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Tax or Beg?
Mandatory Payments to Charity and their Effects on Donor Behavior

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Abstract

In an experiment on giving to charity, we investigate the effects of imposing a small, medium and large linear income tax where tax revenue and donations both go to the same good cause. We find that the small tax crowds out donations from male participants to the extent that total contributions to the cause are reduced. This result contradicts economic reasoning but can be explained using psychological reactance theory (Brehm, 1966). Interestingly, the charity tax crowds in donations from female participants.

Key Words: charity, donations, taxation, gender

JEL Classification: D64, H24, H30, H41

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1 Introduction

Charitable organizations' income derives from various sources – directly through voluntary donations provided by individual people on the one hand, and indirectly through funds provided by the state on the other. It is perhaps natural to wonder why the state is required to finance these organizations when it is individual people who vote for government in the first place and pay for its spending via their taxes. To what extent do charities benefit from such government intermediation? In several European countries, a small charity tax forms an integral part of standard fiscal policy.[1] The purpose of the present study is to ask whether such mandatory payments to charity lead to higher contributions than would do a system of purely voluntary donations. Put shortly, should we let government tax or charities beg?

In practice, we observe further fiscal intervention related to donations. In Germany, for example, donors may reclaim tax paid on the income they have donated to registered charities. In the UK, the "Gift Aid" scheme allows charities themselves to reclaim tax paid on the income donated to them by basic-rate tax payers.[2] Andreoni (1990) offers a rational explanation for the existence of such fiscal incentives for donors. Assuming people derive additional utility from the act of donating voluntarily (they experience the "warm glow" of giving), charity revenues will be higher through subsidies to voluntary donations than via the equivalent compulsory charity tax.

Our study involves a laboratory experiment that compares a system of voluntary donations with a compulsory charity tax at various rates. We set no explicit incentives to donate. Indeed, in the absence of subsidies, Andreoni (1990) would not predict any difference in total contributions (voluntary donations plus charity-tax revenue) between the systems for pure altruists as long as the tax does not exceed their desired level of contributions. The tax would merely crowd out the voluntary part of contributions. For impure altruists who experience warm glow, the introduction of a tax should only increase total contributions as they are unwilling to substitute

[1] In Germany, Finland and Sweden, the state levies additional tax from church members. In Italy and Spain, there exist similar regimes but taxpayers can opt for their money to be spent on nonreligious causes. Charity tax rates range from 0.8% to 2.5% of income.

[2] See Heinzel (2004) for some further examples of European tax-relief systems with regard to charitable spending.

all of their voluntary donations with the tax. They would continue to donate on top of the tax in order to continue experiencing warm glow.

We are not the first to investigate the effects of different fiscal systems on the propensity to donate within an experimental setting. Andreoni (1993) himself found that taxing contributions to the public good crowded out voluntary contributions incompletely, by less than three quarters. Bolton and Katok (1998) used a dictator game to elicit donor preferences which also turned out to be in accordance with warm glow theory. However, their study focused on altruism between experiment participants rather than on donations to charitable organizations. More recently, researchers in the field of neuroscience have been concerned with motives for charitable giving. Harbaugh et al. (2007) report "larger activation in reward-related areas [of the brain] when executing a charitable transfer, over and above what occurs in an analogous mandatory transfer, even after controlling for the payoffs associated with subject choices." Although our results gain some plausibility in light of this study, it is based on observations of just nineteen subjects.[3]

Our experiment is most closely related to Eckel et al. (2005). They compare donations when donors are taxed at two different, positive tax rates, across two frames, one where the tax is called as such, and the other where it is masked as a contribution to the charity from the experimenter, as a model of fiscal illusion. Subjects' voluntary donations are crowded out by the higher tax in the transparent setting but not when the frame is opaque – hence the subjects are successfully illuded. Our design sets itself aside from Eckel et al. (2005) in three key ways. First and foremost, it is not about fiscal illusion. Our no-tax treatment is just that; there really is no tax. In the tax treatments, the charity tax is always referred to as a tax in order to preclude framing effects. Second, we make our subjects work for the money from which they can donate rather than simply paying them for turning up.[4] Indeed, 12.5% of our subjects fail to complete a sufficient number of tasks satisfactorily and are consequently unable to donate. Third, we choose different tax rates, setting them to 2%, 8% and 30%, rather than replicating

[3] A potential weakness in the design by Harbaugh et al. (2007) is that they did not implement separate tax/no-tax treatments. Subjects switched between mandatory and voluntary transfers, which presumably made the aim of the experimenters quite obvious to them. In addition, there was no free choice on the actual amount to be donated.

[4] This represents a more general departure from typical designs of experiments on charitable giving.

the rates of 10% and 25% in the above-mentioned experiments. The aim here is to see if particularly small or large tax rates make a difference. In their experiment on work incentives, Gneezy and Rustichini (2000) report that while effort is positively related to the level of the reward, the very introduction of monetary compensation has a negative effect on performance. Similarly, we hypothesize that introducing a small charity tax actually decreases total charity revenue as people react adversely to being constrained to contribute a minimum amount to the charity. Indeed, on average, voluntary donations under our small tax are crowded out by more than one hundred percent.[5] Only higher tax rates, while also crowding out voluntary donations, guarantee charity revenues to equal those achieved under the tax-free system.

The paper is structured as follows. We begin with a simple model to analyze the economic-theoretical impact of changes in the tax rate on contributions to the cause. We next distinguish between high and low taxes, deriving a counter-hypothesis from psychology. We then consider gender effects based on previous findings in the literature. In Section 3 we introduce our experimental design and in Section 4 we present and discuss our results, before concluding and proposing an extension to our experimental design in Section 5.

2 Theoretical Basis

2.1 A Simple Economic Model

We first present a simple economic model and show that a donor who cares about a good cause is indifferent between whether money destined for the cause is transferred via a tax on income or through a voluntary donation.[6] We assume that an exogenously determined level of income $w > 0$ is earned and that a lump-sum tax $t \in [0, w]$ is levied on this income. The tax revenue goes to a good cause. On top of this, the donor may make a voluntary

[5] This result holds exclusively for male participants.

[6] The model is similar to Andreoni (1990) where individuals are considered to derive extra utility from the act of giving voluntarily. He refers to "warm glow" and labels such donors "impure altruists". However, in our model we only allow for pure altruism. It is also different in that utility is based simply on contributions from a donor to her chosen good cause. We assume that she has no information about transfers from other donors to this cause and that their contributions to the "public good" do not affect her utility.

donation v to the same good cause. The total contribution to the cause is thus $c = v + t$. The donor derives positive utility from personal consumption of net income x and from her total contribution to the cause c. The donor's utility function is concave in both parameters: $U(x, c)$, $U_x \geq 0$, $U_{xx} < 0$ and $U_c \geq 0, U_{cc} < 0$. In addition, her marginal utility from personal consumption is positive at the point of no consumption $U_x(0, \cdot) > 0$.

Under the charity tax, the donor decides on the voluntary donation that maximizes utility subject to her budget constraint,

$$\begin{aligned} &\max_v U(x, c) \\ \text{s.t.} \quad &v \geq 0 \\ &x + c = w. \end{aligned}$$

Substituting $c = v + t$, we have

$$\begin{aligned} &\max_v U(w - v - t, v + t) \\ \text{s.t.} \quad &v \geq 0. \end{aligned}$$

We now distinguish between two cases. In the first case, marginal utility from voluntary donations at the point of zero voluntary donations is less than or equal to marginal utility from personal consumption. This could be either because the donor is selfish in not wanting to contribute anything to the cause or because the charity tax at this point is already equal to or above the amount the donor would optimally allocate to the cause. We then obtain the corner solution with an optimal voluntary donation of zero $v^* = 0$. In the second case, where marginal utility from voluntary donations at the point of zero voluntary donations is positive, we have an interior solution $v^* > 0$ characterized by the first-order condition[7]

$$\begin{aligned} &\frac{dU}{dv} = 0 \\ \Leftrightarrow &-U_x + U_c = 0. \end{aligned} \tag{1}$$

We thus state our first theoretical result.

[7] See the Appendix for proof.

Proposition 1 *For $U_x(w-t,t) < U_c(w-t,t)$, donors give $v^* > 0$ voluntarily at the point where marginal utility from consumption equals marginal utility from total charitable contributions $U_x = U_c$. Otherwise they donate nothing $v^* = 0$.*

Applying the implicit function theorem, we obtain

$$\frac{dv}{dt} = -1. \tag{2}$$

Voluntary donations and mandatory tax contributions are thus perfect substitutes for each other. We now examine what happens when the tax level is changed,

$$\begin{aligned} c &= v(t) + t \\ \Rightarrow \frac{dc}{dt} &= -1 + 1 = 0. \end{aligned}$$

Our second theoretical result is summarized as follows.

Proposition 2 *Given a positive optimal voluntary donation $v^* > 0$, any small change in the charity tax will be compensated for by an adjustment in the voluntary donation such that total contributions remain unaffected $\frac{dc}{dt} = 0$.*

Changing the tax level will not influence total revenue to the good cause as the donor adjusts her voluntary donation accordingly. At the point where the voluntary donation has been totally crowded out by the tax we again obtain the corner solution $v^* = 0$ and any further increase in the tax will enforce a level of contributions which is suboptimal for the donor. None of these shall then be voluntary. Based on the assumptions of this economic model, it may be inferred that a charity-tax system would be superior to a system of purely voluntary donations in terms of total contributions. We hence present our first hypothesis to be tested in the experiment.

Hypothesis 1 (economics)

A compulsory charity tax generates total contributions from donors equal to or above those generated by a system of voluntary donations.

2.2 Psychological Reactance Theory

In this subsection, we adopt an alternative approach from psychology to argue that our first hypothesis should only hold for a sufficiently large charity tax. In his theory of "psychological reactance", Brehm (1966) supposes that individuals enjoy specific freedoms regarding how to behave and suggests that if such a freedom comes under threat, a desire to reinstate the freedom is experienced. Examples of observed behavior in line with this theory range from children who refuse to eat vegetables when forced to but readily do so when vegetables are presented to them as a delicacy available only to adults, to politicians who deliberately change their course of action solely to demonstrate that they are fully capable of making their own decisions.[8] Applying psychological reactance theory to our comparison of a compulsory charity tax with a system of voluntary donations, we derive predictions that conflict with the economic reasoning in Subsection 2.1. Given the choice, individuals would prefer not to be forced to support a cause through a tax. Where voluntary donations are still possible in combination with the charity tax, donors may use these to demonstrate their frustration with the tax. Deeming themselves capable of deciding how to allocate their own income, they will react adversely to the tax by reducing the total contributions made to the cause through lower voluntary donations. When the tax rate is sufficiently low, i.e. the forced contribution is less than what the individual would contribute within a purely voluntary system, the introduction of this tax may hence lead to lower total contributions. We therefore hypothesize that small charity taxes crowd out voluntary donations by more than one hundred percent. Only when the charity tax is sufficiently large does it generate higher total contributions than a system of purely voluntary donations.

Hypothesis 2 (psychology)

(a) A small compulsory charity tax generates lower total contributions from donors than a system of voluntary donations.

(b) A large compulsory charity tax generates higher total contributions from donors than a system of voluntary donations.

[8] See Brehm and Brehm (1981) for further examples.

2.3 Gender Aspects

Previous research on charitable giving has shown that men and women often differ in their generosity. There is mixed evidence in the economics literature on giving regarding differences between the sexes.[9] In the context of dictator games such as in our experiment, Bolton and Katok (1995) find no gender difference whereas Eckel and Grossman (1998) report giving by female subjects to be double that of their male counterparts. Andreoni and Vesterlund (2001) obtain a more complex result whereby whether male or female donors are more generous depends on the price of giving (men are more responsive to changes in price). Kamas et al. (2007) find that in anonymous individual giving to charity, women donate more than men, but when women are able to negotiate the amount to be donated with men, the latter increase their donations.[10] We base our third hypothesis on the sum of these findings, i.e. if there is a general trend, it is that women tend to be more generous than men.

Hypothesis 3 (gender)

On average, female participants donate more than male participants.

Having established our hypotheses, we next present the design of the experiment.

3 Experimental Design

The experiment was programmed and implemented using z-Tree (Fischbacher, 2007) version 3.2.6 and is subdivided into four treatments. The first of these is the no-tax treatment while in the remaining three a linear charity tax on income is levied at 2%, 8% and 30%, respectively.

One hundred and twenty individuals, mostly students on various courses at the University of Cologne, Germany, were recruited to four experimental sessions, two in June 2007 and two in October 2007 at the Cologne Lab-

[9] See Cox and Deck (2006) for a comprehensive overview.

[10] Negotiation may not always lead to increased charitable giving. Using US survey data on the donor behavior of married couples, Andreoni et al. (2003) find that those who bargain give significantly less compared to situations in which decisions are made by a single spouse.

oratory[11] using ORSEE (Greiner, 2004).[12] Each participant was allocated a computer booth randomly upon arrival at the laboratory. Once all the participants were seated, the experimenter thanked them for coming and informed them that they would be working for money and that they would be able to donate a part of their earnings to a good cause. They were also told not to communicate with fellow participants. The rest of the instructions appeared on the computer screens as they varied by treatment and all four treatments took place simultaneously in each session in order to control for any session effects that might arise.[13]

In each treatment, subjects were provided with the descriptions of six charities in print form and were first instructed to read them.[14] They were then required to select one of the charities to which they would be able to donate any money they earned in the experiment. After having selected a charity, they were informed of the tasks they should perform in order to earn the fixed amount of €10 on top of the show-up fee of €2.50. These tasks involved adding or subtracting the sums of the digits in two twelve-figure numbers, depending on their relative size. A minimum of five correct answers over a period of fifteen minutes was required to earn the €10. Two simple examples were displayed on the screen and the subjects were provided with

[11] The Cologne Laboratory for Economic Research. For more information, see http://www.lab.uni-koeln.de/rs/public/index.php?language=en.

[12] This system provides for the selection of potential participants according to various criteria such as age, gender, university course, etc. The only two restrictions imposed on the invitations to this experiment were (a) that the invitees had not previously applied for participation in other experiments and then not shown up and (b) that they had not previously participated in experiments with the same real-effort task. There was no mention of charity or the opportunity to donate in the invitations. In all, 140 individuals were invited (35 per session); those turning up first were allowed to participate and the remainder (up to 5 people per session) were denied participation and paid €2.50 for showing up. This is standard procedure in Cologne in order to ensure punctuality and avoid empty seats for no-shows. See the Appendix for the demographics of those who actually participated.

[13] Translations of the instructions are included in the Appendix. Since there were thirty participants per session and thirty is not divisible by four, sessions alternated between treatment formations of 8-8-7-7 and 7-7-8-8. That is, in two sessions, eight participants were allocated to the no-tax treatment, eight to the 2% treatment and seven to each of the 8% and 30% treatments. In the other two sessions, this pattern was reversed.

[14] Eckel et al. (2005) also had their subjects pick a charity from a list. Our charities were preselected from participating organizations at the Cologne Volunteer Day ("Kölner Ehrenamtstag") held on 24 September 2006. They range in scope from local to international, covering areas from health to the environment (see Figure 1). None of them has an overtly religious background.

pens and paper to assist them in their calculations.[15] Before the fifteen-minute period of work began, subjects were informed of their respective fiscal settings and the possibility to donate from their after-tax income. Those in the no-tax treatment were simply told that they would earn €10 upon fulfilling the minimum requirement and that they would be able to donate any amount from this to their designated charity at the end of the fifteen-minute period. Those in the treatments with 2%, 8% and 30% tax rates were informed that they would earn €10 upon fulfilling the minimum requirement and that €0.20, €0.80 and €3, respectively, would be levied as a tax from this income and paid to the charity of their choice.[16] In addition, they would then be able to donate any amount from the remainder (€9.80, €9.20 and €7, respectively) to their designated charity at the end of the fifteen-minute period.[17] Once all the participants had clicked a button to acknowledge that they had understood the instructions, the fifteen-minute period started simultaneously for all treatments.

At the end of the fifteen minutes, the subjects were informed of their earnings. Unsuccessful participants were told that they had unfortunately failed to achieve the minimum number of five correct answers, informed that they would be paid €2.50 and asked to remain seated to fill in a questionnaire at the computer. Successful subjects were told that they had achieved the minimum of five correct answers and informed of their gross earnings and any charity-tax deduction. They were then asked to choose how much to donate on top of this by entering an amount between €0 and their post-tax income. After having made their choice, they were presented with a table outlining their earnings, tax contribution and voluntary donation as well as the show-up fee of €2.50 and the amount they would be paid in cash. They were also asked to remain seated to fill in a questionnaire.

The questionnaire appeared on the screens once all successful subjects had decided how much to donate. It contained both general questions on personal characteristics as well as specific questions tailored to the actual performance of and decisions made by the individual participants over the

[15] The use of calculators was not permitted.

[16] The designated charities were named at this stage to reassure the subjects that their choice of organization had been registered.

[17] In compliance with laboratory regulations, all subjects were informed that they would be paid an additional €2.50 for showing up to the experiment, regardless of their performance in the fifteen-minute period, but that they would not be able to donate from this amount within the framework of the experiment.

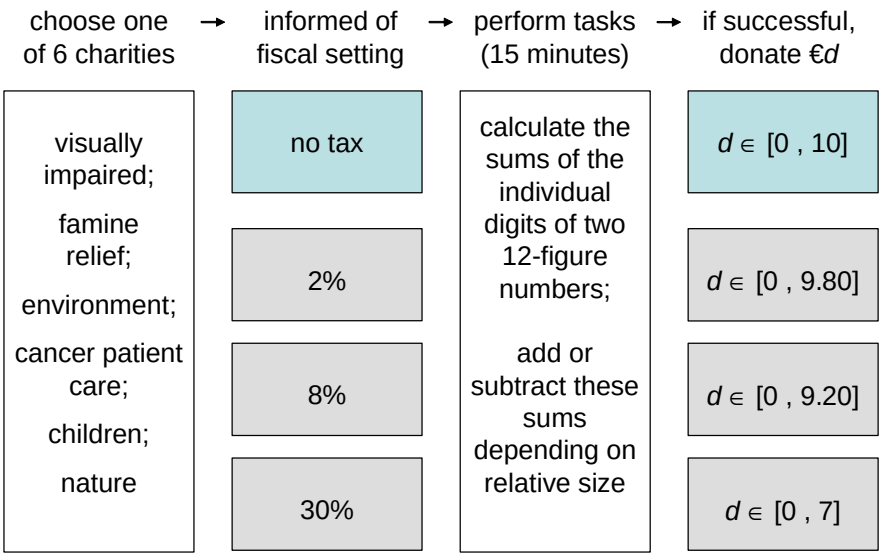

Figure 1: Experimental Design

course of the experiment. Once this had been completed, subjects were called up individually by booth number to collect their cash and, insofar as tax had been levied and/or money had been donated, a form signed by the experimenter confirming the name of the charity and the amount (tax plus donation) to be donated to the charity. Donations were then pooled by charity and paid by bank transfer to the respective charities in two payment stages, one after the two sessions in June and the other after the two sessions in October.

4 Experimental Results

4.1 General Results

Of the 120 participants, 105 managed to achieve the minimum number of five correct answers and earn the €10 from which to donate. While this leaves us with a reduced total number of observations of (potential) donors, it is also an indication that subjects actually had to work for their money. Figure 2 shows the mean average contributions.

At first glance, it would seem that the economic model does not do too badly in predicting total contributions across the no-tax and low-tax (2%

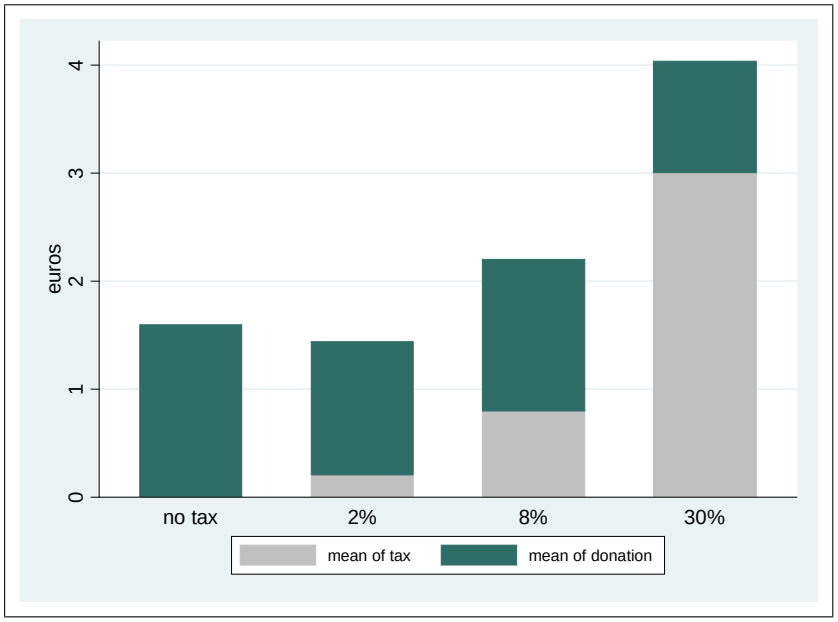

Figure 2: Mean Contribution by Tax Rate; $n = 105$

and 8% tax) treatments as mean contributions are comparable.[18] It does not predict the donations on top of the 30% tax, although there is at least some crowding out of donations here.[19] The 30% tax does generate significantly higher total contributions than the no-tax treatment.[20] Overall, we may be tempted to accept Hypothesis 1, and we can certainly provide evidence to support Hypothesis 2(b).

However, these aggregated data do mask existing differences between the treatments that appear on closer inspection of the respective distributions of donations in the data. Figure 3 displays the range of contributions by treatment. The dotted lines represent the median contributions while the boxes include all values between the 25th and 75th percentiles. Whiskers mark the 5th and 95th percentiles, respectively, and the small circles depict outliers. First, note that the distributions of contributions in the tax treatments are compressed relative to the distribution in the no-tax treatment.

[18] Nonparametric comparisons of total contributions in the 2% and 8% tax treatments with those in the no-tax treatment reveal no significant difference. See the Appendix for details of the nonparametric tests.

[19] Note that the fact that we still find positive donations with the 30% tax is in line with warm glow theory (Andreoni, 1990).

[20] A Fligner-Policello test comparison of both treatments results in a probability of error of less than 0.1%.

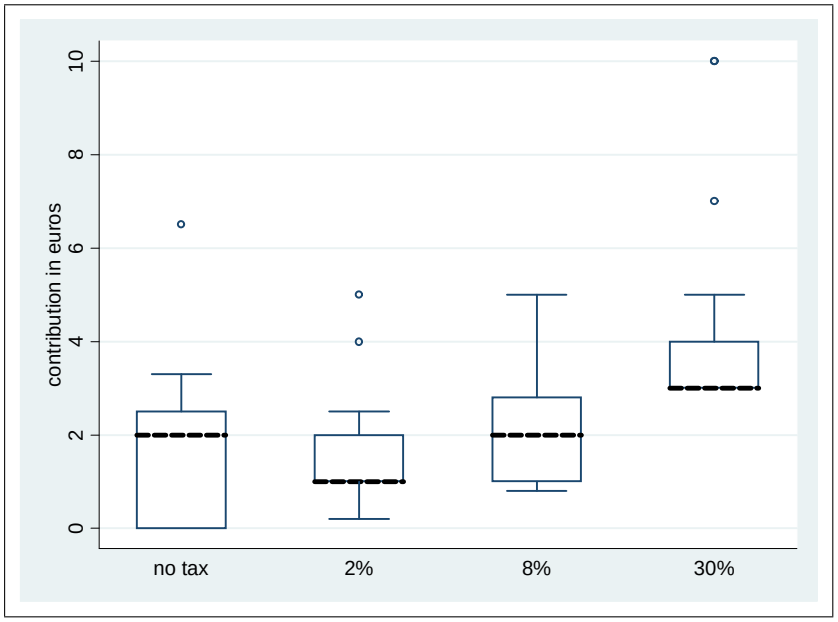

Figure 3: Box Plot of Contribution by Tax Rate; $n = 105$

Indeed, we would expect this from the economic theory in Subsection 2.1 as total contributions are limited at the bottom by the tax itself while crowding out pulls the distribution downwards. Yet in relative terms, there are more cases of zero voluntary donations in the no-tax treatment, which contains 24 observations, than in either of the 2% or 8% tax treatments, which contain 26 and 27 observations, respectively. There, the 25th percentile is at the higher level of €1 rather than the lower bounds of €0.20 and €0.80. This is in part due to preferences for round numbers among those toward the lower end of the distribution.[21]

Note that the median contribution in the 2% tax treatment at €1 is a whole euro lower than in the no-tax treatment. Although this difference is not statistically significant,[22] it is still worthy of mention. Neither the economic model presented in Subsection 2.1 nor warm glow theory (Andreoni,

[21] Reasons for the actual amounts donated were solicited from participants donating positive amounts via an open question in the questionnaire. If anything related to round numbers formed part of the answer, a dummy variable *roundnum* was set to one. While there were no reports from those donating amounts less than or equal to €1 in the no-tax treatment, between 35% and 45% of those donating similar small amounts in the 2% and 8% tax treatments did report such preferences.

[22] A test for a higher median contribution in the no-tax treatment relative to the 2% tax treatment reveals a probability of error of 13% (one-tailed test).

1990) can explain it. Rather, it represents support for Hypothesis 2(a) derived from the psychological theory in Subsection 2.2.[23] Given that we have drawn participants from the same distribution (they were recruited from the same subject pool and allocated randomly to the treatments), what we observe is crowding out of voluntary donations by the 2% compulsory tax of well over 100%. In the following subsections we stratify the data by gender to reveal a significant difference between male and female donor behavior by tax treatment and analyze this over-crowding out in some more detail.

4.2 Results by Gender

In our experiment, similarly to some of those discussed in Subsection 2.3, we find no significant difference between male and female giving at the aggregate level, meaning we cannot reject the null of Hypothesis 3. Mean voluntary donations are €1.34 and €1.26, respectively, with female subjects displaying higher variance in their donor behavior. However when we look at the figures by tax treatment, the story changes somewhat. Figure 4 shows the mean

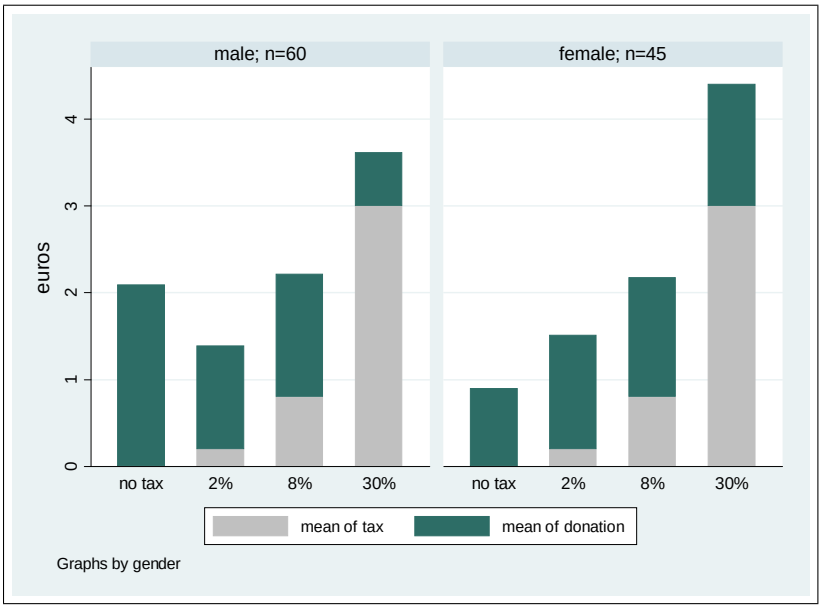

Figure 4: Mean Contribution by Tax Rate and Gender

average contributions by gender. While donations in the 2% and 8% tax

[23] See the Appendix for comments made by participants that are in line with this theory.

treatments do not differ much between the sexes, differences are apparent in the no-tax and 30% tax treatments. Indeed, it would appear that a charity tax even tends to crowd *in* donations by female participants. As

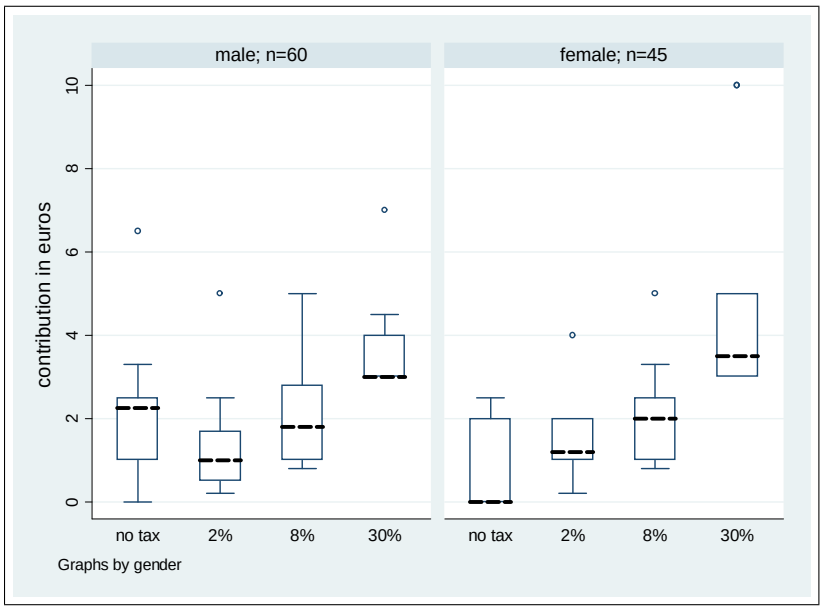

Figure 5: Box Plot of Contribution by Tax Rate and Gender

may be seen in the box plot in Figure 5, the higher mean donation by female subjects in the 30% tax treatment is driven mainly by outliers (two generous undergraduate female participants donated fully €7 on top of their €3 tax).

The most important gender difference is to be found in the no-tax treatment. Male participants here donate an average of €2.09, which is more than double the mean female donation of €0.90. This difference contradicts Hypothesis 3 and is statistically significant at the 5% level.[24] Why should we observe this stark contrast between the sexes, or in other words, what might cause such a quirk of "genderosity"?

We return to the psychological theory presented in Subsection 2.2, which already explains why there can be more than 100% crowding out of voluntary donations when comparing the no-tax to the 2% tax treatment. In further

[24] See the Appendix for a Fligner-Policello test of higher contributions from males than from females in the no-tax treatment. The null hypothesis of equal contributions from males is rejected ($p = 0.013$).

work on psychological reactance, Regan and Brehm (1972) report differences between male and female reactance in an experiment on shopping for bread. They found that while men were susceptible to persuasive messages to buy a particular brand, women reacted to such messages by deliberately buying the other brand, despite being shown to be indifferent between the brands in the control group. It is proposed that when people differ in the perception of their competence to exercise a particular freedom, they react differently to threats to this freedom. The blunt conclusion from the shopping experiment is that the women there felt more competent than the men in choosing which bread to buy. Applying psychological reactance theory in an attempt to explain our experimental results, it could be that gender affects reactions to the constraint of having to give at least some money to the charity and not being free to decide how to spend all of one's money oneself. If women are more resolved or perceive more of a duty to donate to charity than men, they are perhaps less likely to be put off by the constraint. They may however react more than men to anything that appears to demean the value of their voluntary gift. In a recent experiment on blood donations, Mellström and Johannesson (2008) investigated the effect of introducing a monetary incentive on the intention to donate. While the payment had no effect on male intentions, female participants were significantly less inclined to make a blood donation for money. When offered the choice between taking the money for themselves and transferring it to a charity, female intentions were reinstated to the levels of those female participants not receiving any monetary incentive. It would seem that gender effects depend very much on context and that it is difficult to generalize our results to anything other than forced versus voluntary contributions of money to charity.

4.3 Regression Analysis

In the previous subsections we have tested each of our hypotheses in isolation using nonparametric methods, simply considering whether there is any difference in total contributions between the treatments and between the sexes. Here, we investigate the effects of the charity tax on crowding in/out voluntary donations in greater detail, testing all our hypotheses simultaneously, with particular attention to gender differences. The variable that we now seek to explain in the analysis is the voluntary donation rather than the total contribution.

Using linear regression, we wish to calculate an overall rate of crowding out and predict what might happen to donor behavior for all feasible tax rates within the range of 0% to 30%, based on our data for 0%, 2%, 8% and 30% tax rates. We are particularly interested in estimating the level of tax at which donations would hit zero, so that total contributions at and beyond this tax level would simply consist of the tax. We might think of this tax level as the amount that the average (male) participant is willing to pay for charitable causes. We first perform OLS regression on the data. However, this method underestimates crowding out as it does not take into account the fact that donations cannot be negative. To overcome this problem, we run a Tobit regression that censors the observations at both maximum and minimum donations. In doing so, we obtain a more realistic estimate of crowding out, effectively allowing for the fact that some participants would have preferred to give less than the €3.00 charity tax imposed on them. The results from these regressions are presented in Table 1. Note that when we do not control for gender, we find no significant effect of tax on donations between the tax and no-tax treatments, underlining our results from the nonparametric tests in Subsection 4.1. Stratifying the sample by gender, we reconfirm (albeit weak) crowding in effects of the tax for female participants.

Table 1: Donations as a Function of the Charity Tax

	OLS				Tobit$^{(2)}$	
	donation		*donation*		*donation*	
tax (euros)	−0.14	(0.14)	**−0.37****	(0.14)	**−0.69****	(0.27)
female			−0.54	(0.34)	**−0.82***	(0.49)
tax·female			**0.46***	(0.27)	**0.75***	(0.45)
constant	**1.45*****	(0.18)	**1.69*****	(0.25)	**1.59*****	(0.30)
R^2	0.01		0.04		0.02	
observations	105		105		105	

Notes:

(1) Robust standard errors in parentheses.[25]

(2) Tobit: 31 left-censored, 2 right-censored observations; R^2 is pseudo R^2.

(3) *, ** & *** denote statistically significant difference from zero at the 10%, 5% & 1% levels.

[25] We present robust standard errors here on account of the observed heteroscedasticity in Figure 5.

The *tax* coefficients in Table 1 represent estimates for $\frac{dv}{dt}$ from our economic model (see equation (2)). Both the OLS and the Tobit estimates with absolute values of less than one indicate that overall the tax only incompletely crowds out male donations. The Tobit regression is also presented graphically alongside the actual donations in Figure 6.[26] As can be seen here, based on the Tobit estimates, donations would become zero at a tax level of roughly €2.30. In other words, the average male participant in our experiment was ready to give about 23% of the money he earned to the charity.

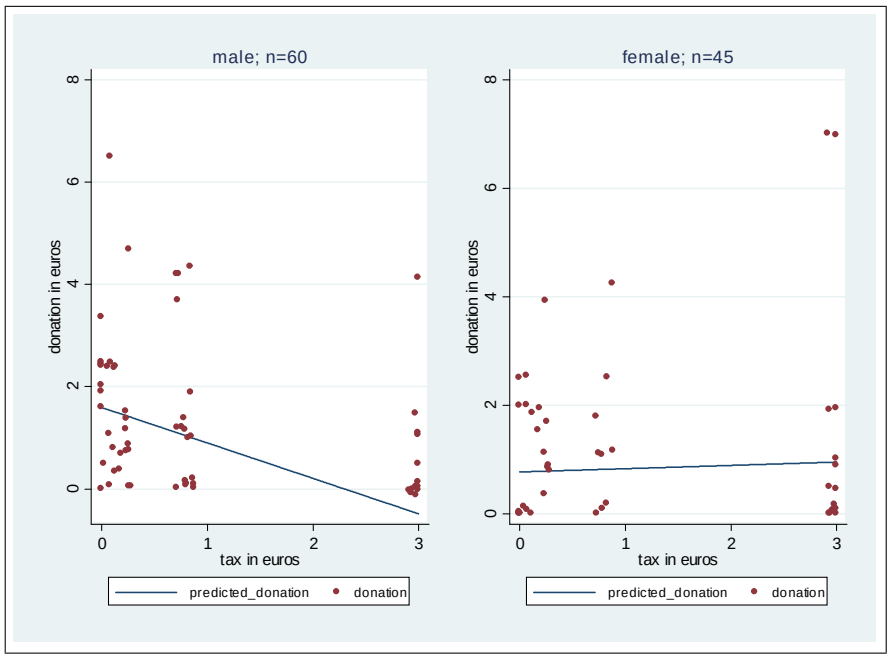

Figure 6: Tobit Donation Predictions by Tax and Gender

While the regressions in Table 1 are informative in the sense that we can attempt predictions of what participants may donate under charity tax rates other than those tested in the experiment, they are also flawed because our data are concentrated toward the lower end of the range (€0.00 to €0.80 tax). We therefore turn to binary controls for each of the treatments and then interact each of these with gender. This enables us to quantify crowding in/out of donations by the specific charity tax rates more accurately.

[26] The dots representing actual donations have been jittered in the graphs so as to disclose multiple cases of the same donation.

The results from these OLS and Tobit regressions are presented in Table 2. Again, when we do not control for gender, we find no significant difference in donations between the tax and no-tax treatments. However, when the sample is stratified by gender, a clearer picture emerges. The coefficient estimates for *0.20t* tells us that male participants donate €0.91 less when they pay the €0.20 charity tax than they donate in the no-tax treatment.[27] In other words, the 2% tax crowds out voluntary donations from male participants by roughly 450%. Females who are subject to the 2% tax behave in a completely different way, increasing their donations by €0.41 with respect to female participants without the tax, representing crowding in of over 200%, according to the OLS estimates. While the coefficients for the 8% tax are not statistically significant, they point in the same directions as those for the smaller 2% tax, for both sexes.

Table 2: Donations by Tax Treatment

	OLS				Tobit$^{(3)}$	
	donation		*donation*		*donation*	
0.20t	−0.36	(0.38)	**−0.91***	(0.54)	−0.92	(0.62)
0.80t	−0.19	(0.42)	−0.68	(0.58)	−0.80	(0.68)
3.00t	−0.56	(0.48)	**−1.48*****	(0.54)	**−2.41*****	(0.85)
female			**−1.19****	(0.57)	**−2.01****	(0.94)
0.20t·female			**1.32***	(0.72)	**2.19****	(1.08)
0.80t·female			1.15	(0.81)	**2.11***	(1.16)
3.00t·female			**1.98****	(0.90)	**3.34****	(1.54)
constant	**1.60*****	(0.32)	**2.09*****	(0.44)	**1.94*****	(0.50)
R^2	0.02		0.07		0.03	
observations	105		105		105	

Notes:

(1) Base group: *no tax* *no tax & male* *no tax & male*

(2) Robust standard errors in parentheses.

(3) Tobit: 31 left-censored, 2 right-censored observations; R^2 is pseudo R^2.

(4) *, ** & *** denote statistically significant difference from zero at the 10%, 5% & 1% levels.

[27] Note that although the estimate for *0.20t* in the Tobit regression would not normally be regarded as statistically significant, it is not far off ($p = 0.14$) and is indeed similar in size to the corresponding OLS estimate.

The results for the 30% tax are statistically significant. As already mentioned in Subsection 4.2, the positive coefficient for the variable *3.00t·female* is driven mainly by two outliers. For male participants, we observe incomplete crowding out of voluntary donations. The average donation by men in the no-tax treatment is €2.09, less than the tax of €3.00, so it would not be possible to witness 100% crowding out when comparing both treatments. Yet our Tobit estimate predicts that the average male participant paying a charity tax of €3.00 would actually prefer a rebate of €0.47 on his payment. There is still 80% crowding out of male voluntary donations by the large tax.

We designed the experiment specifically to investigate the effect of a small, a medium and a large charity tax on donor behavior. We have established for male participants that the small 2% tax crowds out donations by more than the value of the tax revenue, thus doing more harm than good in terms of total contributions. Although the 30% tax only partially crowds out (male) donations, it has a stronger absolute negative effect on donations compared to the smaller taxes.

We now consider briefly the impact of the charity tax at the various rates on the decision to donate, running probit regressions and again stratifying the data by gender.

Table 3: Probit Regressions

	$\Pr\{donation > 0\}$			
	male sample		female sample	
0.20t	0.01	(0.18)	**0.40****	(0.12)
0.80t	−0.10	(0.18)	**0.36****	(0.11)
3.00t	**−0.48****	(0.19)	0.11	(0.17)
observed probability	0.73		0.67	
predicted probability	0.76		0.71	
pseudo R^2	0.14		0.18	
observations	60		45	

Notes:

(1) Figures reported are estimated marginal effects relative to *no tax*.

(2) Robust standard errors in parentheses.

(3) ** denotes statistical significance of the underlying coefficient at the 5% level.

The estimates in Table 3 show that a small tax does not deter the male

participants from voluntarily donating money altogether in the same way that the large tax does. A male participant paying the 2% charity tax is just as likely to make a positive voluntary donation as his counterpart in the treatment without tax (86% probability), whereas a male participant in the 30% tax treatment is only likely to donate on top of the tax with 38% probability. Yet as the OLS and Tobit results show, the 2% tax does reduce the size of male donations, to the extent that total contributions are smaller relative to a system of purely voluntary donations. Regarding female participants' decision to donate voluntarily, the story is in line with the previous regressions. The predicted probability for a positive donation without a charity tax is a mere 40%, but this increases significantly with the 2% and 8% tax rates. In other words, the tax would seem to encourage female participants to donate.

5 Conclusion and Outlook

Having set out to see if a charity tax generates higher contributions than a system of purely voluntary donations, we have found mixed evidence. At the aggregate level, tax crowds out donations by less than the one hundred per cent predicted by our economic model. Indeed, this would suggest that a model with warm glow (Andreoni, 1990) better describe donor behavior. The high tax of 30% certainly serves to increase charity revenue. Yet our small tax of 2%, which is in fact more comparable to charity tax rates that exist in the real world, actually lowered total contributions to the charities, doing more harm than good and providing support for the notion of psychological reactance among the male participants. Of course our results are only based on incomes of €10 so it would be premature to interpret them in terms of charity tax incidence for the whole economy. Nevertheless, the participants in the experiment did have to earn their money and from their comments in the questionnaire it would seem that they took their decisions on the amount to donate seriously and with care. If the results did hold for larger incomes, the message from this study regarding charity taxes might be in the spirit of Gneezy and Rustichini (2000), "tax enough or don't tax at all".

Our findings regarding gender are complex and harder to explain. We are not able to reject the null hypothesis of no significant difference between

male and female donations overall, and in contrast to other experimental studies on giving, we have found that male participants actually donate significantly more than their female counterparts in a setting without tax. We are not the first to witness the crowding in of donations by government intervention, indeed a strand of the literature on charity is devoted to "matching donations", see e.g. Karlan and List (2007). Yet why this should only be the case for women remains curious and perhaps deserves more attention in future research.[28]

Finally, one question that our experimental design does not tackle is what happens when the existing fiscal regime is changed. Participants in our experiment were only subject to one fiscal setting. A follow-up experiment might entail three working periods, with the opportunity to donate earnings at the end of each period. Allowing participants to choose the amount freely in the first period, constraining them to a minimum contribution in the second and then withdrawing this constraint in the final period would provide the possibility to gauge the consequences of reducing state intervention in charitable giving.

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[28] See Alesina et al. (2007) for an interesting discussion of why it may be legitimate to differentiate fiscal policy according to gender.

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6 Appendix

6.1 Two Solutions to the Donor's Maximization Problem

Here, we distinguish between two cases for solving the donor's maximization problem and demonstrate that we either obtain the corner solution with a zero voluntary donation $v^* = 0$ or an interior solution with a voluntary donation $v^* > 0$.

6.1.1 Corner Solution $v^* = 0$ if $\frac{dU(x,c)}{dv}\Big|_{v=0} \leq 0$

We first show what happens if at the point of zero voluntary donations, marginal utility from donating is less than or equal to zero $\frac{dU(x,c)}{dv}\Big|_{v=0} \leq 0$.

The donor decides on the voluntary donation that maximizes utility subject to her budget constraint,

$$\begin{aligned} &\max_{v} U(x,c) \\ \text{s.t.} \quad &v \geq 0 \\ &x + c = w. \end{aligned}$$

Substituting $c = v + t$, we have

$$\begin{aligned} &\max_{v} U(w - v - t, v + t) \\ \text{s.t.} \quad &v \geq 0. \end{aligned}$$

In this case,

$$\frac{dU(x,c)}{dv}\Big|_{v=0} \leq 0 \Leftrightarrow \frac{dU(w-t,t)}{dv} \leq 0.$$

This is equivalent to

$$\begin{aligned} &-U_x(w-t,t) + U_c(w-t,t) \leq 0 \\ &\Leftrightarrow U_x(w-t,t) \geq U_c(w-t,t). \end{aligned} \tag{3}$$

The donor's marginal utility from personal consumption is at least as large as her marginal utility from the total contributions she makes to the cause. At this point, she would (weakly) prefer to spend her income on personal consumption. Since donations are constrained to be nonnegative, utility is maximized by donating nothing and we have the corner solution $v^* = 0$.

6.1.2 Interior Solution $v^* > 0$ if $\frac{dU(x,c)}{dv}\Big|_{v=0} > 0$

In this case, the inequality (3) becomes

$$U_c\left(w-t,t\right) > U_x\left(w-t,t\right).$$

Here, the donor's marginal utility from the total contributions she makes to the cause is greater than her marginal utility from personal consumption. The tax alone does not cover the total amount the donor wishes to contribute to the good cause so at this point, she prefers to donate a positive amount from her income rather than spending it on personal consumption. Since by assumption, $U_c \geq 0$ and $U_{cc} < 0$, and $\frac{dc}{dv} = 1$, we have an interior solution to the maximization problem $v^* > 0$ that is characterized by the first-order condition $\frac{dU}{dv} = 0$.

6.2 Participant Demographics

The following table presents a break-down of the participant demographics by treatment. Note that in the left-hand column "Total" represents the whole sample of 120 participants, while the individual treatment columns only contain data from those participants who succeeded in earning the money to donate.

	Total *n* = 120	**no tax** *n* = 24	**2%** *n* = 26	**8%** *n* = 27	**30%** *n* = 28
Average Age (Std. Dev.)	24.0 (3.30)	23.6 (2.16)	24.8 (3.40)	24.0 (4.81)	23.1 (1.88)
Female	55	10	11	9	15
Business/Economics	72	14	14	20	18
Natural Sciences	10	4	3	1	1
Humanities	14	3	2	3	5
Graduate	69	16	16	15	13
Charity Member (present)	23	7	4	5	2
Charity Member (past)	12	4	1	1	1
Regular Donor	26	6	8	4	3
Never Donated	23	1	5	6	7
C = visually impaired	7	1	1	3	1
C = famine relief	22	5	5	7	2
C = environment	10	2	0	3	3
C = cancer patient care	27	6	7	5	8
C = children	41	7	11	7	10
C = nature	13	3	2	2	4

Figure 7: Participant Demographics by Treatment

6.3 Experiment Instructions

6.3.1 Welcome Screen

Hello and welcome to this experiment!

Please read the following instructions for this experiment carefully. The experiment will only begin when every participant has read the instructions and clicked on the "start" button.

In this experiment you will have the opportunity to earn money. You will be able to donate part of this money to a charity. Please have a look at the information sheet provided to see the list of charities from which you may choose, including descriptions of what each one stands for.

This experiment will be run in an anonymous way. The other participants will not know about your decisions either during the experiment or when you collect your payment. Communication with fellow participants is not allowed. If you have any questions about the experimental procedure please raise your hand and ask the experimenter quietly.

First we would like to ask you to choose one of the six charities described in the information sheet for any donation you might make. You can choose between the "Blinden- und Sehbehindertenverein Köln e.V." [Cologne Association for the Blind and Visually Impaired], the Hunger Project, Greenpeace, "Lebenswert e.V." ["Value of Life", a charity for the care of cancer patients and their families], UNICEF and the Cologne branch of the World Wildlife Fund.

Now please choose one of the organizations:

- Blinden- und Sehbehindertenverein Köln e.V.
- The Hunger Project
- Greenpeace
- Lebenswert e.V.
- UNICEF
- World Wildlife Fund Cologne

6.3.2 Task Description

You will have 15 minutes to solve simple arithmetic problems on the computer. You can solve these problems as follows:

First add up the individual digits of two twelve-digit numbers separately. Then compare the sums with each other. If the sum of the digits of the **first** number is larger than the sum of the digits of the second number then subtract this second sum from the first sum. If the sum of the digits of the **second** number is greater than or equal to the sum of the digits of the first number then add both sums together.

For example:
123400000000
101010101010

Answer: 4 because $10 > 6$ and $10 - 6 = 4$

Another example:
100000000023
101010101010

Answer: 12 because $6 \leq 6$ and $6 + 6 = 12$

If you have solved 5 problems correctly at the end of the 15 minutes you will receive the fixed amount of €10.00.

[No-tax treatment]

You will have the possibility to donate an amount from these €10.00 to your chosen charity [charity name]. Afterwards you will be asked to fill in a short questionnaire.

[Tax treatment]

[tax rate]% of the €10.00 you have earned will be levied as a tax and transferred to your chosen charity [charity name]. This corresponds to [tax payment in euros]. Furthermore, you will have the possibility to donate an additional amount from your remaining [€10.00 minus tax payment] to your chosen charity [charity name]. Afterwards you will be asked to fill in a short questionnaire.

[All treatments]

You will be informed at the end of the working period whether or not you have solved the minimum number of problems correctly. You will also receive €2.50 for participating in this experiment. You will receive this amount even if you have not solved the minimum number of problems correctly. If you have understood these instructions please click on "OK" and the working period will begin a few moments later.

6.3.3 Failure Screen

Unfortunately you did not solve the minimum number of problems correctly. You will therefore only receive the €2.50 participation fee. Please fill in the following questionnaire.

6.3.4 Donation Screen

Congratulations! You have solved the minimum number of problems and thus earned €10.00.

[No-tax treatment]

Now you can donate an amount from your earnings of €10.00 to the organization [charity name].

Please enter an amount between €0.00 and €10.00 into the box below and confirm this by clicking on "OK".

Your donation will be transferred to your chosen organization [charity name] at the end of this experiment.

[Tax treatment]

[tax payment in euros] will be transferred as tax to the organization [charity name].

Your net earnings therefore amount to [€10.00 minus tax payment].

Now you can donate an amount from your net earnings of [€10.00 minus tax payment] to the organization [charity name].

Please enter an amount between €0.00 and [€10.00 minus tax payment] into the box below and confirm this by clicking on "OK".

Your donation as well as the tax payment will be transferred to your chosen organization [charity name] at the end of this experiment.

6.4 Nonparametric Tests

Here, we present details of all nonparametric tests cited in the main text. For purposes of comparison, we begin with results from (a) standard Wilcoxon-Mann-Whitney tests. A key assumption of this method is that the variabilities of the independent sample distributions are the same (Siegel and Castellan, 1988, p.137). As is evident from Figures 3 and 5, this is not the case with our data and the assumption is thus violated. Indeed, we should not expect these distributions to be identical since the range of values from which the participants can freely choose to donate differs by treatment. We therefore also present results from (b) robust rank-order tests according to Fligner and Policello II (1981). This method is essentially a modification of the Wilcoxon-Mann-Whitney test where the assumption of the underlying sample distributions being the same is dropped. We conclude the comparisons with (c) median tests.

Table 4(a)

Wilcoxon-Mann-Whitney Test for difference in contributions (no tax *versus* 2% tax)

Treatment	Observations	Rank Sum	Expected
no tax	24	624	612
2% tax	26	651	663
Combined	50	1275	1275

H_0: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} \neq \frac{1}{2}$

Test statistic 0.235 ; p-value 0.814

Table 4(b)

Fligner-Policello Robust Rank-Order Test for difference in contributions (no tax *versus* 2% tax)

Treatment	Observations	Mean Preceding Obs.	Variability Index
no tax	24	13.50	2654.50
2% tax	26	11.54	470.96

H_0: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} \neq \frac{1}{2}$

Test statistic 0.209 ; p-value 0.834

Table 4(c)

Median Test for higher contributions in the no-tax treatment than in the 2% tax treatment

greater than the median	no tax	2% tax	Total
no	10	16	26
yes	14	10	24
Total	24	26	50

H_0: median contribution (no tax) = median contribution (2% tax)

H_1: median contribution (no tax) > median contribution (2% tax)

Test statistic 1.259 ; p-value 0.131

Table 5(a)

Wilcoxon-Mann-Whitney Test for difference in contributions (no tax *versus* 8% tax)

Treatment	Observations	Rank Sum	Expected
no tax	24	566.5	624
8% tax	27	759.5	702
Combined	51	1326	1326

H_0: $\Pr\{\text{contribution (no tax)} > \text{contribution (8\% tax)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (no tax)} > \text{contribution (8\% tax)}\} \neq \frac{1}{2}$

Test statistic -1.095 ; p-value 0.274

Table 5(b)

Fligner-Policello Robust Rank-Order Test for difference in contributions (no tax *versus* 8% tax)

Treatment	Observations	Mean Preceding Obs.	Variability Index
no tax	24	11.10	2073.99
8% tax	27	14.13	820.30

H_0: $\Pr\{\text{contribution (no tax)} > \text{contribution (8\% tax)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (no tax)} > \text{contribution (8\% tax)}\} \neq \frac{1}{2}$

Test statistic -1.041 ; p-value 0.298

Table 5(c)

Median Test for higher contributions in the no-tax treatment than in the 8% tax treatment

greater than the median	no tax	8% tax	Total
no	15	19	34
yes	9	8	17
Total	24	27	51

H_0: median contribution (no tax) = median contribution (8% tax)

H_1: median contribution (no tax) > median contribution (8% tax)

Test statistic 0.089 ; p-value 0.383

Table 6(a)

Wilcoxon-Mann-Whitney Test for difference in contributions (no tax *versus* 30% tax)

Treatment	Observations	Rank Sum	Expected
no tax	24	340	636
30% tax	28	1038	742
Combined	52	1378	1378

H_0: Pr {contribution (no tax) > contribution (30% tax)} = $\frac{1}{2}$

H_1: Pr {contribution (no tax) > contribution (30% tax)} ≠ $\frac{1}{2}$

Test statistic −5.519 ; p-value 0.000

Table 6(b)

Fligner-Policello Robust Rank-Order Test for difference in contributions (no tax *versus* 30% tax)

Treatment	Observations	Mean Preceding Obs.	Variability Index
no tax	24	1.67	783.33
30% tax	28	22.57	12.86

H_0: Pr {contribution (no tax) > contribution (30% tax)} = $\frac{1}{2}$

H_1: Pr {contribution (no tax) > contribution (30% tax)} ≠ $\frac{1}{2}$

Test statistic −10.251 ; p-value 0.000

Table 6(c)

Median Test for higher contributions in the 30% tax treatment than in the no-tax treatment

greater than the median	no tax	8% tax	Total
no	22	15	37
yes	2	13	15
Total	24	28	52

H_0: median contribution (no tax) = median contribution (30% tax)

H_1: median contribution (no tax) < median contribution (30% tax)

Test statistic 7.376 ; p-value 0.004

Table 7(a)

Wilcoxon Mann-Whitney Test for higher contributions by males than females in the no-tax treatment

Treatment	Observations	Rank Sum	Expected
male	14	208	175
female	10	92	125
Combined	24	300	300

H_0: $\Pr\{\text{contribution (male)} > \text{contribution (female)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (male)} > \text{contribution (female)}\} > \frac{1}{2}$

Test statistic 1.999 ; p-value 0.023

Table 7(b)

Fligner-Policello Robust Rank-Order Test for higher contributions by males than females in the no-tax treatment

Treatment	Observations	Mean Preceding Obs.	Variability Index
male	14	7.36	71.21
female	10	3.70	121.60

H_0: $\Pr\{\text{contribution (male)} > \text{contribution (female)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (male)} > \text{contribution (female)}\} > \frac{1}{2}$

Test statistic 2.225 ; p-value 0.013

Table 7(c)

Median Test for higher contributions by males than females in the no-tax treatment

greater than the median	no tax	8% tax	Total
no	7	8	15
yes	7	2	9
Total	14	10	24

H_0: median contribution (male) = median contribution (female)

H_1: median contribution (male) > median contribution (female)

Test statistic 1.142 ; p-value 0.143

Table 8(a)

Wilcoxon-Mann-Whitney Test for higher contributions by males in the no-tax treatment than males in the 2% tax treatment

Treatment	Observations	Rank Sum	Expected
no tax	14	243	210
2% tax	15	192	225
Combined	29	435	435

H_0: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} > \frac{1}{2}$

Test statistic 1.458 ; p-value 0.072

Table 8(b)

Fligner-Policello Robust Rank-Order Test for higher contributions by males in the no-tax treatment than males in the 2% tax treatment

Treatment	Observations	Mean Preceding Obs.	Variability Index
no tax	14	9.86	355.21
2% tax	15	4.80	146.90

H_0: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} = \frac{1}{2}$

H_1: $\Pr\{\text{contribution (no tax)} > \text{contribution (2\% tax)}\} > \frac{1}{2}$

Test statistic 1.408 ; p-value 0.080

Table 8(c)

Median Test for higher contributions by males in the no-tax treatment than males in the 2% tax treatment

greater than the median	no tax	2% tax	Total
no	5	11	16
yes	9	4	13
Total	14	15	29

H_0: median contribution (no tax) = median contribution (2% tax)

H_1: median contribution (no tax) > median contribution (2% tax)

Test statistic 2.762 ; p-value 0.049

6.5 Qualitative Evidence of Psychological Reactance

Here, we present four cases where participants' responses to the open questions "Please provide a reason for the amount you donated" or "Please explain why you donated nothing" appear to be in line with psychological reactance theory (Brehm, 1966).

Age: 23; sex: male; chosen charity: Greenpeace; tax: €0.80
Donation: €1.20
Reason for the amount donated:
"I thought we should be allowed to choose freely how much money to donate. When I was forced to donate at least €0.80 I felt taken aback. I find this procedure unfair (I wasn't even given the chance to donate €0.00) and therefore 'only' donated €1.20."

Age: 30; sex: male; chosen charity: Cologne Association for the Blind and Visually Impaired; tax: €0.20
Donation: €0.80
Reason for the amount donated:
"I'm not sure if I would have donated more in other circumstances, but I felt a little bit taken aback."

Age: 22; sex: male; chosen charity: The Hunger Project; tax: €0.80
Donation: €0.00
Reason for no donation:
"I would like to choose myself to whom or what I donate money. I do not want to be forced to choose between preselected organizations. None of the charities convinced me."

Age: 21; sex: female; chosen charity: UNICEF; tax: €3.00
Donation: €0.00
Reason for no donation:
"I prefer to donate privately elsewhere because I do not want to be limited to UNICEF. Other organizations also do good work and I would rather share [my money] among them rather than limiting myself to one organization."