS, SALTY, SKY, THE, BLUE", and the task was to make a sentence using four of the words. The participants were asked to work continuously on this task for 30 minutes. There was no production requirement and the participants were not informed that they would be paid for their work.

In the earnings phase, the participants were informed that they would be paid for taking part in the work phase. In the base treatment, each participant was told that his or her earnings would be determined by a lottery in which a ball would be randomly

[3]Further details on the background information are provided in Figure S1 and Table S1 in the Supplementary material.

drawn from an urn containing an equal number of yellow and green balls. If a yellow ball was drawn, the participant would earn 800 NOK and if a green ball was drawn, the participant would earn 0 NOK. Importantly, in the base treatment, the participants were not asked to make any *choice* and differences in earnings were therefore entirely a result of luck. The participants were also told that there would later be a redistribution phase, but no further details were provided about the redistribution phase at this point.

In the redistribution phase, two participants, a lucky and an unlucky participant in the lottery, were anonymously paired, such that the earnings distribution in the pair was always (800,0). All participants then made a spectator decision for two other participants, where they could transfer any amount of the lucky participant's earnings to the unlucky participant. If a spectator decided not to transfer any money to the unlucky participant, the lucky participant would be paid 800 NOK and the unlucky participant 0 NOK for the task.[4]

2.3 Treatment variations

The two choice treatments only differ from the base treatment in the earnings phase of the experiment, and Figure 1 provides a sequential form game representation of how the earnings were determined in each of the three treatments.

[Figure 1 about here]

In the *nominal choice* treatment, earnings were determined by the same lottery as in the base treatment, but the participants had to choose whether the yellow or the green ball should give earnings. The two alternatives in the choice set, yellow and green, provided ex ante identical prospects, and thus the participants faced a nominal choice.[5] The participants could not reduce the likelihood of the bad outcome by making a specific choice, and, importantly, the inequality in earnings was therefore also in this treatment entirely a result of luck. In the *forced choice* treatment, the participants could, as payment for their work, choose between taking part in the same lottery as in the base treatment or receiving a fixed payment of 25 NOK. The expected value of the lottery, 400 NOK, was 16 times higher than the value of the safe alternative, and the safe alternative only provided a payoff that was slightly higher than the bad outcome in the lottery. We thus consider the participants in this treatment to exercise a forced choice when accepting the lottery, since they could only avoid the lottery at unreasonably large cost.[6]

[4] If more than one spectator made a decision for a pair of participants, we randomly selected one of the spectator decisions and paid out accordingly. All spectators had taken part in the same treatment as the two participants for which they made a decision, but they did not receive any information about their own earnings before they made the spectator decision.

[5] 69 participants chose the yellow ball, 71 participants chose the green ball.

[6] The lottery is clearly preferable to anyone who is not extremely risk averse. Four out of 137 participants chose the safe alternative, these four individuals were not matched with anyone in the redistribution phase and therefore received 25 NOK for the task.

To summarize, in the redistribution phase, the spectators in all treatments had to determine whether to redistribute from a lucky participant with earnings of 800 NOK to an unlucky participant with earnings of 0 NOK. The only difference between the base treatment and the choice treatments was that the spectators in the choice treatments were informed that the participants had made a choice in the earnings phase and the nature of this choice.

3 Results

We first provide an overview of the spectator decisions. Figure 2 shows histograms of the amount transferred from the lucky participant to the unlucky participant in all three treatments. We observe that 67 percent of the spectators choose to equalize income between the lucky and the unlucky participant in the base treatment. This fraction falls significantly in the nominal choice and forced choice treatments, to 42 percent and 47 percent ($p < 0.01$ and $p = 0.01$). We also observe that about 10 percent of the participants in the base treatment do not transfer anything to the unlucky participant, a share that increases to about 20 percent in the nominal choice and forced choice treatments ($p = 0.036$ and $p = 0.056$).

[Figure 2 about here]

To study how the introduction of a forced or nominal choice affects the level of inequality implemented by the spectator, we introduce the following measure of inequality between the two participants:

$$\text{Inequality} = \frac{|\text{Income Lucky } - \text{Income Unlucky }|}{\text{Total Income}} \in [0,1]$$

.

This inequality measure is equivalent to the Gini coefficient in the present set of distributive situations and takes the value one if the spectator decides not to transfer anything to the unlucky participant and the value zero if the spectator equalizes and transfers 400.[7]

Figure 3 shows the average income inequality implemented in the three treatments

[Figure 3 about here]

In the base treatment, we observe significant redistribution; the average level of income inequality implemented by the spectators is about 0.2. This shows, in line with previous research, that most spectators view income inequality due to luck unfair when

[7]Ten spectators (2.4 percent of the sample) give more to the unlucky participant than to the lucky participant in the nominal and forced choice treatments. In Table S2 in the the Supplementary Material, we show that our results are robust to excluding these spectator choices.

people have done the same work, but also that a non-negligible fraction of the participants hold others responsible for the outcome of lotteries (Cappelen, Sørensen, and Tungodden, 2010; Almås et al., 2010; Cappelen, Konow, Sørensen, and Tungodden, 2013a). The introduction of a forced choice causes a large increase in inequality acceptance; average income inequality implemented by the spectators in the forced choice treatment is almost 60 percent higher than in the base treatment ($p < 0.01$). Even more strikingly, we find that the introduction of a nominal choice increases income inequality by almost 80 percent ($p < 0.01$).

Table 1 presents the corresponding linear regression results, where the dependent variable is the level of inequality implemented by the spectator or an indicator variable taking the value one if the spectator has given nothing to the worse off. In both cases, we observe that the estimated treatment effects are significant and robust to the inclusion of a set of background variables. The regression results therefore clearly demonstrate that the introduction of a forced or nominal choice strongly affects the extent to which the spectators hold the participants responsible for the outcome, which means that many spectators violate the minimal conditions for assigning personal responsibility. From the estimated effects of the background variables, we also observe that the spectator behavior is strongly associated with political views and gender; left-wing spectators and females implement significantly less inequality and are more likely to assign some income to the worse off. There is no significant relationship between spectator behavior and their age or performance on the cognitive reflection test.

[Table 1 about here]

In light of the heated political debate on personal responsibility, it is interesting to study whether the effect of introducing a nominal or forced choice is related to the political views of the spectator. In Table 2, we report linear regressions using the same set of dependent variables as in Table 1, but introduce an interaction variable between being in one of the two choice treatments and being left-wing.[8]

[Table 2 about here]

From columns (1)-(3), we observe that there is a strong choice treatment effect on the level of inequality implemented by the right-wing spectators; the average level of inequality increases from 0.21 in the base treatment to 0.46 in the choice treatments. In contrast, the introduction of a forced or nominal choice does not have an economically or statistically significant effect for left-wing spectators and the interaction effect

[8]Left-wing is in our analysis defined as not supporting one of the two right-wing parties. Our results are robust to also including the liberal party (Venstre) in our definition of right-wing parties in Norway. Tables S3 and S4 in the Supplementary Material show that the heterogeneity results on political affiliation are robust to using separate interaction variables for the forced choice treatment and the nominal choice treatment and to the introduction of interaction variables for gender, age, and performance on the cognitive reflection test. In Table S4, we also observe that there is a gender difference in the treatment effect, but no effect of age or the score in the cognitive reflection test.

between being left-wing and being in one of the choice treatments is highly significant. The same picture emerges in columns (4)-(6), where we observe that the share of right-wing spectators giving nothing to the worse off increases from 12.1 percent in the base treatment to 29.1 percent in the choice treatments, while there is no statistically significant increase for left-wing spectators. Finally, we note that the political divide in spectator behavior is in how they respond to the presence of a choice, there is no significant difference in the redistributive behavior between left-wing spectators and right-wing spectators in the baseline treatment.

4 Conclusion

The present study reports from an experiment designed to investigate what people consider a morally relevant choice when assigning personal responsibility. We find that the fact that individuals have made a nominal choice or a forced choice causes third-party spectators to implement a significantly more unequal distribution of income. At the end of the experiment, the participants were given an open-ended question about what motivated their spectator decision. In Figure 4, we report by treatment the share of spectators that implemented an unequal distribution of income and justified this by reference to the choices made by the individuals. As expected, no one in the base treatment referred to choice when motivating their spectator decision, but a large share did so in the nominal choice and forced choice treatments: 20.0 percent and 22.8 percent ($p < 0.001$). Thus, both the distributive behavior and the stated motivation suggest that a significant share of the spectators violate the minimal conditions for assigning personal responsibility commonly defended in the philosophical literature: that people should only be held responsible for autonomous choices and outcomes for which they are causally responsible.[9]

[Figure 4 about here]

We also find a significant political divide in how to understand personal responsibility. In our study, we find a strong effect on the right-wing spectators of introducing a nominal or forced choice, but no statistically significant effect on left-wing spectators. This political divide on how to understand personal responsibility may contribute

[9]We cannot rule out that some spectators believed that the participants were causally responsible for the bad outcome, in line with the classical findings in social psychology on overattribution of responsibility when explaining the behavior of others (Heider, 1944; Jones and Davis, 1965; Kelley, 1967; Lagnado, Gerstenberg, and Zultan, 2013; Langer, 1975; Langer and Roth, 1975; Ross, 1977). For example, it might be that some spectators in the nominal choice treatment believed that participants actually could control the winning color in the lottery and therefore held individuals responsible for the outcome. We do not, however, find any evidence of such beliefs in the open-ended responses. It is also very hard to see how such beliefs should originate in the forced choice treatment, where we observe the strongest treatment effect, since the participants in this treatment only made a choice about whether or not to participate in the lottery.

to explain why the right and the left often have very different views on whether poor people are responsible for their situation, in line with what has been suggested in the philosophical literature "...the dispute between the Left and the Right about whether workers are forced to take hazardous jobs is the result of a failure to see that *both* Left and Right are right, insofar as workers are free, as well as forced, to take hazardous jobs...Workers are free to take hazardous jobs - they are not prevented from taking those jobs - and yet, because, *ex hypothesi*, they take them *because* they have no acceptable alternative, they are also forced to take them, that is, their choice to take those jobs is not a voluntary one" (Olsaretti (2004), p. 181). Whether people consider a person free or forced to take a hazardous jobs is likely to determine whether they hold him personally responsible for the consequences of taking this job, and thus whether they find this person deserving of assistance if he ends up in a bad situation (Greenfield, 2011). Our findings highlight that the disagreement between the left-wing and the right-wing about whether people are deserving of assistance is about more than whether they *are* causally responsible for their situation or *have* exercised an autonomous choice, it is also about whether causal responsibility and autonomous choice *should be* minimal conditions for assigning personal responsibility.

An interesting avenue for future research is to study more broadly the notion of an autonomous choice and implications for personal responsibility, including how people assign personal responsibility when individuals have incomplete information or have been nudged in a particular direction in their choices (Sunstein and Thaler, 2008). The idea of individual choice is extremely powerful in modern societies, and thus it is of great importance to understand how it shapes our distributive behavior and our policies.

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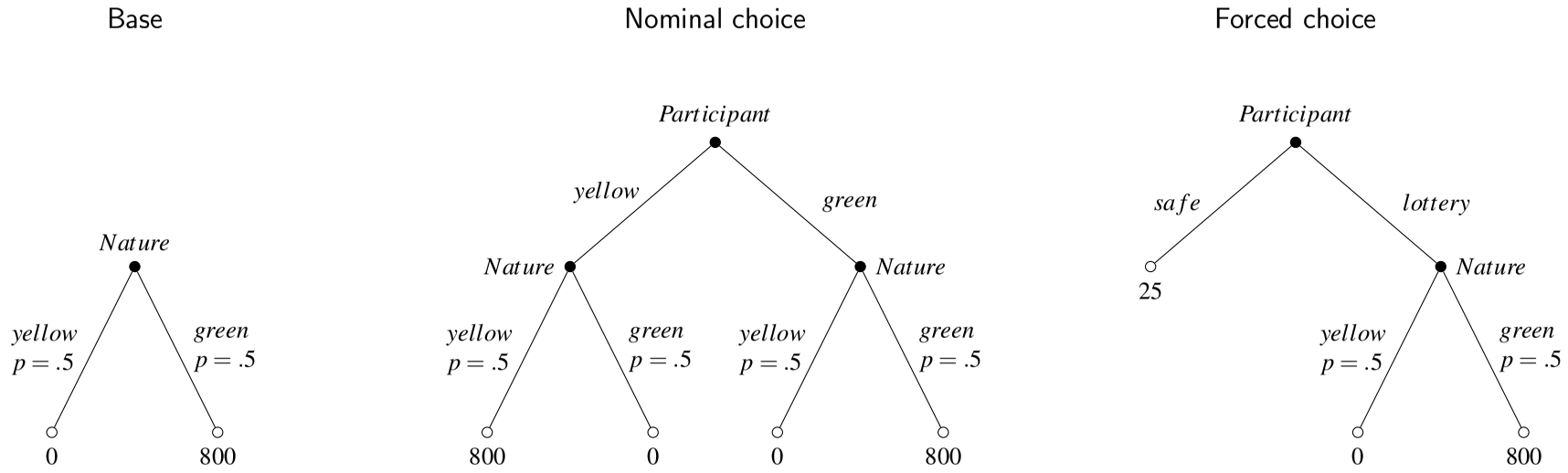
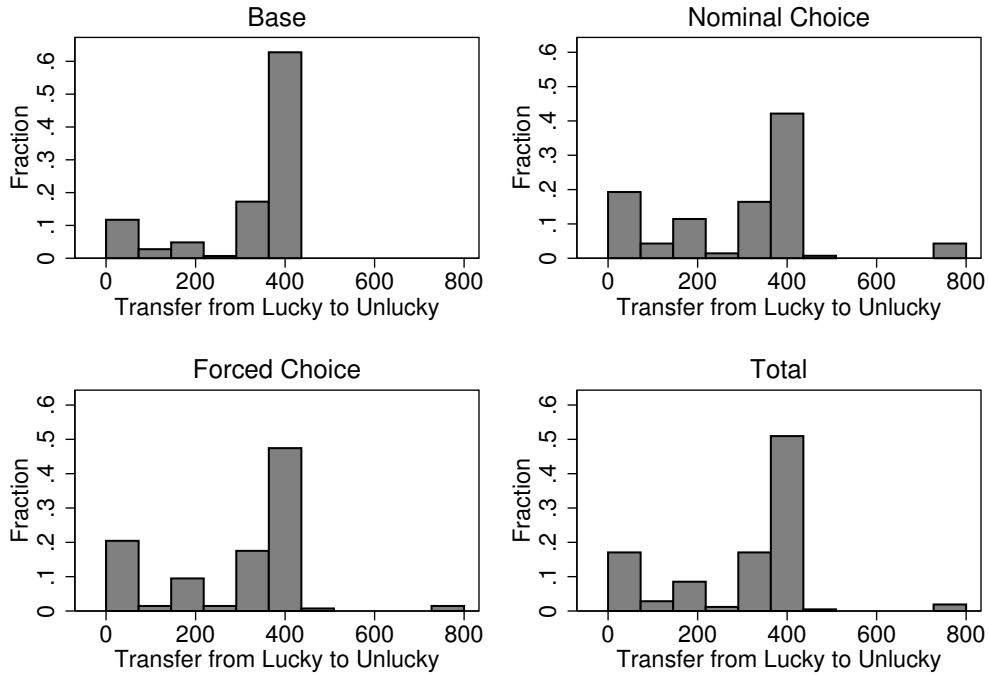
Figure 1: Game trees - earnings phase



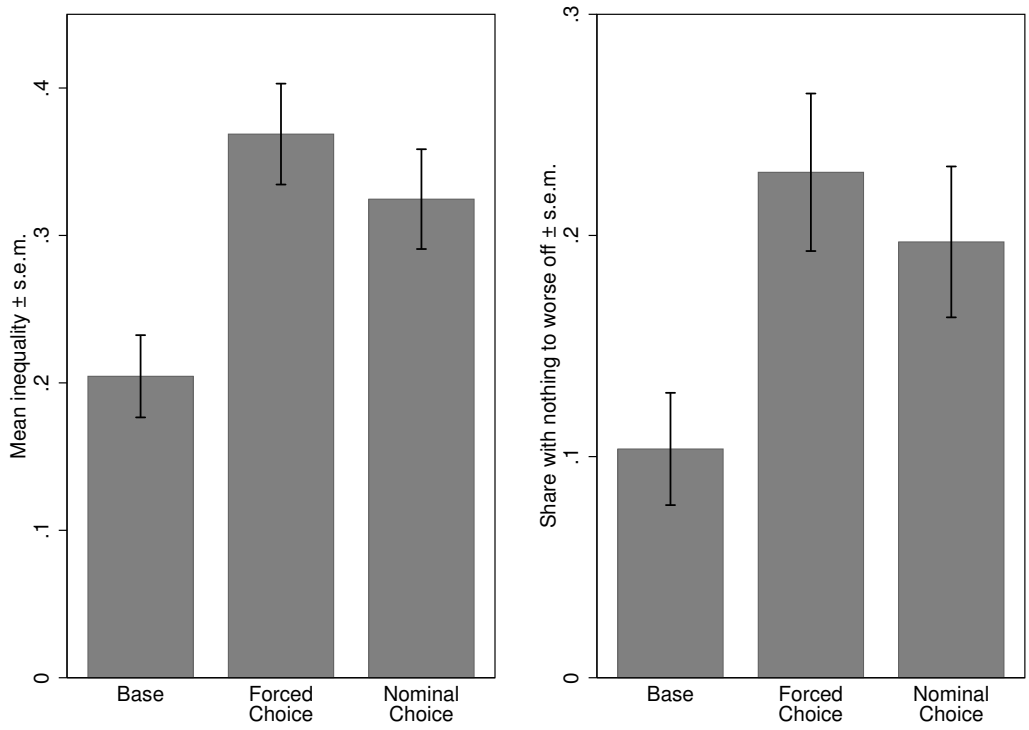
Note: The figure shows the sequential form game representation of how the earnings were determined in each of the three treatments in the experiment.

Figure 2: Histograms of transfer to the unlucky participant



Note: The figure shows histograms of the amount of money transferred from the lucky to the unlucky participant by the spectator in each treatment and in all treatments combined.

Figure 3: Inequality implemented by the spectator



Note: The left panel shows the average inequality implemented by the spectators in each treatment, the right panel shows the share of spectators assigning no income to one of the participants in the pair in each of the treatments. The standard errors of the mean are indicated.

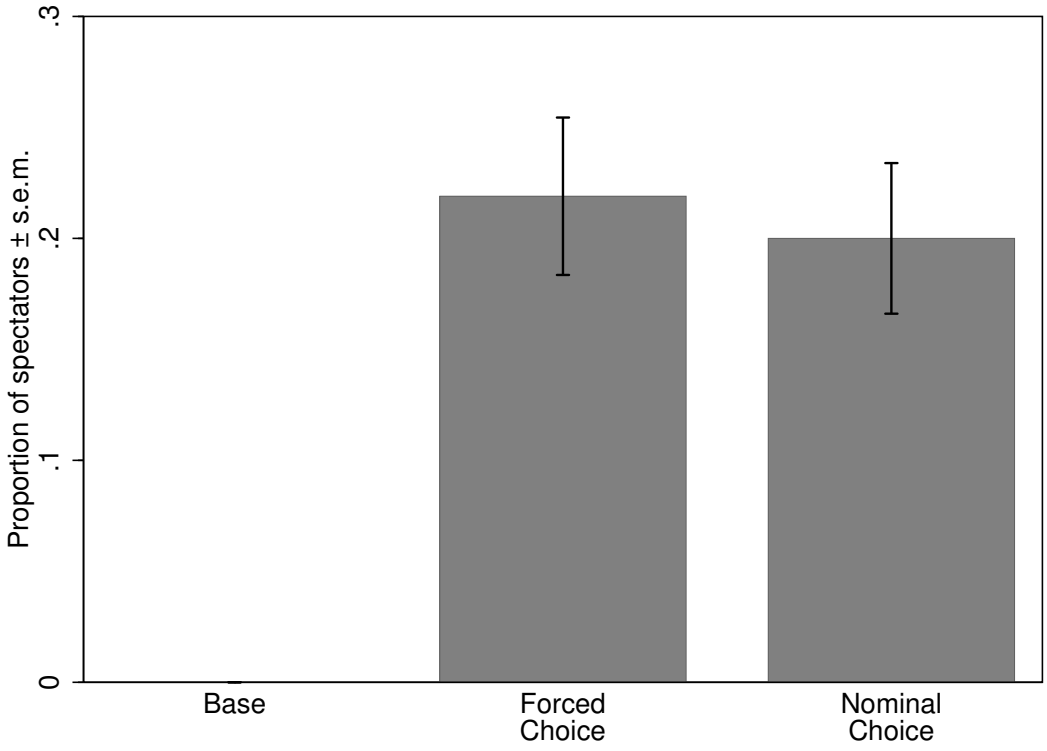


Figure 4: Motivation of distributive choice

Note: The figure shows the fraction of spectators that appeal to 'choice' when motivating their distributive decision in the experiment. The standard error of the mean is also indicated.

Table 1: Regression analysis: The role of choice

	Inequality		Nothing to worse off	
	(1)	(2)	(3)	(4)
Nominal Choice	0.164***	0.163***	0.125***	0.128***
	(0.044)	(0.044)	(0.044)	(0.043)
Forced Choice	0.120***	0.125***	0.094**	0.101**
	(0.044)	(0.044)	(0.043)	(0.042)
Left-wing		-0.115***		-0.075**
		(0.037)		(0.037)
Female		-0.108***		-0.159***
		(0.040)		(0.039)
Age		0.017		0.051
		(0.037)		(0.036)
Cognitive reflection		0.001		0.009
		(0.040)		(0.039)
Constant	0.204***	0.310***	0.103***	0.182***
	(0.028)	(0.051)	(0.025)	(0.047)
Observations	422	422	422	422
R^2	0.033	0.081	0.020	0.086

Note: The table reports linear regressions of the variable "Inequality" (columns (1) and (2), measuring the inequality implemented by the spectator) and of the indicator variable "Nothing to the worse off" (columns (3) and (4), taking the value one if the spectator does not assign any income to one of the participants) on a set of explanatory variables. "Nominal Choice": indicator variable taking the value one if the spectator is in the Nominal Choice treatment. "Forced Choice": indicator variable taking the value one if the spectator is in the Forced Choice treatment. "Left-wing": indicator variable taking the value one if the spectator self-reports that he or she voted for a non-right-wing party in the last election . "Female": indicator variable taking the value one if the spectator is a female, "Age": indicator variable taking the value one if the spectator's age is at or above the median (22 years), and "Cognitive Reflection": indicator variable taking the value one if the spectator's score in the cognitive reflection test is at or above median (2 out of 3 points). Robust standard errors in parentheses ($* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$).

Table 2: Regression analysis: Political preferences and choice

	Inequality			Nothing to worse off		
	(1)	(2)	(3)	(4)	(5)	(6)
Choice	0.139***	0.243***	0.258***	0.107***	0.170***	0.191***
	(0.037)	(0.058)	(0.058)	(0.035)	(0.060)	(0.058)
Left-wing	-0.132***	-0.016	0.012	-0.098**	-0.029	0.010
	(0.037)	(0.057)	(0.058)	(0.038)	(0.053)	(0.053)
Left-wing × Choice		-0.175**	-0.192**		-0.106	-0.129*
		(0.075)	(0.074)		(0.074)	(0.072)
Constant	0.284***	0.214***	0.240***	0.163***	0.121***	0.135**
	(0.036)	(0.045)	(0.056)	(0.035)	(0.043)	(0.053)
Other background variables	No	No	Yes	No	No	Yes
Linear combination of Choice and Left-wing × Choice		0.068	0.066		0.064	0.063
		(0.047)	(0.047)		(0.042)	(0.043)
Observations	422	422	422	422	422	422
R^2	0.059	0.071	0.093	0.035	0.039	0.092

Note: The table reports linear regressions of the variable "Inequality" (columns (1)-(3), measuring the inequality implemented by the spectator) and of the indicator variable "Nothing to the worse off" (columns (4)-(6), taking the value one if the spectator does not assign any income to one of the participants). "Choice": indicator variable taking the value one if the spectator is in the Nominal Choice or Forced Choice treatment. "Left-wing": indicator variable taking the value one if the spectator self-reports that he or she voted for a non right-wing party in the last election. "Left-wing × Choice": interaction between "Left-wing" and "Choice". Other background variables are "Female": indicator variable taking the value one if the spectator is a female, "Age": indicator variable taking the value one if the spectator's age is at or above the median (22 years), and "Cognitive Reflection": indicator variable taking the value one if the spectator's score in the cognitive reflection test is at or above median (2 out of 3 points). Robust standard errors in parentheses ($* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$).