

Benz, Matthias; Meier, Stephan

Working Paper

Do people behave in experiments as in the field? Evidence from donations

Working Papers, No. 06-8

Provided in Cooperation with:

Federal Reserve Bank of Boston

Suggested Citation: Benz, Matthias; Meier, Stephan (2006) : Do people behave in experiments as in the field? Evidence from donations, Working Papers, No. 06-8, Federal Reserve Bank of Boston, Boston, MA

This Version is available at:

<https://hdl.handle.net/10419/55593>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Do People Behave in Experiments as in the Field?

Evidence from Donations

Matthias Benz and Stephan Meier

Abstract:

Laboratory experiments are an important methodology in economics, especially in the field of behavioral economics. However, it is still debated to what extent results from laboratory experiments can be applied to field settings. One highly important question with respect to the external validity of experiments is whether individuals act the same in experiments as they would in the field.

This paper presents evidence on how individuals behave in donation experiments and how the same individuals behave in a naturally occurring decision situation on charitable giving. The results show that behavior in experiments is correlated with behavior in the field. The results are robust to variations in the experimental setting, and the correlation between experimental and field behavior is between 0.25 and 0.4. We discuss whether this correlation should be interpreted as strong or weak and what consequences the findings have for experimental economics.

Keywords: Experiments, external validity, methodology, charitable giving

JEL codes: C91, C93, D01, D64

Matthias Benz is a Senior Assistant at the Institute for Empirical Research in Economics, University of Zurich. Stephan Meier is an Economist at the Federal Reserve Bank of Boston's Research Center for Behavioral Economics and Decision-Making. Their e-mail addresses are: matbenz@iew.unizh.ch and stephan.meier@bos.frb.org, respectively.

This paper, which may be revised, is available on the web site of the Federal Reserve Bank of Boston at <http://www.bos.frb.org/economic/wp/index.htm>.

We are grateful for helpful comments from Iris Bohnet, Jeff Carpenter, Bruno S. Frey, Simon Gächter, Lorenz Götte, Benedikt Herrmann, Alois Stutzer, and conference participants at the ESA North America Meeting 2005.

The views expressed herein are solely those of the authors and not those of the Federal Reserve System or the Federal Reserve Bank of Boston.

This version: January 31, 2006

I. Introduction

In the last two decades, many insights have been gained from laboratory experiments. Behavior of subjects in the lab has shown, for instance, how markets evolve (Smith 1962) and that people's behavior deviates systematically from the assumptions of standard economic theory (Camerer 2003). The growing field of behavioral economics, which incorporates psychological insights into economics, is very much based on laboratory evidence (Rabin 1998; Mullainathan and Thaler 2000; Camerer 2003). It has been documented, for example, that people share quite a substantial part of their endowment in dictator games (Eckel and Grossman 1996) and that they contribute to laboratory public goods—results that are not predicted by standard economic theory (Ledyard 1995). The findings from experimental economics have thus been proposed to measure and isolate pro-social preferences (Camerer and Fehr 2005). The question remains, however, whether and how individuals' behavior in experiments is related to their behavior outside the laboratory. Many critics of experimental methods in economics claim that people's behavior in the lab is specific to the experimental situation and unconnected to their behavior in the field. They therefore question the external validity of experimental results.¹

There are at least three reasons why behavior in the laboratory could be quite different from behavior in a field setting. First, subjects in the laboratory “play” with money they simply receive, whereas in a field setting the money at stake is earned in one way or another; that is, the entitlement to the money at stake may differ substantially. In laboratory experiments, it has been shown to matter whether the money involved in a dictator game is earned in a trivial task or randomly distributed (see, for example, Cherry, Frykblom, and Shogren 2002). Different persons may also react differently to the way the endowment is received: People who are generous if the money is randomly distributed may not be generous if the money is earned. Second, experimental studies may be subject to an “experimenter demand” effect (Orne 1962).

¹ Other aspects of the experimental method have also been criticized, including the fact that often students are the main subject pool or that experiments involve low stakes. Harrison and List (2004) discuss many of these criticisms and provide a survey of their validity.

Subjects who are ungenerous in a field setting may start contributing in an experiment—either because they think that is what they are supposed to do in this situation or because they want to please the experimenter. Third, the laboratory context is, by definition, artificial. On the one hand, this has the important advantage that the variables of interest can be isolated from many confounding factors. On the other hand, the laboratory lacks the rich, real-life context that may be important for behavior in the field (Bardsley 2005). Individuals, for example, who seem not to be generous in a situation without much context may behave more pro-socially in context-rich situations. Importantly, all three differences between the laboratory and the field may not influence subjects' behavior identically, but rather subjects may vary in their reactions. This implies not only that the levels of pro-social behavior in the two settings may differ, but also that behavior in the lab and the field may not be correlated at all.

This paper tests the correlation between the same individuals' behavior in the laboratory and their behavior in a very similar situation in the field. We undertook donation experiments in order to compare students' behavior in games with their behavior in an unconnected decision situation about donating to two social funds at the University of Zurich. In Study 1, the classroom experiments analyze students' behavior in a donation experiment in which students could give to only those two social funds. In Study 2, the experiment involved decisions about donating to two charities completely unrelated to the university. We matched students' decisions in the classroom setting with their charitable giving to the two social funds at the University of Zurich. The panel structure of the data set enables us to analyze whether past behavior in the field explains behavior in the lab, and also whether behavior in the lab explains future behavior in the field. This paper is, therefore, one of the first to compare directly the same subjects' behavior in the lab and in the field.

Previous work has documented relationships between behavior in experiments and decisions outside the laboratory. Karlan (2005) shows for borrowers in a Peruvian microcredit program that behavior in a trust game predicts repayment rates of subjects' loans. Persons who are identified as being more trustworthy are more likely to repay their loans one year later. The same study also finds, however, that pro-social behavior in a public goods game is not correlated with repayment probabilities. Carpenter and Seki (2004) find that social preferences

exhibited in a public goods game predict the productivity of fishermen in Japan. Fishermen who behave more pro-socially in experiments are found to be more productive. Similarly, Barr and Serneels (2004) show a positive correlation between measures of trustworthiness and wages of manufacturers in Ghana. In contrast, List (2005) finds huge differences in the pro-social behavior of sportscard dealers between a laboratory and a field setting. It is thus still an open question whether individuals' behavior in experiments correlates with their behavior in the field. In particular, this study is the first to connect directly *students'* behavior in experiments with their behavior outside the laboratory. The particular focus on students is important, as they still constitute the standard experimental subject pool in economics and other social sciences.

Our results support the notion that behavior in an artificial experiment corresponds to students' behavior in the field. We find correlations between the behavior in the two settings ranging from 0.25 to 0.4. Students' behavior in the classroom experiment can be shown to correlate both with behavior up to two years *before* the experiment was undertaken and up to two years *after* the experiment. On the one hand, this suggests that experiments can provide useful information about behavior in the field. On the other hand, it might be argued that the observed correlations are rather weak. We discuss arguments for both views, relating them to a long-standing debate in psychology on whether individual behavior is mainly determined by stable personality traits or rather by situational factors (Mischel 1968; Epstein and O'Brien 1985). We also outline implications of our results for the interpretation of experimental evidence.

The paper proceeds as follows: Section II presents the data and the experimental design. In Section III, the results are discussed. Section IV interprets the results and draws conclusions about their importance.

II Field Data and Experimental Design

We observe the following naturally occurring decision setting at the University of Zurich: Each semester, every student has to decide anonymously whether or not he or she wants to contribute to two social funds when paying the compulsory tuition fee. On the official letter for renewing their registration, the students are asked whether they want to donate

voluntarily a specific amount of money (CHF 7, about US \$5) to a fund that offers cheap loans to students in financial difficulties and/or to donate a specific amount of money (CHF 5, almost US \$4) to a second fund that supports foreigners who study for up to three semesters at the University of Zurich. Unless they explicitly consent (by ticking a box), students do not contribute to any fund at all. Thus, students have the choice of donating to no fund, to only one fund, or to both funds. Students make their decision in an anonymous setting at home before they send in the registration letter.

We obtained a panel data set from the university administration composed of the decisions of all students during their time at the university (for more details on the decision setting, see Frey and Meier 2004). In order to test whether students behave similarly in an experimental study, we chose a selection of students and investigated their behavior in two types of classroom experiments. In the first of the two donation experiments, students could make contributions to exactly the same social funds at the University of Zurich, whereas in the second experiment, the contributions had to be made to charities completely unconnected with the university. We thus varied the degree of similarity between the decision in the field setting and the experimental studies. The experiments are most similar to those by Eckel and Grossman (1996). Students took part in only one of the two experimental settings: 99 students participated in the experiment “Social Funds,” and 83 students in the experiment “Charities.” Table 1 presents summary statistics about the two experimental groups.

Experiment “Social Funds”

The experiment was performed at the end of two regular classes attended by law and arts & humanities students at the University of Zurich. The students received an endowment of 12 CHF (about US \$8) and had to decide how much of the money they wanted to give to the two social funds at the university. Students had to decide to give $x_1 \in [0, 7]$ to one of the social funds in Decision 1 and to give $x_2 \in [0, 5]$ to the other fund in Decision 2; they could donate any amount between zero and the total endowment in increments of 0.5 CHF. As we varied the social funds between Decision 1 and Decision 2, we calculated the total contribution students made to either the Loan Fund or the Foreigner Fund. Students on average contributed 9.46 CHF

of their endowment of 12 CHF to the two social funds. Subjects thus passed almost 80 percent of their endowment in both cases to the social funds.

Experiment “Charities”

The second experiment was performed at the end of four regular classes attended by arts & humanities students. The experiment is basically the same as the first one, but students had an endowment of 18 CHF and had to decide in Decision 1 to give $x_1 \in [0,9]$ to an unknown but accredited charity and to give $x_2 \in [0,9]$ to another (unknown but accredited) charity. That is, students again could donate any amount between zero and the total endowment in increments of 0.5 CHF. The two charities were randomly selected from a list of accredited Swiss charities after the experiment, and all the donations in Decision 1 were transferred to Charity 1, while donations in Decision 2 were transferred to Charity 2. Students were given a card with an internet address where, on the day after the experiment, they could look up the charities selected. Table 1 shows that students in this experiment contributed an average of 11.65 CHF (out of 18 CHF). Subjects thus passed about 65 percent of their endowment to the two charities.

Field Behavior

The observations of students’ decisions in the experimental studies were matched with their naturally occurring decisions at the University of Zurich. Students did not know that their behavior in the field was being used for a scientific study and therefore did not know that their behavior in the experiments would be matched with their behavior in the field setting. The panel data set allows observation of real-life behavior of students *before* the experiment as well as *after* the experiment. Table 1 reports individuals’ average donations to the two social funds in the four semesters before the experiments were undertaken and in the four semesters after the experiments were undertaken. Subjects who participated in the experiment “Social Funds” had contributed on average 9.07 CHF per semester (out of a maximum of 12 CHF) to the two social funds in the past, and they contributed on average 9.55 CHF in the four semesters after the experiment. The level of donations in the field setting thus roughly corresponds to the average donation in the classroom experiment. Subjects in the experiment “Charities” had donated a little bit less to the two university funds in the past—on average 8.94 CHF per semester—and

they contributed on average 9.45 CHF in the four semesters after the experiment. Dividing subjects into three groups according to their behavior in the field setting revealed that around 11 percent of the subjects in the experiment “Social Funds” had *never* contributed in the past four decisions to the social funds (8 percent in the experiment “Charities”), 62 (57) percent had *always* contributed to both funds, and 27 (35) percent had contributed *at least once but not always* to the funds. Similar numbers were obtained for the donation behavior after the experiments.

Experimental treatments

In both the experiment “Social Funds” and the experiment “Charities,” four experimental treatments were implemented in order to investigate donation behavior under different incentive conditions—the original focus of the study. In a baseline treatment, individuals were not given a monetary incentive to donate. In a second treatment, individuals forfeited 2 CHF if they decided to donate less than a specific amount (40 percent of their endowment), and in a third treatment, they were given an additional 2 CHF if they donated more than this amount. The fourth treatment matched individuals’ donations one-to-one, that is, contributions were doubled by the experimenters. All four treatments turned out not to affect significantly individuals’ donation behavior. However, the experimental interventions serve as a useful test of the robustness of the relationship between laboratory and field behavior.

In the following section, we analyze whether the behavior in the lab correlates with the behavior in the field.

III Results

The results are presented in two steps. First, the correlation between field and laboratory behavior is analyzed for the experiment “Social Funds,” which closely replicates the naturally occurring donation situation in an experimental setting. In a second step, the experiment “Charities” is analyzed, involving a donation situation completely unrelated to the university’s social funds.

3.1. Experiment “Social Funds”

The main finding from the experiment “Social Funds” is that people’s behavior in experiments partly corresponds to their behavior in the field. The correlation between individuals’ average donation in the experiment and their average donation in the past four semesters is 0.28 ($p < 0.01$), and the corresponding correlation with the average donation in the four semesters after the experiment is 0.40 ($p < 0.001$). Figures 1a and 1b highlight the same finding from a different angle. Figure 1a reports how people who had never, sometimes, or always contributed to the two social funds in the past behaved in the experiment. The figure shows that people who had always contributed the maximum amount to the two social funds in the past donated on average 10.5 CHF in the experiment, while people who had only sometimes contributed in the past donated 7.7 CHF, and students who had never contributed in the past donated 8 CHF. The differences between donations of students who had always contributed and the other two groups are statistically significant at the 99-percent level and the 95-percent level, respectively (Mann-Whitney U-test). The difference between donations of students who had never contributed in the past and those who had only sometimes contributed in the past is not statistically significant. Figure 1b reports a similar picture for the four semesters after the experiment. Students who never contributed to the two social funds after the experiment donated less in the experiment than students who subsequently contributed at least sometimes to the funds (6.4 CHF vs. 7.9 CHF, n.s.), and they donated considerably less in the experiment than students who always contributed afterwards (6.4 CHF vs. 10.3 CHF, $p < 0.001$). Similar to the ex ante situation, the donations of students who always contributed to the funds after the experiment were significantly higher than those of students who only sometimes contributed (10.3 CHF vs. 7.9 CHF, $p < 0.01$). Thus, a simple inspection of the data reveals that individuals’ behavior in an experimental situation is related to both their past and their future behavior in a naturally occurring field setting.

Table 2 investigates the basic findings in more detail. It contains results from multivariate regressions that include dummy variables for the four experimental treatment conditions and, in some specifications, a set of socio-demographic control variables. Furthermore, different estimation techniques were applied in order to analyze the robustness of

the results, and the number of semesters used to measure pro-social behavior in the field was varied.

The results reported in Table 2 indicate that the observed relationship between lab and field behavior is a robust phenomenon. Panel 1 of the table presents the results relating to behavior in the field *before* the experiment took place, and Panel 2 presents the findings relating to field behavior in the semesters *after* the experiment was conducted. The first column shows results from OLS regressions including a set of treatment dummies.² The estimated coefficients indicate a positive and statistically significant relationship between individuals' past and future donations in the field and in the experiment. For every additional CHF students had contributed in the past to the two social funds, they gave 0.25 CHF more in the experiment ($p < 0.01$). Similarly, for every additional CHF students contributed in the four periods after the experiment, their contribution was 0.35 CHF higher in the experimental study ($p < 0.01$). The results remain almost unchanged if a set of control variables on personal characteristics is included in the regression (column 2), relating to an individual's gender, nationality, number of semesters studied, and age at the time of the experiment.³ A similar picture emerges when groups of students who always, only sometimes, and never contributed to the two funds in the field are compared (column 3). Furthermore, a Tobit regression was estimated in addition to using OLS because the range of possible donations was limited to $[0, 12]$. Column 4 indicates that this change in the estimation method, if anything, arguably strengthens the results. Lastly, the number of semesters included in the calculation of field behavior was varied. In column 5, only the three semesters before or after the experiment were taken into account to measure pro-social behavior in the field (instead of four), and in columns 6 and 7 the respective numbers were lowered to two and one semester. The results show that using less information on individuals' field behavior leads to less precise estimates of the field-lab relationship, but a

² In none of the regressions reported were the treatment dummies statistically significant. We therefore do not report the respective results in detail in the tables.

³ The full table, including the results on the treatment and control variables, is available from the authors on request.

significant correlation between field and lab behavior was found even when only one semester before or after the experiment was taken into account (column 7).

In sum, the findings from the experiment “Social Funds” indicate that experiments provide useful information about behavior of individuals in field settings, and vice versa.

3.2. Experiment “Charities”

In contrast to the experiment “Social Funds,” the experiment “Charities” involves a donation situation completely unrelated to the university’s social funds. People were asked to donate any amount of their endowment to two accredited Swiss charities whose names they did not know at the time of the experiment. Thus, donation behavior was analyzed in a considerably different setting.

The main finding from the experiment “Charities” is that individuals’ behavior in the experiment corresponds to some extent to their behavior in the field, but the observed relationship is somewhat weaker than in the experiment “Social Funds,” probably reflecting the larger difference in the decision setting. The raw correlations between donations in the experiment and donations in the naturally occurring decision setting are 0.26 ($p < 0.05$) for past behavior and 0.25 ($p < 0.05$) for behavior in the four semesters after the experiment.

For simplicity, Figures 2a and 2b again split up the population of students into individuals who never contributed to the social funds before or after the experiment, individuals who contributed only sometimes, and individuals who always contributed to the social funds. The donations of these groups in the experiment are increasing with contributions to the social funds in the field setting. As Figure 2a shows, people who had always contributed to the social funds in the past donated on average 12.9 CHF to the charities in the experiment, while people who had contributed only sometimes gave a comparatively lower amount of 10.3 CHF ($p < 0.05$), and people who had never contributed in the field donated only 8.9 CHF ($p < 0.1$). A similar pattern is documented in Figure 2b. Experimental donations were highest for students who always contributed to the social funds in the four semesters subsequent to the experiment (12.2 CHF), followed by students who contributed only sometimes (11.4 CHF, n.s.) and students who never contributed (8.3 CHF, $p < 0.1$).

Table 3 investigates the basic findings for the experiment “Charities” in more detail. It contains the results from analyses identical to those conducted for the experiment “Social Funds.” The first column in Panel 1 of the table reports the estimated coefficient from an OLS regression relating donations in the experiment to field behavior in the four semesters before the experiment (including dummy variables for the treatment conditions). The estimates show that for every CHF an individual contributed in the field, donations in the experiment increased by 0.34 CHF ($p < 0.05$). Similarly, the first column in Panel 2 of the table documents that field behavior in the four semesters after the experiment is related to donations in the experimental setting. The estimated coefficient in this case is 0.31 ($p < 0.05$). Thus, past behavior in the field provides useful information to predict donation behavior in the experiment, and, in turn, experimental donations allow predicting future behavior in the field. The further specifications reported in columns 2 to 7 assess the robustness of the results. Column 2 shows that the relationship between field and lab behavior is hardly affected by including in the regression a set of control variables on personal characteristics (sex, nationality, number of semesters, and age). Column 3 replicates in a regression framework the results already presented graphically in Figures 2a and 2b by comparing the groups of students who never, only sometimes, or always contributed to the social funds in the field. Column 4 applies a Tobit estimator instead of OLS, because donations in the experiment are limited to a range between 0 and 18. This change in the estimation procedure does not qualitatively alter the results. Finally, in column 5, only the three semesters before or after the experiment are taken into account in constructing the variable on pro-social behavior in the field. Compared with the variable based on four semesters, a somewhat weaker, but still statistically significant relationship between donations in the field and in the experiment is found. Columns 6 and 7 show that the fewer semesters taken into consideration (and correspondingly, the fewer data points included in the variable on field behavior), the lower and less precise are the estimated relationships between field and lab behavior. If only one semester before or after the experiment is taken into account, the estimated coefficients drop to 0.18 ($p = 0.16$) and 0.21 ($p = 0.11$). Although these last results are at the border of statistical significance, the overall conclusion seems warranted that field and laboratory behavior are systematically related. Individuals’ donations in the experiment “Charities”

correspond to a certain extent to donations in a completely unrelated, naturally occurring donation situation at the University of Zurich.

IV Discussion and Conclusion

This paper presents evidence on the question of whether people behave in an experimental setting as they do in the field. The comparison of people's behavior inside and outside the lab is important, as the practical relevance of experiments depends at least partly on their external validity.

Our findings document a systematic, positive correlation between pro-social behavior in the lab and in the field, ranging between 0.25 and 0.4. Individuals' behavior in the classroom experiments correlates both with their field behavior up to two years *before* the experiment was undertaken, and with their donation decisions up to two years *after* the experiment was conducted. Experimental measures of pro-social behavior can therefore provide information about both people's past and future behavior in a more contextual environment in the field. This finding is not trivial, as various factors vary between the experimental setting and the field, and these factors could lead to differences in individual behavior. Most importantly, in the experimental setting, subjects receive the endowment from the experimenter, whereas in the naturally occurring situation, the money they decide to donate is money they have earned.

One could imagine that students who do not contribute in the field might take the opportunity to contribute more in the experimental setting, where the money is not out-of-pocket. The behavior in the laboratory, however, was found to reflect people's behavior in situations outside the lab quite well. There could be at least three reasons for this. First, there might be various "types" of people, and these people might behave selfishly or altruistically, independent of whether they decide in the lab or in the field. Second, people's behavior in both the field and the lab could be driven partly by their real-life constraints, such as their income situation. Although all the subjects received the same amount of money in the lab, their behavior may have been influenced by differences in constraints outside the lab. Third, since in one experiment the decision was about donating to the same social funds as in the naturally occurring decision situation, the correlation may be due to a human preference for consistency

in behavior (Cialdini 1993). However, the correlation with pro-social behavior in the field was also found when people had to decide about donations to two totally different charities, and therefore the correlation exists in different contexts.

Our findings also show that the variance in behavior is quite large and that only a small fraction of the variance can be accounted for. Seen from this angle, the correlation between experimental and field behavior might be considered rather weak. It is an interesting question as to what correlation should be expected in the first place. In psychology, a long-standing debate on the “the person vs. the situation” has addressed this issue in detail. It is argued that the correlation in individuals’ behavior between two situations—independent of whether the situations involve field or laboratory settings—will be limited if behavior is influenced mainly by situational factors and not by stable personality traits. Indeed, many psychological studies report correlations of behavior in different situations not exceeding 0.1, and hardly any study shows correlations exceeding the barrier of 0.3 (Mischel 1968; Ross and Nisbett 1991). Consequently, the generally low correlations between behavior in various situations have been interpreted as evidence for the importance of situational factors over personality traits. Although people may behave more consistently in exactly the same decision situation over time⁴, the person-situation debate suggests that individuals’ behavior in even seemingly similar situations is characterized by huge variance. This also applies to behavior in different field settings. Seen in the light of this line of research, the correlations between field and laboratory behavior reported in this paper appear to be rather strong.

The person-situation debate also suggests that aggregation of behavior over various situations decreases the variance and captures the underlying preferences better (see Epstein and O'Brien 1985 for the most prominent argument along these lines). A similar effect is present in our study. Averaging behavior in the field over the past (future) four decisions yields a higher correlation with behavior in the lab than relying on fewer decisions. While pro-social preferences exhibited in the field can be measured more or less precisely in this manner, the

⁴ Students in our field setting, like people in other studies (Ross and Nisbett 1991), show extremely consistent behavior over time, which leads to correlations between decisions in the field of around 0.8.

measurement of pro-social preferences in the experiment still depends on behavior in only a single decision situation. As this decision is argued to be quite sensitive to small changes in the context (see Camerer and Thaler 1995 for a discussion concerning dictator games), the observed correlation between donations in the experiment and the field seems to be quite remarkable.

The results of this study have two implications for (experimental) economics. First, experimental measures of pro-social preferences can tell us something about behavior in similar situations in the field. Second, the discussion of the person-situation debate in psychology should be taken more seriously in experimental economics and economics as a social science more generally. Individuals' behavior seems to be extremely situationally dependent and very hard to generalize. As a consequence, people's behavior correlates only weakly among various situations—independent of whether the decision situations are inside or outside the lab. This suggests that it is problematic to speak of different "types" of persons and that the different conditions under which pro-social behavior prevails or vanishes should be investigated in more detail.

References

- Bardsley, Nicholas.** (2006). "Experimental Economics and the Artificiality of Alteration." *Journal of Economic Methodology*, Forthcoming.
- Barr, Abigail, and Pieter Serneels.** (2004). "Wages and Reciprocity in the Workplace." *Mimeo*, Oxford University, Centre for the Study of African Economies.
- Camerer, Colin.** (2003). *Behavioral Game Theory*. Princeton: Princeton University Press.
- Camerer, Colin, and Ernst Fehr.** (2005). "Measuring Social Norms and Preferences Using Experimental Games: A Guide for Social Scientists." In *Foundations of Human Sociality—Experimental and Ethnographic Evidence from 15 Small-Scale Societies*, eds. J. Henrich, R. Boyd, S. Bowles, H. Gintis, E. Fehr and R. McElreath, 55–95. Oxford: Oxford University Press.
- Camerer, Colin, and Richard H. Thaler.** (1995). "Ultimatums, Dictators and Manners." *Journal of Economic Perspectives* 9(2): 209–219.
- Carpenter, Jeffrey, and Erika Seki.** (2004). "Do Social Preferences Increase Productivity? Field Experimental Evidence from Fishermen in Toyama Bay." *Mimeo*, Middlebury College.
- Cherry, Todd L., Peter Frykblom, and Jason F. Shogren.** (2002). "Hardnose the Dictator." *American Economic Review* 92(4): 1218–1221.
- Cialdini, Robert B.** (1993). *Influence: The Psychology of Persuasion*. New York: William Morrow & Company.
- Eckel, Catherine C., and Philip J. Grossman.** (1996). "Altruism and Anonymous Dictator Games." *Games and Economic Behavior* 16(2): 181–191.
- Epstein, Seymour, and Edward J. O'Brien.** (1985). "The Person-Situation Debate in Historical and Current Perspective." *Psychological Bulletin* 98(3): 513–537.
- Frey, Bruno S., and Stephan Meier.** (2004). "Pro-Social Behavior in a Natural Setting." *Journal of Economic Behavior and Organization* 54:65–88.
- Harrison, Glenn W., and John A. List.** (2004). "Field Experiments." *Journal of Economic Literature* 42(4): 1009–1055.
- Karlan, Dean.** (2005). "Using Experimental Economics to Measure Social Capital and Predict Financial Decisions." *American Economic Review* 95(5): 1688–1699.

- Ledyard, John O.** (1995). "Public Goods: A Survey of Experimental Research." In *Handbook of Experimental Economics*, eds. J. Kagel and A.E. Roth, 111–194. Princeton: Princeton University Press.
- List, John A.** (2005). "The Behavioralist Meets the Market: Measuring Social Preferences and Reputation Effects in Actual Transactions." *Mimeo*, University of Maryland.
- Mischel, Walter.** (1968). *Personality and Assessment*. New York: Wiley.
- Mullainathan, Sendhil, and Richard H. Thaler.** (2000). "Behavioral Economics." *International Encyclopedia of Social Sciences*, 1094–1100.
- Orne, Martin T.** (1962). "On the Social Psychology of the Psychological Experiment: With Particular Reference to Demand Characteristics and Their Implications." *American Psychologist* 17(11): 776–783.
- Rabin, Matthew.** (1998). "Psychology and Economics." *Journal of Economic Literature* 36(1): 11–46.
- Ross, Lee, and Richard E. Nisbett.** (1991). *The Person and the Situation: Perspective of Social Psychology*. New York: McGraw-Hill.
- Smith, Vernon L.** (1962). "An Experimental Study of Competitive Market Behavior." *Journal of Political Economy* 70:111–137.

Table 1: Summary Statistics

Variable	Experiment "Social Funds"		Experiment "Charities"	
	Mean	s.d.	Mean	s.d.
<i>Experimental Outcome</i>				
Donation Decision 1 (CHF)	5.56	2.09	6.06	2.63
Donation Decision 2 (CHF)	3.90	1.68	5.59	2.76
Total Donation in Experiment (CHF)	9.46	3.56	11.65	5.19
Proportion of Endowment in Decision 1	0.78	0.32	0.67	0.29
Proportion of Endowment in Decision 2	0.79	0.32	0.62	0.31
Proportion of Endowment to Loan Fund	0.78	0.32		
Proportion of Endowment to Foreigner Fund	0.79	0.32		
<i>Field Outcome</i>				
Average Donation in the Four Semesters <i>Before</i> the Experiment	9.07	4.35	8.94	4.08
Proportion 'Never Contributed in Past'	0.11		0.08	
Proportion 'Sometimes Contributed in Past'	0.27		0.35	
Proportion 'Always Contributed Maximum in Past'	0.62		0.57	
Average Donation in the Four Semesters <i>After</i> the Experiment	9.55	4.24	9.45	4.11
Proportion 'Never Contributes in Future'	0.11		0.11	
Proportion 'Sometimes Contributes in Future'	0.20		0.24	
Proportion 'Always Contributes Maximum in Future'	0.69		0.65	
Sex (Women = 1)	0.37		0.47	
Citizenship (Foreigner = 1)	0.04		0.07	
# of Semesters (at the time of the experiment)	6.13	5.05	6.11	3.95
Age (at the time of the experiment)	24.63	5.21	24.13	3.97
# of Observations	99		83	

Table 2: Donations in the Experiment “Social Funds”

Dependent variable: Individual Donation in the Experiment (in CHF)

	OLS (1)	OLS (2)	OLS (3)	Tobit (4)	Three semest (5)	Two semest. (6)	One semest. (7)
Panel 1: Field behavior before the experiment							
Average donation in the past	0.25** (0.08)	0.22** (0.08)	–	0.50** (0.19)	0.22** (0.08)	0.21** (0.08)	0.15* (0.07)
Never contributed			ref. group				
Sometimes contributed			-0.39 (1.20)				
Always contributed			2.57* (1.09)				
<i>Treatment dummies</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>
<i>Control variables</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
# of Observations	99	99	99	99	99	99	99
F-Test / Chi ² -Test	2.90*	1.77°	3.85*	8.77°	2.49*	2.45°	1.70
R ²	0.11	0.17	0.17	0.03	0.10	0.09	0.07
Panel 2: Field behavior after the experiment							
Average donation in the future	0.35** (0.08)	0.31** (0.09)	–	0.72** (0.19)	0.34** (0.08)	0.32** (0.08)	0.30** (0.07)
Never contributes			ref. group				
Sometimes contributes			1.64 (1.27)				
Always contributes			4.07** (1.10)				
<i>Treatment dummies</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>
<i>Control variables</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
# of Observations	97	97	97	97	97	97	97
F-Test / Chi ² -Test	5.09**	2.35*	4.06**	17.2**	4.79**	4.27**	3.82**
R ²	0.18	0.21	0.18	0.05	0.17	0.16	0.14
<i>Notes: Standard errors in parentheses. Significance levels: ** p<0.01, * 0.01<p<0.05, ° 0.05<p<0.1</i>							

Table 3: Donations in the Experiment “Charities”

Dependent variable: Individual Donation in the Experiment (in CHF)

	OLS (1)	OLS (2)	OLS (3)	Tobit (4)	Three semest. (5)	Two semest. (6)	One semest. (7)
Panel 1: Field behavior before the experiment							
Average donation in the past	0.34* (0.14)	0.29° (0.15)	–	0.45* (0.19)	0.27° (0.14)	0.16 (0.13)	0.18 (0.13)
Never contributed			ref. group				
Sometimes contributed			1.38 (2.23)				
Always contributed			3.93° (2.17)				
<i>Treatment dummies</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>
<i>Control variables</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
# of Observations	83	83	83	83	83	83	83
F-Test / Chi ² -Test	1.51	1.69°	1.31	5.74	1.02	0.44	0.63
R ²	0.07	0.19	0.08	0.01	0.05	0.02	0.03
Panel 2: Field behavior after the experiment							
Average donation in the future	0.31* (0.14)	0.30° (0.16)	–	0.42* (0.19)	0.29* (0.14)	0.28* (0.14)	0.21 (0.13)
Never contributes			ref. group				
Sometimes contributes			3.07 (2.09)				
Always contributes			3.86* (1.89)				
<i>Treatment dummies</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>
<i>Control variables</i>	<i>no</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>
# of Observations	82	82	82	82	82	82	82
F-Test / Chi ² -Test	1.33	1.80°	0.91	5.01	1.16	1.13	0.74
R ²	0.06	0.09	0.06	0.01	0.06	0.06	0.04

Notes: Standard errors in parentheses. Significance levels: ** p<0.01, * 0.01<p<0.05, ° 0.05<p<0.1

Figure 1: Donations in Experiment "Social Funds"

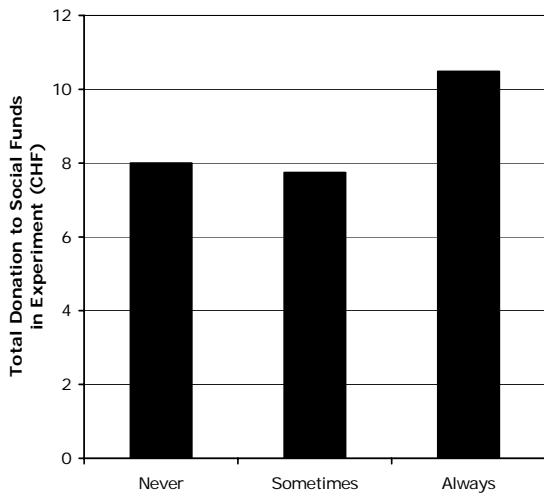


Figure 1a: Donations to Social Funds in Field Setting Before the Experiment

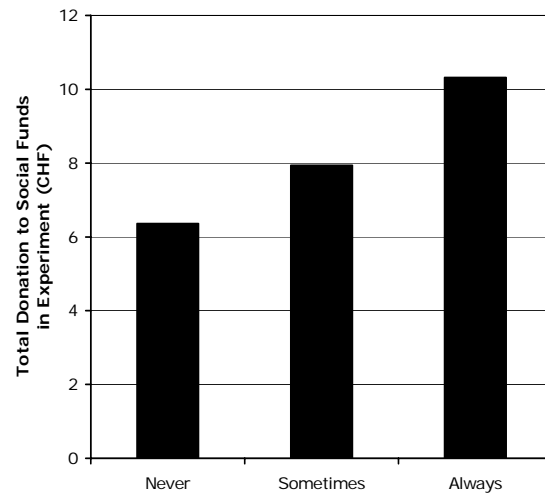


Figure 1b: Donations to Social Funds in Field Setting After the Experiment

Figure 2: Donations in the Experiment 'Charities'

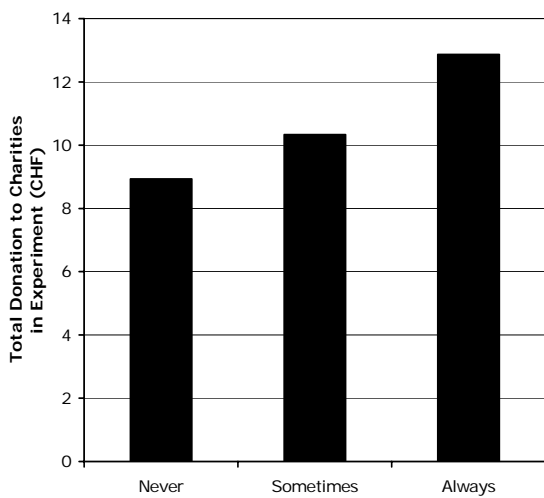


Figure 2a: Donations to Social Funds in Field Setting Before the Experiment

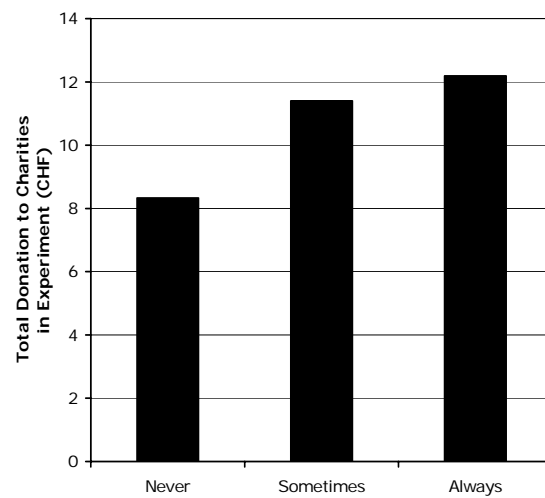


Figure 2b: Donations to Social Funds in Field Setting After the Experiment