Inequity, Selfishness, and Social Norms

Chaim Fershtman[*], Uri Gneezy[**], and John A List[***]

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Abstract

Models of inequity aversion and fairness have dominated the behavioral economics landscape in the last decade. This study gathers data from 240 subjects exposed to variants of two of the major experimental games—dictator and trust—that are employed to provide important empirical content to these models. With a set of simple laboratory treatments that focus on a manipulation of an important feature of real markets, competition over resources, we show that extant behavioral models are unable to explain data drawn from realistic manipulations of either game. Our empirical results highlight that if placed in an environment wherein socially acceptable actions provide one person with a greater portion of the rents, people will put forth extra effort to secure those rents, to the detriment of the other player. In this manner, when one can earn more than the other player through actions based on norms deemed customary, people reveal a preference for selfishness.

[*]The Eitan Berglas School of Economics, Tel Aviv University and CEPR.
[**]Rady School of Management, University of California, San Diego.
[***]Department of Economics, University of Chicago and NBER.

I. Introduction

There can be little doubt that the mythical species *Homo Economicus*, with unwavering rationality, unbounded ability to compute solutions to difficult optimization problems, and an unrepentant selfish attitude has served economists well. Indeed, it is difficult to find another paradigm that permits such crisp insights into modeling human behavior. Yet, increasingly the neoclassical approach has been challenged as an unrealistic account of human behavior. When more realistic features are added to the model, behavioral economists argue, economic science reaches greater potential.[1]

Perhaps the most influential movement in behavioral economics in the past three decades involves the modeling of "social preferences." By now, the literature is replete with theoretical research exploring the economic consequences of social preferences, wherein agents have preferences that are measured over their own and others' material payoffs. The models that have attracted the most attention are the inequity aversion, or "fairness" models due to Bolton (1991), Fehr and Schmidt (1999) and Bolton and Ockenfels (2000). These models are driven by the notion that economic agents are averse to inequity in payoffs: people dislike earning less than their counterparts, but they also have a distaste for earning more than their peers.[2]

Insights gained from the inequity aversion models are important and supported by data. In particular, the assumption that people dislike receiving less than their counterparts has empirical support from an array of laboratory experiments, most notably the plethora of ultimatum game studies that find agents oftentimes reject unfair offers (e.g., Guth et al.,

[1] Some early returns in this spirit have already been reaped, as discussed in Levitt and List (2007).
[2] Fairness concerns and inequality aversion are quite different concepts—clearly, in some situations fairness concerns lead to unequal payoffs For a discussion and analysis of leading positive and normative theories of justice see Konow (2003).

1982). The other half of the equation—that people dislike receiving more than their counterparts—is supported by less experimental evidence. The most widely cited evidence is from laboratory dictator games, where typically more than 60% of subjects pass a positive amount of money, with the mean transfer roughly 20% of the agent's endowment. Similar behavior is observed in related strategic games—for example, trust and gift exchange games—where the fact that agents transfer money back and forth is interpreted as evidence that agents dislike receiving more than their counterpart, though such behavior is also consonant with other motivations.

This paper takes this literature in a different direction by comparing inequity aversion type of behavior with the classic assumption of selfishness. In doing so, we argue that behavior is importantly affected by social norms. When only the "inequity aversion" norm is relevant, such as in dictator game experiments, people indeed behave in accord with its predictions. Once people can "choose" other norms of behavior that may "justify" selfish behavior, however, they prefer to follow such norms, and as a result the prediction of the inequity aversion model is less accurate.

We test this argument by experimentally manipulating salient norms that potentially influence decisions in the two classes of games discussed above—dictator and trust games. The manipulations are unique in the sense that they permit us to parse competing models by more clearly measuring why individuals engage in selfless actions. Our dictator game baseline treatment is in the spirit of the traditional dictator game conducted in the literature: the agent decides whether to dictate an equal split ($8-$8) or an unequal split ($11-$2) of the endowment. The design novelty is that after this allocation decision, subjects can continue the experiment by performing a task of solving problems for up to 30 minutes. Subjects are

informed that they are not compensated for the task, at any time they can leave the experiment, and that afterwards their performance will be compared to the anonymous person in the other room and each person will be informed of the results. Our comparison treatment is identical to this baseline game except payment is determined by performance on the problem solving task: if the dictator outperforms the recipient, then the uneven split of \$11-\$2 is effective; otherwise, the even split of \$8-\$8 results.[3]

The findings are stark. In line with the literature, we find that roughly three quarters of the students opt for the equal split in the baseline dictator game. Given this finding, if inequity aversion is the primary driver of behavior, then we should find that effort in the task among dictators in the comparison treatment is considerably less than task effort in the baseline treatment. Intuitively, it is simple in this case to dictate an equal split: merely commit zero effort in the task and leave the experiment early. We find results in direct opposition to this prediction—subjects in the comparison treatment invest more time in the task, attempt more problems, and solve more problems correctly than their counterparts in the baseline treatment. Interestingly, this result holds for both men and women, and hints that something much different than fairness in payoffs motivates behavior in this game.

A possible explanation for this finding is that people have preferences for winning. That is, they choose to exert effort to win, regardless of the payoff distribution resulting from their win. To test this alternative explanation, we change the payoff structure in the modified dictator game such that if the dictator loses to the recipient in performing the task, then the uneven split of \$11-\$2 is effective; otherwise, the even split of \$8-\$8 results. We find that in

[3] Note that the inequity option (11, 2) is also less "efficient" than the equal split (8, 8) in the sense of Charness and Rabin (2002)—total earnings are lower. We chose these parameters to provide a more stringent test for our explanation, making it less likely that the participants will choose to compete and implement an inefficient outcome.

this treatment most dictators and receivers exert no effort in trying to win the game. That is, dictators choose not to win and thus receive a higher relative payoff.

Our parallel sequential trust game treatments begin with a baseline treatment that has the proposer making the dichotomous decision of whether to transfer $7 to an anonymous counterpart. The literature's preferred interpretation of this decision is that it measures the level of "trust" of the proposer. If the money is transferred, then the recipient receives $20 and decides what portion of that $20 to send back to the proposer. The remainder of the experiment is identical to the dictator game baseline. The comparison treatment has the proposer transferring $0 to the recipient if she outperforms the recipient on the task, otherwise she transfers $7 to the recipient. The recipient, who views the results of the task, then decides how much to send back to the proposer.

The empirical results are similar to the dictator game: time invested, questions attempted, and the number of correct responses are all higher in the comparison treatment than in the baseline treatment. These results, coupled with the dictator game data, suggest that when socially acceptable actions provide one person with a greater portion of the rents, people will exert extra effort to secure those rents, to the detriment of the other player. These results imply that observed selfless actions might be more critically linked to the relevant properties of the situation, and less to the relative payment outcomes, than extant models presume.

Our explanation of our results revolves around the interaction of norms and preferences over payoff distribution. In some situations, much like in the inequity aversion models, people dislike earning more than others. In contrast with inequity aversion, however, in some important cases people are driven by the desire to earn more money, and

behave in line with the purely selfish model. Of course, this selfish behavior does not rule out other types of social preferences. The desire to earn more money, prestige, etc., than others represents a strong incentive to succeed (Weber (1922, reprint 1978, p.936), and Adam Smith (1776, reprinted 1937, p.107)).[4] This could be a status seeking behavior, which is "the prestige attached to the person's position in society." This definition implies that we care about our ranking in society, and are motivated by our desire to have a higher ranking. That is, we wish to be more successful than others.[5]

The remainder of our study proceeds as follows. We present the experimental design and empirical results in the next section. Section III concludes.

II. Experimental Design and Results

Subjects were recruited from the undergraduate student body at the University of California-San Diego. Two baseline treatments and certain manipulations of each were conducted. In all cases, in a between subjects design, participants were randomly assigned to two groups: one placed in room A ("Red" players) and the other placed in room B ("Blue" players). The two groups did not have contact before, during, or after the session. Within each group, subjects were allowed to talk only to administrators. As is typical, no subject participated in more than one treatment, thus the empirical results rely on purely between-subject variation.

The baseline treatment for the dictator game was in the spirit of dichotomous choice dictator game experiments, which began with the work of Kahneman et al. (1986): each Red

[4] See also Frank (2005); for a survey Fershtman (2007); and for an excellent recent discussion Ellingsen and Johannesson (2007).

[5] For an experimental study of the effect of status in markets, see Ball et al. (2001). Also, we should note that there are competing models to inequity aversion. These models are based on the assertion that people care not only about the allocation of payoffs, but also about the intentions leading to this allocation (e.g., Rabin, 1993; Dufwenberg and Kirchsteiger, 2004; Charness and Rabin, 2002).

player dictates whether to allocate an even amount to herself and her anonymous Blue partner, or an uneven amount. In this case, the even amount is $8 for each player, and the uneven split is $11 and $2, in favor of the dictator. The chosen allocation determined final earnings.

The twist to the baseline treatment is that after the dictator chooses the split, both players are asked to stay and perform a task. The chosen task is determined randomly, and consists of either what might be considered an interesting task—answering GMAT questions—or a tedious task—examining a random set of letters and circling "r" when it occurs in the random set. To provide further delineation in task, we informed subjects in the GMAT condition that "The GMAT test is a challenging examination. It tests a student's quantitative abilities, verbal reasoning, and analytical writing skills under timed conditions. Diverse skills are required to attain a high score." No similar statement was made in the letter circling task.

Subjects were further informed that they may terminate the experiment at any time, or spend up to 30 minutes answering the 50 GMAT questions (circling letters on pages). In addition, they were told that their individual payment was independent of their success in the task, but we reinforced that they would be informed of their own results as well as their anonymous partner's results upon conclusion of the experiment.[6] We further noted that they would not be penalized for incorrect guesses.

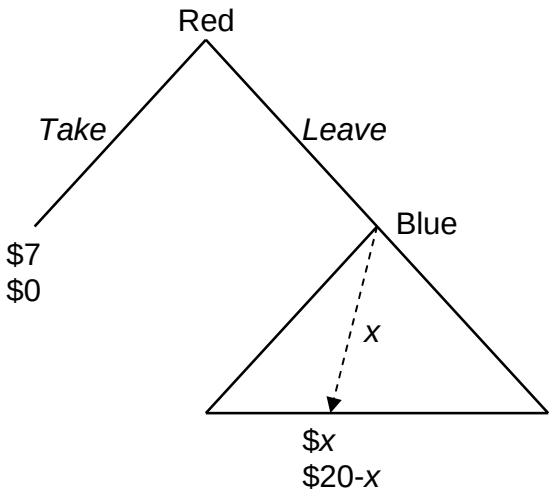
The comparison treatment, which we denote as a Q-Dictator game, for "Quasi-Dictator" game, is identical in every respect to the baseline treatment except the participants are informed that their performance on the task determines whether the allocation is split

[6] This was possible because the experiment was conducted in stages: they completed a marketing survey after this experiment to ensure they would not sit idly waiting for the results.

evenly: if the dictator outperforms the recipient on the task, the uneven split of $11-$2 is effective; otherwise, the even split of $8-$8 results. In this case, rather than having the dictator unilaterally determine outcomes as in the baseline treatment, task results from both the proposer and responder determine the split. In this treatment, proposers interested in equity or efficiency have a simple choice: commit zero effort by stopping the experiment immediately, solving no questions correctly, and effectively implementing an even split.

In our final dictator game treatment, the Reverse Q-Dictator, everything is identical to the dictator game except in this case participants are informed that the 11-2 payoff is implemented if the dictator loses the game (i.e., circles fewer "r"s). In case of a tie, or if the dictator circles a greater number of "r"s than the responder, then the equal 8-8 payment is implemented.

Completing the experimental design is our "lost wallet game" experiment (Dufwenberg and Gneezy, 2000), which explores behavior in parallel treatments. The baseline treatment, which we denote as "trust" because it mirrors trust games in the literature, endows the proposer with $7 and asks whether she would like to transfer all $7 to the anonymous responder situated in another room. If transferred, then the responder receives $20 and then decides how to allocate the $20. The literature broadly interprets the first mover's actions as measuring "trust" and the second mover's action as representing "trustworthiness" (see Berg et al., 1995). The extensive form of our game is represented in the following figure:



Our comparison treatment is denoted as Q-Trust and directly follows the Q-Dictator treatment described above: if Red outperforms Blue on the task, she keeps the $7, otherwise the $7 is transferred to Blue, who then decides how to allocate the $20. In this case, it is particularly straightforward how the proposer can send a strong signal of trust: simply attempt to answer zero questions because the responder views task outcomes before deciding the division. Thus, we have a particularly demanding test in this case since models of inequity aversion, efficiency, and trusting behavior all predict much less effort in this treatment than the baseline game.

A. Dictator Game Results

Table 1 and Figure 1 summarize the individual data obtained from the dictator games. In sum, we had 160 subjects distributed equally across the four treatments. Of these 160 subjects, roughly half were women. We find that the baseline data are qualitatively similar to results reported in other dictator games: nearly 75% of the dictators (29 of 40) opted for an equal split of $8 per person. Models, such as the inequity aversion model of Fehr and Schmidt (1999), have used such data patterns as key evidence that people dislike receiving more than others. These data are certainly consonant with that conjecture.

If behaviour in the two treatments is due to the same type of inequity aversion preferences, however, then a comparison of task effort levels across treatment should reveal that approximately 75% of dictators in the Q-Dictator game do not commit costly cognitive effort to task, ensuring an even split. Yet, this data pattern is not observed. In fact, only 2 of 40 subjects committed zero effort in the GMAT and tedious tasks. Figure 1, which plots the average time invested, average number of correct answers, and average number of questions attempted for proposers across treatment, makes this point most clearly with central moments. In each comparison in Figure 1, the proposers in the Q-Dictator treatment commit a significantly greater amount of effort than proposers in baseline.

This result holds whether the task is challenging, or tedious. For example, consider the average time invested. Whereas proposers in baseline commit between 10 and 15 minutes to the task, proposers in the Q-Dictator treatment commit nearly double that time. In doing so, responders attempt to answer more than twice as many questions, and answer more than twice as many correct (7.8 versus 21.7 and 0.4 versus 1.1). Using both parametric t-tests and non-parametric rank sum tests, we find that each of these differences is significant at conventional levels.

Given the recent literature on gender and competition that suggests women are less competitive than men (see, e.g., Gneezy et al., 2003), it is important to consider how men and women responded to the Q-Dictator treatment. For instance, it might be the case that these results are entirely driven by men, as the women in the sample might decide to commit little effort in the Q-Dictator game due to their lack of competitive nature.

When parsing the data along gender lines, we observe that our effect is driven by both men and women. First, estimating regression models that have the average time invested,

average number of questions answered correctly, or the average number of questions attempted for proposers as the regressand, we find that in each case both men and women increase their competitive inclinations in the Q-Dictator treatment.[7] Similar patterns exist in the raw data when imposing no structure on the data. Second, we find that there is a tendency for women to compete less in the GMAT task, but the opposite occurs for the "r" task, where women on average exert more effort than men.

In the Reverse Q-Dictator game, the effort invested is dramatically different. We include 40 participants (in addition to the 160 in the other dictator games) in this treatment. Out of which, 34 (85%) did not circle a single "r." This sharp contrast with the Q-Dictator game implies that the effort invested in the Q-Dictator is due to distributional concerns, and not simply because participants wanted to win the tournament. This result complements the above results in an important manner, lending us a greater ability to interpret the underlying motivation at work in the data above.

B. Trust Game Results

The bottom panel of Table 1 and Figure 2 summarize the individual data obtained from the trust game treatments. We had 80 subjects distributed equally across the two trust treatments. Again, roughly half were females. Similar to the dictator game, the baseline data are qualitatively in line with results reported in other trust games: roughly 50% pass the $7 to the responder, evidence that has been argued to suggest broad trusting behaviour. Since the only manner in which one can effect equal payoffs in this game is to transfer the $7 (and hope that the second player splits the $20), the inequity aversion model of Fehr and Schmidt

[7] Regressors in this model include a constant, a treatment indicator, and gender.

(1999) might be called upon to describe why proposers send the $7 to the responder. This is also in line with models that include efficiency arguments (Charness and Rabin, 2002). The baseline data are certainly in the spirit of that hypothesis.

Again, however, we find a distinct movement of task effort in the comparison treatment. Figure 2 provides ocular evidence. The average time invested, average number of correct answers, and the average number of questions attempted for proposers in the Q-Trust game are all significantly higher than in baseline. As Figure 2 makes clear, these differences are quite large: in every case, the outcome measures in the comparison treatment are roughly 100% greater (or more) than the baseline treatment. Consider the average time invested. Whereas proposers in baseline commit 12.6 minutes of effort, proposers in the Q-Trust treatment commit nearly double that time, almost 25 minutes. Similar insights are gained from responder attempts and correct answers. Using both parametric t-tests and non-parametric rank sum tests, we find that that each of these differences is significant at conventional levels. Similar to the dictator game, the qualitative results hold for both men and women, but men tend to compete more intensely than women.

A further inquiry one can make into the trust game data revolves around how responders behaved in light of competition. A few results naturally arise. First, as can be gleaned from Table 1, the percentage of proposers who ultimately transfer the $7 is slightly, though not significantly, higher in the Q-Trust game. This is due in part to the responders' reaction to the incentives introduced in the Q-Trust game: their effort, average number of correct answers, and the average number of questions attempted increases substantially compared to baseline. More importantly, in our sample responders typically outperform proposers in the average number of correct answers.

Second, of those receiving transfers, the amount sent back in baseline was 6.1, which was much higher than in the Q-Trust game, an average of 2. Modeling the responder amount returned in a regression framework that includes a constant, gender, and the amount of proposer effort as regressors, we find that the amount returned by responders critically depends on the proposer's effort level in the Q-Trust game, but not in baseline. More specifically, we find that proposers who commit little effort are rewarded by responders in the Q-Trust game—lower proposer effort leads to higher payoffs. We interpret this finding as evidence in favor of a reciprocity-based model, where the ability to signal intentions is important.

III. Discussion and Conclusion

This study explores behavior in two standard laboratory games to provide insights into the current popular modeling approaches used to describe such data. Our first set of treatments examines data from the dictator game while the second set of treatments analyzes a similar manipulation of an oft-used interactive game - the trust game. The treatments are meant to manipulate the participants' set of relevant social norms. In our approach, people do not make stable choices across settings. Rather, the properties of the situation determine the set of relevant social norms which define the set of socially accepted choices. Individuals seemingly make their choice from this set adopting de-facto a social norm that "justifies" their behavior.

Both data sets reveal the power of the situation—whether observing behavior of dictators in the dictator game or proposers in the trust game, we find that when socially acceptable actions provide one person with a greater portion of the rents, people will take

advantage of that situation to the detriment of their anonymous partner. We view these results as extending recent evidence of how situations influence choices.

Our results suggest that if placed in an environment wherein socially acceptable actions provide one person with a greater portion of the rents, people will put forth extra effort to secure those rents, to the detriment of the other player (relatedly, see List, 2007; Gneezy et al., 2004). In this manner, when one can earn more than the other player through actions deemed customary and socially acceptable, people reveal profit maximizing preference, not inequity aversion. It is important to note that the profit maximizing preferences do not exclude preferences such as status seeking.

Contrary to our mythical species *"Homo Economicus,"* in Sociology there is a different dominant type of player, named "*Homo Sociologicus*." "*Homo Sociologicus*" is a passive player whose behavior is governed not entirely by free choice but by following prescribed norms of behavior, social customs, and inertia forces (Elster, 1989). The social norms are a prescription of behavior for different circumstances that is common to a group of individuals and therefore are labeled as "social norms." There is a group of individuals that share and behave according to the same social norm.

Such social norms are indeed powerful. We all give tips at restaurants, we help the elderly when placed in a situation to do so, and we observe local rituals as farfetched as basketball players kissing a turtle's feet for good luck prior to basketball games. Why do people follow social norms? When norms are conventions that do not contradict self interest, then following the norm does not create a dilemma. For example driving on the left hand side of the road or kissing a turtle's feet do not contradict self interest. But, what if the social norm contradicts self interest? A norm that advocates a fair behavior, giving a tip, donating

to a public charity, or not cheating in a business transaction may contradict private self interest. These norms give rise to a conflict between following the norm and utility maximizing behavior.[8]

Given the potential strength of such norms, we argue that understanding the hybrid species—a combination of "*Homo Economicus*" and "*Homo Sociologicus*"—is important for social science analysis and for making sense of observed behavior. More precisely, a social norm is a set of rules specifying the "correct" actions for every decision problem and a penalty for deviating from such prescribed actions. Clearly, there are norms that do not apply to all possible decision problems. A decision problem may be associated with two different norms that may even contradict one another, in the sense that they prescribe different appropriate choices.

We argue that individuals are not the traditional "*Homo Sociologicus,*" in that they do not necessarily follow the social norm. The overall utility of individuals is a combination of their utility from the distribution of payoffs induced by their actions and a social penalty whenever their actions diverge from the appropriate action dictated by the relevant social norm. People may differ in the importance they assign to social norms. In a simple situation there might be only one social norm, for example playing a dictator game. The advantage of using simple games in the lab is that often it implies a small set of relevant norms and frequently only one norm of behavior. However, in most extra-lab situations people face a decision problem together with several relevant social norms that may even prescribe a different set of appropriate actions. An individual embedded in such situations needs to choose which social norm she wishes to adopt as well as a choice of action. Which social norms do individuals prefer to follow? The answer depends on the individual's own

[8] In such cases, social norms are enforced by social punishment (Akerlof, 1976, Coleman, 1990, Hechter, 1984).

preferences over outcomes. That is, individuals choose a relevant social norm that socially "justifies" a behavior or an action that maximizes their preferences over outcomes.

To illustrate the implications of this argument, we more patiently consider our baseline dictator game. As aforementioned, the data from such exercises are oftentimes interpreted as representing evidence in favor of inequality aversion. Having such concern implies a direct assumption on individuals' utility function. Once the shape of the utility function has been established, it is used for economic analysis, and in particular as descriptive of behavior in a myriad of situations, including labor markets, general bargaining settings, and incomplete contractual arrangements between buyers and sellers. We argue that while the behavior observed in such experiments can indeed be induced by inequality aversion, it may also be the result of social norm conformity.

An individual may share the amount that she has received with an anonymous player not necessarily because she cares about the other player's payoffs, but simply because she is expected to follow the social norm relevant for such a situation. In dictator-game experiments the relevant norm is to share. Putting the same individual in a different situation with a different set of social norms may induce a completely different behavior which may contradict any form of inequity aversion or fairness concern. In these situations, there is either no social penalty to behave in a selfish way or there is no norm that requires sharing resources.

For example most individuals leave a tip in restaurants that they do not intend to visit again not necessarily because they have fairness concerns but because they obey a general social norm that applies to such situations. They may not care about the welfare of the waitress, they may even think that the service was bad and does not merit a tip, but

nevertheless they leave a tip because not doing so is against important societal norms and therefore costly. The same individuals do not necessarily donate money to homeless people in the street that may be in a greater need, or tip workers who expend considerable effort to provide a valuable service such as a plumber or radiologist.

One may argue that the distinction between social norms and social preferences is not important provided they both induce the same behavior. This is true if we hold ourselves to one particular situation. As we move from one situation to another, the stable preference structure remains, but the properties of the situation and thus the relevant social norms change. This will lead our model to predict a behavioral change, while models based on payment outcomes predict no such change. Therefore, one should be careful in using an experimental approach to conclude that individuals have, for example, inequality averse preferences and then analyze a completely different situation under the assumption of such preferences, or even ascribe such behaviors to other more distant settings.

The framework we suggest is clearly general as it combines social preferences and social norms. Does this permit our decision making framework to align with *any* type of behavior? The answer is clearly negative. The fact that individuals choose which social norm to follow implies a special structure that makes our framework useful and with interesting implications for empirical data.

Consider our own dictator game experiment. Our interpretation of this experiment is that in the baseline treatment individuals were forced to choose between an allocation of (8, 8) and (11, 2), while the salient social norm was to share the resources. Thus, in the baseline treatment there was only one relevant social norm. It is therefore impossible to parse whether the sharing outcome is due to participants' inequity aversion or the fact that they

conformed to the relevant social norm. In the Q-dictator game, however, the norm of sharing remained, but there was a second competing norm that legitimized unequal payments—being rewarded for effort, or winning the competition. This norm justified an allocation of (11, 2) without social penalty.

Our framework can thus be helpful in identifying social preferences. Yet, it highlights that to determine ultimately the underlying preferences at work, one must take great care in manipulating the relevant set of social norms, and subsequently compare behavior across those different settings. For example, in the Q-dictator game treatment one can conclude that if an individual invests a high level of effort in the second treatment, then he prefers the allocation (11, 2) to (8, 8). If he subsequently chooses the allocation (8, 8) in the baseline dictator game, it is because the only relevant norm was of sharing and the norm was powerful enough to influence choice. Once there was another relevant norm that enabled him to "justify" a different allocation, he adopted that norm. Importantly, the choice of which norm to follow indicates his true preferences over payoff distributions. In this way, relative norm choice holds important information.

Data across our baseline comparison treatments makes this clear. If the impetus for the general giving in the dictator game or the trusting behavior in the trust game were stable inequality aversion preferences, then we would expect such preferences to manifest themselves in the comparison treatments. The equal allocation, together with the sharing norm, could have been easily dictated in the second Q-treatments simply by refraining from investing costly effort. But, few of the players opt to take this route, instead providing effort profiles that stochastically dominate those observed in the baseline treatments. It is difficult,

if not impossible, to explain such behavior by fixed inequity aversion preferences measured over payoff outcomes.

This change in social norms can also explain data found in other studies. For example, List (2007) and Bardsley (2008) varied the action set and the origin of endowment in simple dictator games and find that these simple manipulations of the action set lead to drastic changes in behavior: many fewer agents are willing to give money when the action set includes taking. Cherry et al. (2002) find that when the dictators earn the money to be distributed, 95% of them give no money to the recipient. Dana, Cain and Dawes (2006) and Broberg, Ellingsen, and Johannesson (2007) test a game in which subjects were offered a choice between playing a dictator game and an "exit option" which pays less; if the dictator chose the exit option the receiver was not told about the game. They report that a substantial fraction of the subjects opt for the lower payoff exit option.

In order to make behavioral economics findings more applicable to real world interactions such as labor markets, future research should focus on how the properties of the situation influence behavior. We believe that understanding and modeling how features of the situation, such as social norms, affect behavior across domains is a fruitful avenue for future research.

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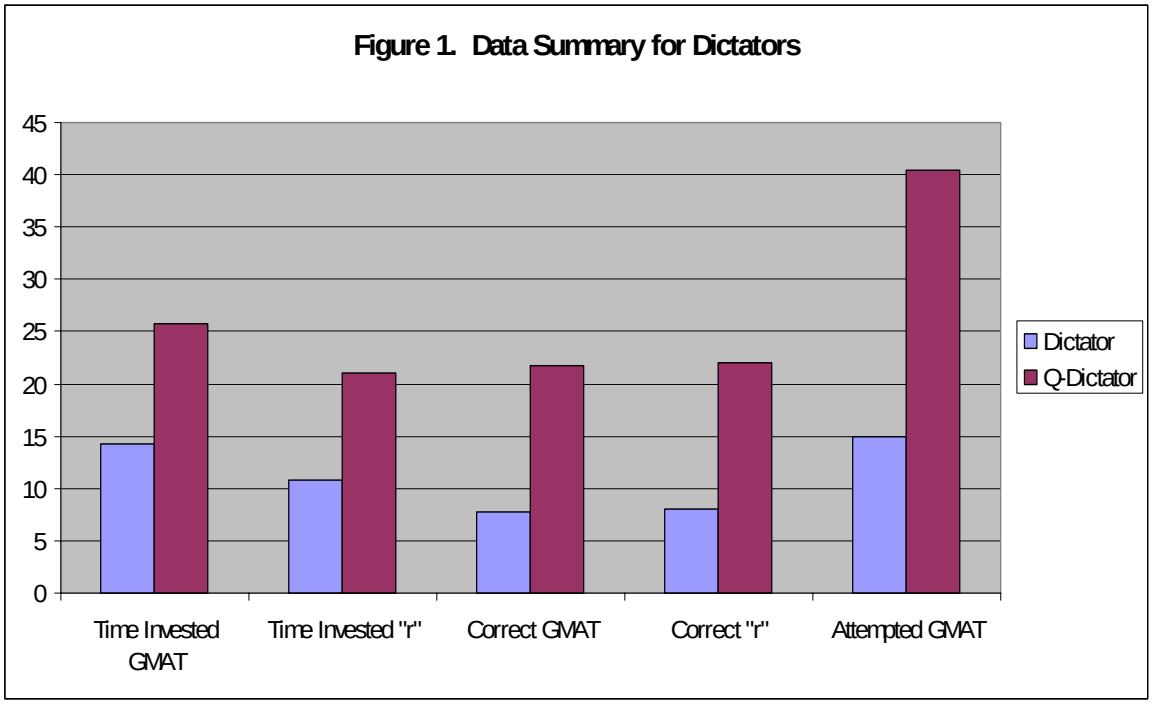
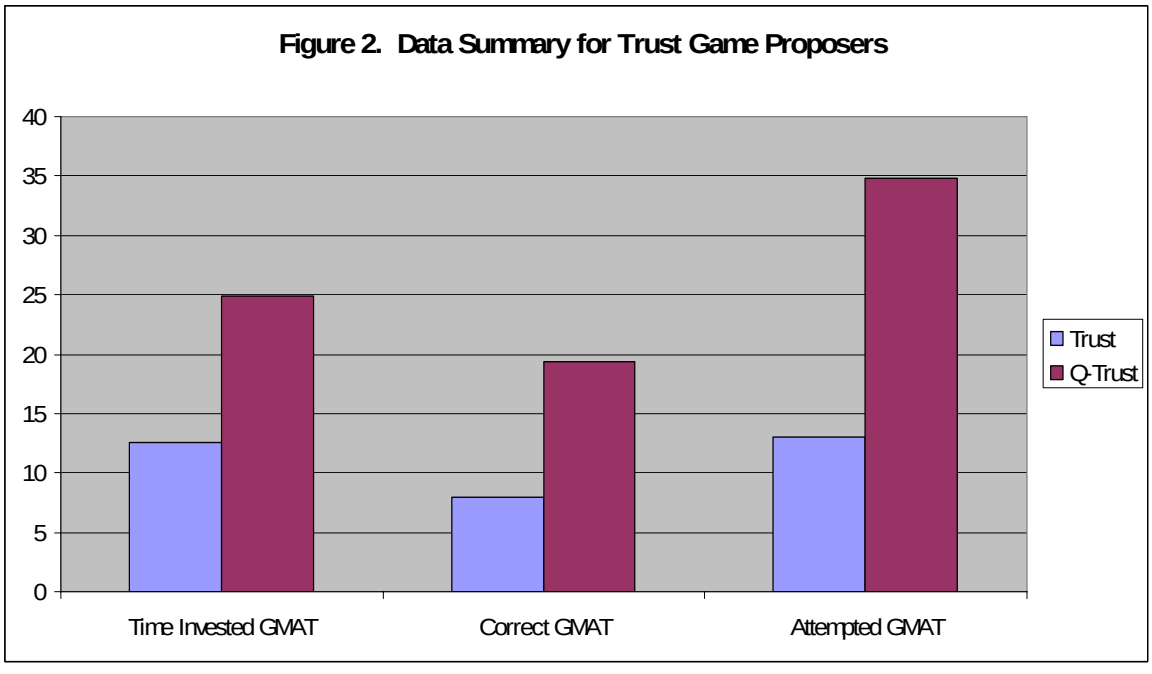
Table 1. Summary Behavior*

Treatment		**% of Proposer's that**	**Average Time Invested**		**Average # Correct**		**Average # Attempted**	
Dictator	**(n)**	**Transfer**	**Prop.**	***Resp.***	**Prop.**	***Resp.***	**Prop.**	***Resp.***
Baseline(GMAT)	(40)	70	14.2 (11.7)	*11.4 (12.6)*	7.8 (7.4)	*5.4 (9.0)*	14.9 (17.3)	*12.2 (19.8)*
Baseline("r")	(40)	75	10.8 (11.6)	*11.2 (12.3)*	0.4 (0.6)	*0.5 (0.7)*	---	
Baseline Pooled	(80)	72.5	12.5 (11.6)	*11.3 (12.3)*	---		---	
Q-Dictator(GMAT)	(40)		25.7 (9.5)	*26.7 (7.2)*	21.7 (12.8)	*23.7 (10.9)*	40.4 (17.7)	*43.1 (14.4)*
Q-Dictator("r")	(40)		21.0 (9.0)	*26.1 (5.8)*	1.1 (0.7)	*1.4 (0.5)*	---	
Q-Dictator Pooled	(80)		23.3 (9.5)	*26.4 (6.4)*	---		---	
Trust Game	**(n)**							
Baseline(GMAT)	(40)	55	12.6 (11.8)	*11.5 (13.2)*	8.0 (10.6)	*9.6 (11.8)*	13.0 (18.1)	*14.8 (18.8)*
Baseline("r")	(40)							
Baseline Pooled	(80)							
Q-Trust(GMAT)	(40)	60	24.9 (11.0)	*27.5 (7.9)*	19.4 (12.1)	*23.1 (10.1)*	34.8 (19.7)	*39.8 (15.5)*
Q-Trust("r")	(40)							
Q-Dictator Pooled	(80)							

*Figures in cells report summary statistics from the experiment and can be read as follows. In row 1, reading across from left to right, the baseline GMAT treatment had 40 subjects, 70% of proposers chose an equal split, the average time invested in task by proposers (responders) was 14.2 (11.4) minutes, the average number of questions answered correctly by proposers (responders) was 7.8 (5.4), and the average number of questions attempted by proposers (responders) was 14.9 (12.2). Standard deviations are in parentheses. The "r" treatment means represent fraction of the page they finished. These data are in 0.25 increments. Given that very few errors were committed, we have no information on questions attempted since it is merely circling r's on the sheet.



Note: Figures represent average time invested in minutes, average number correct, and average number attempted. Correct "r" averages are rescaled to correspond with the number correct in GMAT. Source data are from Table 1.



Note: Figures represent average time invested in minutes, average number correct, and average number attempted in GMAT. Correct "r" averages are rescaled to correspond with the number correct in GMAT. Source data are from Table 1.