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**Taking, Punishment and Trust**

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# Taking, Punishment and Trust

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## Abstract

Is a trusting person more or less likely to steal? Is a trusting person more or less likely to punish someone who steals? A great deal of research has examined how trust and social capital correlate with altruistic, reciprocal and punishing behaviours, but less research has been dedicated to understanding the roles of trust and social capital in peoples' choices between a strictly antisocial behaviour - like stealing - and generosity, or in a third party's choice to punish taking behaviour. Using a series of dictator games with third-party punishment and an option for a dictator to take, we show that trust plays a strong role in dictator behaviour and third-party behaviour. For dictators, trust correlates with the probability that the dictator refrains from self-interested behaviour and it correlates with the amount the dictator offers to their partner. For third parties, trust correlates with a third party's choice to punish self-interested behaviour and it correlates with the amount a third party spends on punishment. Social capital does not produce any such robust results.

*Keywords:* Social Norms, Punishment, Reciprocity, Social Preferences, Trust, Social Capital

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## 1. Introduction

Societies exhibiting more trust have higher levels of productivity and economic growth (Knack and Keefer, 1997; Zak and Knack, 2001). Similarly, social capital has been shown to support cooperation, exchange and social norms (Bowles and Gintis, 2002; Sobel, 2002; Glaeser et al., 2000; Gächter et al., 2004). Inverting these results, when a society lacks trust or social capital, then that society may have lower productivity, lower growth, and less cooperation. So, if people live in a society where mistrust and antisocial behaviour prevail, then they may be less likely to choose generous, cooperative or altruistic outcomes in laboratory experiments. But no society is uniform, so heterogeneity in trust, in social capital endowments, and in generosity or antisocial behaviour can allow us to examine whether trust and social capital facilitate generosity or constrain antisociality.

In experimental economics many experiments have been explicitly constructed to measure generosity and altruism rather than antisocial behaviour like taking, stealing or antisocial punishment (Levitt and List, 2007). The roles of trust and social capital have yet to be fully understood as correlates of antisocial behaviour or of sanctioning behaviour to curb antisociality. For instance, though trustworthiness and trust may facilitate generosity or cooperation in experiments, when players have the option to take or steal from other subjects, trust or social capital may result in a player choosing to behave prosocially, or to punish others who behave antisocially. Conversely, if a player systematically distrusts others, or believes herself unworthy of trust, then she may be more likely to behave untrustworthily or antisocially.

In light of these ideas, I hope to interrogate several questions. If you view yourself as trustworthy, are you more or less likely to steal from others? If you view others as generally deserving of trust, or as generally helpful are you more or less likely to give or to steal? Finally, if you have a large endowment of social capital, or if you trust others, or if you believe yourself to be trustworthy are you more or less likely to sanction your co-participants for stealing or ungenerous behaviour? To investigate these questions I use a combination of experimental methods and survey questionnaires. The experiments are designed to allow subjects to give and take from their co-participants while other subjects are given the ability to punish them. The experiments are combined with survey questionnaires about trust attitudes and social capital.

Whereas Glaeser et al. (2000), Ashraf et al. (2006) and Holm and Danielson (2005) evaluated trust in the context of the bilateral trust experiments and Gächter et al. (2004) emphasised the role of trust and social capital in multilateral cooperation, I present evidence that trust and social capital play a role in three-way interactions involving giving or taking and punishment. With respect to taking or stealing, the intuitions about trust should be straightforward: we could expect that if a subject views herself as trustworthy, then she might be less likely to steal from her co-participants. Considering social capital, if a subject has a high endowment of social capital and her social capital correlates with how she perceives social norms, then she may view taking as an infringement of the social norms she upholds and choose not to take. With respect to punishment, we might expect that a subject who is trusting and trustworthy or who has a large endowment of social capital might take it upon herself to punish those of her co-participants who infringe social norms she holds dear. The converse also holds true: those who are less trusting, less trustworthy or who have less social capital, may be less likely to punish what others might construe as a social infraction.

The experiments produce four main results. First a dictator who considers others to be helpful or who trusts strangers is less likely to choose the most self-interested offer and on average proposes a higher partner share. Second, a dictator's offer does not appear to be affected by her social capital, as proxied by memberships, religiosity and attendance at church, temple or mosque. Third, a third party who considers others as trusting and who displays trusting behaviour is more likely to punish a dictator's most self-interested offer and to spend more

on punishing any dictator’s offer. Fourth, social capital affects third parties heterogeneously: when dictators are not permitted to take, social capital correlates negatively with the amount spent on punishment, but when dictators are allowed to take, social capital correlates positively with punishment. Though not the main emphasis of this article, there is also a strong gender result: female dictators are far less likely to adopt the most self-interested offer and on average female subjects offer more to their partner.<sup>1</sup> No other demographic characteristic plays a consistent and statistically significant role in either dictator or third-party behaviour.

The paper progresses as follows. I discuss how stealing and punishment could be affected by trust and social capital in section 2. I examine the background and characteristics of the sample in section 3. In section 4, I talk about the experimental design and the role of some of the survey questions. Section 5 presents the results from the statistical tests and regression analysis. In section 6, I discuss the results and how they can inform theory and practice. Finally, I offer some concluding points in section 7.

## 2. Stealing, Punishment and Trust

I use the dictator game with third-party punishment, an experiment that has been repeated internationally with different samples, in order to understand how and whether punishment helps to sustain social norms (Fehr and Fischbacher, 2004; Henrich et al., 2006; Bernhard et al., 2006). One variation in this study is that dictators are allowed to take from receivers, which parallels situations in which people can easily steal from or abuse the trust of others, but face the threat of pecuniary or non-pecuniary punishment from a third party. The third party can incur a cost to reduce the dictator’s payoff, therefore punishing the dictator. The third-party punishment game I use provides an example of a situation in which, by construction, the most equitable distribution occurs when the dictator gives half of their endowment, and the third party does not punish. But, if players are egoistic, then a dictator will either give nothing or take as much as they can and a third party will never punish. The total surplus remains the same, but the distribution is unequal. If, on the other hand, a third party chooses to punish a dictator who behaves self-interestedly, then the total surplus is strictly lower because punishment is costly, but players’ payoffs may be less unequal. Punishment is therefore inefficient in an economic sense, but it may uphold distributive norms.

Experiments with taking are not particularly common. They have typically come in three forms: a dictator game with taking (List, 2007; Bardsley, 2008), the ‘power-to-take’ game (Bosman and van Winden, 2002; Bosman et al., 2005, 2006) and the moonlighting game (Abbink et al., 2000; Falk et al., 2008; Engelmann and Strobel, 2010). Of these games, the moonlighting game is the only

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<sup>1</sup>This result is consistent with other literature on the effect of gender on altruism and generosity (Eckel and Grossman, 1998, 2002; Eckel and Wilson; Innocenti and Paziienza, 2006).

game to include punishment, but the punishment is second-party punishment rather than third-party punishment. We might ask therefore why one should study third-party punishment rather than second-party party punishment. The motives for a second-party who reduces their endowments to reduce the payoffs of another player are difficult to disentangle. The motives may comprise varying parts of reciprocal preferences, inequality aversion or self-interest: reciprocal because how the second party treats the first party may be a consequence of the first party's actions; inequality averse because the second party may want to remove disadvantageous inequality; and self-interested because the second party could increase their payoff by ensuring that the first party has a belief that the second party will punish them for low offers or low contributions to a common resource or public good (Yamagishi, 1986; Ostrom et al., 1992; Fehr and Gächter, 2000; Fischbacher et al., 2001). Second parties that punish norm-infringements or free-riding in such contexts are often called strong reciprocators (Sethi, 1996; Gintis, 2000; Bowles and Gintis, 2004; Carpenter et al., 2009). Strong reciprocators can be directly harmed by the actions of free-riders and punish the free-riders as a consequence of this direct harm.

Strong reciprocity can be set against social reciprocity. Carpenter and Matthews (2010, 241) clearly outline the distinction between social reciprocators and strong reciprocators: "Social reciprocators just punish anyone who violates a contribution norm, [social reciprocators] need not be harmed directly." Social reciprocators might therefore also punish behaviour that is not about free-riding, but behaviour that infringes allocation norms in a group interaction, such as the three-player dictator game with third-party punishment that we use. Third-party punishment is different to second-party punishment because a third party cannot punish with the expectation of improving her material outcomes, whereas a second party can punish in the expectation that her own payoffs may improve as a consequence of the punishment. Were we to research second-party punishment alone we would not be able to distil and clarify the instances in which an individual's social reciprocity - rather than strong reciprocity - might be engaged (Gintis, 2000; Bowles and Gintis, 2004; Carpenter and Matthews, 2010). Punishment by a third party can therefore help us to understand social reciprocity by removing some of the motives for second-party punishers or strong reciprocators (Carpenter and Matthews, 2010, forthcoming).

Reinforcing the idea that third-party punishment is about sociality and the upholding of social norms, Bendor and Swistak (2001, 1494) argue, "Norms that obligate third parties to impose sanctions can be considered quintessentially *social*: by imposing requirement on an entire community and not merely on the interested parties, they create a general code of conduct." Bendor and Swistak argue further that social norms are behavioural rules backed by sanctions, so without the sanctions the rules lose salience. This idea is strengthened by Carpenter and Matthews (2009) who assert that third-party sanctions are crucial to support social norms in large populations, particularly because second-party sanctions alone cannot produce the same levels of cooperation that third-party sanctions can.

The sociality of third-party punishment and its basis in social norms are

this paper’s major concerns. In particular, where previous work on third-party punishment has typically examined the punishment of lack of generosity by a dictator or lack of cooperation in a prisoner’s dilemma or other social dilemma (Carpenter and Matthews, 2009), the third-party punishment game we use allows us to examine punishment of a behaviour – stealing – that would probably be viewed as antisocial or as transgressing widely held social norms. Also, as Carpenter and Matthews (2009, 273) argue, third-party punishment may predict and form the basis for second-party punishment and not the converse (Carpenter and Matthews, 2009). So, by eliminating the concerns with egoistic outcomes that may produce second-party punishment, we can understand more clearly what produces third-party punishment and therefore gain insight into what proportion of second-party punishment might be motivated by non-egoistic or other-regarding concerns.

It is toward this understanding of the sociality of punishment that we believe an understanding of trust and social capital could contribute. Trust is a social and relational attribute of people in societies (Granovetter, 1985). Trust gains salience as an aggregate property of the groups composed of people who trust. As mutual trust sustains conditional cooperation and reciprocity between people, so might it buttress the social norms that require people to employ third-party punishment to sanction norm-infringing behaviour by others in their group (Sugden, 1984; Yamagishi, 1986; Bendor and Mookherjee, 1990; Fischbacher et al., 2001). In the context of the third-party punishment game, the levels of trust and social capital that a third party reports may correlate with her choice to sanction behaviour that infringes social norms. A third party who who has more trust and adheres to social norms may choose to punish behaviour that infringes social norms and choose not to punish behaviour that does not infringe those norms. Such a third party might expect that dictators would anticipate the preferences of the third party and accordingly behave consistently with the shared social norm: misbehaviour being punished, good behaviour going unpunished.

Though trust has typically been used to examine behaviour in bilateral or multilateral cooperation, such as in trust games or public goods games, trust may also play a role in other laboratory experiments, such as the dictator game with third-party punishment. There are several reasons why trust might correlate with behaviour in the third-party punishment game: first, if a player believes themselves to be trusting and trustworthy, then they may either make positive allocations to their co-participants, they may choose not to steal from their co-participants, or they may expect that if their co-participants adhere to norms of trust and fairness, then a trustworthy third party may punish a self-interested dictator allocation. With respect to social capital, Bowles and Gintis (2002, F419-F436) capture its relevance well, "Social capital refers to trust, concern for one’s associates, a willingness to live by the norms of one’s community and to punish those who do not." Consequently, we may predict that trust and social capital should operate similarly in experiments. To analyse the correlates of dictator and third-party behaviour we use questionnaires to gather relevant demographic, trust and social capital data that might correlate with the actions

a player adopts.

### 3. Background

The sample comprises 288 students from the University of Cape Town, South Africa. We report results only for those subjects - dictators and third parties - who made choices in the experiments, narrowing the subject pool to 176 subjects. The social capital and trust variables are defined in [Appendix Appendix A](#).

The proportion of females in the subject pool is 40 percent. The average age of subjects in the sample is 20.3 years. Ethnicity is an important potential correlate of behaviour in South Africa, so when we examine trust, trustworthiness, and trusting behaviour we break each attitude down by ethnicity to assess the differences. South Africa has several different ethnic groups. For the sake of practicality the races or ethnicities in the experiment's sample are broken down into Black African, other Black, and White.<sup>2</sup> The sample comprises 60.2 percent Black Africans, 17.1 percent other Blacks, and 22.7 percent Whites. The subject pool also comprises a relatively diverse set of students from across the university's faculties, with 50 percent from Commerce, 16 percent from Engineering and the Built Environment (EBE), 19 percent from Humanities, and 15 percent from Sciences.<sup>3</sup> The group averages and standard deviations are presented in [Table B.1](#) and the group-wise comparisons by ethnicity are presented in [Table B.2](#). All of the comparisons use the non-parametric Mann-Whitney test, with p-values less than or equal to 0.1 reported.

When considering social capital and trust one ought to consider the role of religion and religious group attendance because a person who is religious may, even if they are not a member of other groups, have high endowments of social capital and useful social networks through their affiliation with a church. The proportion of subjects who listed themselves as religious was 70.5 percent, broken down as 80.2 percent of Black Africans, 67 percent of other Africans and 47.5 percent of Whites. The only statistically significant difference is between Whites and Black Africans. The average attendance was 3.86, with Black Africans averaging 4.02, other Blacks averaging 4.2, and Whites averaging 3.18. White attendance differs statistically significantly from Black African and other Black attendance, but Black African and other Black attendance does not statistically differ.

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<sup>2</sup>In South Africa, 'Black' is used in affirmative action legislation to mean any person of native African heritage, of coloured or mixed-race heritage, of Indian heritage, and of Chinese or Asian heritage. Consequently, I use two categories of 'Black' - Black African and other Black - to see whether there are differences within the Black ethnic grouping.

<sup>3</sup>[Frank et al. \(1993\)](#) found that students studying business and economics were systematically more selfish than other students. Consequently, in the regression analysis we control for a subject's degree faculty to ensure that we do not only capture the effects of studying business or economics.

The average value of the membership index was 5.44. Identified by ethnicity, for Black African subjects it is 5.74. for other Blacks it is 5.1 and for Whites it is 4.88. None of the pairwise differences are statistically significant. The average number of non-active memberships was 3.6, with Black African subjects having 3.87 memberships, other Black subjects having 3.27 membership and Whites having 3.13 memberships. White non-active memberships are statistically significantly lower than Black African memberships. But memberships alone may mask how some subjects may not participate much in the groups of which they are members, so we check the subjects' active memberships. Many fewer subjects are active group members: the mean active membership is 1.87, with Black African subjects having 1.91 active memberships, other Black subjects having 1.83 active memberships and Whites having 1.78 active memberships. None of these group means are statistically significantly different. As a consequence of the small differences in active and inactive membership, in the regression analysis we simply use the membership index which aggregates these data.

### 3.0.1. Characteristics and Attitudes

The sample of subjects here comprises all dictators (111) and all third parties (65). Following [Glaeser et al. \(2000\)](#), [Gächter et al. \(2004\)](#) and [Ashraf et al. \(2006\)](#), we measure trust and social capital using several survey questions based on the World Values Survey (WVS) and General Social Survey (GSS). We combine the questions about trust and social capital with several questions about demographic and political attitudes. The group averages and differences in these attitudes are presented in Table [B.1](#) and Table [B.2](#).

With *GSS Trust*, 20.5% of all subjects say that others can be trusted. The proportions of Whites and other Blacks are statistically significantly different to the proportion of Black Africans that report trusting others. With *GSS Help*, 34.7% of subjects say others try to be helpful with no statistically significant differences between the groups. For *GSS Fair*, the average is 4.22, with other Blacks reporting a statistically significantly lower average than Whites. The values of *GSS Trust*, *GSS Help* and *GSS Fair* translate into statistically significant differences in the GSS Index: Whites have statistically significantly higher values than either Black Africans or other Blacks.

Considering *Trust Strangers*, Whites trust strangers less than do Black Africans, but there are no other statistically significant differences. For the variables that construct the *Trusting Behaviour* index, the only statistically significant difference is that White subjects leave their doors unlocked less frequently than do Black Africans. The Trusting Behaviour Index does not differ across ethnic groups. Whites and other Blacks consider themselves statistically significantly more *Trustworthy* than Black Africans, but Whites and other Blacks are no more *Trustworthy* than each other.

We used several measures for income and relative income position. We measured whether a subject received financial aid at university, whether a subject received a scholarship at university, and where the subject perceived they sat on a graphic of an income distribution. Statistically significantly more Black



African and other Black subjects receive financial aid than do White subjects, though there are no differences in receiving a scholarship. There are large and statistically significant differences in the income index: Whites ranked above other Blacks who ranked above Black Africans. It is necessary to control for these factors so that ethnicity does not act as a proxy for income.

#### 4. Experiment Design

Subjects were recruited from the student body at the University of Cape Town during the second and third quarters of the 2010 academic year for the third party punishment game and again during 2011 for the dictator games without third party punishment. A baseline and two treatments were conducted. Identical procedures and parallel instructions were used, based on the English language translation of instructions in [Fehr and Fischbacher \(2004\)](#). In the dictator game with third-party punishment, participants were randomly assigned to one of three groups, and each group was allocated to a separate room: Rooms A, B or C. All participants met at a central location at the beginning of the experiment to assuage any doubt about the existence of co-participants ([Frohlich et al., 2001](#)). That is, the subjects saw that there were other subjects and that subjects were individually and randomly allocated to one of room A, B or C. At no time could subjects communicate with one another. In the dictator game without third-party punishment, participants were randomly assigned to one of two groups, and each group was allocated to a separate room: Room A, or B. As in the baseline and first treatment, subjects met at a central location before being allocated. Subjects were only permitted to communicate with the experimenters. No subject participated in more than one treatment, so the results reflect between-subject variation only. The experiments were run using pen and paper.

The baseline treatment was modeled on the third-party punishment in the dictator game (TP-DG) experiment ([Fehr and Fischbacher, 2004, 66](#)). Subjects played with points, not money. The exchange rate of points for money was 1 point equal to 1 South African Rand (ZAR) as a monetary unit (MU).<sup>4</sup> All subjects were allocated a show-up fee of 20 points. A dictator in room A was given 80 points and she could allocate up to 40 points to her counterpart receiver - her randomly allocated partner in room B - in multiples of five. The 40-point maximum was selected, consistent with Fehr and Fischbacher, to highlight the ‘distributional norm’ of 50%. The third party in Room C was randomly partnered with subjects in Rooms A and B. The third party was given 40 points that she could use to reduce the dictator’s payoffs at a rate of 1 to 3: each point she spent would reduce the dictator’s payoff by 3 points. The third party could spend any number of points to reduce the dictator’s payoff. We used the strategy method, asking the third party how many deduction points she would charge for each potential dictator transfer. The receiver was given no additional points.

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<sup>4</sup>At the time of the experiments, ZAR 1=USD 0.13.

After each treatment, subjects were asked to fill out answers to a questionnaire consistent with [Gächter et al. \(2004\)](#) and [Fehr and Fischbacher \(2004\)](#).

The treatment Take 20 is identical to the baseline treatment, except that the set of actions for a dictator changes from the interval  $[0, 40]$  points of the baseline to  $[-20, 40]$ . A dictator is allowed to take up to the entire show-up fee given to receivers. A dictator could take in multiples of five: 5, 10, 15 or 20 points. The Take 20 treatment was replicated without third-party punishment. It is a dictator game treatment with taking and with the same allocation interval as Take 20. Though the interval in these two treatments differs from [List](#)'s 'neutral' mid-point of zero, the intention was to provide a significant endowment to the dictator rather than to have symmetrical smaller endowments.

With a model of self-interested money-maximising, at the subgame perfect equilibrium of the dictator game and of the dictator game with third-party punishment, the dictator ought to give nothing, and in the dictator game with third-party punishment the third party ought not to punish. In the taking treatments, at the subgame perfect equilibrium, a dictator should take the entire amount that she could and the third party should not punish any allocation. The various models of social preferences and social norms would instead stipulate that subjects, to some greater or lesser extent, have regard for others' payoffs or adhere to norms of fairness or equity and that they may not adopt the subgame equilibrium predicted outcomes. That is, rather than preferences that are only self-regarding and consider an agent's own material gain, the agent also considers the material gain of others. Such behavior is often called other-regarding behavior. Were subjects to behave other-regardingly, then they might give in the baseline, not take as much as they could (that is, not behave entirely selfishly) in the taking treatment, or punish others either for not giving in the baseline or for taking in the taking treatment ([Fehr and Schmidt, 1999](#); [Fehr and Fischbacher, 2004](#); [Levitt and List, 2007](#); [Bowles, 2008](#); [Carpenter and Matthews, 2009](#)).

For the dictators, like [Jakiela \(2009\)](#), I estimate regressions with partner share - or the deviation from Nash equilibrium play - as the dependent variable. [Cárdenas et al. \(2000\)](#) and [Cárdenas and Ostrom \(2004\)](#) use the deviation from Nash equilibrium play to estimate the degree to which a model of pure self-interest represents preferences. Partner share is bound between 0 and 0.4 in the Baseline dictator game with third-party punishment and between 0 and 0.6 in the Take 20 treatments. The upper bound exists because dictators are constrained to offer at most 40 points. For the third parties, I estimate regressions with the number of deduction points as the dependent variable.

Based on the theory discussed so far, I therefore make the following predictions about the behaviour of dictators and third parties in the experiments and the patterns that we may detect in the regression analysis:

- i. Dictators with higher trust will make fewer offers that are entirely self-interested and offer higher partner shares to their partnered receivers.
- ii. Dictators with higher endowments of social capital will offer higher partner shares to their partnered receivers.

- iii. Trust will have diverse effects on third-party behaviour: because they should be correlated with trusting behaviour and social norms, we predict that the effects of GSS Trust, GSS Help, GSS Fair and GSS Index will be positive, whereas we cannot predict the direction and strength of trusting behaviour, trustworthiness or trusting strangers on third-party behaviour.
- iv. Third parties with higher endowments of social capital will be more likely to punish and will spend more on punishment.

## 5. Results

We assess the subjects' responses to the questionnaires, the correlates of dictator giving and taking, and the correlates of third-party punishment. The regression results are presented in the appendix.

### 5.1. Questionnaire Results

In Table B.3 we produce regressions estimating the effects of personal characteristics on the trust measures defined in Section 3 (Glaeser et al., 2000; Gächter et al., 2004; Ashraf et al., 2006). We consider regressions with each of these measures as dependent variables, as defined in Table B.3. From these regressions we obtain our first result.

**Result 1:** No demographic characteristic consistently correlates with trust.

Age has a negative sign in all regressions except *Trustworthy*; age-squared is typically positive (except in *Trusting Behaviour* and *Trustworthy*), but Age is only statistically significant for the regression on *GSS Help* and *GSS Index*. Were we to interpret this naively, we might say that as the subjects age they are less likely to trust others, consider others fair, consider others helpful, think that strangers are trustworthy, or display trusting behaviour. To check the robustness of this result, we estimated regressions with dummy variables for different age categories: age less than 20, age between 20 and 24 and age 25 or greater. Omitting the dummy for age 20 or less, the dummy for age between 20 and 24 is never statistically significant and its sign varies;<sup>5</sup> the dummy for age 25 or greater is positive and statistically significant in three estimations: *GSS Fair*, *GSS Index*, and *Trustworthy*.<sup>6</sup>

Ethnicity does not consistently correlate with trust attitudes: the coefficients on Black African and Other Black and the interactions of Black African with Female and Other Black with Female are statistically significant five times in total. But, the sign on Other Black is typically negative which might indicate that Other Black subjects report less trusting attitudes on aggregate. One exception is that Other Black Females have a statistically significant and positive

<sup>5</sup>It is positive for GSS Trust, GSS Fair, GSS Index and Trustworthy, but negative for GSS Help, Trust Strangers and Trusting Behaviour.

<sup>6</sup>It is positive and not statistically significant for GSS Trust and GSS Help; it is negative and not statistically significant for Trust Strangers and Trusting Behaviour.

coefficient with respect to *GSS Help*. The coefficients on Black African are negative in five estimations (of which GSS Trust and Trustworthy are statistically significant), but positive in two estimations (GSS Fair and Trusting Behaviour).

If we consider the measures of social capital - church attendance and group memberships - none of them have a consistent effect on the trust variables.<sup>7</sup> The only statistically significant relationships that can be reported is that church attendance appears to have a statistically significant negative effect on trusting strangers (column 5), while a subject reporting that they are religious displays statistically significantly more trusting behaviour (column 7).

## 5.2. Dictator Behavior

I estimate regressions with partner share - or the deviation from Nash equilibrium play - as the dependent variable with a dummy for participation in the Take 20 dictator game with third-party punishment and the Take 20 dictator game as explanatory variables along with a vector of personal characteristics gathered from the surveys (Jakiela, 2009; Cárdenas et al., 2000; Cárdenas and Ostrom, 2004). Partner share is bound between 0 and 0.4 in the Baseline TP-DG and between 0 and 0.6 in the Take 20 treatments. The upper bound exists because dictators are constrained to offer at most 40 points.

$$p_{it} = \alpha + \mathbf{T}_{it}\gamma + \mathbf{X}_{it}\beta + \psi_i\mathbf{Trust} + \delta_i\mathbf{Social} + \epsilon_{it} \quad (1)$$

$p_{it}$  represents the partner share that  $i$  allocates to her partnered receiver in treatment  $t$ .  $\mathbf{T}_{it}$  is a vector of dummy variables for each treatment, where the dictator game with third-party punishment and no taking is the omitted base category.  $\mathbf{X}_{it}$  is a vector of controls at the individual level gathered from the surveys. **Trust** captures a subject's trust attitudes. **Social** captures a subject's measure of social capital.  $\epsilon_{it}$  is the customary error term of conditional mean zero. In the linear probability model and probit specifications we estimate the likelihood that  $p_{it}$  is zero, whereas in the OLS and Tobit specifications we estimate the effects of the explanatory variables on partner share in levels.

Table B.4 presents the regression coefficients for each of the trust variables in all of the relevant specifications. Complete regression tables are supplied in the appendix to the dissertation. For completeness, I report on coefficients in the regressions presented in the appendix. In both the linear probability model and the probit model of the dictator choosing the most self-interested offer, a partner share of zero, females are statistically significantly less likely than males to offer 0. In the probit regressions, the coefficient on the Black African dummy

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<sup>7</sup>Because some subjects reported that they were *not* religious, but attended church anyway, in the regressions we included an interaction term for church attendance with religiousness. An intuitive reason for this is that a person who does not think of herself as religious, but attends church for other reasons may still reap the instrumental benefits in social capital of attending church, but there may be an interaction effect for those who are religious and attend regularly that does not obtain for the non-religious, e.g. they may feel more committed.

is not statistically significant, but Other Black, Black  $\times$  Female and Other  $\times$  Female are all significant and positive. Age has a negative effect, whereas its square is positive and significant. In both the linear probability model and the probit model, the coefficient on Membership Index, the proxy for social capital, is negative, but not statistically significant.

**Result 2:** Subjects who trust more are less likely to choose the most self-interested behaviour.

As shown in Table B.4, the trust variables all have the expected sign: more trust results in a decreased probability that a subject makes the most self-interested offer. Though the majority of the trust variables are not statistically significant, GSS Index and GSS Help are both statistically significant and negative in the linear probability model, and, in the probit model, GSS Index, GSS Trust and GSS Help are statistically significant and negative. We may interpret these coefficients as saying that a subject who thinks that others can be trusted or that others are helpful is statistically significantly less likely to adopt the most self-interested behaviour. GSS Index, which comprises GSS Trust, GSS Help and GSS Fair, is negative and statistically significant probably because of the large and statistically significant effects of GSS Help and GSS Trust, whereas GSS Fair does not appear to correlate with dictators making the most self-interested offer.

**Result 3:** Individuals who trust more offer higher partner shares. In the OLS and Tobit regressions of partner shares in levels also reported in Table B.4, as with the models in which the most self-interested action was predicted, the trust variables have the expected sign: they are all positive. Therefore, when a dictator has ‘more’ trust, on average that dictator offers a higher partner share. Though the majority of the variables are not statistically significant, GSS Index and GSS Help are statistically significant. A dictator who thinks that others are helpful offers statistically significantly higher partner shares. The statistical significance of the GSS index probably derives from the strong GSS Help result.

Female subjects make statistically significantly higher offers translating to between 0.13 (Column 1 Table B.8) to 0.24 (Column 7 Table B.9) of an increase in the partner share. None of the remaining demographic characteristics are statistically significant, except for column 4 of Table B.9 in which Other Black is positive and statistically significant.<sup>8</sup>

### 5.3. Third Party Behavior

In this section, we report results from the multivariable regressions with deduction points as the dependent variable. The regressions are specified as follows:

$$d_{ia} = \alpha + T_i\gamma + \mathbf{X}_{ia}\beta + \psi_i\mathbf{Trust} + \delta_i\mathbf{Social} + \epsilon_{ia} \quad (2)$$

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<sup>8</sup>In unreported results, the coefficient of the interaction term of Other Black with each of the treatments is negative and significant, so one should not be misled by this positive coefficient.

$d_{ia}$  is the number of deduction points that each third party,  $i$ , indicated that they would spend at the dictator allocation,  $a$ .  $T_i$  is a dummy indicating whether a subject was in the T20 TP-DG treatment.  $\mathbf{X}$  is a vector of personal characteristics including ethnicity, gender and income variables. **Trust** and **Social** are the trust and social capital variables previously defined.  $\epsilon_{ia}$  is the customary error term with mean zero.

The regression coefficients on the trust variables are reported in Table B.5. The remaining coefficients are all reported in the comprehensive tables supplied in the appendix to the dissertation. The linear probability models and probit models estimate the probability that a third party spent deduction points at the most self-interested dictator allocation; that is, the probability that  $d_i > 0$  at a dictator allocation of 0 in the TP-DG or at a dictator allocation of -20 in the T20 TP-DG. Because the strategy method was used to infer what the Third Parties would do at each dictator allocation, I can estimate panel data regressions of deduction points by treating each allocation as the equivalent of a ‘period’ in a panel data model. I estimate regressions using the pooled data and separate regressions for the Baseline TP-DG and the T20 TP-DG. I use both OLS and Tobit specifications of deduction points in levels.<sup>9</sup> Consequently, we obtain results 4 and 5.

**Result 4:** Third Parties with more trust are more likely to punish the dictator’s most self-interested offer.

Table B.5 presents results showing that the trust variables all have positive coefficients in the Linear Probability Model or positive marginal effects in the Probit model. Three of the variables are statistically significant: GSS Index, GSS Trust, and Trusting Behaviour. Once again, one variable appears to drive the positive, significant GSS Index result; here GSS Trust is very large and highly statistically significant. On average, a third party who reports that others can be trusted is 43.2 percent (LPM) or 44.1 percent (Probit) more likely than their co-participants to punish a dictator who offers the most self-interested partner share. The comprehensive results are presented in Table B.10 and B.11 in the appendix.

**Result 5:** Trust affects punishment levels heterogeneously.

The results from the regressions on deduction points present several clear. First, GSS Fair, GSS Help and GSS Index consistently correlate positively with deduction points. GSS Fair and GSS Index are statistically significant in all of the pooled regressions and the Take 20 treatment regressions, suggesting that the pooled result is driven by the result in the Take 20 treatment. Second, trusting strangers correlates negatively in the pooled regressions (and is not statistically significant), whereas it correlates negatively and statistically significantly in the Baseline treatment, but positively and statistically signifi-

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<sup>9</sup>Additional regressions were run using the natural logarithm of deduction points as the dependent variable; the signs on the coefficients and their statistical significance remain the same and corroborate the results. The regression output is available on request from the author.

cantly in the Take 20 treatment. Accompanying this anomaly, in the Baseline treatment the Membership Index is statistically significant, negative and large. Conversely, in several instances in the Take 20 treatment it is positive and statistically significant, though the effect is not as large as reported in the Baseline treatment.

## 6. Discussion

Several interesting observations can be made about our results. First, unlike other studies such as Glaeser et al. (2000) and Gächter et al. (2004), we do not find particularly strong effects of demographic characteristics on the measured trust variables. Though other studies have typically found that age correlates strongly with trust, the current sample probably has insufficient variation in age across the sample to pick up a consistent linear result with age: the regressions with the age in years found a negative result for age, whereas in regressions using dummies for age categories it was found that subjects in the “oldest” category (25 years-old and higher) tended to have higher levels of trust. With more age divisions and a greater range of ages a more consistent and robust result might be found.

Trust correlates strongly with the decisions that subjects make in the experiment. Subjects who believe that others are helpful are less likely to behave entirely self-interestedly and they have higher partner shares. For trusting strangers a similar, though weaker, result obtains: subjects who trust strangers are less likely to make the most self-interested offer, but this behaviour does not translate into higher partner shares on average. Our results do *not* provide supporting evidence for the theories suggesting that perceiving others as fair results in higher proportions of altruistic or other-regarding behaviour (Gächter et al., 2004). On average, the GSS Index correlates strongly with dictator behaviour in all treatments. The results suggest that if a subject thinks that others are helpful, then they believe they ought to be helpful too by not behaving self-interestedly or by offering a higher partner share. Consequently, we could interpret the behaviour as supporting a theory of altruism based on attitudes of conditional cooperation, rather than a particular theory of inequality aversion.

In contrast to the result with dictator behaviour, perceiving others as fair correlates with the incidence and severity of punishment. Perceiving others as helpful also correlates with the severity of punishment. In contrast, we have conflicting results – results depending on the treatment – for trusting strangers. When subjects cannot take, then trusting strangers correlates negatively with punishment, whereas, when subjects can take, trusting strangers correlates positively with punishment. The result suggests that the change in context, from not permitting taking to permitting taking, dramatically alters the way in which the subjects perceive their choices in the experiment. Consequently, the way in which their trust attitudes are activated changes.

We find a strong gender result. Though being female does not translate to a specific effect on trust attitudes, female subjects as dictators are less likely to

choose the most self-interested partner share and offer higher partner shares on average; but females in the position of third parties are neither more nor less likely than males are to punish dictators who make the most self-interested offer and females spend neither more nor less than males do on deduction points. As dictators, females appear to be concerned unequivocally with their own actions in upholding or not infringing a social norm, but as third parties females do not differ from their male counterparts in the choice to punish.

Of the predictions that were made in Section 4, those about trust are borne out, but those examining social capital are not. Social capital, as proxied by group memberships and attendance at church, temple or mosque, was shown either to have no statistically significant effect on dictator behaviour or contradictory effects on third-party behaviour. For third-party behaviour, membership was negative and statistically significant in the regressions of deduction points in the Baseline dictator game with third-party punishment, memberships correlated positively, but statistically significantly in only a few instances in the Take 20 dictator game with third-party punishment.<sup>10</sup>

Though the results about trust are consistent, it is also important to comment on the degree of variance explained by the results. In the regressions on whether the dictators adopt the most self-interested action, the  $R^2$  ranged from 0.214 to 0.284. In the regressions of partner shares in levels, the  $R^2$  ranged from 0.398 to 0.563. These are much larger than in much of the literature (Glaeser et al., 2000; Gächter et al., 2004; Carpenter et al., 2004). We included additional controls and interaction terms that may not have been included in some of the previous literature, which may help to explain the higher  $R^2$ s; another explanation is that trust plays a greater role in the third-party punishment game, a game explicitly constructed to understand the role of social norms, than it might play in a game like the prisoner’s dilemma or public goods game.

The conflicting results about trust in the two treatments suggests that the role of trust is qualitatively different when taking is prevented (Baseline) than when taking is permitted (Take 20). If this pattern is representative, then it would suggest that lack of generosity is a different form of norm infringement than is taking or stealing. Though this may seem intuitive, there are few papers that show that this is the case in experimental economics, particularly in interactions with third parties.

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<sup>10</sup>I suspect that the negative coefficient on the membership index indicates not the negative effect of accumulating social capital, but instead a possible motive for students to ‘build their resumes’. Anecdotally, some students at university report that they need to ‘build’ their resumes by participating in and contributing to extracurricular activities at university. Consequently, a self-interested individual who wants to ensure that they have a ‘good’ resume could easily accumulate memberships and positions of influence in societies and social groups in order to build their resume rather than to contribute to the groups for intrinsic or social reasons.



## 7. Conclusion

Using a dictator game with third-party punishment with treatments in which dictators were permitted to take from their partnered receivers and evaluating the results of survey questionnaires, we showed that trust plays a large and statistically significant role in the behaviour of dictators and third parties. Trust correlates in a large and negative way with the probability that a dictator will make the most self-interested offer. Trust correlates in a large and positive way with a dictator's offer. Similarly, trust correlates in a large and positive way with the likelihood that a third party will punish a dictator's most self-interested offer and with the amount that a third party will spend on punishing dictator allocations.

Social capital - as proxied by group memberships - does not seem to produce as robust results as trust. Social capital neither predicts trust attitudes, nor does it correlate in a consistent or statistically significant way with dictators choosing the most self-interested offer or dictators making positive offers. Social capital also does not correlate with the probability that a third party chooses to punish a dictator. But, social capital does correlate with the amount that a third party spends on punishment, and it does so in a surprising way: social capital correlates negatively with punishment when dictators are not permitted to take, but it correlates positively with punishment when dictators are allowed to take. Therefore, we might deduce that the context in which social capital appears to operate most is when a social norm is infringed. Consequently, social capital's role as a support for social norms requiring sanctions only becomes salient when experimenters design experiments that allow subjects to act in directly norm-infringing ways, for example, by stealing. The results may also help to explain the lack of evidence for the role of social capital in some experiments - social capital would not have correlated with subjects punishing lack of generosity, whereas social capital may correspond with subjects punishing actions - like stealing - that infringe social norms.

Experimenters who work on social capital and trust should be aware that the experimental design they use becomes crucial in activating or de-activating social norms. A finely honed experimental design is crucial to identify correctly the roles played by trust and social capital in economic interactions. Furthermore, pairing such an experimental design with accurate surveys allows the experimenter to identify patterns in demographic characteristics. For example, ethnicity did not play as strong a role in the experimental results as in other experiments facilitated in South Africa. Gender, on the other hand, presented a robust result: female dictators were statistically significantly less likely to behave self-interestedly and they offered statistically significantly higher partner shares to their co-participants relative to male dictators, but females were not more likely than males to sanction dictators. The results indicate then that women may try to uphold social norms, but that they are no more or less likely than men to punish those who infringe the norms to which they adhere.

The results offer several paths for future research: first, experiments need to pay closer attention to the range of offers that subjects can make, perhaps

best exemplified by using treatments that allow both negative and positive allocations; second, with punishment, experiments need to investigate closely the differences involved in the punishment of antisocial, rather than merely ungenerous, behaviour; lastly, the results show that the exact paths by which trust and social capital correlate with social and antisocial behaviour are yet to be fully understood and therefore that more research needs to be undertaken into how trust and social capital interact and correlate with social and antisocial behaviour. Lastly, because social reciprocity is the theory with which the results are most consistent, it follows that experimental economists ought to perform further tests of social reciprocity theory to corroborate, falsify, or modify the theory. There are many avenues for such research, but one important path will require deeper evaluation of the within and between-subject similarities and differences of second-party and third-party punishment.

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## Appendix A. Variable Definitions

### Social Capital and Memberships

Membership in civic organisations is typically used to index a person’s stock of social capital, and many researchers adjust memberships for a subject’s level of participation (Glaeser et al., 2002; Gächter et al., 2004). The questionnaires administered to the subjects asked about their memberships in nine specific organisations and one ‘other’ generic organisation. The subjects also indicated whether they were active (2) or inactive (1) members of the organisations. Consequently, we construct an index of a subject’s social capital by assessing their participation in these organisations and compare the value of the index across groups. Because there are 20 possible groups, the value of the index could range from 0 to 40. We contrast this with a sum of total number of group memberships and a total number of active group memberships to ensure that we do not lose accuracy in the aggregation process.

*Religious* measures whether a subject chose that they were religious (1) or non-religious or an atheist/agnostic (0).

*Attendance* indicates the regularity with which a subject attends Church/Mosque/Temple. It is measured using a 6-point scale ranging from Never (1) to More than Weekly (6). The categories are Never, Special Occasions/Yearly, Less Often, Monthly, Weekly, More than weekly.

### Trust Variables

For trust we use the following questions based on the equivalent questions in the GSS: “Would you say that most people can be trusted (1), or that you need to be very careful (0)?” (*GSS Trust*), “Would you say that most people try to be helpful (1), or that they are mostly looking out for themselves (0)?” (*GSS Help*) and “Generally, people would try to take advantage of you (1) or people would try to be fair (10)” (*GSS Fair*). We also examine differences in responses to the statements, “I am trustworthy,” (*Trustworthy*) and “In general, you can’t count on strangers any more,” (*Trust Strangers*) each of which are measured on a 10 point scale (1=Disagree Strongly, 10=Agree Strongly). GSS Trust, GSS Help and GSS Fair are also used to compile an index, the GSS Index, which is standardised and signed so a higher and positive number indicates more ‘trust’. Finally, we construct a trusting behaviour index from three reports on three behavioural variables: “How often do you lend money to friends?” (*Lend Money*) and “How often do you lend possessions to friends?” (*Lend Possession*) both of which are measured on a scale of 1 (more than once a week) to 4 (once a year or less); and “How often do you leave your door unlocked?” (*Unlocked*) which is measured on a scale of 1 (Often) to Never (5). The Trusting Behaviour Index comprises these three variables and is standardised and signed so that a higher number indicates more trust.

Income Position: *Income Distribution*: There were 7 positions on the income distribution with 1 being the lowest point on the distribution and 7 being the

highest point on the distribution.<sup>11</sup>

## **Appendix B. Statistics and Regression Tables**

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<sup>11</sup>In attempts to use this question with pilot subjects we initially used an image of the actual income distribution in South Africa which pilot subjects typically did not understand. We decided to use a normal distribution, which, though dramatically different from the distribution of income in South Africa, displays a ‘bottom’, ‘top’, and ‘middle’ with some intermediate positions. Subjects found this intuitive and could apparently locate themselves on it, or locate where they perceived themselves to be even though the distribution did not reflect the ‘real’ South African distribution.

Table B.1: Characteristics by Ethnicity

	African Mean/Std. Dev.	Other Mean/Std. Dev.	White Mean/Std. Dev.	Dictators & Third Parties Mean/Std. Dev.
GSS Trust	0.123 (0.33)	0.267 (0.45)	0.375 (0.49)	.205 (.41)
GSS Help	0.311 (0.47)	0.333 (0.48)	0.450 (0.50)	.347 (0.48)
GSS Fair	4.245 (2.86)	3.633 (1.77)	4.575 (2.23)	4.216 (2.58)
GSS Index	-0.0742 (1.07)	-0.124 (0.70)	0.290 (0.98)	0 (1.00)
Trust Strangers	6.547 (2.36)	6.267 (1.96)	5.575 (1.80)	6.278 (2.20)
Lend Money	2.792 (0.88)	2.767 (0.97)	2.625 (0.84)	2.75 (0.885)
Lend Possession	2.368 (1.15)	2.300 (1.06)	2.225 (1.05)	2.323 (1.11)
Unlocked	3.264 (1.40)	3.533 (1.43)	3.950 (1.18)	3.466 (1.377)
Trusting Behaviour	0.0271 (1.02)	-0.0213 (0.96)	-0.0557 (1.00)	0 (1.00)
Trustworthy	7.292 (2.41)	8.300 (1.42)	8.575 (1.15)	7.756 (2.11)
Religious	0.802 (0.40)	0.667 (0.48)	0.475 (0.51)	0.705 (0.46)
Attendance	4.028 (1.56)	4.200 (1.79)	3.175 (2.01)	3.864 (1.74)
Membership Index	5.745 (3.25)	5.100 (2.43)	4.875 (3.17)	5.438 (3.11)
Total Memberships	3.877 (1.98)	3.267 (1.60)	3.125 (1.80)	3.602 (1.90)
Active Memberships	1.915 (1.65)	1.833 (1.26)	1.775 (1.54)	1.869 (1.56)
Receives Financial Aid	0.406 (0.49)	0.333 (0.48)	0.150 (0.36)	0.335 (0.47)
Receives Scholarship	0.311 (0.47)	0.333 (0.48)	0.325 (0.47)	0.318 (0.47)
Income Index	3.217 (1.44)	3.767 (1.38)	5.425 (1.28)	3.813 (1.65)
Observations	134	43	46	176

*Notes:* GSS Index and Trusting Behaviour are indexes that are de-measured and normalised by their standard deviations. GSS Index comprises the values from GSS Trust, GSS Help and GSS

Fair. Trusting Behaviour comprises Lend Money, Lend Possession and Unlocked. All other variables are as defined and explained in the text and contain raw values (in the regressions that are estimated later in the article, many variables are standardised by de-meaning and normalising by the standard deviation).

Table B.2: Mann-Whitney Tests of Characteristics by Ethnic Group

	White to Black African	Other Black to White	Black African to Other Black
GSS Trust	$z=3.44, p < 0.01$	$z=-0.95, \text{ n.s.}$	$z=1.92, p=0.05$
GSS Help	$z=1.56, \text{ n.s.}$	$z=-.98, \text{ n.s.}$	$z=0.23, \text{ n.s.}$
GSS Fair	$z=1.094, \text{ n.s.}$	$z=-1.842, p=0.07$	$z=-0.56, \text{ n.s.}$
GSS Index	$z = 2.066, p=0.039$	$z = -1.774, p = 0.076$	$z = 0.459, \text{ n.s.}$
Trust Strangers	$z=-2.34, p=0.02$	$z=1.09, \text{ n.s.}$	$z=-0.73, \text{ n.s.}$
Lend Money	$z = -1.338, \text{ n.s.}$	$z = 0.8208, \text{ n.s.}$	$z = -0.079, \text{ n.s.}$
Lend Possession	$z = -0.66, \text{ n.s.}$	$z = 0.30, \text{ n.s.}$	$z = -0.28, \text{ n.s.}$
Unlocked	$z = 2.88, p < 0.01$	$z = -1.142, \text{ n.s.}$	$z = 1.103, \text{ n.s.}$
Trusting Behaviour	$z = -0.601, \text{ n.s.}$	$z = -0.018, \text{ n.s.}$	$z = -0.357, \text{ n.s.}$
Trustworthy	$z=2.79, p=0.01$	$z=-0.78, \text{ n.s.}$	$z=1.789, p=0.07$
Religious	$z=-3.88, p < 0.01$	$z=1.58, \text{ n.s.}$	$z=-1.55, \text{ n.s.}$
Attendance	$z = -2.33, p=0.02$	$z=2.13, p=0.03$	$z=0.80, \text{ n.s.}$
Membership Index	$z=-1.62, \text{ n.s.}$	$z=0.99, \text{ n.s.}$	$z=-0.71, \text{ n.s.}$
Total Memberships	$z=-2.11, p=0.04$	$z=0.60, \text{ n.s.}$	$z=-1.37, \text{ n.s.}$
Active Memberships	$z=-0.38, \text{ n.s.}$	$z=0.66, \text{ n.s.}$	$z=0.14, \text{ n.s.}$
Receives Financial Aid	$z=-2.91, p < 0.1$	$z=1.80, p=0.07$	$z=-0.72, \text{ n.s.}$
Receives Scholarship	$z=0.16, \text{ n.s.}$	$z=0.07, \text{ n.s.}$	$z=0.23, \text{ n.s.}$
Volunteers	$z=0.45, \text{ n.s.}$	$z=0.70, \text{ n.s.}$	$z=1.24, \text{ n.s.}$
Income Index	$z=6.89, p < 0.01$	$z=-4.51, p < 0.01$	$z=1.90, p=0.06$



Table B.3: Measured Trust and Socio-economic Characteristics

	Dependent Variable						
	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	$dy/dx/SE$	Coef./SE	$dy/dx/SE$	Coef./SE	Coef./SE	Coef./SE	Coef./SE
=1 If Subject Female	-0.047 (0.11)	0.209 (0.27)	-0.067 (0.14)	-0.041 (0.31)	-0.321 (0.20)	-0.356 (0.30)	0.241 (0.27)
=1 if Black African	-0.238** (0.11)	0.124 (0.25)	-0.082 (0.12)	-0.315 (0.29)	-0.349 (0.21)	0.262 (0.24)	-0.555** (0.26)
Female x African	0.011 (0.14)	-0.523 (0.35)	-0.127 (0.16)	-0.309 (0.36)	-0.047 (0.29)	-0.491 (0.35)	-0.213 (0.36)
=1 if Other Black	-0.074 (0.09)	-0.295 (0.21)	-0.221** (0.10)	-0.484* (0.27)	-0.271 (0.22)	-0.062 (0.28)	-0.116 (0.26)
Female x Other	-0.047 (0.18)	-0.439 (0.38)	0.492*** (0.18)	0.206 (0.49)	-0.139 (0.40)	0.086 (0.50)	-0.273 (0.42)
Age	-0.183 (0.12)	-0.431 (0.26)	-0.390** (0.16)	-0.745*** (0.23)	-0.273 (0.26)	-0.023 (0.23)	0.206 (0.33)
Age-Squared	0.004 (0.00)	0.009 (0.01)	0.008** (0.00)	0.016*** (0.00)	0.005 (0.01)	-0.002 (0.00)	-0.004 (0.01)
=1 if Religious	-0.011 (0.09)	-0.114 (0.19)	-0.005 (0.11)	-0.065 (0.21)	0.260 (0.21)	0.331* (0.17)	-0.003 (0.21)
Church Attendance	0.002 (0.06)	0.055 (0.12)	0.039 (0.07)	0.063 (0.14)	-0.267** (0.13)	-0.162 (0.11)	0.118 (0.13)
Religious x Attendance	0.004 (0.07)	0.102 (0.18)	-0.080 (0.09)	-0.030 (0.17)	0.166 (0.17)	0.184 (0.15)	0.075 (0.18)
Membership Index	0.011 (0.03)	0.051 (0.09)	-0.000 (0.04)	0.034 (0.08)	0.002 (0.08)	0.030 (0.09)	-0.033 (0.10)
Constant	-	5.063* (3.01)	-	8.752*** (2.69)	3.826 (3.06)	1.144 (2.71)	-
$R^2$	0.081	0.051	0.067	0.079	0.110	0.164	0.025
Observations	176	176	176	176	176	176	176

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

*Notes:* All trust variables are de-meaned, normalised by the standard deviations, and re-signed so that a higher coefficient indicates ‘more’ trust. We estimate each of *GSS Fair*, *GSS Index*, *Trust Strangers* and *Trusting Behaviour Index* with OLS, *GSS Trust* and *GSS Helpfulness* with Probit (for which the marginal effects are reported) and *Trustworthiness* with Ordered Probit. Robust standard errors are reported in parentheses. *Female*, *Black African*, *Other Black* and *Religious* are dummy variables. *Membership Index* and *Church Attendance* are de-meaned and normalised by the standard deviations.

*Female*  $\times$  *African*, *Female*  $\times$  *Other* and *Religious*  $\times$  *Attendance* are interactions of the relevant variables.

Table B.4: Partner Share Regressions

Regression	Explanatory Trust Variable						
	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthy
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Probability Partner Share=0</b>							
LPM	-0.125 (0.13)	-0.065 (0.05)	-0.286*** (0.09)	-0.097* (0.05)	-0.061 (0.05)	-0.031 (0.06)	-0.002 (0.03)
Probit	-0.116** (0.05)	-0.040 (0.03)	-0.186*** (0.07)	-0.067* (0.04)	-0.043 (0.03)	-0.016 (0.04)	0.000 (0.02)
<b>Partner Share in levels</b>							
OLS Partshare	0.035 (0.04)	0.022 (0.02)	0.082** (0.03)	0.030* (0.02)	0.011 (0.01)	0.018 (0.02)	0.007 (0.01)
Tobit Partshare	0.059 (0.06)	0.035 (0.02)	0.142*** (0.05)	0.050** (0.02)	0.022 (0.02)	0.028 (0.03)	0.007 (0.01)
Observations	111	111	111	111	111	111	111

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

*Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. The regressions also include dummy variables for participation in the treatments and interaction terms between gender and the treatments and ethnicity and the treatments. Other variables are as defined in Table B.3, though the coefficients are not reported. See online supplementary information for complete tables.*

Table B.5: Deduction Point Regressions

	Explanatory Trust Variable						
	GSS Trust (1)	GSS Fair (2)	GSS Help (3)	GSS Index (4)	Trust Strangers (5)	Trusting Behaviour (6)	Trustworthiness (7)
<b>Probability Deduction Points &gt; 0 at Partner Share=0</b>							
LPM	0.432** (0.19)	0.058 (0.06)	0.059 (0.14)	0.106 (0.07)	0.066 (0.09)	0.091 (0.07)	0.011 (0.03)
Probit	0.441*** (0.11)	0.083 (0.07)	0.104 (0.14)	0.154* (0.09)	0.109 (0.10)	0.129* (0.08)	0.011 (0.04)
Observations	65	65	65	65	65	65	65
<b>Pooled Regressions of Deduction Points</b>							
OLS	-0.465 (1.97)	1.974*** (0.58)	0.988 (1.41)	1.817*** (0.65)	-0.170 (0.72)	-0.197 (0.59)	-0.279 (0.30)
Tobit	1.573 (3.88)	3.355** (1.36)	3.167 (2.96)	3.693** (1.48)	-0.327 (1.39)	0.703 (1.45)	-0.203 (0.64)
Observations	705	705	705	705	705	705	705
<b>Baseline TP-DG Regressions of Deduction Points</b>							
OLS	-0.419 (2.85)	-0.661 (0.93)	0.064 (1.74)	-0.527 (1.04)	-2.665*** (0.65)	-0.319 (0.73)	0.060 (0.39)
Tobit	3.665 (5.59)	-0.939 (2.73)	0.375 (4.94)	0.029 (2.64)	-6.700*** (1.78)	1.739 (2.23)	1.743* (0.98)
Observations	315	315	315	315	315	315	315
<b>Take 20 TP-DG Regressions of Deduction Points</b>							
OLS	-1.371 (3.28)	3.688*** (1.08)	3.063 (2.25)	2.650*** (1.02)	2.039** (0.88)	0.226 (1.12)	-0.343 (0.57)
Tobit	-2.829 (7.28)	6.750*** (1.89)	5.610 (3.95)	5.247*** (1.92)	4.011** (1.91)	1.833 (2.35)	-0.165 (0.87)
Observations	390	390	390	390	390	390	390

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

*Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. The regressions also include dummy variables for participation in the treatments and interaction terms between gender and the treatments and ethnicity and the treatments. Other variables are as defined in Table B.3, though the coefficients are not reported. See online supplementary information for complete tables. Marginal effects are reported for Probit models.*

## General Instructions for Participant A

Welcome to this scientific economic experiment.

- By carefully reading the following instructions you can - depending on the decisions you and the other participants make - earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- It is important that you pay attention to the instructions given below.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- The total amount of the points earned during the experiment will, on completion of the experiment, be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 3 types of participants: participant A, participant B, and participant C.

**You are a participant A.**

- During the experiment you will be dealing with a participant B and with a participant C.
- Neither during nor after the experiment will you be aware of the identities of participant B and participant C.
- Neither participant B nor participant C will know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment, all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.

## Specific Instructions for the Experiment's Procedure

The following describes the experiment's two stages.

### Stage one

- At this stage participant A is the only decision-maker.
- As a participant A you get **80 points** at the beginning of stage one.
- Participant C gets **40 points**
- Participant B gets **no points**.
- You must decide how many of the 80 points you wish to assign to participant B.
- You can give participant B a number of points between 0 and 40 in multiples of five, i.e., 0, 5, 10, 15, 20, 25, 30, 35 or 40 points.

### Examples:

- If you grant participant B 40 points, your income at the end of stage one will be 40 points, and participant B's income will be 40 points.
- If you grant participant B 10 points, your income at the end of stage one will be 70 points, and participant B's income will be 10 points.

### Stage two

- At stage two, only participant Cs are decision-makers.
- Participant C is given a table indicating each potential number of points, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points that you could allocate to participant B.
- Participant C can now choose to transfer deduction points to you.
- Each deduction point transferred by participant C to you diminishes your income by 3 points and participant C's income by 1 point.
- Participant C can assign you a number of deduction points between 0 and 40.
- Participant C chooses, for each potential transfer by you to Participant B, how many deduction points they would give you.
- At the end of the experiment, your total points are the remaining points you have after you allocated points to Participant A minus the number of deduction points times 3 that participant C transferred to you at that allocation.

### Examples:

- Suppose participant C charges 2 deduction points: your income will be reduced by 6 points, and participant C's income will be reduced by 2 points.
- If participant C transfers 19 deduction points to you, your income will be reduced by 57 points and participant C's income is reduced by 19 points.

This is how we calculate participants A's, participant B's, and participant C's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- 3 times the number of deduction points transferred to participant A by participant C

Participant B's income amounts to

- + number of points assigned to participant B by participant A

Participant C's income amounts to

- + 40 points
- number of deduction points charged participant A by participant C

**Please note that your earnings may result in a negative, in which case the points will be deducted from your start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

### Control Questions

1. Participant A assigns 0 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 25 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
2. Participant A assigns 40 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 10 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....

**Are there any questions?**

## General Instructions for Participant B

Welcome to this scientific economic experiment.

- Depending on the decisions of the other participants you can earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- At the end of the experiment, the total amount of points earned during the experiment will be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 3 types of participants: participant A, participant B, and participant C.

**You are a participant B.**

- In the course of the experiment you will deal with a participant A and with a participant C.
- Neither during nor after the experiment will you be aware of the identities of participant A and participant C.
- Neither participant A nor participant C will know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment, all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.



## Specific Instructions for the Experiment's Procedure

The experiment consists of two stages described hereafter.

### Stage one

- At this stage participant A is the only decision-maker.
- At the beginning of stage one participant A gets **80 points**.
- Participant C gets **40 points**.
- As a participant B you get **no points**.
- Participant A must decide how many of his or her 80 points he or she wishes to assign to you.
- Participant A can transfer to you a number of points between 0 and 40 in multiples of five, i.e. 0, 5, 10, 15, 20, 25, 30, 35, or 40 points.

### Examples

- If participant A grants you 40 points, participant A's income at the end of stage one will be 40 points, and your income will be 40 points.
- If Participant A grants you 10 points, participant A's income at the end of stage one will be 70 points, and your income will be 10 points.

### Stage two

- At stage two, participant C is the only decision-maker.
- Participant C is given a table indicating each potential number of points, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points, that participant A could allocate to you.
- Participant C can now choose to transfer deduction points to participant A.
- Each deduction point transferred by participant C to participant A diminishes participant A's income by 3 points and participant C's income by 1 point.
- Participant C can assign participant A any number of deduction points between 0 and 40.
- Participant C chooses, for each potential transfer by participant A to you, how many deduction points they would give participant A.
- At the end of the experiment, your total points are the points that participant A gave to you. Your total points are unaffected by participant C's decision.

### Examples

- If participant C transfers 2 deduction points to participant A, then participant C's income will be reduced by 2 points, and participant A's income will be reduced by 6 points.
- If participant C assigns 19 deduction points to participant A, then participant C's income will be diminished by 19 points and participant A's income will be reduced by 57 points.

This is how we calculate participants A's, participant B's, and participant C's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- 3 times the number of deduction points transferred to participant A by participant C

Participant B's income amounts to

- + number of points assigned to participant B by participant A

Participant C's income amounts to

- + 40 points
- number of deduction points charged participant A by participant C

**Please note that your earnings may result in a negative, in which case the points will be deducted from your start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

### Control Questions

1. Participant A assigns 0 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 25 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
2. Participant A assigns 40 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 10 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....

**Are there any questions?**

## General Instructions for Participant C

Welcome to this scientific economic experiment.

- By carefully reading the following instructions you can - depending on the decisions you and the other participants will make - earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- It is important that you pay attention to the instructions given below.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- At the end of the experiment, the total amount of points you earn during the experiment will be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 3 types of participants: participant A, participant B, and participant C.

**You are a participant C.**

- In the course of the experiment you will deal with a participant A and with a participant B.
- Neither during nor after the experiment will you be aware of the identities of participant A and participant B.
- Neither participant A nor participant B will know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment, all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.

## Specific Instructions for the Experiment's Procedure

The experiment consists of two stages described hereafter.

### **Stage one**

- At this stage participant A is the only decision-maker.
- At the beginning of the stage, participant A gets **80 points**.
- You as a participant C get **40 points**.
- Participant B gets **no points**.
- Participant A must decide how many of his or her 80 points he or she wishes to assign to participant B.
- He or she can transfer to participant B a number of points between 0 and 40 in multiples of five, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points.

### **Examples:**

- If participant A grants participant B 40 points, participant A's income at the end of stage one will be 40 points, and participant B's income will be 40 points.
- If participant A grants participant B 10 points, participant A's income at the end of stage one will be 70 points, and participant B's income will be 10 points.

### **Stage two**

- At stage two, you, as participant C, are the only one to make a decision.
- You are shown a table indicating each potential number of points, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points, that participant A could allocate to participant B.
- Now, you can choose to transfer deduction points to participant A.
- Each deduction point transferred by you to participant A diminishes your income by 1 point and participant A's income by 3 points.
- You can assign a number of deduction points between 0 and 40.
- You choose, for **each potential transfer** by participant A, how many deduction points you would give participant A at that transfer.
- At the end of the experiment, you are paid for the combination of the number of deduction points you chose with the number of points that participant A transferred to participant B.

### **Examples:**

- If you assign 2 deduction points to participant A, your income will be reduced by 2 points, and participant A's income will be reduced by 6 points.
- If you assign 19 deduction points to participant A, your income is diminished by 19 points and participant A's income is reduced by 57 points.

This is how we calculate participants A's, participant B's, and participant C's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- 3 times the number of deduction points transferred to participant A by participant C

Participant B's income amounts to

- + number of points assigned to participant B by participant A

Participant C's income amounts to

- + 40 points
- number of deduction points charged participant A by participant C

**Please note that your earnings may result in a negative, in which case the points will be deducted from your start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

### Control Questions

1. Participant A assigns 0 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 25 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
2. Participant A assigns 40 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 10 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....

**Are there any questions?**

## General Instructions for Participant A

Welcome to this scientific economic experiment.

- By carefully reading the following instructions you can - depending on the decisions you and the other participants make - earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- It is important that you pay attention to the instructions given below.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- The total amount of the points earned during the experiment will, on completion of the experiment, be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 3 types of participants: participant A, participant B, and participant C.

**You are a participant A.**

- During the experiment you will be dealing with a participant B and with a participant C.
- Neither during nor after the experiment will you be aware of the identities of participant B and participant C.
- Neither participant B nor participant C will know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment, all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.



## Specific Instructions for the Experiment's Procedure

The following describes the experiment's two stages.

### Stage one

- At this stage participant A is the only decision-maker.
- As a participant A you get **80 points** at the beginning of stage one.
- Participant C gets **40 points**
- Participant B gets **no points**.
- You must decide how many of the 80 points you wish to assign to participant B.
- You can give participant B a number of points between 0 and 40 in multiples of five, i.e., 0, 5, 10, 15, 20, 25, 30, 35 or 40 points.
- Alternatively, you may assign yourself 5, 10, 15 or 20 points of Participant B's start-up capital.

### Examples:

- If you grant participant B 40 points, your income at the end of stage one will be 40 points, and participant B's income will be 40 points.
- If you grant participant B 10 points, your income at the end of stage one will be 70 points, and participant B's income will be 10 points.
- If you grant yourself 5 points of participant B's start-up capital, your income at the end of stage one will be 85 points and participant B will have 15 points of start-up capital remaining.

### Stage two

- At stage two, only participant Cs are decision-makers.
- Participant C is given a table indicating each potential number of points, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points that you could allocate to participant B.
- Participant C is also shown the option allowing you to choose to transfer 5, 10, 15 or 20 points from participant B's startup capital to yourself.
- Participant C can now choose to transfer deduction points to you.
- Each deduction point transferred by participant C to you diminishes your income by 3 points and participant C's income by 1 point.
- Participant C can assign you a number of deduction points between 0 and 40.
- Participant C chooses, for each potential transfer by you to Participant B, how many deduction points they would give you.
- At the end of the experiment, your total points are the remaining points you have after you allocated points to Participant A minus the number of deduction points times 3 that participant C transferred to you at that allocation.

### Examples:

- Suppose participant C charges 2 deduction points: your income will be reduced by 6 points, and participant C's income will be reduced by 2 points.
- If participant C transfers 19 deduction points to you, your income will be reduced by 57 points and participant C's income is reduced by 19 points.

This is how we calculate participants A's, participant B's, and participant C's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- + number of points assigned by participant A to him- or herself from participant B's start-up capital
- 3 times the number of deduction points transferred to participant A by participant C

Participant B's income amounts to

- + number of points assigned to participant B by participant A, or
- number of points assigned by Participant A to him- or herself from participant B's start-up capital.

Participant C's income amounts to

- + 40 points
- number of deduction points charged participant A by participant C

**Please note that your earnings may result in a negative, in which case the points will be deducted from your start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

### Control Questions

1. Participant A assigns 0 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 25 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
2. Participant A assigns 40 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 10 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....

**Are there any questions?**

## General Instructions for Participant B

Welcome to this scientific economic experiment.

- Depending on the decisions of the other participants you can earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- At the end of the experiment, the total amount of points earned during the experiment will be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 3 types of participants: participant A, participant B, and participant C.

**You are a participant B.**

- In the course of the experiment you will deal with a participant A and with a participant C.
- Neither during nor after the experiment will you be aware of the identities of participant A and participant C.
- Neither participant A nor participant C will know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment, all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.

## Specific Instructions for the Experiment's Procedure

The experiment consists of two stages described hereafter.

### Stage one

- At this stage participant A is the only decision-maker.
- At the beginning of stage one participant A gets **80 points**.
- Participant C gets **40 points**.
- As a participant B you get **no points**.
- Participant A must decide how many of his or her 80 points he or she wishes to assign to you.
- Participant A can transfer to you a number of points between 0 and 40 in multiples of five, i.e. 0, 5, 10, 15, 20, 25, 30, 35, or 40 points.
- Alternatively, participant A may assign him- or herself 5, 10, 15 or 20 points of your start-up capital.

### Examples

- If participant A grants you 40 points, participant A's income at the end of stage one will be 40 points, and your income will be 40 points.
- If Participant A grants you 10 points, participant A's income at the end of stage one will be 70 points, and your income will be 10 points.
- If Participant A grants him- or herself 5 points of your start-up capital, Participant A's income at the end of stage one will be 85 points and you will have 15 points of start-up capital remaining.

### Stage two

- At stage two, participant C is the only decision-maker.
- Participant C is given a table indicating each potential number of points, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points, that participant A could allocate to you.
- Participant C is also shown the option allowing participant A to choose to transfer to him- or herself 5, 10, 15 or 20 points from your start-up capital.
- Participant C can now choose to transfer deduction points to participant A.
- Each deduction point transferred by participant C to participant A diminishes participant A's income by 3 points and participant C's income by 1 point.
- Participant C can assign participant A any number of deduction points between 0 and 40.
- Participant C chooses, for each potential transfer by participant A to you, how many deduction points they would give participant A.
- At the end of the experiment, your total points are the points that participant A gave to you. Your total points are unaffected by participant C's decision.

### Examples

- If participant C transfers 2 deduction points to participant A, then participant C's income will be reduced by 2 points, and participant A's income will be reduced by 6 points.
- If participant C assigns 19 deduction points to participant A, then participant C's income will be diminished by 19 points and participant A's income will be reduced by 57 points.

This is how we calculate participants A's, participant B's, and participant C's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- + number of points assigned by participant A to him- or herself from participant B's start-up capital
- 3 times the number of deduction points transferred to participant A by participant C

Participant B's income amounts to

- + number of points assigned to participant B by participant A, or
- number of points assigned by Participant A to him- or herself from participant B's start-up capital.

Participant C's income amounts to

- + 40 points
- number of deduction points charged participant A by participant C

**Please note that your earnings may result in a negative, in which case the points will be deducted from your start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

### Control Questions

1. Participant A assigns 0 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 25 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
2. Participant A assigns 40 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 10 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....

**Are there any questions?**

## General Instructions for Participant C

Welcome to this scientific economic experiment.

- By carefully reading the following instructions you can - depending on the decisions you and the other participants will make - earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- It is important that you pay attention to the instructions given below.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- At the end of the experiment, the total amount of points you earn during the experiment will be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 3 types of participants: participant A, participant B, and participant C.

**You are a participant C.**

- In the course of the experiment you will deal with a participant A and with a participant B.
- Neither during nor after the experiment will you be aware of the identities of participant A and participant B.
- Neither participant A nor participant B will know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment, all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.



## Specific Instructions for the Experiment's Procedure

The experiment consists of two stages described hereafter.

### Stage one

- At this stage participant A is the only decision-maker.
- At the beginning of the stage, participant A gets **80 points**.
- You as a participant C get **40 points**.
- Participant B gets **no points**.
- Participant A must decide how many of his or her 80 points he or she wishes to assign to participant B.
- He or she can transfer to participant B a number of points between 0 and 40 in multiples of five, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points.
- Participant A may also assign him- or herself 5, 10, 15 or 20 points of Participant B's start-up capital.

### Examples:

- If participant A grants participant B 40 points, participant A's income at the end of stage one will be 40 points, and participant B's income will be 40 points.
- If participant A grants participant B 10 points, participant A's income at the end of stage one will be 70 points, and participant B's income will be 10 points.
- If participant A grants him- or herself 5 points of participant B's start-up capital, participant A's income at the end of stage one will be 85 points, and participant B will have 15 points of start-up capital remaining.

### Stage two

- At stage two, you, as participant C, are the only one to make a decision.
- You are shown a table indicating each potential number of points, i.e., 0, 5, 10, 15, 20, 25, 30, 35, or 40 points, that participant A could allocate to participant B.
- You are also shown the options allowing participant A to choose to transfer 5, 10, 15 or 20 points from participant B's start-up capital to him- or herself.
- Now, you can choose to transfer deduction points to participant A.
- Each deduction point transferred by you to participant A diminishes your income by 1 point and participant A's income by 3 points.
- You can assign a number of deduction points between 0 and 40.
- You choose, for **each potential transfer** by participant A, how many deduction points you would give participant A at that transfer.
- At the end of the experiment, you are paid for the combination of the number of deduction points you chose with the number of points that participant A transferred to participant B.

### Examples:

- Suppose you transfer 2 deduction points to participant A, your income will be reduced by 2 points, and participant A's income will be reduced by 6 points.
- If you assign 19 deduction points to participant A, your income is diminished by 19 points and participant A's income is reduced by 57 points.

This is how we calculate participants A's, participant B's, and participant C's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- + number of points assigned by participant A to him- or herself from participant B's start-up capital
- 3 times the number of deduction points transferred to participant A by participant C

Participant B's income amounts to

- + number of points assigned to participant B by participant A, or
- number of points assigned by Participant A to him- or herself from participant B's start-up capital.

Participant C's income amounts to

- + 40 points
- number of deduction points charged participant A by participant C

**Please note that your earnings may result in a negative, in which case the points will be deducted from your start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

### Control Questions

1. Participant A assigns 0 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 25 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
2. Participant A assigns 40 points to participant B.
  - a) If participant C charges participant A with 0 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....
  - b) If participant C charges participant A with 10 deduction points...  
What is participant A's income? .....  
What is participant B's income? .....  
What is participant C's income? .....

**Are there any questions?**

## General Instructions for Participant A

Welcome to this scientific economic experiment.

- By carefully reading the following instructions you can - depending on the decisions you make - earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- It is important that you pay attention to the instructions given below.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- The total amount of the points earned during the experiment will, on completion of the experiment, be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 2 types of participants: participant A and participant B.

**You are a participant A.**

- During the experiment you will be dealing with a participant B.
- Neither during nor after the experiment will you be aware of the identity of participant B.
- Participant B will not know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.

<b>Specific Instructions for the Experiment's Procedure</b>
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The following describes the experiment's decision-making.

**Decision-making**

- Participant A is the only decision-maker.
- As a participant A you get **80 points** at the beginning of the experiment.
- Participant B gets **no points**.
- You must decide how many of the 80 points you wish to assign to participant B.
- You can give participant B a number of points between 0 and 40 in multiples of five, i.e., 0, 5, 10, 15, 20, 25, 30, 35 or 40 points.
- Alternatively, you may assign yourself 5, 10, 15 or 20 points of Participant B's start-up capital.

**Examples:**

- If you grant participant B 40 points, your income at the end of the experiment will be 40 points, and participant B's income will be 40 points.
- If you grant participant B 10 points, your income at the end of the experiment will be 70 points, and participant B's income will be 10 points.
- If you grant yourself 5 points of participant B's start-up capital, your income at the end of the experiment will be 85 points and participant B will have 15 points of start-up capital remaining.

This is how we calculate participants A's and participant B's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- + number of points assigned by participant A to him- or herself from participant B's start-up capital

Participant B's income amounts to

- + number of points assigned to participant B by participant A, or
- number of points assigned by Participant A to him- or herself from participant B's start-up capital

**Please note that earnings may result in a negative, in which case the points will be deducted from the player's start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

<b>Control Questions</b>
--------------------------

**1.** Participant A assigns 0 points to participant B.

What is participant A's income? .....

What is participant B's income? .....

**2.** Participant A assigns 40 points to participant B.

What is participant A's income? .....

What is participant B's income? .....

**3.** Participant A assigns 10 points from participant B to himself or herself

What is participant A's income? .....

What is participant B's income? .....

**Are there any questions?**

## General Instructions for Participant B

Welcome to this scientific economic experiment.

- Depending on the decisions of the other participants you can earn money in addition to the R20 start-up capital you receive as a fee for your participation.
- If you have any questions, please ask the assistant.
- **During the experiment you are absolutely not allowed to communicate with your co-participants.**
- Violating this rule automatically leads to exclusion both from the experiment itself and from all pertaining payments.
- During this experiment we do not deal with Rands, but with points.
- At the end of the experiment, the total amount of points earned during the experiment will be converted into Rands at the rate of

**1 point equals 1 Rand.**

- This experiment has 2 types of participants: participant A and participant B.

**You are a participant B.**

- In the course of the experiment you will deal with a participant A.
- Neither during nor after the experiment will you be aware of the identity of participant A.
- Participant A will not know with whom they were dealing.
- This ensures total anonymity of all decision-makers.
- At the end of the experiment all earnings will be paid out anonymously.
- No participant learns how much you earned in the experiment.



<h3>Specific Instructions for the Experiment's Procedure</h3>
---

#### Decision-making

- Participant A is the only decision-maker.
- Participant A gets **80 points**.
- As a participant B you get **no points**.
- Participant A must decide how many of his or her 80 points he or she wishes to assign to you.
- Participant A can transfer to you a number of points between 0 and 40 in multiples of five, i.e. 0, 5, 10, 15, 20, 25, 30, 35, or 40 points.
- Alternatively, participant A may assign him- or herself 5, 10, 15 or 20 points of your start-up capital.

#### Examples

- If participant A grants you 40 points, participant A's income at the end of the experiment will be 40 points, and your income will be 40 points.
- If Participant A grants you 10 points, participant A's income at the end of the experiment will be 70 points, and your income will be 10 points.
- If Participant A grants him- or herself 5 points of your start-up capital, Participant A's income at the end of the experiment will be 85 points and you will have 15 points of start-up capital remaining.

This is how we calculate participants A's and participant B's incomes:

Participant A's income amounts to

- + 80 points
- number of points assigned to participant B by participant A
- + number of points assigned by participant A to him- or herself from participant B's start-up capital

Participant B's income amounts to

- + number of points assigned to participant B by participant A, or
- number of points assigned by Participant A to him- or herself from participant B's start-up capital.

**Please note that earnings may result in a negative, in which case the points will be deducted from the player's start-up capital.**

- Fill in the control questions now.
- Notify the tester when you've finished by raising your hand.
- The experiment begins as soon as every participant has successfully answered all control questions.

<b>Control Questions</b>
--------------------------

1. Participant A assigns 0 points to participant B.

What is participant A's income? .....

What is participant B's income? .....

2. Participant A assigns 40 points to participant B.

What is participant A's income? .....

What is participant B's income? .....

3. Participant A assigns 10 points from participant B to himself or herself

What is participant A's income? .....

What is participant B's income? .....

**Are there any questions?**

PERSONAL CODE: \_\_\_\_\_

Student Number: \_\_\_\_\_

What is your date of birth (DD/MM/YYYY)? \_\_\_\_\_

This means that your age is? \_\_\_\_\_

Country of Birth: \_\_\_\_\_ Nationality: \_\_\_\_\_

Are you a South African citizen?      Yes      No

What racial group would you classify yourself as? Please circle.

African	Coloured	Indian	Asian	White	Other_____	Prefer not to say
---------	----------	--------	-------	-------	------------	-------------------

What is your home language?

Afrikaans	English	Ndebele	Northern Sotho	Southern Sotho	Swati
Tsonga	Tswana	Venda	Xhosa	Zulu	Other_____

Relationship Status, please circle:

Single  
Divorced

Married  
Separated

Cohabiting  
Widowed

Do you have any children?	Yes	No
---------------------------	-----	----

If yes, how many children do you have? \_\_\_\_\_

Are these children dependent on you for financial support?    Yes                      No

Do you have any brothers and/or sisters?                      Yes                      No

If yes, how many brothers and/or sisters do you have? \_\_\_\_\_

If yes, what is your birth rank, i.e., are you first born, second born, etc? \_\_\_\_\_

Do you receive a scholarship to study at university?      Yes      No

Do you receive financial aid to study at university, i.e. financial aid that is not a scholarship?

Residential status: Do you live in a(n) \_\_\_\_\_?

University Residence	Non-University Residence	Parents' home
Other family home	Non-family Shared apartment/house	Own apartment/room/house

What is the highest year of study that you have completed, i.e., first year, second year, etc? \_\_\_\_\_

What year of study are you in now? \_\_\_\_\_

What faculty are you studying in? \_\_\_\_\_

What is your degree title? \_\_\_\_\_

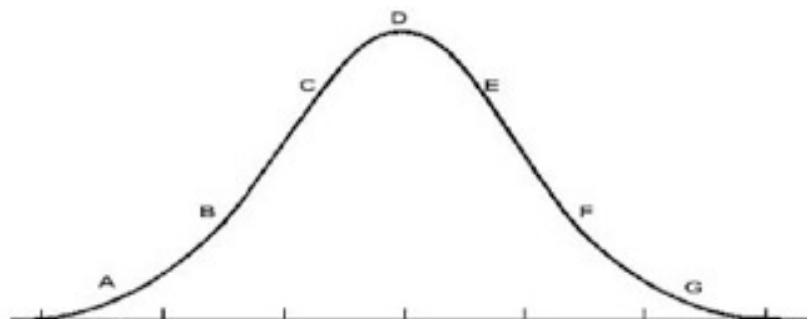
Do you have a part-time job? Yes No

If yes, how many hours a week do you spend doing your job? \_\_\_\_\_

Do you do any volunteer work, e.g., SHAWCO? Yes No

If yes, how many hours a week do you spend doing volunteer work? \_\_\_\_\_

If you had to label where your family lies on the income distribution of South Africa, on what point on the graph below of the income distribution of South Africa (A is lowest income, G is highest income) would you say your family is or is closest to? Please circle the most appropriate. If you are not South African, try to circle the equivalent for your family as if you lived in South Africa.



A	B	C	D	E	F	G
---	---	---	---	---	---	---

Of the people who were in the first room for the experiment, how many of them do you know and interact with outside of the experiment?

0	1-20%	21-40%	41-60%	61-80%	81-100%
---	-------	--------	--------	--------	---------

Have you previously participated in an economics experiment? Yes No

Would you be interested in participating in experiments in the future? Yes No

For the following statements, please indicate whether you disagree strongly (1) or agree strongly (10) or that you think something in between.

"I believe the experimenters will pay me at the end of the experiment." Choose only one number.

Disagree Strongly

Agree strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

"I believe the experimenters will pay my partners (the counterpart participants) at the end of the experiment." Choose only one number.

Disagree Strongly

Agree strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

"I trusted that the experiment was being conducted in the way that it was described to me." Choose only one number.

Disagree Strongly

Agree strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

"I am sure that there really were other people paired with me." Choose only one number.

Disagree Strongly

Agree strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

"I was sure that the points I wrote down were going to be given to the person with whom I had been paired." Choose only one number.

Disagree Strongly

Agree strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

"I viewed the experiment as a sort of "game" in which I was a player trying to win." Choose only one number.

Disagree Strongly

Agree strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair? Please show your response, where 1 means that "people would try to take advantage of you," and 10 means that "people would try to be fair". Choose only one number:

People would try to take advantage of you

People would try to be fair

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people? Circle the appropriate number.

Most people can be trusted.

1

Need to be very careful.

2

Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves? Circle the appropriate number.

Most people try to be helpful. 1

Just looking out for themselves. 2

How strongly do you agree with the statement "I am trustworthy"? Choose only one number.

Disagree Strongly

Agree Strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

How strongly do you agree with the statement, "In general, you can't count on strangers any more"? Choose only one number.

Disagree Strongly

Agree Strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

How often do you lend money to friends? Circle the most appropriate.

1: More than once a week;

2: once a week;

3: once a month;

4: once a year or less

How often do you lend personal possessions to friends? Circle the most appropriate.

1: More than once a week;

2: once a week;

3: once a month;

4: once a year or less

How often do you leave your door unlocked? Circle the most appropriate.

1: Very often;

2: Often;

3: Sometimes;

4: Rarely;

5: Never

How strongly do you agree with the statement, "If I saw a petty crime, e.g., prostitution, vandalism, or shoplifting, being committed I would try to stop those committing the crime"? Choose only one number.

Disagree Strongly

Agree Strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

How strongly do you agree with the statement, "If I saw a violent crime, e.g., rape, assault, or murder, being committed I would try to stop those committing the crime"? Choose only one number.

Disagree Strongly

Agree Strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Now please state your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between (**Choose only one number for each issue**):

Incomes should be made more equal					We need larger income differences as incentives for individual effort				
1	2	3	4	5	6	7	8	9	10

Private ownership of business and industry should be increased					Government ownership of business and industry should be increased				
1	2	3	4	5	6	7	8	9	10

The government should take more responsibility to ensure that everyone is provided for					People should take more responsibility to provide for themselves				
1	2	3	4	5	6	7	8	9	10

Competition is good. It stimulates people to work hard and develop new ideas					Competition is harmful. It brings out the worst in people				
1	2	3	4	5	6	7	8	9	10

In the long run, hard work usually brings a better life					Hard work doesn't generally bring success—it's more a matter of luck and connections				
1	2	3	4	5	6	7	8	9	10

People can only get rich at the expense of others					Wealth can grow so there's enough for everyone				
1	2	3	4	5	6	7	8	9	10

Some people believe that individuals can decide their own destiny, while others think that it is impossible to escape a predetermined fate. Please tell me which comes closest to your view on this scale on which 1 means "everything in life is determined by fate," and 10 means that "people shape their fate themselves." (choose only one number):

Everything is determined by fate					People shape their fate themselves				
1	2	3	4	5	6	7	8	9	10



Do you belong to a religion or religious denomination? If yes, which one? Please circle the number that corresponds.

- No, I do not belong to a denomination 0
- Yes: Roman Catholic 1
- Protestant 2
- Orthodox (Russian/Greek/etc.) 3
- Jew 4
- Muslim 5
- Hindu 6
- Buddhist 7
- Other (write in):\_\_\_\_\_ 8

Apart from weddings and funerals, about how often do you attend religious services or prayer these days? Choose only one.

More than once a week	Once a week	Once a month	Only on special holy days	Once a year	Less Often	Never, practically never
-----------------------	-------------	--------------	---------------------------	-------------	------------	--------------------------

Independently of whether you attend religious services/prayer or not, would you say you are \_\_\_\_\_. Circle the appropriate option:

- 1 a religious person
- 2 not a religious person
- 3 an atheist

Now please read this list of voluntary organizations. For each one, could you say if you're an active member, an inactive member or not a member of that type of organization? Circle the appropriate number, 2 for 'Active Member', 1 for 'Inactive Member' and 0 for 'Not a Member'.

	Active Member	Inactive Member	Not a member
Church or religious organization	2	1	0
University or non-university Sport or recreational organization	2	1	0
Art, Music or Educational organization	2	1	0
Labour Union	2	1	0
Political Party	2	1	0
Environmental Organization	2	1	0
Professional Organization	2	1	0
Humanitarian or Charitable Organization	2	1	0
Consumer Organization	2	1	0
Any other, please name _____	2	1	0

Now please read this list of emotions and indicate whether, when you made your economic decision, you experienced any of these emotions.

	Experienced	Did not experience
Anger	1	0
Anxiety	1	0
Guilt	1	0
Shame	1	0
Excitement	1	0
Righteousness	1	0
Fear or Worry	1	0
Admiration	1	0
Contempt	1	0
Pride	1	0
Outrage	1	0
Envy	1	0

How strongly, then do you agree with the statement, “I experienced no emotions when I made my economic decision.”

Disagree Strongly

Agree Strongly

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Finally, could you write briefly about what you were thinking or feeling when you made your economic decision?

[illegible]

Table B.6: Linear Probability Regressions of Partner Share=0 with Trust Variables

	Dependent Variable: Partner Share=0							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
GSS Trust		-0.125 (0.13)						
GSS Fair			-0.065 (0.05)					
GSS Help				-0.286*** (0.09)				
GSS Index					-0.097* (0.05)			
Trust Strangers						-0.061 (0.05)		
Trusting Behaviour							-0.031 (0.06)	
Trustworthy								-0.002 (0.03)
=1 If Subject Female	-0.475** (0.23)	-0.484** (0.24)	-0.477** (0.24)	-0.472* (0.24)	-0.482** (0.24)	-0.499** (0.24)	-0.503** (0.24)	-0.476** (0.24)
=1 if Black African	0.088 (0.31)	0.050 (0.30)	0.098 (0.31)	-0.060 (0.31)	0.042 (0.31)	0.036 (0.31)	0.109 (0.31)	0.088 (0.31)
Female x African	0.234 (0.26)	0.247 (0.26)	0.189 (0.26)	0.224 (0.26)	0.192 (0.26)	0.239 (0.26)	0.227 (0.26)	0.233 (0.26)
=1 if Other Black	-0.457 (0.29)	-0.488 (0.30)	-0.475 (0.30)	-0.560* (0.31)	-0.517* (0.30)	-0.465 (0.29)	-0.453 (0.29)	-0.457 (0.30)
Female x Other	0.236 (0.50)	0.325 (0.48)	0.201 (0.47)	0.524 (0.45)	0.316 (0.43)	0.246 (0.46)	0.259 (0.50)	0.236 (0.50)
Age	-0.057 (0.18)	-0.065 (0.18)	-0.047 (0.18)	-0.195 (0.18)	-0.083 (0.19)	-0.073 (0.18)	-0.047 (0.18)	-0.055 (0.18)
Age-Squared	0.001 (0.00)	0.002 (0.00)	0.001 (0.00)	0.004 (0.00)	0.002 (0.00)	0.002 (0.00)	0.001 (0.00)	0.001 (0.00)
Membership Index	-0.038 (0.07)	-0.021 (0.07)	-0.034 (0.07)	-0.026 (0.07)	-0.022 (0.07)	-0.031 (0.07)	-0.028 (0.07)	-0.038 (0.07)
Constant	0.874 (2.09)	0.983 (2.16)	0.783 (2.16)	2.661 (2.14)	1.225 (2.19)	1.116 (2.14)	0.782 (2.11)	0.862 (2.10)
$R^2$	0.214	0.222	0.227	0.271	0.246	0.228	0.217	0.214
Observations	111	111	111	111	111	111	111	111

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. The regressions also include dummy variables for participation in the treatments and interaction terms between gender and the treatments and ethnicity and the treatments. All other variables are as defined in Table B.3.

Table B.7: Probit Regressions of Partner Share=0 with Trust Variables

	Dependent Variable: Partner Share=0							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE
GSS Trust		-0.116** (0.05)						
GSS Fair			-0.040 (0.03)					
GSS Help				-0.186*** (0.07)				
GSS Index					-0.067* (0.04)			
Trust Strangers						-0.043 (0.03)		
Trusting Behaviour							-0.016 (0.04)	
Trustworthy								0.000 (0.02)
=1 If Subject Female (d)	-0.479*** (0.14)	-0.535*** (0.14)	-0.483*** (0.14)	-0.488*** (0.14)	-0.494*** (0.14)	-0.504*** (0.13)	-0.488*** (0.13)	-0.479*** (0.14)
=1 if Black African (d)	0.006 (0.18)	-0.090 (0.19)	0.011 (0.18)	-0.090 (0.22)	-0.037 (0.19)	-0.047 (0.19)	0.020 (0.18)	0.006 (0.18)
Female x African (d)	0.599*** (0.23)	0.758*** (0.20)	0.562** (0.24)	0.592** (0.24)	0.590*** (0.23)	0.633*** (0.22)	0.585** (0.24)	0.599*** (0.23)
=1 if Other Black (d)	-0.416*** (0.10)	-0.429*** (0.10)	-0.429*** (0.10)	-0.428*** (0.10)	-0.442*** (0.10)	-0.409*** (0.10)	-0.414*** (0.10)	-0.416*** (0.10)
Female x Other (d)	0.772*** (0.27)	0.903*** (0.07)	0.748*** (0.29)	0.878*** (0.07)	0.836*** (0.16)	0.809*** (0.20)	0.776*** (0.26)	0.772*** (0.27)
Age	-0.421** (0.19)	-0.443*** (0.16)	-0.403** (0.19)	-0.506*** (0.19)	-0.420** (0.18)	-0.458** (0.19)	-0.420** (0.19)	-0.422** (0.19)
Age-Squared	0.010** (0.00)	0.011*** (0.00)	0.010** (0.00)	0.012*** (0.00)	0.010** (0.00)	0.011** (0.00)	0.010** (0.00)	0.010** (0.00)
Membership Index	-0.015 (0.04)	0.009 (0.03)	-0.012 (0.04)	0.001 (0.04)	-0.001 (0.04)	-0.007 (0.04)	-0.010 (0.04)	-0.015 (0.04)
Pseudo- $R^2$	0.231	0.254	0.241	0.284	0.261	0.245	0.232	0.231
Observations	111	111	111	111	111	111	111	111

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. The regressions also include dummy variables for participation in the treatments and interaction terms between gender and the treatments and ethnicity and the treatments. All other variables are as defined in Table B.3.

Table B.8: Trust OLS Partner Share Regressions

	Dependent Variable: Partner Share							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
GSS Trust		0.035 (0.04)						
GSS Fair			0.022 (0.02)					
GSS Help				0.082** (0.03)				
GSS Index					0.030* (0.02)			
Trust Strangers						0.011 (0.01)		
Trusting Behaviour							0.018 (0.02)	
Trustworthy								0.007 (0.01)
=1 If Subject Female	0.130* (0.07)	0.133* (0.07)	0.131* (0.07)	0.130* (0.07)	0.132* (0.07)	0.135* (0.07)	0.147** (0.07)	0.132* (0.07)
=1 if Black African	-0.002 (0.08)	0.008 (0.08)	-0.006 (0.08)	0.040 (0.08)	0.012 (0.08)	0.007 (0.08)	-0.014 (0.08)	-0.001 (0.08)
Female x African	-0.070 (0.08)	-0.074 (0.08)	-0.055 (0.08)	-0.067 (0.08)	-0.057 (0.08)	-0.071 (0.08)	-0.066 (0.08)	-0.067 (0.08)
=1 if Other Black	0.126 (0.09)	0.135 (0.09)	0.132 (0.08)	0.156 (0.10)	0.144 (0.09)	0.127 (0.09)	0.124 (0.09)	0.127 (0.09)
Female x Other	0.234 (0.17)	0.208 (0.16)	0.245 (0.16)	0.151 (0.15)	0.209 (0.15)	0.232 (0.16)	0.220 (0.16)	0.236 (0.17)
Age	-0.059 (0.06)	-0.057 (0.06)	-0.062 (0.06)	-0.019 (0.06)	-0.051 (0.06)	-0.056 (0.06)	-0.065 (0.06)	-0.067 (0.06)
Age-Squared	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.002 (0.00)	0.002 (0.00)
Membership Index	0.005 (0.02)	-0.000 (0.02)	0.003 (0.02)	0.001 (0.02)	-0.000 (0.02)	0.003 (0.02)	-0.001 (0.02)	0.005 (0.02)
Constant	0.751 (0.72)	0.720 (0.74)	0.781 (0.74)	0.235 (0.69)	0.643 (0.73)	0.705 (0.73)	0.805 (0.72)	0.792 (0.74)
$R^2$	0.398	0.403	0.409	0.432	0.420	0.402	0.405	0.402
Observations	111	111	111	111	111	111	111	111

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

Table B.9: Trust Tobit Partner Share Regressions

	Dependent Variable: Partner Share=0							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
GSS Trust		0.059 (0.06)						
GSS Fair			0.035 (0.02)					
GSS Help				0.142*** (0.05)				
GSS Index					0.050** (0.02)			
Trust Strangers						0.022 (0.02)		
Trusting Behaviour							0.028 (0.03)	
Trustworthy								0.007 (0.01)
=1 If Subject Female	0.209* (0.12)	0.211* (0.11)	0.209* (0.11)	0.211* (0.11)	0.210* (0.11)	0.218* (0.12)	0.235** (0.12)	0.211* (0.12)
=1 if Black African	-0.053 (0.12)	-0.038 (0.13)	-0.059 (0.12)	0.019 (0.12)	-0.032 (0.12)	-0.037 (0.13)	-0.067 (0.12)	-0.048 (0.12)
Female x African	-0.081 (0.11)	-0.085 (0.11)	-0.059 (0.11)	-0.076 (0.11)	-0.060 (0.11)	-0.080 (0.11)	-0.077 (0.11)	-0.081 (0.11)
=1 if Other Black	0.191 (0.15)	0.204 (0.15)	0.200 (0.15)	0.246* (0.14)	0.220 (0.14)	0.194 (0.15)	0.191 (0.15)	0.194 (0.15)
Female x Other	0.226 (0.20)	0.182 (0.21)	0.240 (0.20)	0.079 (0.20)	0.178 (0.20)	0.222 (0.20)	0.202 (0.20)	0.229 (0.20)
Age	-0.108 (0.11)	-0.106 (0.11)	-0.116 (0.11)	-0.033 (0.11)	-0.097 (0.11)	-0.103 (0.11)	-0.115 (0.11)	-0.117 (0.11)
Age-Squared	0.003 (0.00)	0.002 (0.00)	0.003 (0.00)	0.001 (0.00)	0.002 (0.00)	0.002 (0.00)	0.003 (0.00)	0.003 (0.00)
Membership Index	0.016 (0.03)	0.008 (0.03)	0.014 (0.03)	0.010 (0.03)	0.007 (0.03)	0.013 (0.03)	0.007 (0.03)	0.016 (0.03)
Constant	1.224 (1.25)	1.197 (1.24)	1.310 (1.24)	0.264 (1.26)	1.083 (1.23)	1.151 (1.25)	1.289 (1.24)	1.270 (1.25)
$\sigma$	0.207*** (0.02)	0.206*** (0.02)	0.204*** (0.02)	0.199*** (0.02)	0.202*** (0.02)	0.206*** (0.02)	0.205*** (0.02)	0.206*** (0.02)
Pseudo- $R^2$	0.482	0.492	0.503	0.563	0.529	0.492	0.494	0.485
Observations	111	111	111	111	111	111	111	111

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$ 

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. The regressions also include dummy variables for participation in the treatments and interaction terms between gender and the treatments and ethnicity and the treatments. All other variables are as defined in Table B.3.

Table B.10: OLS Regressions of Probability Deduction Points  $> 0$  at Partner Share of 0

	Dependent Variable: Punish Most Self-Interested Action=1							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
GSS Trust		0.432** (0.19)						
GSS Fair			0.058 (0.06)					
GSS Help				0.059 (0.14)				
GSS Index					0.106 (0.07)			
Trust Strangers						0.066 (0.09)		
Trusting Behaviour							0.091 (0.07)	
Trustworthy								0.011 (0.03)
=1 If Subject Female	-0.034 (0.29)	-0.027 (0.26)	-0.041 (0.29)	-0.055 (0.29)	-0.067 (0.28)	-0.018 (0.29)	-0.076 (0.28)	-0.035 (0.29)
=1 if Black African	-0.221 (0.38)	-0.304 (0.37)	-0.279 (0.38)	-0.261 (0.41)	-0.360 (0.38)	-0.198 (0.38)	-0.238 (0.37)	-0.196 (0.40)
Female x African	0.023 (0.30)	0.003 (0.27)	0.065 (0.31)	0.045 (0.31)	0.102 (0.30)	0.037 (0.30)	0.128 (0.31)	0.028 (0.30)
=1 if Other Black	-0.116 (0.35)	-0.218 (0.34)	-0.081 (0.35)	-0.141 (0.37)	-0.121 (0.36)	-0.082 (0.36)	-0.088 (0.33)	-0.105 (0.36)
Age	-0.363 (0.48)	-0.032 (0.46)	-0.106 (0.51)	-0.327 (0.49)	0.069 (0.50)	-0.258 (0.47)	-0.347 (0.47)	-0.299 (0.53)
Age-Squared	0.007 (0.01)	-0.000 (0.01)	0.001 (0.01)	0.006 (0.01)	-0.003 (0.01)	0.005 (0.01)	0.007 (0.01)	0.006 (0.01)
Membership Index	0.004 (0.06)	0.007 (0.05)	0.004 (0.06)	0.009 (0.07)	0.012 (0.06)	0.015 (0.07)	0.015 (0.06)	0.010 (0.07)
Constant	4.866 (5.18)	1.281 (5.03)	2.039 (5.53)	4.484 (5.29)	0.194 (5.43)	3.620 (5.12)	4.561 (5.05)	4.084 (5.87)
$R^2$	0.301	0.369	0.312	0.303	0.330	0.312	0.326	0.302
Observations	65	65	65	65	65	65	65	65

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

Table B.11: Probit Regressions of the Probability Deduction Points &gt; 0 at Partner Share of 0

	Dependent Variable: Punish Most Self-Interested Action=1							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE	MFX/SE
GSS Trust (d)		0.441*** (0.11)						
GSS Fair			0.083 (0.07)					
GSS Help				0.104 (0.14)				
GSS Index					0.154* (0.09)			
Trust Strangers						0.109 (0.10)		
Trusting Behaviour							0.129* (0.08)	
Trustworthy								0.011 (0.04)
=1 If Subject Female	-0.041 (0.26)	-0.034 (0.24)	-0.045 (0.25)	-0.080 (0.26)	-0.088 (0.25)	-0.033 (0.25)	-0.089 (0.25)	-0.045 (0.26)
=1 if Black African	-0.254 (0.32)	-0.406 (0.29)	-0.337 (0.32)	-0.307 (0.32)	-0.444 (0.30)	-0.231 (0.32)	-0.318 (0.31)	-0.227 (0.34)
Female x African	0.078 (0.29)	0.127 (0.29)	0.126 (0.29)	0.086 (0.29)	0.160 (0.28)	0.128 (0.30)	0.233 (0.27)	0.072 (0.29)
=1 if Other Black	-0.117 (0.33)	-0.281 (0.32)	-0.043 (0.33)	-0.167 (0.34)	-0.100 (0.33)	-0.061 (0.31)	-0.072 (0.30)	-0.107 (0.33)
Age	-0.461 (0.56)	0.170 (0.55)	-0.024 (0.69)	-0.411 (0.57)	0.293 (0.71)	-0.257 (0.54)	-0.353 (0.53)	-0.407 (0.59)
Age-Squared	0.009 (0.01)	-0.006 (0.01)	-0.001 (0.02)	0.008 (0.01)	-0.008 (0.02)	0.005 (0.01)	0.007 (0.01)	0.008 (0.01)
Membership Index	0.002 (0.07)	0.015 (0.06)	0.017 (0.07)	0.006 (0.07)	0.030 (0.07)	0.020 (0.07)	0.020 (0.07)	0.006 (0.07)
Pseudo- $R^2$	0.260	0.333	0.270	0.264	0.290	0.277	0.285	0.261
Observations	65	65	65	65	65	65	65	65

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.



Table B.12: Pooled OLS Regressions of Deduction Points with Trust Variables

	Dependent Variable: Deduction Points							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1) Coef./SE	(2) Coef./SE	(3) Coef./SE	(4) Coef./SE	(5) Coef./SE	(6) Coef./SE	(7) Coef./SE	(8) Coef./SE
GSS Trust		-0.465 (1.97)						
GSS Fair			1.974*** (0.58)					
GSS Help				0.988 (1.41)				
GSS Index					1.817*** (0.65)			
Trust Strangers						-0.170 (0.72)		
Trust Behaviour Index							-0.197 (0.59)	
Trustworthy								-0.279 (0.30)
Female	1.035 (2.33)	1.099 (2.35)	-1.180 (2.19)	0.645 (2.26)	-1.194 (2.09)	0.991 (2.33)	1.206 (2.42)	1.164 (2.26)
Black African	-0.104 (2.35)	-0.016 (2.27)	-3.299* (1.94)	-0.387 (2.41)	-2.926 (2.03)	-0.088 (2.36)	-0.017 (2.38)	-0.638 (2.60)
Female x African	-2.600 (2.65)	-2.697 (2.69)	-0.596 (2.36)	-2.436 (2.55)	-0.728 (2.32)	-2.703 (2.80)	-2.872 (2.88)	-2.851 (2.66)
Other Black	2.200 (2.79)	2.348 (2.72)	0.768 (2.96)	2.274 (2.74)	0.891 (2.95)	2.207 (2.76)	2.261 (2.81)	1.941 (2.68)
Female x Other	-4.425 (3.93)	-4.647 (3.92)	-1.672 (4.21)	-4.560 (3.82)	-2.085 (4.13)	-4.466 (3.95)	-4.627 (4.15)	-4.513 (3.61)
Age	-3.229 (4.97)	-3.591 (5.35)	5.189 (5.07)	-2.345 (5.24)	4.769 (5.65)	-3.504 (4.90)	-3.243 (4.97)	-4.808 (5.14)
Age-Squared	0.073 (0.11)	0.081 (0.12)	-0.118 (0.11)	0.053 (0.12)	-0.108 (0.13)	0.079 (0.11)	0.073 (0.11)	0.110 (0.12)
Membership Index	-0.985 (0.80)	-0.994 (0.80)	-1.025 (0.64)	-0.833 (0.80)	-0.781 (0.65)	-1.017 (0.84)	-1.014 (0.82)	-1.182 (0.83)
Constant	38.664 (54.42)	42.590 (58.51)	-50.879 (55.90)	28.834 (57.16)	-46.483 (61.76)	41.900 (53.61)	38.933 (54.40)	57.667 (57.02)
R <sup>2</sup> -Overall	0.094	0.094	0.155	0.099	0.140	0.093	0.094	0.099
R <sup>2</sup> -Between	0.205	0.206	0.317	0.211	0.288	0.206	0.206	0.217
Observations	705	705	705	705	705	705	705	705

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$ 

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

Table B.13: Pooled Tobit Regressions of Deduction Points with Trust Variables

	Dependent Variable: Deduction Points							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1) Coef./SE	(2) Coef./SE	(3) Coef./SE	(4) Coef./SE	(5) Coef./SE	(6) Coef./SE	(7) Coef./SE	(8) Coef./SE
GSS Trust		1.573 (3.88)						
GSS Fair			3.355** (1.36)					
GSS Help				3.167 (2.96)				
GSS Index					3.693** (1.48)			
Trust Strangers						-0.327 (1.39)		
Trust Behaviour Index							0.703 (1.45)	
Trustworthy								-0.203 (0.64)
Female	1.978 (6.50)	1.733 (6.52)	-1.844 (6.25)	0.712 (6.55)	-2.664 (6.37)	1.888 (6.51)	1.263 (6.66)	2.095 (6.50)
Black African	1.055 (5.76)	0.744 (5.81)	-4.493 (5.83)	0.183 (5.77)	-4.756 (5.88)	1.091 (5.77)	0.760 (5.79)	0.722 (5.85)
Female x African	-6.601 (6.41)	-6.270 (6.46)	-3.279 (6.11)	-6.064 (6.38)	-2.879 (6.17)	-6.764 (6.45)	-5.645 (6.70)	-6.775 (6.43)
Other Black	6.078 (7.26)	5.543 (7.38)	3.246 (6.87)	6.392 (7.22)	3.120 (6.91)	6.098 (7.27)	5.841 (7.27)	5.919 (7.27)
Female x Other	-16.204 (9.98)	-15.325 (10.18)	-10.569 (9.50)	-16.832* (9.96)	-10.619 (9.54)	-16.250 (9.98)	-15.497 (10.08)	-16.356 (9.98)
Age	-12.187 (10.91)	-10.932 (11.33)	2.174 (11.69)	-9.593 (11.09)	3.909 (12.03)	-12.727 (11.16)	-12.083 (10.91)	-13.326 (11.48)
Age-Squared	0.264 (0.25)	0.235 (0.26)	-0.063 (0.27)	0.207 (0.26)	-0.102 (0.28)	0.275 (0.26)	0.264 (0.25)	0.291 (0.27)
Membership Index	-1.053 (1.61)	-1.021 (1.61)	-1.050 (1.51)	-0.559 (1.66)	-0.566 (1.53)	-1.116 (1.63)	-0.950 (1.62)	-1.206 (1.68)
Constant	132.054 (117.81)	118.593 (122.29)	-19.568 (125.50)	102.761 (119.95)	-38.436 (129.21)	138.342 (120.84)	130.677 (117.75)	145.710 (125.38)
$\sigma_u$	8.543*** (1.03)	8.538*** (1.03)	7.915*** (0.98)	8.468*** (1.03)	7.960*** (0.98)	8.541*** (1.03)	8.536*** (1.03)	8.524*** (1.03)
$\sigma_e$	7.699*** (0.31)	7.700*** (0.31)	7.697*** (0.31)	7.701*** (0.31)	7.701*** (0.31)	7.699*** (0.31)	7.700*** (0.31)	7.698*** (0.31)
Observations	705	705	705	705	705	705	705	705

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$ 

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

Table B.14: OLS Regressions of Deduction Points with Trust Variables for Baseline TP-DG

	Dependent Variable: Deduction Points							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
GSS Trust		-0.419 (2.85)						
GSS Fair			-0.661 (0.93)					
GSS Help				0.064 (1.74)				
GSS Index					-0.527 (1.04)			
Trust Strangers						-2.665*** (0.65)		
Trust Behaviour Index							-0.319 (0.73)	
Trustworthy								0.060 (0.39)
Female	-0.971 (2.57)	-0.788 (2.41)	-0.436 (2.71)	-0.995 (2.51)	-0.341 (2.74)	-0.429 (2.30)	-0.665 (2.75)	-0.884 (2.79)
Black African	-0.925 (2.23)	-0.757 (2.11)	0.630 (2.60)	-0.929 (2.23)	0.171 (2.42)	0.138 (1.99)	-0.754 (2.27)	-0.737 (2.57)
Female x African	-2.935 (3.07)	-3.219 (3.12)	-4.011 (2.89)	-2.945 (3.14)	-3.773 (2.82)	-5.716** (2.56)	-3.622 (3.52)	-3.065 (3.15)
Other Black	-1.615 (2.69)	-1.329 (2.74)	-0.971 (2.76)	-1.592 (2.83)	-1.110 (2.63)	-0.103 (2.41)	-1.581 (2.70)	-1.594 (2.77)
Female x Other	-1.442 (3.55)	-1.892 (3.74)	-2.587 (3.82)	-1.476 (3.83)	-2.332 (3.58)	-3.871 (3.52)	-1.800 (3.83)	-1.475 (3.69)
Age	6.300 (10.27)	5.880 (11.09)	4.447 (10.79)	6.401 (11.21)	4.197 (11.77)	-5.598 (7.27)	6.754 (10.57)	7.045 (11.07)
Age-Squared	-0.189 (0.25)	-0.179 (0.27)	-0.153 (0.26)	-0.191 (0.27)	-0.144 (0.28)	0.095 (0.17)	-0.203 (0.26)	-0.208 (0.27)
Membership Index	-3.493***	-3.526***	-3.749***	-3.488***	-3.704***	-4.107***	-3.549***	-3.499***
Constant	-44.641 (106.75)	-40.590 (114.81)	-23.541 (112.29)	-45.735 (117.30)	-21.949 (122.74)	77.354 (76.27)	-48.089 (109.02)	-52.536 (116.65)
$R^2$ -Overall	0.224	0.224	0.227	0.224	0.226	0.301	0.225	0.224
$R^2$ -Between	0.511	0.512	0.518	0.511	0.515	0.687	0.513	0.512
Observations	315	315	315	315	315	315	315	315

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$ 

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

Table B.15: Tobit Regressions of Deduction Points with Trust Variables for Baseline TP-DG

	Dependent Variable: Deduction Points							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
GSS Trust		3.665 (5.59)						
GSS Fair			-0.939 (2.73)					
GSS Help				0.375 (4.94)				
GSS Index					0.029 (2.64)			
Trust Strangers						-6.700*** (1.78)		
Trust Behaviour Index							1.739 (2.23)	
Trustworthy								1.743* (0.98)
Female	3.183 (8.60)	0.958 (9.13)	3.844 (8.82)	3.036 (8.81)	3.147 (9.22)	5.241 (6.95)	1.338 (8.86)	6.371 (8.56)
Black African	-3.135 (6.66)	-4.842 (7.09)	-0.692 (9.73)	-3.157 (6.66)	-3.201 (9.05)	1.170 (5.58)	-4.115 (6.73)	0.198 (6.69)
Female x African	-13.502 (9.29)	-10.691 (10.10)	-14.776 (10.00)	-13.566 (9.32)	-13.461 (10.04)	-19.947*** (7.67)	-9.792 (10.31)	-20.468** (10.26)
Other Black	-7.504 (8.69)	-10.474 (9.75)	-6.296 (9.35)	-7.376 (8.85)	-7.542 (9.35)	-2.450 (7.27)	-7.692 (8.63)	-10.820 (8.77)
Female x Other	-12.688 (11.30)	-7.961 (13.13)	-14.431 (12.42)	-12.892 (11.62)	-12.632 (12.41)	-17.432* (9.24)	-11.158 (11.40)	-11.950 (10.84)
Age	9.961 (25.55)	13.924 (26.06)	7.272 (26.67)	10.567 (26.76)	10.079 (27.77)	-15.671 (21.38)	6.844 (25.63)	34.926 (28.50)
Age-Squared	-0.357 (0.62)	-0.453 (0.64)	-0.304 (0.64)	-0.371 (0.65)	-0.359 (0.67)	0.250 (0.52)	-0.264 (0.63)	-0.991 (0.70)
Membership Index	-8.999***	-8.714***	-9.310***	-8.971***	-8.989***	-10.403***	-8.732***	-10.119***
Constant	-63.287 (263.91)	-100.256 (267.80)	-33.004 (277.78)	-69.748 (277.21)	-64.539 (288.07)	197.662 (219.83)	-37.689 (263.67)	-321.141 (294.03)
$\sigma_u$	7.432*** (1.48)	7.354*** (1.47)	7.419*** (1.48)	7.429*** (1.48)	7.432*** (1.48)	5.331*** (1.24)	7.352*** (1.47)	7.081*** (1.43)
$\sigma_e$	9.440*** (0.64)	9.450*** (0.64)	9.437*** (0.64)	9.440*** (0.64)	9.440*** (0.64)	9.424*** (0.64)	9.450*** (0.64)	9.464*** (0.65)
Observations	315	315	315	315	315	315	315	315

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$ 

Notes: The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

Table B.16: OLS Regressions of Deduction Points with Trust Variables for T20 TP-DG

	Dependent Variable: Deduction Points							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1) Coef./SE	(2) Coef./SE	(3) Coef./SE	(4) Coef./SE	(5) Coef./SE	(6) Coef./SE	(7) Coef./SE	(8) Coef./SE
GSS Trust		-1.371 (3.28)						
GSS Fair			3.688*** (1.08)					
GSS Help				3.063 (2.25)				
GSS Index					2.650*** (1.02)			
Trust Strangers						2.039** (0.88)		
Trust Behaviour Index							0.226 (1.12)	
Trustworthy								-0.343 (0.57)
Female	1.113 (5.51)	0.655 (5.31)	-0.946 (5.14)	1.754 (5.37)	1.083 (5.34)	3.711 (5.34)	1.469 (5.61)	1.953 (6.07)
Black African	5.110** (2.38)	3.709 (4.14)	8.121*** (2.43)	4.509* (2.62)	8.334*** (3.07)	5.453*** (2.01)	5.205** (2.36)	5.192** (2.54)
Female x African	-6.637 (4.14)	-5.924 (4.16)	-1.195 (3.89)	-3.886 (4.15)	-2.997 (3.98)	-5.951 (3.76)	-6.643 (4.15)	-8.112 (5.51)
Other Black	-1.693 (5.61)	-2.508 (5.53)	-0.070 (5.02)	2.097 (4.94)	2.767 (5.61)	5.117 (6.51)	-1.167 (6.20)	-3.234 (6.41)
Age	-13.656* (7.95)	-14.306* (7.86)	4.070 (9.65)	-7.852 (9.97)	0.435 (10.30)	-3.623 (9.16)	-13.444* (8.02)	-16.759** (8.11)
Age-Squared	0.303* (0.17)	0.316* (0.17)	-0.103 (0.21)	0.176 (0.22)	-0.014 (0.23)	0.095 (0.19)	0.299* (0.17)	0.374** (0.18)
Membership Index	-0.002 (1.15)	0.099 (1.21)	-1.200 (1.12)	0.837 (0.85)	-0.246 (1.04)	0.393 (1.09)	0.065 (1.19)	-0.418 (1.58)
Constant	152.495* (91.09)	161.909* (90.55)	-44.561 (109.28)	86.026 (112.46)	-7.480 (117.41)	32.173 (107.96)	149.704 (91.87)	189.085** (92.99)
R <sup>2</sup> -Overall	0.167	0.169	0.282	0.190	0.241	0.211	0.167	0.173
R <sup>2</sup> -Between	0.321	0.324	0.542	0.366	0.462	0.405	0.322	0.333
Observations	390	390	390	390	390	390	390	390

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$

Notes: Female  $\times$  Other is excluded because of too few observations. The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

Table B.17: Tobit Regressions of Deduction Points with Trust Variables for T20 TP-DG

	Dependent Variable: Deduction Points							
	Baseline	GSS Trust	GSS Fair	GSS Help	GSS Index	Trust Strangers	Trusting Behaviour	Trustworthiness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE	Coef./SE
GSS Trust		-2.829 (7.28)						
GSS Fair			6.750*** (1.89)					
GSS Help				5.610 (3.95)				
GSS Index					5.247*** (1.92)			
Trust Strangers						4.011** (1.91)		
Trust Behaviour Index							1.833 (2.35)	
Trustworthy								-0.165 (0.87)
Female	12.671 (11.96)	11.400 (12.33)	10.375 (9.87)	14.161 (11.70)	14.720 (10.85)	19.026 (11.83)	15.780 (12.61)	12.985 (12.05)
Black African	6.330 (6.29)	3.310 (9.99)	12.703** (5.37)	5.470 (6.10)	13.674** (6.14)	6.843 (5.86)	7.228 (6.34)	6.358 (6.28)
Female x African	-13.751 (9.28)	-11.928 (10.32)	-5.752 (7.82)	-9.116 (9.50)	-8.922 (8.37)	-13.261 (8.69)	-14.046 (9.23)	-14.388 (9.85)
Other Black	0.243 (12.35)	-1.848 (13.44)	5.157 (10.17)	7.749 (13.11)	11.512 (11.81)	14.488 (13.38)	4.706 (13.55)	-0.532 (12.97)
Age	-14.907 (15.91)	-15.859 (16.08)	14.975 (15.20)	-4.942 (16.89)	10.344 (16.56)	4.958 (17.70)	-13.456 (15.88)	-16.384 (17.68)
Age-Squared	0.325 (0.35)	0.343 (0.36)	-0.358 (0.34)	0.108 (0.37)	-0.240 (0.37)	-0.087 (0.39)	0.299 (0.35)	0.358 (0.40)
Membership Index	2.342 (2.00)	2.563 (2.09)	0.039 (1.69)	3.820* (2.22)	1.789 (1.74)	3.208 (1.95)	2.899 (2.13)	2.131 (2.29)
Constant	162.293 (178.18)	177.718 (182.28)	-172.157 (170.40)	46.890 (190.37)	-128.025 (187.26)	-75.698 (202.27)	142.595 (178.39)	179.758 (200.23)
$\sigma_u$	6.663*** (1.10)	6.652*** (1.10)	5.178*** (0.91)	6.400*** (1.06)	5.684*** (0.98)	6.151*** (1.03)	6.594*** (1.09)	6.647*** (1.10)
$\sigma_e$	6.578*** (0.34)	6.578*** (0.33)	6.577*** (0.33)	6.577*** (0.33)	6.578*** (0.33)	6.580*** (0.34)	6.582*** (0.34)	6.578*** (0.33)
Observations	390	390	390	390	390	390	390	390

\* Denotes  $p < 0.10$ , \*\* Denotes  $p < 0.05$ , \*\*\* Denotes  $p < 0.01$ 

Notes: Female  $\times$  Other is excluded because of too few observations. The regressions include controls for reported religiousness, attendance at religious events, faculty of study, a standardised variable for self-reported income position, and two dummy variables for whether the subject receives financial aid and whether the subject receives a scholarship. All other variables are as defined in Table B.3.

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