



Materialistic, pro-social, anti-social, or mixed – A within-subject examination of self- and other-regarding preferences



Abdolkarim Sadrieh^a, Marina Schröder^{b,*}

^a University of Magdeburg, Faculty of Economics and Management, Post Box 4120, 39016 Magdeburg, Germany

^b University of Cologne, Faculty of Management, Economics and Social Sciences, Universitätsstraße 22, 50937 Cologne, Germany

ARTICLE INFO

Article history:

Received 2 October 2015

Revised 31 May 2016

Accepted 31 May 2016

Available online 3 June 2016

JEL:

A13

C90

D31

D63

D64

Keywords:

Altruism

Joy of destruction

Other-regarding behavior

Giving and destruction

Fairness

Spite

ABSTRACT

We introduce an experimental setup to elicit subjects' materialistic, pro-social, and anti-social preferences. We find one third of the population exhibits mixed social preferences, choosing to give, to destroy, and to keep some payoffs. Most others are either materialistic, keeping all payoffs, or pro-social, giving some and keeping some, but not destroying payoffs. For individuals with mixed social preferences, giving and destruction are positively correlated, but do not seem to be influenced by payoff comparisons. We find that full information and experimenter demand may increase the extent of pro-social preferences, but do not affect the extent of anti-social preferences or the distribution of social types in the population.

© 2016 Elsevier Inc. All rights reserved.

Research in experimental economics has documented that human decision making is often, but not always, driven by materialistic incentives. In many interactive settings, subjects also are pro-social to some degree, sacrificing own payoffs for the well-being of others.¹ In other situations, subjects blatantly exhibit anti-social behavior by destroying others' income.² While most of these studies provide clear and convincing accounts of observed materialistic, pro-social, or anti-social behavior, there have been only few attempts to examine how these seemingly contradicting modes of behavior co-exist.

A straightforward way to deal with the conflicting observations is to assume heterogeneity in the subject population, but homogeneity of each individual's preferences.³ If this is the case, we can predict an individual's decisions in all social interaction settings, after having measured that individual's social preferences once. A number of studies, however, find evidence for within-subject heterogeneity in social interaction behavior, i.e. the same subject is found to behave materialistic in some, but pro-social in other instances. Bolton et al. (1998), for example, observe that dictators with multiple identical opportunities to give to different anonymous recipients give to some but not to others. Savikhin and Sheremeta (2012) find mixed competitive and cooperative behavior by subjects simultaneously participating in multiple games. Herrmann and Orzen (2008) report an even more extreme case of individuals not only mixing materialistic and pro-social behavior, but also pro-social and anti-social behavior playing in different games. Finally, in a within subject comparison of decisions in

* Corresponding author. Fax: +493916711355.

E-mail addresses: sadrieh@ovgu.de (A. Sadrieh), marina.schroeder@uni-koeln.de (M. Schröder).

¹ In dictator experiments, a large fraction of subjects (roughly 40 percent) exhibit pro-social preferences by choosing to transfer money to an anonymous receiver instead of keeping the money (see e.g. Forsythe et al. 1994 and Hoffman, McCabe and Smith 1996).

² In "money burning" experiments, anti-social behavior is regularly observed. About half of the subjects choose to destroy some other subject's income (Zizzo and Oswald 2001; Zizzo 2003; Abbink and Sadrieh 2009).

³ Fischbacher, Gächter and Fehr (2001) classify subjects in a public goods game. They find 30 percent of their subjects to be materialistic and 50 percent to be conditionally cooperative (either with a self-serving or a pro-social bias).

a dictator game and a money burning experiment, Zizzo and Fleming (2011) show a positive correlation of pro-social and anti-social behavior.

We contribute to this literature by providing a within-subject examination of pro-social and anti-social preferences, i.e. giving and destruction, in a single decision setting. Our novel experimental setup enables us to elicit, to compare, and to correlate pro-social and anti-social preferences of each subject individually and within the same context. Thus, we gain insight into the composition, the strength, and the distribution of materialistic, pro-social, and anti-social preferences.⁴ We find that a surprisingly large fraction of the population (about 30 percent) entertains mixed preferences. These individuals' choices combine some degree of materialism (i.e. the own payoffs matter), some degree of pro-sociality (i.e. they give to others), and some degree of anti-sociality (i.e. they destroy others' payoffs). In line with Zizzo and Fleming (2011), we find a significant and strong positive correlation between the strength of the pro-social and the anti-social preferences in the group of subjects with mixed preferences. Those individuals who give more also tend to destroy more. However, since the amounts given are significantly larger than the amounts destroyed, we conjecture that materialism and pro-sociality generally determine the behavior of individuals with mixed social preferences more intensively than the anti-social aspects of their preferences.⁵

To test for mixed social preferences, we introduce the double-dictator game, in which each dictator makes two decisions. In the giving stage, each dictator decides how much to give to an anonymous receiver. In the destruction stage, each dictator decides how much to destroy of the same receiver's income. After both decisions are made, a random draw determines which of the two stages is payoff relevant for the dictator and the receiver. Giving and destruction both incur the same cost per unit on the dictator. Dictators can avoid all costs (i.e. maximize their own payoff) by choosing neither to give nor to destroy.

In our baseline experiment, we use the double-dictator game to assess subjects' materialistic, pro-social, and anti-social preferences. In our belief elicitation experiment, we combine the double-dictator game with an incentive compatible elicitation of the subjects' beliefs concerning the results expected by the experimenter. This additional task allows us to infer the prevalence and direction of experimenter demand effects, i.e. the degree to which subject adapt their choices to their belief of what the experimenter wishes to observe (Zizzo, 2010). While we find some evidence that subjects believe that pro-social behavior is desirable and expected by the experimenter, we find no evidence that anti-social or mixed behavior is induced by an experimenter demand effect.

The rest of the paper is organized as follows. We first describe the game and derive predictions based on models of other-regarding preferences. In Section 2, we describe our first experiment (baseline) and a robustness check (full information) and analyze the data. The belief elicitation experiment follows in Section 3.

⁴ We use real decision data with actual consequences to elicit each subject's pro-social and anti-social preferences. Other studies use hypothetical questions to elicit subjects' social preferences. For example, Offerman, Sonnemans and Schram (1996) categorize subject types according to their responses to a psychological questionnaire tool and then correlate each subject's type to that subject's contribution behavior in a public goods game. But, they do not analyze the coexistence and composition of conflicting social preferences within each subject.

⁵ Our results on mixed social preferences are also in line with previous experimental findings on behavior in dictator experiments with a take option. In these games, the dictator can choose to give or to take from the receiver. Multiple authors report that both giving and taking are observed in these games, where giving is much more frequent than taking (List 2007; Bardsley 2008; Zhang and Ortmann 2013; Cappelen et al. 2013). The amount given in these games seems less than in dictator games without a take option. List (2007) concludes that these results reveal more complex preference structures that drive context specific social behavior.

We provide a summary of our results and additional regression analysis in Section 4, before we conclude.

1. The double-dictator game and the behavioral predictions

1.1. The game

The double-dictator game that we use to identify pro-social and anti-social preferences is a modified dictator game (Forsythe et al., 1994). The dictator in our game can either choose to increase or to decrease the expected payoff of the receiver. Just as in the original dictator game, our dictator receives an endowment μ_D that he can partially give up in order to increase the expected payoff of the receiver. Additionally, the dictator in our game also has the option to give up some of his endowment in order to decrease the expected value of the receiver's payoff. Both giving and destruction occur at a 1:1 rate. For any giving or destruction choice x the dictator spends the amount $|x|$ resulting in the following profit function for the dictator: $\pi_D = \mu_D - |x|$. The receiver's expected payoff $\hat{\pi}_R$ is either increased by x , if $x > 0$, or decreased by x , if $x < 0$. The amount spent by the dictator is limited by some maximum $|\bar{x}|$, i.e. $\bar{x} \geq x \geq -\bar{x}$.

The receiver's payoff in our game is a random variable Π_R that is uniformly distributed in an ε -interval around the endowment μ_R and is shifted by the dictator's choice, i.e. $\Pi_R \in [\mu_R + x - \varepsilon, \mu_R + x + \varepsilon]$ with $E[\varepsilon] = 0$. Given the receivers' stochastic payoff and the fact that receivers are not informed about their endowment μ_R , the dictators know that the receivers will generally not be able to identify to which extent their payoffs were affected by chance and to which extent by the dictators' choices. Hence, from the receivers' point of view, the dictators in our experimental setup are fully anonymous and know that their actions will remain in the dark. This allows us to rule out any kind of signaling as a motivation for the dictators' actions.

A purely materialistic (money maximizing) dictator will not spend any of his endowment to modify the receiver's expected payoff, i.e. ($x = 0$). Hence, the (expected) payoffs in an equilibrium with purely materialistic dictators are $\pi_D = \mu_D$ and $\hat{\pi}_R = E[\Pi_R] = \mu_R$. Pro-social or anti-social dictators, however, may choose $x > 0$ or $x < 0$, correspondingly. This leaves the dictator with $\mu_D - |x|$ in either case.

To elicit all possible types of preference schedules, it is necessary to observe an individual's preferences in the entire decision space. We implement this by eliciting subjects' preferences for all possible values of x using ten binary selection possibilities. In each of the ten cases, one option is not to modify the receiver's expected payoff, while the alternative is to increase (in five cases) or to decrease (in five cases) the receiver's expected payoff. The five giving and the five destruction cases are spread evenly over the range of possible choices.

To test for the effect of the dictator's relative standing (i.e. the payoff comparison between dictators and receivers) on the giving and the destruction choices, we vary the receiver's endowment μ_R in three treatments. In the *poor receivers* treatment ($\mu_D > \mu_R$), the receiver always has a lower expected payoff than the dictator. Even if the dictator decides to transfer the highest possible amount (five tokens), the receiver still expects a lower payoff than the dictator. In the *equality* treatment ($\mu_D = \mu_R$), the receiver's expected payoff is equal to the dictator's payoff as long as the dictator does not choose to give. In the *rich receivers* treatment ($\mu_D < \mu_R$), the receiver always has a higher payoff than the dictator.

1.2. Behavioral predictions

In the following, we describe the preference patterns that are predicted by models of other-regarding preferences in our

Download English Version:

<https://daneshyari.com/en/article/881791>

Download Persian Version:

<https://daneshyari.com/article/881791>

[Daneshyari.com](https://daneshyari.com)