



Playing with other people's money: Contributions to public goods by trustees



Michael D. Makowsky^a, Wafa Hakim Orman^{b,*}, Sandra J. Peart^c

^a Center for Advanced Modeling, Department of Emergency Medicine, Johns Hopkins University, 5801 Smith Avenue, Davis Building, Suite 3220, Baltimore, MD 21209, United States

^b Department of Economics, Accounting, and Finance, College of Business Administration, University of Alabama in Huntsville, 301 Sparkman Drive, Huntsville, AL 35899, United States

^c Jepson School of Leadership Studies, 28 Westhampton Way, Jepson Hall, University of Richmond, VA 23173, United States

ARTICLE INFO

Article history:

Received 18 September 2013

Received in revised form 6 August 2014

Accepted 7 August 2014

Available online 15 August 2014

JEL classification:

C92

D71

H41

Keywords:

Laboratory experiment

Free riding

Public goods game

Voluntary contribution mechanism

Trustees

Leadership

ABSTRACT

Decisions about public goods in the real world are frequently made by trustees—individuals responsible for managing pools of contributed funds—rather than by the contributors themselves. We conduct a laboratory experiment to compare contributions made by trustees who play with other trustees using their group's resources, with contributions made from their own endowment. We examine the decisions made by subjects in the two voluntary contribution public goods games, distinguishing between altruistic and reciprocal actions, and unpacking the heterogeneity of other-regarding preferences. Subjects contribute more when acting as trustees than when playing with their own money. Consistent with theories of other-regarding preferences, subjects free-ride less when they serve as trustees. They also more frequently conditionally contribute amounts greater than the unconditional contributions of other trustees in the group, while also unconditionally contributing more than they expect from others.

© 2014 Elsevier Inc. All rights reserved.

1. Introduction

Researchers have used extensive laboratory experiments to study the provision of public goods through agent cooperation (Ledyard, 1995; Plott and Smith, 2008). Real world public goods, however, are frequently generated through cooperation by trustees or leaders acting on behalf of the constituent members of their subgroups. Examples of such trustees might be political representatives, managers of non-profits, or religious leaders who make decisions on behalf of their congregations. The key characteristic of a trustee in this context is that trustees make decisions affecting their constituents' resources. It is intuitively appealing, even clichéd, to assume that agents will behave differently when making decisions with "other people's money."

Yet even in that most simple trustee context the incentives associated with spending someone else's money might be mixed: as Phillip Wicksteed (1910) argued in *The Common Sense of Political Economy*, a mother is predisposed to be more careful ("economical") when she acts on behalf of her children. The trustee who bargains on someone else's behalf may be, as Wicksteed suggested, morally obligated to drive a harder bargain on behalf of his clients; on the other hand, we might be less careful if we spend the resources of someone quite distant from us. Lionel Robbins (1933, 1935) followed Wicksteed's lead in arguing that sympathetic agency means the model of economic man as purely self-interested fails adequately to predict decisions made on behalf of others. Both Wicksteed and Robbins, however, had in mind a bargaining, or zero sum context; though we follow them in their conception of the "trustee" in our framework, we extend their discussion to a richer, non-zero sum context.

In our experiment, we take a step beyond the simple trustee context to study how trustees act when they play a public goods game with other trustees: our subjects make decisions in both a traditional public goods game and an alternative game where

* Corresponding author. Tel.: +1 256 824 5674.

E-mail addresses: mmakowsky@jhu.edu (M.D. Makowsky), wafa.orman@uah.edu (W.H. Orman), speart@richmond.edu (S.J. Peart).

they serve as trustees, making decisions that determine a significant part of the payoffs for members of their groups. Such decision-makers might be conceptualized as “fiscal trustees” operating within a “budgetary commons”—a role often taken on by managers of a division within a larger company or non-profit organization. Examples of this sort of situation occur when division heads are entrusted with resources within an organization that has other divisions, and other trustees. Corporations that have vice presidential structures reporting down to a semi-autonomous division and up through the CFO, for instance, might be led by a group of trustees who bring resources to a series of interactions at which the full organizational outcome, as well as the shares of that outcome for each member of a division, are co-determined. This organizational structure also shares features with a university or college, where division heads (the heads of Schools or departments) bring resources to a budgetary commons that simultaneously determine what each member of the School or department will eventually obtain. The trustee therefore must balance competing interests—trying to ensure that the commons is appropriately allocated to their people in the unit or group; while ensuring that s/he plays well with other trustees and makes the entire organization as fiscally sound as possible.

If trustees interact in a fiscal commons, our key research question is: do they contribute more to the overarching group when they bring other people’s resources to the game? In each dimension of our experiment, we found that subjects consistently contributed more to the public good when they acted as a trustee than when they made decisions using only their own resources. In addition, within this overarching result we explore the patterns of decisions made by subjects in the two games, distinguishing between altruistic and reciprocal actions, and unpacking the potential heterogeneity of other-regarding preferences that motivate the contributions we observe.

A growing literature demonstrates that agent cooperation rates depend on the source of the agent’s resources and whether agents perceive their resources as belonging to themselves or others (Smith, *in press*). Rates of sharing in dictator games depend on whether endowments are earned or not (Cherry, Kroll, and Shogren, 2005; Oxoby and Spraggon, 2008). Insko, Schopler, and Sedikides (1998) summarize a variety of results showing that groups of people are, collectively, more self-regarding and competitive than individuals. There is also both theory (Hermalin, 1998, 2007; Hermalin et al., 2007) and experimental evidence (Meidinger and Villeval, 2003; Potters, Sefton, and Vesterlund, 2005; Potters, Sefton and Vesterlund, 2005; Rey-Biel and Huck, 2006; Guth et al., 2007; Levy et al., 2011; Houser et al., 2014) that agents acting in leadership roles behave differently from the rest of the group, and that this altered behavior in turn affects the cooperation, contribution rates, and ultimately payoffs of other agents within their groups.¹ In these contexts, however, leaders do not make decisions *on behalf* of other agents; instead they urge others to act while making their own contributions. It is possible that decisions and outcomes may be different when trustees make decisions for their group members.

Group representatives were, however, used in the context of trust games in Song (2008), where representatives were given the responsibility of unilaterally and privately playing a trust game on behalf of three other participants. More closely related to our experiment, Hamman, Weber, and Woon (2011) ran a public

goods experiment wherein an elected representative made allocation decisions for a group in potentially repeated games. They found that the election mechanism combined with pre-play communication went a long way towards eliminating the free-rider problem—elected representatives frequently chose the efficient allocation.

Our experiment is also related to the literature on “house money” effects, which refers to the fact that subjects in many experiments make decisions regarding money given to them by the experimenter, rather than with their own money. While not identical, the effect of playing with “other people’s money” could be seen as analogous to the effect of playing with house money. Further, the decisions made by subjects could be affected if trustee effects interacted with house money effects in unforeseen ways. Clark (2002) found no effect of house money versus the subjects’ own money in a VCM game; however, Harrison (2007) examined data from the same experiment and found that the use of house money actually *increased* the probability of free-riding, though it did not affect the amounts contributed for those who did decide to contribute. Cárdenas et al. (2014) examined the effects of house money in the context of risk aversion, and found a small increase in risk aversion for those making decisions with money they considered their own. Houser and Xiao (*in press*) found a significant reduction in trusting behavior in an investment game when subjects made decisions with their own money, relative to house money. We do not separately control for house money effects and leave it as an open question for future research.

Our experiment adds a novel element to such considerations: in the setup described below, all participants have the potential to be randomly chosen as the leader, where they will explicitly make decisions on behalf of their group—acting as a trustee for the group and its resources—while playing with other trustees. We are able to, in turn, observe how individuals behave when making decisions for themselves and how they behave when making decisions on behalf of others. Our experiment also tests whether or not trustees of groups can anticipate these changes in self-regard in the trustees of other groups, and whether they behave accordingly.

2. Model and experimental design

We conducted a two-round experiment with sixteen subjects per session, in four groups of four subjects each. In the first round subjects participated in a traditional public goods experiment using a voluntary contribution mechanism (VCM). In the second round, they acted as the trustee for their group, and played the VCM game (with the same parameters as in the first round) with the trustees of the other three groups. The trustee’s endowment consisted of a fixed, equal amount taken from the other group members’ earnings from the first round. The game was structurally identical to the first round VCM game, but the results determined the payoffs to their fellow group members, while the trustee collected a pre-determined wage. This wage was fixed, regardless of the trustee’s actions or earnings. Since the trustee played the game with the trustees of the other three groups to determine the level of the overall “population” public good, the trustees’ actions also affected the payoffs of the nine other non-trustee subjects in the session.

In order to maintain the standard theoretical predictions for a VCM game, the Marginal Per Capita Return (MPCR) was set equal to 0.4 for both rounds, so that it fell in the open interval $(1/n - 1, 1)$. The endowment was 10 tokens in both the VCM and trustee rounds, where 1 token = \$1. An individual’s payoff in the VCM round was therefore:

$$\pi_i = (10 - c_i) + 0.4 \left(c_i + \sum_{j \neq i} c_j \right) \quad (1)$$

¹ This growing body of research complements the philosophical literature on leadership ethics, e.g. Price (2008). The presumption in much of the humanities-based literature on leadership is that a leader influences her followers or acts on their behalf (Cronin and Genovesi, 2012, p. 36). While the experimental literature has taken up the former challenge, less attention has been paid to the latter.

Download English Version:

<https://daneshyari.com/en/article/881936>

Download Persian Version:

<https://daneshyari.com/article/881936>

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