Are Preferences Stable Across Domains? An Experimental Investigation of Social Preferences in the Field

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Abstract:

Our research investigates whether social preferences are stable across contexts in the field. We recruit participants from a low-income urban neighborhood in Dallas, Texas. We demonstrate the stability of cooperative actions across multiple decision contexts: Choices in a laboratory VCM predict behavior in several donation experiments and self-reported measures of donations and volunteering outside the lab. These results have important implications for our ability to model a general preference for cooperation as well as for public policy regarding the voluntary provision of public goods.

JEL Classification Codes: H41, C93, D01, Z13

Keywords: Public Goods, Field Experiment, Preference Stability, Social Preferences

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1. Introduction

The economic view of individuals is based on the idea of utility maximization and a maintained assumption of stable preferences. Recently economic researchers have challenged this assumption, arguing that preferences are contingent on the context in which they are expressed (Levitt and List, 2007a, 2007b). This argument recalls an older claim from psychologists that preferences are constructed from details of the situation (e.g. Tversky and Kahneman, 1981; Payne, Bettman and Johnson, 1993).

We contribute to this debate by examining the stability of social preferences, in particular the preference to contribute to public goods. We present a field experiment in a culturally and ethnically distinct low-income, urban neighborhood in Dallas, Texas. We first measure preferences for contribution using a linear Voluntary Contributions Mechanism (VCM) in a small-group lab setting. Next, we compare behavior in the VCM to behavior a different context: the decision to contribute to local public goods. We find that VCM behavior predicts giving in a series of donations experiments, where subjects are given the opportunity to contribute to a variety of local charitable causes. Finally, we compare VCM giving with self-reported charitable and volunteering activities and find a similar correlation. We conclude that at least some social preferences are stable, and can thus be safely modeled, estimated and used to predict related decisions of individuals.

Note, we are not claiming that all preferences are stable, or that context is irrelevant in predicting individual decisions. Indeed, many preferences (even social preferences) demand information about the context in order to be expressed as actions. For example, if an individual

has a preference for reciprocity, then his actions will vary depending on the actions of her counterpart (the context). Similarly, if an individual prefers to choose the second-largest piece of cake, her choice will vary based on the choice-set provided (Sen, 1993). Instead, we are demonstrating that in some settings, some social preferences are internally consistent. In order to know when we can use actions in one domain to predict actions in another, and when we cannot, it is important to understand details about the settings and the preferences.

Understanding the stability of preferences across multiple domains has important policy implications. Stability would indicate that it is reasonable to measure preferences in one domain, and that the resulting insights can be applied to different, related areas. It would also indicate that appropriately designed experiments can be used to test-bed economic policies (e.g. Plott, 1994).

a. Stable, Constructed and Discovered Preferences

This debate is by no means new. Stigler and Becker (1977) lay out the argument for *stable preferences*, or that tastes do not "change capriciously" (p. 76). The *constructed preference* viewpoint is nicely summed up by Plott (2001): "The construction [of preferences] depends upon the mode in which a response is called. Task and context are thought to influence the construction and, as a result, preferences are thought to be labile if, indeed, they can be said to exist at all" (p. 227; see also Lichtenstein and Slovic, 2006). The recent work of Levitt and List (2007a) finds evidence consistent with this context-specificity. Reviewing prior literature, they conclude that "the context that actors themselves brought to the game and that the experimenters cannot control—like past experiences and internalized social norms—proved centrally important in the outcome of play" (p. 163). Intermediate cases include those proposed by Hoeffler and Ariely (1999) and Plott's (2001) *discovered preferences*. In Hoeffler and Ariely (1999), individuals construct preferences when they are faced with a new type of decision, and

then these preferences stabilize over time. In Plott (2001) preferences are stable but unknown to the individual and must be somehow "discovered" through repetition and learning.

Other researchers have explored the stability of preferences across decision environments. Several studies have focused on various types of social preferences. Karlan (2005) shows stability in trustworthiness across contexts; behaviors in laboratory trust games are good predictors of loan default in Peru. Benz and Meier (2006) show stability in charitable behavior across contexts: donation behavior in a modified dictator game (where the recipient is a charity rather than a person, see e.g. Eckel and Grossman, 2006) significantly predicts donations to the University's social funds. Carpenter and Seki (2004) show how cooperative preferences, measured by a public goods game, relate to labor productivity in among Japanese fisherman (a profession requiring cooperation). Laury and Taylor (2008) find mixed evidence for stability of cooperative preferences between lab provision of public goods and one particular charitable organization. List (2006) finds that social preferences are exhibited in a lab setting but not in a market setting.

Other studies focus on other types of preferences, such as those for risk and time. Ashraf *et al* (2006) find that individuals who are hyperbolic discounters have a higher demand for savings commitment devices. Meier and Sprenger (2007) find that individuals who are present-biased have higher credit card balances. Andersen *et al* (2008) find that risk preferences are relatively stable over time, but that they are state-contingent with respect to an individual's financial situation.

Our study makes several contributions over previous research. First, we conduct our study with a new and policy relevant sample, low-income minorities, rather than the traditional convenience sample of undergraduates. We compare the revealed preference for cooperation in

the lab across several different decision contexts, rather than just one context. Finally, we examine the impact that an individual's beliefs have on their willingness to contribute, which we discuss in the next subsection.

b. Types of Social Preferences

Whether social preferences are stable or not, it is worthwhile to investigate what type of social preferences individuals exhibit. For example, individuals can be altruistic (Becker, 1974), warm glow (Andreoni, 1989, 1990), reciprocal (Camerer and Fehr, 2004), or motivated by fairness or inequality aversion (Camerer and Fehr, 2004).

We address this question by examining what information participants use when deciding whether and how much to contribute to local public goods. We find that individuals contribute more when they believe others are contributing more, consistent with reciprocity or inequality-aversion. However, we also find that perceptions of one's neighbors impacts individuals' decisions. Subjects who view their neighbors as being fair and trustworthy are more likely to contribute in their daily lives, whereas subjects who view their neighbors as helpful are less likely to do so.

Further, we find that individuals who are more risk tolerant and patient contribute more to the local charities. This is consistent with the idea that individuals view these donations as investments in their neighborhood.

c. Summary

Generally our results support the stability of social preferences. Preferences for cooperation are relatively stable and robust across decision environments. This paper is organized as follows. In section 2 we discuss our experimental design and implementation. In

Section 3 we discuss the results from each task independently, and sections 4 and 5 present the relationships between them. Section 6 concludes.

2. Experimental Design and Implementation

Experimental sessions were run in June, 2007 in the Fair Park neighborhood of Dallas, Texas. Our results are based on 190 participants who were recruited via flyers at their homes and in local stores. The flyers described the experiment, and included a number to call to register. Participants called the number, registered for a session, and arrived at our site.

After signing the consent form, participants worked through an activity booklet containing a number of incentivized tasks: the Eckel-Grossman Risk task (Eckel and Grossman, 2002, 2008); a time-preference elicitation based on Eckel, Johnson and Montmarquette (2005); a laboratory public goods game (VCM); and three versions of a donation game which were developed for this study. In half of the sessions participants completed a short survey eliciting their connection to the community before completing the VCM and donation experiments; in the other half the survey is administered post-experiment.

Each of the decision forms was explicitly designed for a low-literacy population, with the games presented in pictorial form with minimal text. The experimenter followed a pre-tested script to explain each task, and answered questions before each one. At the end of the session, one of the tasks was randomly chosen for actual payment, as was fully explained to the participants.[1]

[1] Full instruments and instructions are available online at http:\\cbees.utdallas.edu. The choice of one task for payment (sometimes called the random lottery incentive mechanism) is to avoid portfolio effects and has been validated in a variety of studies (see e.g. Cubitt, Starmer and Sugden, 1998; Hey and Lee 2005a, 2005b). One of the particular advantages of this mechanism for our sample is that we are able to increase the payoffs for each decision, making the incentive of the games particularly salient.

Once the activity booklet was completed, we took a five-minute snack break. When the participants returned, they completed a social network activity and a detailed post-experimental survey, designed to collect information on demographics, identity, housing, financial sophistication, and financial donations to non-profits as well as volunteer work. This paper focuses on the results from and relationship between the linear VCM, the donation experiments, and self-reported donations/volunteering.

In the VCM, participants were randomly assigned into anonymous groups of three and given an endowment of $60 which they could allocate to either their individual or a group account. In order to simplify the game, participants were given four, discrete options. They could choose to: (1) keep all $60, (2) keep $40 and donate $20, (3) keep $20 and donate $40, or (4) donate all $60. Since clarity was of utmost importance for this subject pool, in the experiment we described individuals deciding how much they wanted to "put in their wallet" and how much they wanted to "put in the group account", rather than the more abstract "allocate" language often used in these instructions with undergraduate students. This was done to minimize confusion among the subjects and had the added advantage of creating parallelism between this and the donation experiment, described below. Money in the individual account was kept by the individual. Money placed in the group account was doubled, and then divided equally among all three members of the group, regardless of their decision (MPCR = .66). We intentionally excluded the option to give half of the endowment. First, we wanted to move people away from the 50/50 split to ensure variability in the data and second, since we displayed everything in a visual manner, this enabled us to depict all of the choices in $20 bills.

In the donation experiments participants were again arranged into (different) groups of three and faced the same decision with $60. In this game, however, the money placed in the

group account was not distributed to the participants but instead donated to an organization that provides a public good for the neighborhood. We had three donation tasks, one for each of the following: The Martin Luther King, Jr. Family Clinic (health services), The Dallas Bethlehem Center (educational services for children), and The Inner-City Community Development Corporation (job training services).

Beliefs were collected at the end of the experimental activity booklet, but before the networks and post-experiment surveys. For each of the activities, individuals were asked to state how much of the endowment they thought each of the other two individuals in their group contributed to the group account. In the post-experiment survey, individuals were asked to list each of the organizations that they donate money to or volunteer for.

Experimental sessions lasted on average 2 hours, and participants were paid a $20 show-up fee plus their earnings from the experiment. The median per capita income in this neighborhood is approximately $10,700[2] and median household income is approximately $19,600 (Williams Institute, 2006). Note that in the VCM, if everyone played the dominant strategy, earnings would be $60+$20=$80, almost equal to two days wages (15.5 hours). If everyone played the social optimum, earnings would be $120+$20=$140, be over 3 days wages (apx. 27 hours). Thus we believe that the stakes were large enough to ensure that participants thought carefully about the problem. Average earnings were $79 ($108 if you include payments to the charities), with a minimum of $20 (the show-up fee) and a maximum of $280.

3. Subject Pool and Descriptive Results

In this section, we describe our sample and descriptive results from each of our measures independently: VCM, Donations experiments, and self-reported donations of time and/or money.

[2] Note that for a 40-hour per week, 52 weeks a year job, this is equivalent to $5.15 an hour.

Sections 4 and 5 describe the relationship between them and thus provide our test of stability of preferences.

Most previous experimental research on cooperation and contribution has focused on a convenience sample of university undergraduates (see e.g. the papers reviewed in Ledyard, 1995) or samples from other countries (see e.g. Carpenter *et al,* 2004; Henrich *et al*, 2001, 2004). We begin by extending the experimental literature with a new (and policy-relevant) population sample; participants from a low-income, minority neighborhood.

The sample and neighborhood characteristics are described in Table 1. These participants are very different than the typical student sample; they are older, tend to have children, and be the main wage-earner in their homes. The sample is almost completely African American, with low levels of income and other financial assets.

[Table 1: Description of the Sample about here]

Figure 1, below, shows the distribution of contributions to the group account for the VCM and Donations experiments. Using the VCM as a measure of revealed cooperative tendencies in the neighborhood, we see a substantial level of cooperation. Note that the mean contribution is 41.1% of the endowment, which is within the normal contributions range of 40 to 60% (Ledyard, 1995), giving us confidence that our protocol was reasonable, and suggesting that our results are comparable to other samples.

[Insert Figure 1: Amount sent to the group account, VCM and Donations Experiments]

For the Donations Experiments, we see a distinctive reduction in donations to the group account between the VCM and the Donations experiments.[3] However, this shift is not as strong as expected given the incomes in the neighborhood and the relative differences in the MPCR across activities. We see that individuals contribute on average 30.4% of their endowment to the Health charity, 31.1% to the Children's Education charity and 27.2% to the Job Training one. Since the Donations experiments are a new game, we cannot directly compare behavior among individuals in this population to other studies. The closest studies are the modified dictator experiments where the recipient is a charity. The first study to do this was Eckel and Grossman (1996), and in their study individuals gave on average 30.1% of their $10 endowment. This is very similar to behavior in our sample, except that we have a larger endowment and a 100% match on donations. In study with more similar incentives to our own, Eckel, Grossman, and Milano (2007) have a treatment with a $50 endowment and 100% match. They find that student subjects send on average 46.7% of their endowment – substantially more than our sample.

There is a significantly higher proportion of individuals choosing to contribute zero in the Donations Experiments (one tail, Health, p=0.033; Childcare, p=0.026; Job Training, p=0.002) than to the VCM. Contributions to the charities are lower than to the VCM. We find no differences for any of the donations experiments along the following characteristics: gender, home ownership, employment status (unemployed in the last year, temporary work, part-time, full-time), highest education achieved, age, marital status, number of children, and the number of years an individual has lived in the neighborhood. We also find no differences in the mean contribution by treatment, whether or not the individuals needed assistance with written

[3] We fully blocked the order of the real charities. The blocking order was not significant for average session contributions to the VCM or any of the Donations experiments. The following are from the Pearson's $\chi 2$ contingency table test of blocking order and average session contributions: VCM Pr=0.360, Health Pr=0.189, Children Pr=0.458, Jobs Pr=0.277.

materials, or the number of people they recognize, know by name, or consider friends during the session.[4]

In sum, we see a significant amount of cooperative behavior in this low-income population. There is less cooperation in the Donations experiments than in the VCM, but it is still substantially greater than zero. Further, the observed level of cooperation does not vary with demographic characteristics.

Turning to individuals' expectations of cooperation, we find that for all of the Donations experiments, participants overestimate the amount that others will contribute to the public good. For the health public good, the average belief was $21.39 whereas the actual average Contribution was $18.21 (t-test, p=0.02). Similarly, for the Childcare public good, the average belief was $21.07 while the actual average contribution was $18.63 (t-test, p=0.08). Finally, for the job trailing/entrepreneurship public good, we see that the average belief is $20.32 whereas the average contribution is only $16.32 (t-test, p=0.004).

Examining the self-reported charitable activity, 72.6% of our subjects donate time or money to charitable causes. We find no gender differences in these contributions, but home owners (t-test, p=0.002) and those employed full-time in a permanent job (t-test, p=0.04) are more likely to contribute. There are no differences for other employment categories. Individuals who have has at least some college are more likely to contribute (t-test, p=0.02). We find no differences by age, children, or years lived in the neighborhood. Demographics seem to have a more substantial role in the self-reported charitable contributions than in the Donations experiments. Particularly, people who are more stable and entrenched in the community (home

[4] All p-values greater than 0.20, except Years in Neighborhood (Job Training only, p=0.156), Number of Kids (Health = 0.142, Education = 0.135), and read-to (Health = 0.14).

owners, permanently employed, better educated) are more likely to report that they contribute time and/or money to charitable causes in their everyday lives.

4. Stability of Preferences: Donations Experiments

We will now look at the relationship between the choices made in the VCM as a revealed social-preference for cooperation, and use this cooperation measure as an explanatory variable for the Donations experiments.

By comparing behavior in the laboratory game with that of the Donations games (which are framed like a VCM), while controlling for individual valuations of the local public goods, we have kept the decision structure constant. The difference is that the multiplied contributions to the group account go to a charity instead of being split among the group members.[5] If the VCM is a good predictor of behavior in these activities, then we should see large and statistically significant coefficients in these regressions.

In addition to the VCM, we know that other things should matter for the decision to contribute to the charitable organizations. We hypothesize that preferences for risk and time will also be related to the decision to contribute. This could occur for many reasons (the determination of which is beyond the scope of this paper), but one might be that contributions to the local public good are viewed as an investment in the community. Individuals could use the money today, but if they contribute to the public good it will help them (and other people in the neighborhood) in the future. If this is the case, then patient people will be more willing to contribute, and should contribute more on average, to the public good. This logic has been confirmed for the case of common pool resources by Fehr and Leibbrandt (2008). However, this

[5] Note that in this case we are giving ourselves the best possible change of finding a relationship between charitable giving and the measured preference for cooperation. We will go on to explore self-reported behavior in the next section.

investment in the public good may or may not translate into future services (you might never use the organizations services). If this is the case, then investment in the public good is a risky one and individuals who are less risk averse will be more willing to contribute (and will contribute more) to the public good.

In addition to preferences for risk and time, it is reasonable to assume that factors that increase an individual's value for the public good (such as needing a job or having children) will increase the amount that they are willing to contribute to the public good. Further, studies of volunteerism often find demographic variation in the willingness and amount of contributions to charitable causes (see e.g. Freeman, 1997).

Other factors that could impact the amount and willingness to contribute to the charitable causes are: how much individuals think the neighborhood needs more of that local public good and how much they trust that type of organization. These measures are all included as controls in our analysis.

In addition to the more standard economic variables already discussed, another set of variables can potentially impact the amount that individuals are willing to contribute to the local public good: beliefs about other people's donations and perceptions about neighbors. Individuals could view the donation decision as a type of coordination game, where they want to donate an amount close to what they believe others are donating. This could be because of a desire to conform to some sort of social norm which a transforms payoffs as in Rabin (1993), or because of inequality aversion (Fehr and Schmidt, 1999; Bolton and Ockenfels, 2000). On the other hand, if individuals are purely selfish, the coefficient on beliefs should be zero, while if individuals are purely altruistic (Becker, 1974), the coefficient should be negative (Croson, 2007).

In addition to collecting information about *how much* the subjects expect other people to give to the organization, we also collected information on *how nice* they believed individuals in their neighborhood were. We measure 'niceness' using modified World Values Survey questions for the fairness, helpfulness, and trustworthiness of neighbors. If subjects care only for the value for the public good, then these factors will not impact provision. Further, even if people only care about how much others will give, then these perceptions will not matter.[6] Perceptions should impact provision at the margin, controlling for beliefs, only if the subjects place some value on the deservingness of the recipients of their donations. Since the donations are going to provide local, neighborhood-level public goods, we expect that when the subjects perceive that individuals in their neighborhood are more fair, helpful, and trustworthy that they will donate more to the local public goods.

We can thus describe the donation decision as:

Donation = f (VCM Contribution, Risk Preferences, Time Preferences,
Valuation for the Public Good, Demographics, Beliefs, Perceptions of Neighbors,
random error) (1)

Remember that subjects have the choice of donating \$0, \$20, \$40, or \$60. Since the choices of donations are discrete, we estimate *f* using an ordered probit. In Table 2, we present our results in two different manners, a seemingly unrelated regression (SUR) and a pooled model. For the SUR, we jointly estimate three ordered probits to get robust standard errors and to cluster around the individual, since each individual is making three decisions. For the pooled

[6] We call these perceptions rather than beliefs because we are not necessarily conforming to the standard definition of beliefs, which generally requires either an expressed amount or probability. The concept we are employing is a little more 'fuzzy.'

model we present the results of a random effects ordered probit. The interpretation of these models differs slightly. For the seemingly unrelated model, the correlation between the decisions is interpreted as coming from the similarity of the decisions, whereas for the random effects model, the correlation is coming from the fact that the same person is making the three decisions.

We provide full descriptions of all of the variables, along with their descriptive statistics, in Appendix Table 1. Table 2 provides a comparison of results across the three local public goods models as well as the pooled model. Note that the impacts of the explanatory variables vary across the various public goods.

We include as controls demographics,[7] the perception that there is a need for the service the organization provides in the neighborhood, trust in providers of this type of service, proxies for valuation of the service, and location in our target area. The estimates of these controls are omitted for sake of brevity, but are available upon request from the authors. They are rarely (if ever) significant in the analysis and dropping them does not alter the results.

[Insert Table 2: Ordered Probit for the Donations Experiments about here]

We see that for all three organizations, as well as the pooled data, the VCM choice is positively and significantly related to donations behavior, revealing the stability of cooperative preferences in these domains. This is true even controlling for the individual beliefs about how much others are going to contribute to the organizations.

Individuals who are less risk averse contribute more to all of the public goods, though the result is not as strong for the job training organization. Further, individuals who are more patient contribute more to the organization in all cases. This extends the result in Fehr and Leibbrandt

[7] Including gender, education, age, employed, number of children in the household, and frequent church attendance.

(2008) to the case of public goods. Subjects to seem to view donations to these organizations as an investment in their neighborhood – and subjects who are less risk averse and more patient are more willing to invest.[8]

As expected, beliefs about the laboratory contributions of others are positively and significantly related to behavior. Further, we see that individuals contribute more to the local charities when they view their neighbors as being fairer.

Another way to address the issue of the stability of cooperative preferences across decision context using the VCM in the Donations experiments is to look at the number of organizations to which a subject makes a positive contribution. Table 3 provides two specifications of this model. Model 1 uses the ordinal VCM data, just as in the last specification. Model 2 uses a dummy variable equal to one if the subject made a positive contribution to the VCM's group account. We see that in both cases, the contribution to the VCM group account is positively and highly significantly related to the number of organizations to which a subject contributes, providing further confirmation of the stability of social preferences. People who contribute more to the VCM not only contribute more to the local public goods, but they also contribute to more organizations.

[Insert Table 3: Ordered Probit for the Donations Experiments: Positive Contributions to an Organization about here]

Once again, we see that beliefs and patience are positively related to the contribution decision, whereas in this case risk aversion is not related to the decision. In addition, we see that

[8] In general our controls for an individual's valuation for the public good and demographics are not related to provision. The main exception to this is that individuals who attend religious services once or more per week contribute less to the charities in all cases.

individuals who view other in their neighborhood as being fair contribute more frequently to the local organizations.

5. Stability of Preferences: Self-Reported Local Public Good Provision

In this analysis, we examine the correlation of the VCM and self-reported provision of public goods, the decision to contribute money and/or time to charitable causes outside of a laboratory environment. The relationship between the VCM and the decision to contribute outside of the lab suggests another step further in the stability of cooperative preferences.

In our survey, subjects self-report the number of organizations for which they either donate money or time. Specifically, we ask subjects to list, by name, each of these organizations. We then confirm that at least one of the organizations is within the neighborhood and create a variable equal to one if the subject donates time and/or money to local charitable causes. We combine the decision to donate time and/or money. Some people who would otherwise donate money to a cause may volunteer their time instead if they are particularly low-income. In addition, individuals frequently contribute both time and money. For example, Freeman (1997) Menchik and Weisbrod (1987) find a strong positive relationship between charitable giving and volunteer work. Since our interest is in cooperative behavior in general, we pool these self-reported activities. We also include the same controls for socio-demographic characteristics.

Since we cannot observe the underlying preference for contributions, we need to explore the discrete, binary variable dependent variable, whether or not individuals contribute time/money to charitable organizations. We use a probit model, reported in Table 4, below.

[Insert Table 4: Probit of the Determinants of Donations/Volunteer Work about here]

We again see that there is a positive relationship between VCM behavior and donations/volunteering; however, the relationship between the measures is weaker here than it is for the Donations experiments. This further suggests that cooperative preferences are stable across these domains, but that there is also an impact of context on the contribution decision.

Based on this model, we see that individuals who donated $0 to the group account have a probability of 0.6845 of donating/volunteering whereas individuals who contribute a positive amount to the group account have a probability of 0.8466 (with other variables evaluated at their means). Contrary to our results from the Donations experiments, risk or time preferences are significant explanatory variables in donations/volunteering. This could occur for several reasons. It could be that risk and time preferences are not related to this decision process, or something else may be going on. For example, there may be measurement error in the self-reported data. We had subjects list the organizations they were involved with to minimize this problem, but it may still exist.

We also see that the perceptions of individuals in the neighborhood are related to donations behavior, but in a more complex manner than one might anticipate. Individuals who view others in their neighborhood as being helpful are actually *les*s likely to contribute. This result is contrary to our initial hypothesis that having 'nicer' neighbors has a uniformly positive impact on the individual decision to contribute to the local public goods. Though we did not find this result robustly in our other setting, we think the result is consistent with theory. If individuals believe that other people in their neighborhood are helpful, then it is likely that they will contribute to the public good, and you will not have to. Whereas if individual are fair and/or trustworthy, they are more deserving of your help. On the other hand, believing that my neighbors are fair is a complement to own-giving: If my neighbors are fair, I am inspired to be

fair also, and to pull my weight in provision of the public good. We believe the impacts of the perceptions variables are stronger for the self reports than they are for the donations experiments because they are serving as a proxy for beliefs in addition to providing information about the deservingness of the recipients.

6. Conclusion

We find that preferences for cooperation are robustly expressed across decision contexts and thus stable. Our measure of cooperative preference in the lab setting (VCM) significantly explains the amount that individuals are willing to contribute to various charities, the number of charities they are willing to contribute to, and whether they contribute time and/or money to local charitable causes in their day-to-day lives. We take this as evidence that there is stability in cooperative preferences across multiple decision contexts. Further, we see that subjects who are less risk averse and more patient contribute more to local charitable causes, at least for the three Donations Experiments. Taken together, this evidence lends support to the argument that preferences are stable across decision contexts.

However, we see that context plays a role in these decisions as well. Though behavior in the VCM predicts these other decisions, it does not perfectly explain the data. Beliefs and the perceptions of neighbors both factor into the decision to contribute. We also find that the expression of social preferences does vary with the decision context: There are differences in giving across charities and there are differences in the impact of cooperative preferences on the amount given across charities. Even though the impact is always positive and significant, there are differences in the magnitudes of the impacts. In addition, though we have good explanatory power for cross-sectional data, we are not perfectly explaining the data. There is still a lot of the

variation that we are not able to explain, which leaves room for other factors, such as context, to potentially explain more of the variation.

Although we have been discussing theories of *stable*, *constructed*, and *discovered* preferences as being in competition, the reality is that they may actually be complimentary theories. For example, individuals may have a stable preference to 'do the right thing.' In this case, even though the preference is stable, observed behavior may vary by context because the perception of the 'right thing' would change.

A great deal of work, by a great number of well-respected researchers, has attempted to bridge the social science disciplines. By focusing on what the theories have *in common*, rather than their differences, we can move economics, as well as the remainder of the social sciences, forward toward a consistent, realistic, and tractable model of human decision making.

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Tables

Table 1: Description of the Sample*				
Demographic	**Whole Neighborhood****	**Our Sample**		
Female	49%	61%		
Ethnicity	76% African American 20% Hispanic 4 % Other	98% African American 2% Other		
Marital Status	38.6% Single, never married 34.1% Married 13.0% Divorced 11.9% Widow/er	56.8% Single, never married 16.3% Married 21.1% Divorced 5.3% Widow/er		
Highest Education Achieved	50% did not finish high school, 28% finished high school 15% had some college 7 % finished college, or higher	23.7% did not finish high school, 34.2% finished high school, 31.6% had some college 10.0% finished college, or higher		
Employment Status[a]	46% in the labor force (employed or unemployed)	21.6 % full-time, permanent job 76.4% part-time, temporary job, or looking for work		
Unemployed last 12 months?		61.1 %		
Chief Wage Earner?		52.1 %		
Home Owners	33.3%	15.3 %		
Financial Assets		66.3 % Checking Account 55.3 % Savings Account 16.3 % IRA, 401K, other retirement account 8.4 % Mutual funds, other assets		
		Min	**Max**	**Average**
Age		18	64	40.1 Years
Years Lived in Neighborhood		0	62	17.7 Years
Children at Home		0	7	1.25 Children

*n = 190. Some percentages may not sum to 1 due to rounding or missing observations.

**Data taken from the Analyze Dallas website, 2004:
http://www.analyzedallas.org/AnalyzeDallas/Pages/BrowseDataSets.aspx

[a]Percentages do not sum to 1 because categories are not mutually exclusive.

Table 2: Ordered Probit for the Donations Experiments Dependent Variable: Ordinal Contribution to the Charity 0 = $0, 1 = $20, 2 = $40, 3 = $60				
	Health	***Children's Ed.***	***Job Training***	***Pooled***
	SUR, Individual Clusters			***Random Effect***
	Coef.	Coef.	Coef.	Coef.
Ordinal VCM	0.377	0.371	0.464	0.778
	(3.57)***	(3.13)***	(4.29)***	(3.92)***
Ordinal Ave. Beliefs	0.426	0.471	0.605	0.659
by organization	(2.80)***	(3.46)***	(4.39)***	(4.26)***
Risk	0.194	0.164	0.150	0.411
	(2.79)**	(2.13)**	(1.72)*	(2.06)**
Patience	0.098	0.140	0.154	0.282
	(1.88)*	(2.62)***	(3.59)***	(3.19)***
Helpful NH	-0.513	-0.182	-0.036	-0.396
	(-2.65)***	(-0.96)	(-0.26)	(-1.42)
Fair NH	0.413	0.553	0.722	1.15
	(2.30)**	(3.08)***	(4.44)***	(3.18)***
Trustworthy NH	0.067	0.058	-0.170	-0.106
	(0.44)	(0.33)	(-1.15)	(-0.41)
Demographics	Yes	Yes	Yes	Yes
Need this type of organization?	Yes	Yes	Yes	Yes
Trust this type of organization?	Yes	Yes	Yes	Yes
Charity controls	No	No	No	Yes
LnL	-133.45	-127.08	-110.12	-297.48
Pseudo-R^2	0.22	0.23	0.30	
Rho	-	-	-	0.751
$\chi 2$	75.88	77.02	96.48	85.24

z-stats in parentheses
*, **, *** denote significance at p<0.10, p<0.05, and p<0.01 respectively

Table 3: Ordered Probit for the Donations Experiments:
Positive Contributions to an Organization
Dependent Variable: Number of Organizations (0-3) to which an Individual Contributes

Variable	***Model 1*** Coef.	***Model 2*** Coef.
Ordinal VCM	0.444	-----
	(4.03)***	
VCM>0	-----	1.140
		(4.62)***
Beliefs: # Orgs >0	0.710	0.686
	(7.51)***	(7.16)***
Risk	0.054	0.075
	(0.64)	(0.89)
Patience	0.167	0.166
	(2.94)***	(3.00)***
Helpful NH	-0.054	-0.151
	(-0.34)	(-0.92)
Fair NH	0.505	0.607
	(2.21)**	(2.63)***
Trustworthy NH	0.084	0.037
	(0.49)	(0.21)
Demographics	Yes	Yes
LnL	-129.60	-127.00
Pseudo R^2	0.33	0.34
Obs	172	172
$\chi 2$	125.63	130.83

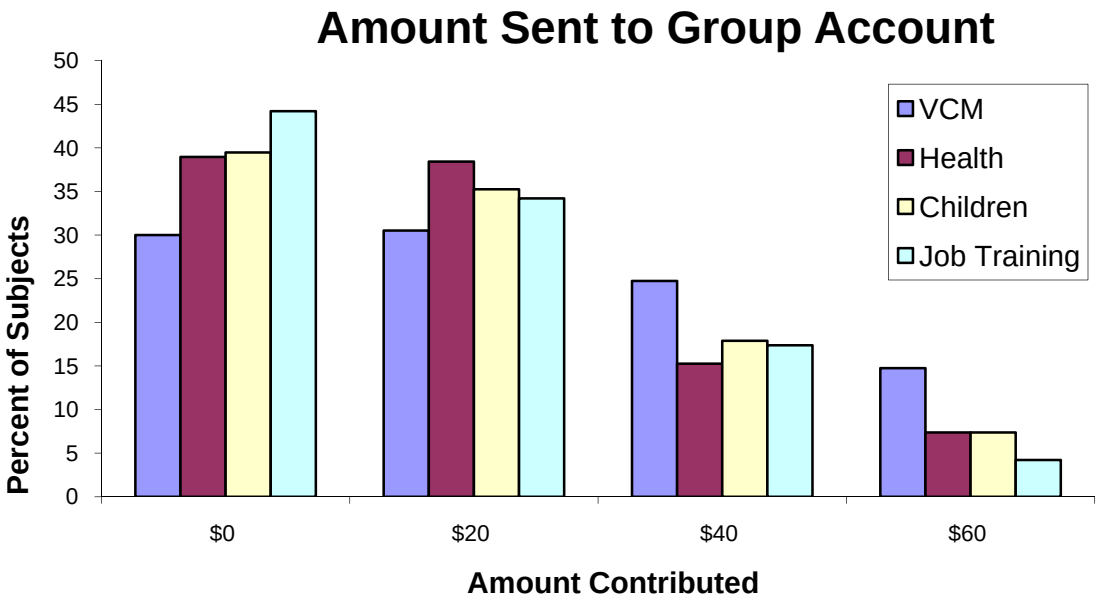
z-stats in parentheses
*, **, *** denote significance at p<0.10, p<0.05, and p<0.01 respectively

Table 4: Probit of the Determinants of Donations/Volunteer Work Dependent Variable =1 if the subject donates Time &/or Money to Charitable Causes, 0 otherwise			
	Variable	Coef.	Marginal Effect
Preferences	VCM>0	0.541 (2.02)**	0.162 (1.91)*
	Risk	-0.127 (-1.38)	-0.035 (-1.39)
	Patience	0.033 (0.53)	0.009 (0.53)
Perceptions/ Beliefs	Helpful NH	-0.487 (-2.39)**	-0.134 (-2.46)**
	Fair NH	0.550 (2.52)**	0.152 (2.55)**
	Trustworthy NH	0.350 (1.85)*	0.097 (1.87)*
Demographics		Yes	
	Constant	-2.473 (-1.45)	
	LnL Obs Pseudo R2 $\chi 2$	-76.42 170 0.21 41.57	

z-stats in parentheses; *, **, *** denote significance at $p<0.10$, $p<0.05$, and $p<0.01$ respectively

Figures

Figure 1: Amount sent to the group account, VCM and Donations Experiments



Appendix Table 1: Variable Descriptions					
Variable	**Mean**	**S. D.**	**Min**	**Max**	**Description (n=170)**
Ordinal VCM	1.24	1.04	0	3	Contribution to the group account in the VCM, 0=$0, 1=$20, 2=$40, 3=$60
VCM>0	0.70	0.46	0	1	Dummy Variable =1 if VCM contribution is greater than zero, 0 otherwise
Health	0.89	0.90	0	3	Contribution to the group account in the Real VCM for the Martin Luther King, Jr. Health Clinic, 0=$0, 1=$20, 2=$40, 3=$60
Children's Ed.	0.92	0.94	0	3	Contribution to the group account in the Real VCM for the Dallas Bethlehem Center, 0=$0, 1=$20, 2=$40, 3=$60
Job Training	0.81	0.88	0	3	Contribution to the group account in the Real VCM for the Inner-City Community Development Corporation, 0=$0, 1=$20, 2=$40, 3=$60
# Organizations >0	1.76	1.37	0	3	The number of organizations where the subject made a non-zero contribution in the Donations experiments
Ordinal Ave. Beliefs	1.19	0.97	0	3	Average of the answer to the question: "How much money do you think the other two people donated to [Charity]?" for the VCM. 0 = $0, 3 = $60
Beliefs: # Orgs. >0	2.09	1.29	0	3	Belief about the number of organizations where the other subjects made a non-zero contribution in the Donations experiments
Risk	2.08	1.35	1	6	Gamble Choice. 1 = $80/$80, 2 = $60/$120, 3 = $40/$160, 4 = $20/$200, 5 = $0/$240, 6 = -$20/$260
Patience	1.37	2.41	0	10	Total number of patient choices, out of a total of 10 possible
Helpful NH	3.01	0.73	1	4	The perception about how helpful people in the neighborhood are: 1 = very unhelpful, 4 = very helpful *Source: Modified, World Values Survey*
Fair NH	2.85	0.63	1	4	The perception about how fair people in the neighborhood are: 1 = very unfair, 4 = very fair *Source: Modified, World Values Survey*
Trustworthy NH	2.59	0.80	1	4	The perception about how trustworthy people in the neighborhood are: 1 = very untrustworthy, 4 = very trustworthy *Source: Modified, World Values Survey*