Giving and sorting among friends: Evidence from a lab-in-the-field experiment☆

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HIGHLIGHTS

- We examine dictator giving in a lab-in-the-field experiment in Cairo.
- Giving to a stranger and to a friend is positively correlated.
- More altruistic dictators increase their giving less under nonanonymity.
- Friends' altruistic preferences are not significantly correlated.
- Friendships may be valued differently when financial dependence on them is high.

ARTICLE INFO

ABSTRACT

We examine dictator giving in a lab-in-the-field experiment in Cairo. Giving to a stranger and to a friend is positively correlated, and more altruistic dictators increase their giving less under non-anonymity. However, friends' altruistic preferences are not significantly correlated.

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1. Introduction

There has been growing interest in the experimental literature in understanding the determinants of prosocial behavior among socially close persons, such as direct friends and friends of friends as opposed to strangers, and how real-world social networks evolve (e.g. Leider et al., 2009; Brañas-Garza et al., 2010; Goeree et al., 2010). Prosocial behavior among socially close persons is pervasive in both developing and developed countries. However, empirically it is difficult to distinguish whether such behavior is driven by preferences or by the expectation of future transactions. In one of the first studies addressing this issue, Leider et al. (2009) examine prosocial giving among Harvard undergraduates and their peers (students living in the same dormitory). By varying both the social distance between peers and the anonymity of the dictator, they are able to discriminate between these different motives of giving.

In this paper, we report the results from a lab-in-the-field experiment that we conducted in an informal housing area in Cairo.

As part of this experiment, we collected data from several dictator games which are, in parts, similar to the dictator games of Leider et al. (2009), henceforth LMRD, allowing us to compare our results to their main findings.[1] For several reasons we may expect differences in sharing behavior across these two settings. First, in developing countries social networks often substitute for weak or missing formal institutions. Hence, people are financially much more dependent on their social network (Munshi, 2006).[2] This may have consequences, in turn, on the sorting among friends, as expectations about future transactions may play a more important role than intrinsic values. Second, and relatedly, results from standard dictator games indicate that transfers are comparatively high among non-student subject pools in developing countries (e.g. Cardenas and Carpenter, 2008). We may therefore expect social distance to have a smaller effect on dictator giving in our sample.

2. Experimental design and procedure

The experiment took place at a cultural theater in Manshiet Nasser, an informal housing area in Cairo.[3] Invited residents were required to participate together with a friend. In total, we conducted five sessions with 144 participants (72 pairs). After playing a binary trust game with hidden action (for details see Binzel and Fehr, 2010), participants played several variants of the dictator game, in which they were asked to allocate an endowment of 20 Egyptian Pound (L.E.) between themselves and another participant.[4]

We used a two-by-two design inspired by LMRD. First, the identity of dictators either remained anonymous (as in the standard dictator game) or was revealed at the end of the session (*anonymous/non-anonymous* treatment). We refer to the difference in the amount given in these two treatments as *non-anonymity effect*. Second, in each treatment dictators were asked to make an allocation decision once for being paired with their friend (*friend* pairing) and once for being paired with a randomly chosen workshop participant (*stranger* pairing). We refer to the difference in the amount given to the friend versus a stranger as *social distance effect*.[5] Participants were paid for one of the two decisions (*stranger* or *friend*) in each treatment (*anonymous/non-anonymous*).[6]

In the *non-anonymous* treatment, we additionally collected the participants' beliefs. That is, after participants made their allocation decisions for the friend and the stranger pairing, we asked them what they expected to receive both from a stranger and from their friend.

Table 1
Aggregate results by pairing and treatment.

		Anonymity of the dictator	
		Anonymous	Non-anonymous
Social distance	Stranger	7.29 (3.55) [36.42%]	7.90 (3.10) [39.48%]
	Friend	8.85 (3.12) [44.27%]	9.21 (2.60) [46.04%]

Notes: Average transfers to the friend/stranger in each treatment (out of 20 L.E.) are reported with standard deviations in parentheses. The corresponding percentages are reported in brackets. $N = 144$ (72 pairs).

We deviate from LMRD, and from the standard dictator game, in that we introduced role uncertainty in order to elicit other-regarding preferences for all study participants. That is, in each treatment (*anonymous/non-anonymous*) all participants were required to make an allocation to their friend and a stranger, and only at the end of the session we selected their role (dictator or recipient). While this may lead to higher transfers than in a standard dictator game, the observed transfers in the *anonymous/stranger* treatment compare well with other standard dictator game studies that have been conducted with a non-student subject pool in developing countries (see e.g., Cardenas and Carpenter, 2008).

Closely related to LMRD and to our study is a recent lab-in-the-field experiment by Ligon and Schechter (2012). Ligon and Schechter (2012) developed their design independently of LMRD and examine motives of sharing among households, rather than individuals, in rural Paraguay. While they also vary the anonymity of the dictator, they additionally vary – in contrast to LMRD and to our study – whether or not the dictator can choose the recipient household. Therefore, in cases where dictators can choose the recipient, their motives for sharing are likely interdependent with their choice of a recipient.[7]

3. Experimental results

3.1. Dictator transfers by pairing and treatment

Table 1 presents the aggregate results by treatment (*anonymous/non-anonymous* and *stranger/friend*). On average, dictators transfer 36.42% of their endowment to a stranger under anonymity. Transfers increase when moving from anonymity to non-anonymity and from being paired with a stranger to being paired with a friend, leading to an average transfer in the *friend/non-anonymous* treatment of 46.04% of the endowment. At the same time, the variance of the transfer decreases: it is highest in the *stranger/anonymous* treatment and smallest in the *friend/non-anonymous* treatment. These figures suggest that a significant share of dictators splits the endowment. This is indeed the case, in particular in the friend pairing: 70.8% of dictators share their endowment equally with their friend in the *anonymous* treatment and 79.2% of dictators do so in the *non-anonymous* treatment.[8]

The corresponding dictator transfers reported in LMRD for Harvard undergraduates are 17.58% (stranger/anonymous), 23.92% (friend/anonymous), 24.32% (stranger/non-anonymous), and 32.66% (friend/non-anonymous).[9] Not surprisingly, given the

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[1] In Binzel and Fehr (2010) we examine how the social distance between players affects behavior in a binary trust game with hidden action. We use respondents' behavior in one of the two dictator games to control for other-regarding preferences, but do not analyze the data from the dictator games itself.

[2] For the importance of social networks in Cairo, see, for example, Singerman (1995); Hoodfar (1997).

[3] See online appendix) for details on the experimental procedures and for participant characteristics.

[4] At the time of the study, 20 L.E. was more than a worker's daily wage (about 10 to 15 L.E.). Endowments of this size are common for lab-in-the-field experiments conducted in developing countries.

[5] Following Jackson (2008), we define social distance as the path length between trading partners in social networks. Accordingly, we compare allocation decisions among direct friends (social distance of 1) to allocation decisions among strangers (infinite social distance). Note that in LMRD participants had to make allocation decisions for a range of social distances. We compare our *stranger* pairing to pairings of social distance 4 in LMRD, which is the largest social distance involving a recipient whose identity is revealed in their non-anonymous treatment and which has a sufficiently large N. A social distance of 4 is larger than the expected social distance of a randomly chosen student in their sample, which is a friend of a friend of a friend (social distance of 3).

[6] In the *anonymous* treatment, we did not reveal which pairing was chosen for payment in order to ensure decision makers' anonymity. Note that we randomized the order of the *anonymous* and the *non-anonymous* treatments as well as the order of the pairings (*stranger* versus *friend*).

[7] Several recent experimental studies in developing countries also utilize participants' real-world social relationships. They examine, amongst others, how giving varies across different types of networks (D'Exelle and Riedl, 2010), sharing among spouses (Bezu and Holden, 2013) as well as third-party punishment and trust (e.g., Vollan, 2011; Breza et al., 2012).

[8] The corresponding shares in the stranger pairing are 50.7% and 53.5%.

[9] As mentioned in Section 2, we refer to a "stranger" in LMRD to recipients with a social distance of 4. Percentages are calculated from the mean transfers reported in Table 2 (p. 1830) for the dictator game with exchange rate 1:1.