

Exploring the nature of social preferences and their economic significance : four experimental studies

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1 Introduction

Most economic textbooks and models assume that individuals are driven by a desire to maximize their welfare without any regard for that of others. Over the past twenty years, however, laboratory experiments have repeatedly yielded evidence raising questions about whether all people are self-regarding. Participants in hundreds of different experiments around the world have been found to take actions that are costly to them in order to punish unfair behavior, reward generous actions, or simply to help others, even in one-shot interactions (see e.g., Camerer, 2003). Although different explanations for this behavior have been proposed over the years such as that subjects make errors, the explanation that has received the most attention is that at least some individuals are other-regarding.

As a response to this evidence, a new generation of economic models emerged in the last decade in which individuals are assumed to exhibit social preferences, that is, the agents' utility is assumed to depend partly on the welfare (and sometimes even the actions) of other individuals (e.g., Bolton and Ockenfels, 2000; Cox et al., 2007; Falk and Fischbacher, 2006; Fehr and Schmidt, 1999). These models have helped organize many of the behavioral regularities observed in laboratory experiments such as voluntary contributions to the production of public goods and gift exchange between firms and workers. In addition, they have provided the theoretical basis for countless new studies. However, in spite of two-decades worth of experiments, our knowledge about the nature of social preferences and their economic significance is incomplete.

This thesis aims to contribute to our understanding of social preferences and why they may matter. It consists of four chapters. The first study presented in **Chapter 2** (with Arno Riedl) investigates workers' preferences for reciprocation in a gift-exchange game (henceforth GEG) and whether the GEG can be sustained in the long run. In the experiment, we elicit subjects' reciprocal preferences in a firm-worker gift-exchange setting and relate them to actual behavior in a repeated gift-exchange game. Our research strategy is similar to that of Fischbacher and Gächter (2010) who examine the impact of reciprocal preferences on voluntary contributions to a public good. We find that only a small minority of 10 percent of workers is materially selfish whereas 90 percent exhibit reciprocal preferences. However, the intensity of reciprocal preferences is weak in the sense that firms maximize profits by not relying on gift-exchange but by offering the lowest possible wage. Workers behavior in the repeated gift-exchange game is predicted by their elicited preferences, but the correlation between preferences and behavior is imperfect. Together with profit maximizing behavior of firms these observations can explain the observed unraveling of gift-exchange over time in our experiment and some recent field experiments. Our findings offer an explanation for the unraveling of gift-exchange observed in some other gift-exchange experiments in the laboratory.

My second study discussed in **Chapter 3** (with Nikos Nikiforakis) further explores the predictive power of elicited social preferences. Unlike the experiment in Chapter 2, the study examines whether individuals that behave pro-

socially in one game do the same in a strategically different game. This is what is implicitly assumed by models of social preferences that aim to provide a parsimonious explanation for pro-social behavior. For example, according to these models, all else equal, an individual that dislikes strongly inequality in payoffs should be willing to reciprocate high wages in a gift-exchange game with high levels of effort, and to contribute a positive amount towards the public good if others do the same. The laboratory experiment aims to investigate the existence of a link between preferences for reciprocation and cooperation at the individual level. We perform a within-subject analysis of pro-social behavior in two of the most widely used games in the literature: the public-good (PGG) and gift-exchange game (GEG). After eliciting subjects cooperation preferences in the PGG using the method of Fischbacher et al. (2001), participants play the GEG for ten periods. We find that subjects classified as cooperators in the PGG reciprocate higher wages by exerting higher levels of effort in the gift exchange game, but they do not offer higher wages.

Chapter 4 presents the results from an experiment examining the robustness of the preferences elicited with the strategy method used in Chapter 3 (and also provided the inspiration for the method used in Chapter 2). Evidence from laboratory experiments indicates that many individuals are willing to cooperate provided that others in their group do the same. At the same time, there is also evidence that framing affects cooperation in public-good games and other social dilemmas. However, it remains unknown whether framing affects subjects' beliefs or whether it affects their cooperation preferences. The experiment reported in this chapter investigates whether preferences for cooperation elicited using the method of Fischbacher et al. (2001) are subject to framing effects. In particular, the experiment varies two features of the Fischbacher et al. (2001) method: the *sequence* and *order* in which the contributions of other group members are presented. The predictive power of the elicited preferences is evaluated in a one-shot and a finitely-repeated public-good game. The results indicate that the order in which the contributions of others are presented, by and large, has no impact on the elicited preferences and their predictive power. In contrast, presenting the contributions of others in a sequence has a pronounced effect on the elicited preferences and reduces substantially their predictive power.

The experiment presented in **Chapter 5** (with Arno Riedl) differs from the work presented in the previous chapters in that it takes for granted the existence of social preferences. The study focuses on the impact social networks may have on alleviating one of the most well-known economic problems: adverse selection in the labor market. In the last decade, the economics literature has investigated the link between social networks and phenomena such as crime, wage dispersion, price formation, and virus spreading. In addition, empirical studies have found evidence that firms often hire workers using the social contacts of their workers. The aim of the experiment in this chapter is to investigate whether firms use the social network of their workers to hire new workers, under what conditions they do so, and ultimately, whether social networks reduce the adverse selection problem. Our results show that firms are indeed significantly more likely to make "referral offers" when the worker hired in the first stage is of high ability

due to the homophily between workers. Referral offers are higher on average than public offers. We also find that firms are more likely to make higher offers to attract high-ability workers with a better network. Finally, we find that the proportion of high-ability workers in the second stage is higher when there is a social network.

Chapter 6 concludes the thesis by summarizing the main findings and considering questions for future research.