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Rational moralists: The role of fairness in democratic economic politics

REINER EICHENBERGER & FELIX OBERHOLZER-GEE
Institut für Empirische Wirtschaftsforschung, Blümlisalpstr. 10, CH-8006, Zürich, Switzerland

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Abstract. In this paper, we empirically test for the influence of fairness considerations on the willingness to redistribute income in private and in democratic decisions. In contrast to standard explanations of income redistribution, our theory takes into account that prices shift decisively as we move from the sphere of private contributions to politics. At the polls, it is nearly costless to observe social norms. Therefore, we expect individuals to behave more fairly in the political sphere than in the market place. We present experimental evidence which is consistent with this hypothesis. In distributive struggles, social norms moderate the inclination of human beings to behave like 'gangsters'.

1. Introduction

The redistribution of income is a fact of democratic economic politics. One explanation for this observation are the rules of democracy. Under these rules, the majority can always exploit a minority. Competition among parties drives the politics of redistribution towards a situation where the median voter's marginal gains equal his marginal losses. Thus, the majority of voters supports the combination of lump-sum subsidies to all individuals and a proportional tax on all income favored by the median voter (Meltzer and Richard, 1981). Median voter models can explain the observed transfers from the rich to the poor or from the tails of the income distribution to the middle (Stigler, 1970; for empirical support, see Pommerehne, 1975; evidence to the contrary is presented by Aaron and McGuire, 1970). However, if the median voter's interests are taken to be decisive, the frequent support of minorities is difficult to understand. Farmers in most industrialized countries, to take up a specific example, are generously subsidized although they only make up a tiny fraction of the electorate. More generally, empirical studies show that transfers do not follow the strict logic of the majority rule, but make up a more complex pattern where almost all groups in one way or another simultaneously finance and receive transfer payments (Lindbeck, 1985; Levy, 1987; Leu, Frey, and Buhmann, 1988).

Economic theory offers *three types of explanations* for the observed patterns of redistribution. The first approach models individuals as selfish utility-maximizers. Their willingness to redistribute income depends on some kind of asymmetry. Examples for this approach include Olson's (1965) interest groups which differ with regard to their ability to collectively influence political outcomes; Magee, Brock, and Young's (1989) voters who are systematically deceived due to the complexity of the transfer system; and Eichenberger and Serna's (1996) citizens who commit random errors in the assessment of policy proposals and thus support transfers in the "wrong" direction. In all these approaches, transfers are the direct result of the alleged asymmetry. The second explanation assumes that individuals vote in favor of redistribution programs because they are uncertain of their future position (Buchanan and Tullock, 1962; Rawls, 1971); they are, effectively, buying insurance. The model predicts that the impartial utilitarian chooses a distribution that equates the marginal utility of income across individuals. The third approach builds on interdependent utility functions. Based on such preferences, individuals enjoy improving the lot of others and Pareto-optimal redistribution results (Hochman and Rodgers, 1969; Rodgers, 1974).

These three approaches have a mixed record in explaining the empirically observed redistribution policy (Kirchgässner and Pommerehne, 1992). In general, it appears to be difficult to differentiate between the various motivations leading to redistribution such as uncertainty about one's future position, informational limitations or altruistic feelings. Mueller (1989: 451), in his review of economic redistribution models, points out that "short of psychoanalysis, there may be no way to disentangle fully these motivations."

Unfortunately, matters are more complicated still. The accounts of income redistribution discussed so far build on consequential voting. They neglect a decisive shift in prices as we move from private decisions in markets to voting for or against redistribution programs. Since a single vote typically does not alter the aggregate outcome, it is nearly costless to observe social norms at the polls (Tullock, 1971; Brennan and Buchanan, 1984; Kliemt, 1986; Brennan and Lomasky, 1993). This change in prices magnifies the role of moral considerations and renders private interests less important. Consequently, voters follow norms more closely when voting than in the market place. Our understanding of voting decisions may thus be improved if exclusively interest-based theories such as the ones discussed above are enriched by taking moral considerations into account. In this paper, we present experimental evidence regarding the behavioral assumptions underlying a *moral approach to income redistribution*. The following hypotheses constitute the core of our theory:

(H1) Social norms shape human behavior
We assume that social norms and moral obligations influence individual behavior. This is true even in private decisions where the opportunity costs of moral behavior are fully taken into account. In our framework, individuals directly derive benefits by observing social norms, and they follow moral standards more closely if it is cheaper to do so. The study focuses on fairness norms which we believe to be central to giving and taking decisions, i.e., questions of redistribution.

(H2) Votes are moral statements
Even if individuals exhibit a taste for fairness in private decisions they need not express moral views more strongly at the polls than in the market place. While observing fairness norms is essentially costless at the polls, at least in some sense, it is also irrelevant because a single vote does not influence the aggregate outcome. However, since we assume that individuals value the mere expression of norm-observance, votes represent moral statements.

In Section 2, we study the individual willingness to share and appropriate resources in an environment of private decisions. The standard dictator and the newly developed gangster games both confirm that subjects are willing to sacrifice a part of their endowment to behave in a socially acceptable manner. In Section 3, we show that subjects behave more fairly if it becomes cheaper to do so: First, individuals are more generous at the polls than in the market place. Second, they observe social norms more closely if these norms imply smaller sacrifices. Finally, we present the outlines of a *moral approach to income redistribution* in Section 4 and conclusions in Section 5.

2. Fairness in private decisions

Today, there is ample experimental and field evidence that people behave more often in a cooperative manner than is commonly assumed in economics. In public good experiments, even the most fervent experimentalist cannot force the voluntary contributions much below 10%. Likewise, considerations of fairness appear to influence outcomes of ultimatum and dictator games (Güth and Tietz, 1990; Isaac, McCue, and Plott, 1985; Ledyard, 1995; Roth, 1988, 1995; Bohnet, 1997). Field studies show that, in reality, cooperative structures may survive for considerable periods of time (Ostrom, 1990; Ostrom, Walker, and Gardner 1992, 1994).

The source of such cooperative behavior is in dispute. Voluntary adherence to social norms, fear of social sanctions, or altruism may all account for the observed contributions. In our framework, we disregard social sanctions and altruism as potential sources for fair decisions. Social sanctions may help explaining cooperative behavior in repeated prisoners dilemma and in one-shot ultimatum games where the recipient is able to punish "unfair" players. However, even if the possibility to retaliate is removed – as is the case in the dictator game – fairness does not completely disappear (Camerer and Thaler, 1995). In contrast to theories of Pareto-optimal distribution, we do not focus on altruism, i.e., we do not assume interdependent utility functions (for a critique of such models, see Gramlich and Rubinfeld, 1982). Instead, we assume that individuals directly derive utility by observing social norms, irrespective of the actual effects of such behavior on others. These psychic benefits are similar to what has been termed "warm glow" (Andreoni, 1990). Such preferences for adhering to norms may be the result of selfish parents trying to rig their children's preferences during primary socialization (Becker, 1992).

The individual willingness to share one's wealth does not yet provide a basis for explaining democratically approved redistribution policies. For any redistribution to take place, we not only need people willing to give, but also groups willing to receive transfers: If consumers derived utility by supporting farmers, while farmers would be better off by supporting consumers, it is a priori not clear whether we would see any redistribution. So far, this aspect has been completely neglected in the experimental literature.[1] To fill this gap, we conducted a series of experiments directed not only at giving, but also at taking behavior.

In fall 1994 and spring 1995, we conducted a series of experiments with more than 300 first-semester economics students at the University of Zurich. Total payout was more than 1,000 Swiss Francs (SFr.). Throughout the series, students handled real coins, no tokens were used. There were two types of experiments:

- a standard dictator game (Kahneman, Knetsch, and Thaler, 1986) where a student with an endowment of SFr. 7 (approx. US$ 6 at the time) could freely decide if he wanted to share this amount with an anonymous second student,
- a gangster game where a subject without an endowment could freely decide how much he wanted to take away from an anonymous second student who previously had received SFr. 7.

Property rights exercise a decisive influence on the decision to share endowments (Hoffman and Spitzer, 1985). In order to generate strong feelings of entitlement, the endowments were allocated according to the individual per-

formance in a pre-experimental test. All students were given an exam question regarding the development of housing rents in the Canton of Zurich two weeks prior to the experiments. The question was not very difficult as such, but it was time consuming to collect and analyze the statistical material. Students took up to five hours to complete the task. They did not know that there would be any connection with the experiments which later followed. Subsequently, we graded all exams and split the subjects according to their performance into two groups. At the time of the experiments, the students with the better grades received SFr. 7 as initial endowment in the dictator game. We emphasized that the individual performance was decisive for the distribution of the funds.

In the dictator game, the student with the better grades had to decide whether he wanted to share the SFr. 7 with a fellow student who belonged to those who had not answered the exam question very well (or not at all) and therefore had not received any money. The gangster game represents the reverse situation. Here, the subject who had not performed well in the test and therefore was without money could freely decide how much he wanted to take away from the better graded student whose endowment was SFr. 7.

In the written as well as in the oral instructions, extreme care was taken not to imply any normative connotations with regard to sharing or taking away money. Since these experiments took place in the classroom (class sizes varied from 8 to 45 students), special care must be taken to guarantee anonymity (Hoffmann, McCabe, and Smith, 1995). In our experiments, all participants received their written instructions and the money in sealed envelopes. They took these envelopes out of a box that was passed around in class. Thus, it was impossible for the experimentalists to know which student had taken which envelope. Similarly, all participants placed their sealed envelopes (with or without money) in a second box at the end of the experiment. These envelopes were marked with the identification number of the recipients. The latter took their own envelope out of the box at the very end of the experiment. This procedure guarantees complete anonymity between all participants and between the experimentalists and the students. The mechanism has the added advantage that the money never leaves the classroom. Students are thus able to verify that the funds are actually redistributed.

To make the results of the two experiments directly comparable, we express them as fairness ratios. For the dictators, the fairness ratio is the percentage given to the student with the poorer grades. For the gangsters, the fairness ratio expresses the share they left the better graded student. Table 1 reports these fairness ratios for the two situations.

In the standard dictator game, better graded students voluntarily gave their anonymous partners 34.6% of their initial endowment of SFr. 7. This result is largely in line with the bulk of experimental evidence (for an extensive

Table 1. Fairness ratios, initial endowment for better graded students SFr. 7

	Dictator game N = 12	Gangster game N = 8
Fairness ratio	34.6% (0.21)	24.1% (0.26)

(SD).

meta-analysis, see Sally, 1995). The results of the gangster game are in stark contrast to this relatively benign behavior of the better graded students in the position of a dictator. Despite the clearly assigned property rights, recipients of the transfer appropriated more than three quarters of the total endowment of SFr. 7. However, traces of fairness are also visible in the gangster game. While completely selfish, (monetary) income-maximizing agents would appropriate all funds in an anonymous one-shot game of this sort, our gangsters left the better graded students with SFr. 1.68 (fairness ratio 24.1%).

The results of the gangster game, which are based on small samples, are confirmed by variations of the experiment.[2] If gangsters visually identified better graded students without being able to talk to them, they still appropriated more than half of the initial endowment (fairness ratio 43.2%, N = 12). In another variation, gangsters were assigned a debt of SFr. 7 at the beginning of the game, and better graded students were rewarded by not having to incur any cost. Gangsters were then free to shift any portion of the debt onto the shoulders of the better graded students. As before, debts actually had to be paid back at the end of the experimental sessions and students handled real coins throughout. In this variation (N = 12), the gangsters' fairness ratio was 38.9%, i.e., they made better graded students pay back more than 60% of their debt.

The results of the dictator and the gangster games warrant the following conclusions: (1) The observed outcomes are consistent with our first hypothesis that social norms influence individual decisions. In both situations, the observed fairness ratios significantly deviate from outcomes implied by the income-maximizing hypothesis and lend some credibility to the fairness hypothesis. (2) The generous nature of individuals found in fairness games does not overcome the distribution struggle. While dictators are prepared to give up part of their endowment, gangsters demand a much bigger share of the cake for themselves.

3. Experimental tests of voting behavior

Norms are more important in voting decisions than in the market place since the opportunity costs of meeting moral obligations are smaller when voting (H2). Thus, utility-maximizing individuals with monetary and social motives in their utility function may not make direct payments to the needy, but may support generous redistribution programs at the polls (Kirchgässner and Pommerehne, 1992). However, previous econometric and experimental research regarding the influence of social norms yielded contradictory results (see, Fischer, 1996; Carter and Guerette, 1992; Faith and Tollison, 1990; Feigenbaum, Karoly, and Levy, 1988; for illustrative applications, see Brennan and Lomasky, 1993; Glazer 1992). This should not come as a surprise because the interpretation of most empirical results hinges on speculations about the prevailing norms.

Since the claim that social norms become more important in voting decisions is solely based on a shift in the price of moral behavior, this statement alone has no predictive power: At the polls, not only has morally good behavior become less expensive, it is also nearly costless to express viciousness, greed or contempt. Therefore, any scientific explanation of behavior in low-cost situations must be based on either an independent observation of moral standards or on a theory of norms. As we know of no theory that predicts the relevant moral standards for our experimental situations, we use the answers of our fairness survey as points of reference. In this survey, students indicated how much a *fair dictator ought* to pass on to the recipient, and how much a *fair gangster* may appropriate.

Taking the dictator and the gangster games as starting points, a series of experiments with changing institutions reflects shifts in the price of moral behavior. These variations included a democracy game where subjects voted on distribution, and answers given in a survey. Table 2 gives an overview over the different settings.

Table 2. Design of institutional structure

Dictator game	Gangster game	Democracy game	Dictator game	Gangster game	Democracy game	Fairness Norm	
						dictator game	gangster game
Real transfer	Real transfer	Real transfer	Survey situation	Survey situation	Survey situation	Survey situation	Survey situation

3.0.1. Democracy game
The democracy game is the collective version of the dictator and the gangster games. The students who participated in the democracy game voted on different proposals to redistribute the money initially given to those with better grades. The first proposal was to give nothing to those with poorer grades and leave the total of SFr. 7 with the better graded students. The second proposal was to give SFr. 0.50 to those with poorer grades and leave SFr. 6.50 with the better graded subjects, the third to give SFr. 1 and leave SFr. 6, and so on. The last suggestion would have redistributed the total SFr. 7 and left the better graded subjects with nothing. All students were given a corresponding form containing pairs of proposals (proposition 1 and 2; proposition 2 and 3, etc.). For each of these pairs, subjects had to indicate their preferred proposal. We arrived at the final redistribution decision for the group as a whole by using the simple majority rule. Starting with no redistribution, we checked for each pair whether there still was a majority of preferred alternatives for an increase in redistribution. If this was the case, we moved to the next pair. If not, the final result was determined. This decision rule forces the participants to reveal their preferred redistribution proposition.

3.0.2. Hypothetical games
After the experiment, all students filled in a comprehensive questionnaire regarding personal characteristics. In addition, subjects also answered questions regarding *hypothetical behavior* in either the dictator, the gangster or the democracy game. These hypothetical situations were not the same as the experimental game that the students had participated in. All subjects were given precisely the same information as in the real experiment. Better graded students answered questions regarding their hypothetical behavior in, say, the dictator game, and subjects who had not done well in the test responded to questions which dealt with the gangster or the democracy experiments.

3.0.3. Norms
Another group of subjects, also composed of better and worse graded students, was also given the descriptions of the three experiments. However, they did not have to indicate their intentions regarding their own behavior, but had to make suggestions regarding a *fair solution* for the redistribution problems posed. For example, they stated how much a fair dictator ought to pass on. We interpret the average of these answers as a proxy for the prevalent social norm in the experimental situations.

3.1. *A simple theory of fair behavior*

The above setting allows us to test a simple theory of voting behavior. It takes human behavior as being guided by two considerations: (i) income, and (ii) the fulfillment of social norms, i.e., fair behavior. While increases in income can be assumed to increase utility at a decreasing rate, it is less obvious how individuals value fair behavior: Their utility might decrease with absolute and/or relative deviations from fairness norms. Moreover, it is uncertain whether such deviations cause increasing or decreasing marginal losses. However, all these functional forms lead to the prediction that individuals observe fairness norms more closely if these norms are less demanding, i.e., the absolute difference between fairness norms and observed fairness ratios is expected to decrease as the price of fair behavior falls. Thus we focus on this regularity when interpreting our empirical results. With regard to the utility that individuals derive from observing social norms we only hypothesize that it does not pay a person to more than fulfill the relevant social norm.

Our setting involves two shifts in prices. First, as will be seen, higher fairness norms apply to the gangster than to the dictator game. The opportunity cost of completely fair behavior is higher for the gangsters than for the dictators. Thus, we expect gangsters to observe the norms less closely than dictators. Second, we vary the price of fair behavior across experimental settings. While the individual decisions in the real experiments actually led to a redistribution of the SFr. 7 initially given to the better graded students, votes for redistribution have to be weighed with the (low) probability of making a difference in the democracy game, and answers given in the questionnaire had no consequences at all. Students knew this when filling in the answers. The survey situations thus accentuate the characteristics of the voting situation where the opportunity costs of living up to social norms are low. Therefore, we expect moral considerations to be even more important for the explanation of the survey outcomes (see, Seflon, 1992). Table 3 reports the results of the original experiments as well as the variations.

The opportunity costs of fair behavior are much higher for the gangsters than for the dictators. From the maximum monetary pay-off of SFr. 7, the former need to leave the better graded students 65.3% to act completely fair, while the latter can act in a fair manner at less than half the cost (27.1%). As predicted, the observed private behavior of gangsters (24.1%) is farther from the norm than the dictators' private decisions (34.6%). Second, even for relatively simple situations such as the dictator or the gangster games, there is no single social norm. Based on the students' survey assessments of fair solutions, better graded students ought to give 27.1%, but seen from the worse graded students' perspective, respondents feel that they should receive 34.7% of the initial endowment.

Table 3. Fairness ratios for three real experiments and three survey situations plus independent fairness norms, initial endowment for better graded students SFr. 7

	Dictator game	Gangster game	Democracy game	Dictator game	Gangster game	Democracy game	Fairness norms
	Real transfer	Real transfer	Real transfer	Survey situation	Survey situation	Survey situation	
	N = 12	N = 8	N = 45	N = 26	N = 25	N = 44	N = 124
% better graded subjects give	34.6% (0.21)	–	30.4% (0.29) {–0.42}	25.6% (0.20) {–0.18}	–	26.3% (0.25) {–0.13}	27.1% (0.19) {–0.25}
% worse graded students leave	–	24.1% (0.26)	48.2%** (0.26) {–2.16}	–	48.9%* (0.31) {–1.89}	60.2%** (0.14) {–2.09}	65.3%** (0.26) {–3.34}

(SD), {z-value for Mann-Whitney U test}.
z-values are the results of a Mann-Whitney U test comparing the fairness-ratio in the private situation with a real transfer to another observation where the values are reported.
*statistically significant at the 90%-level, **statistically significant at the 95%-level, ***statistically significant at the 99%-level.

The gangsters' behavior corresponds to the predictions of our model. Moving from the private decision to the voting situation including real transfers, the fairness ratio almost doubles, a shift which is significant at the 95%-level (Mann-Whitney U test, $p < 0.031$). With a further decline in the price of fair behavior, fairness ratios climb to 48.9% (gangster game, survey situation) and 60.1% (democracy game, survey situation), thus steadily approaching completely fair behavior (65.3%). The cheaper it is, the fairer gangsters behave. It is also interesting to look more closely at the gangsters' behavior in political and hypothetical situations where they leave the better graded students about half their initial endowment. Equal shares are among the most obvious and easily evoked norms in distributional struggles (Frey and Bohnet, 1995; Sally, 1995). Given a situation where it is not absolutely clear what the relevant social norms are, one can interpret the gangsters' behavior as an attempt to suggest a norm which pays off handsomely (at least compared to the norm suggested in the survey).

In contrast to gangsters, dictators do not significantly change their behavior across the various experimental settings. Their contributions remain at the level of the independently assessed norm. We suspect that this is the result of a norm with which individuals can comply at comparatively low cost. Even in the private situation, it costs the dictators a mere quarter of their endowment to behave completely fairly. Consequently, they fully adhere to the norm even in the private situation. If this hypothesis is correct, dictators will deviate from the norm in the same way as gangsters do if their norm implies a higher fairness ratio. We next turn to a test of this hypothesis.

3.2. *Changes in norms*

To study the effect of changes in norms, we conducted a second series of experiments at the University of Basle in the spring of 1995. The Basle experiments correspond precisely to the first series conducted in Zurich. 163 third-semester economics students participated. Again, initial endowments were SFr. 7. With one exception, all instructions and institutional settings were identical to the ones in Zurich. In order to evoke norms that imply higher opportunity costs, we decided not to establish any property rights. Instead, the students were randomly (according to seating order) separated into two groups. As before, the first group received the SFr. 7 as initial endowment, while the second group received nothing.[3] The only difference to the Zurich series was that in Basle, there was no apparent justification for this separation.

With no apparent justification for the property rights, we expect a systematic change in the independently assessed fairness norms. These should become higher for dictators and lower for gangsters. Consequently, observing moral norms will be more expensive for the dictators and cheaper for the gangsters. If the price effect applies to fairness as hypothesized above, dictators are

expected to follow the social norm less closely than in the Zurich series of experiments. Table 4 reports the results of this treatment for the full set of variations.

Changes in the norms occurred as predicted. Removing the justification for the property rights structure results in higher fairness norms for the dictators and lower norms for the gangsters. As in the Zurich sessions, gangsters leave significantly less (Mann-Whitney U test, $p < 0.001$) in the private decision (25.0%) than the 48.4% the new fairness norm would imply. As in the previous experiments, gangsters also become fairer in hypothetical While the decisions of the gangsters do not differ situations. much between the Zurich and the Basle experiments, the behavior of the dictators has changed markedly.

Just as predicted, dictators have become decisively less fair under the new mechanism to assign property rights. In the private situation, they only contribute 18% of their initial endowment. In the democratic decision including real money, they become significantly fairer (Mann-Whitney U test, $p < 0.071$) and voluntarily transfer 29.0%. However, this more generous offer is still considerably below the 43.6% the independently assessed fairness norm would imply. We had hypothesized that randomizing the assignment of property rights would make it more expensive (because the norm is more demanding) to adhere to fairness norms. As observed in the Basle experiment, the data are consistent with our theory of fairness.

Two competing explanations for the observed increase in fairness in the democracy experiments may be advanced. First, one could speculate that more stringent moral standards apply in the democratic situation. Second, voting for redistribution differs from private decisions in that it effectively solves the free-riding problem. Knowing that fairness for everyone can be produced by a democratic decision, individuals may be more generous at the polls.

Both competing hypotheses were tested during our experimental sessions: The fairness norm for democratic redistribution is not higher than the one which was reported for private decisions. Though far from statistical significance, the subjects who answered questions regarding the fairness norms in democratic decisions even gave a slightly lower fairness ratio as their "completely fair" solution (N = 39). Free-riding was not found to significantly change the individual willingness to redistribute income either. We asked students if they would contribute more or less if their own decision was binding for everyone in the group. The average contribution made in this setting, where the free-riding problem does not exist, remained at the previous level (N = 35). This further supports the hypothesis that "warm-glow" fairness and not pure altruism dominates the dictator, gangster and democracy experiments.

Table 4. Fairness ratios for three real experiments and three survey situations plus independent fairness norms, initial endowment for randomly selected students SFr.7

	Dictator game	Gangster game	Democracy game	Dictator game	Gangster game	Democracy game	Norm
	Real transfer (N = 29)	Real transfer (N = 16)	Real transfer (N = 36)	Survey (N = 21)	Survey (N = 21)	Survey (N = 52)	Survey (N = 80)
% subjects give	18.0% (0.20)	–	29.0%* (0.23) {–1.81}	24.6% (0.30) {–0.16}	–	26.3% (0.22) {–1.50}	43.6%*** (0.13) {–5.23}
% students leave	–	25.0% (0.22)	24.3%[a] (0.31) {–0.42}	–	38.0%* (0.20) {–1.87}	34.9% (0.35) {–0.80}	48.4%*** (0.16) {–3.77}

(SD), {z-value for Mann-Whitney U test}.
z-values are the results of a Mann-Whitney U test comparing the fairness-ratio in the private situation with a real transfer to another observation where the values are reported.
*statistically significant at the 90%-level; **statistically significant at the 95%-level, ***statistically significant at the 99%-level.
[a]Due to the experimental design, the results of this session cannot be directly compared to the Zurich data. A possible interpretation is given in Section 4.

4. Political behavior

Our experiments indicate that there are two forces which determine transfers in one-shot, anonymous dictator and gangster games: economic interests, and fairness norms. In this section, we speculate what these findings may imply for an economic theory of redistribution. Of course, our experiments do not correspond to the political process in many respects. For example, the situations studied here do not afford the opportunity for learning. Therefore, the following conjectures do not strictly follow from our results, but they suggest elements of an economic theory of redistribution and point out directions for future research.

In our view, the fragility of social norms represents a key element for any economic theory of redistributional politics. Even for the simple experimental situations studied above, these social norms are not an invariable datum but are influenced by individual status and history. For example, better graded students typically reported a lower fairness norm for dictator behavior than those students who had been in the recipient position. When asked for a fair solution for dictator games with larger endowments (ranging from SFr. 28 to SFr. 7168), former recipients without exception reported higher fairness norms than former dictators. The mere fact that a subject had been in a specific position during the experiment thus sufficed to slightly alter his perception of a fair outcome.

The democracy experiment including real transfers which we conducted in Basle is another case in point. Throughout the two series of experiments, we made certain that students were not able to retaliate: Subjects who had part of their endowment taken away were never given the chance to subsequently appropriate funds from others. In this specific respect, the experimental design of the Basle democracy game differed from the previous situations. Earlier in this session, these gangsters had participated in an experiment where part of their initial endowment was taken away. Although the results of this session cannot be directly compared to the Zurich data as originally intended, there is still a valuable lesson in this design. Some gangsters obviously tried to get back part of their share, while the (average) fairness ratio remained almost invariant (24,3%), many gangsters voted in favour of appropriating the whole cake. Amongst the expressive elements decisive for the gangsters' voting decisions, revenge clearly took an important role.

If norms are ambiguous even in our well-structured experimental sessions, this is all the more true for real situations. Outside the economics laboratory, several, and sometimes conflicting norms apply to most real-world issues. As reality is ill-defined in this sense, interest groups are free to suggest various moral standards. If one and the same redistribution proposition can successfully be labeled as anti-rich, anti-farmer, or anti-children, different norms will

apply. The specification of a complete model of interest group activities in an environment of expressive voting is a task beyond the scope of this paper. However, the following points illustrate the most important elements that constitute such a theory:

(1) *Moral packaging*: In general, interest groups and politicians cannot hope to be politically successful if they bluntly defend their self-interests. Rather, their gain needs moral repackaging to be presentable to voters (hence the politician's value-laden rhetoric). One promising strategy is to include moral cues when designing political programs. Such cues may consist in measures which benefit groups of people generally acknowledged as being needy (the unemployed, single mothers). Good causes and widely accepted social goals (e.g., saving the environment) may also serve as moral cues. In both cases, the goals could be reached more efficiently without moral packaging.

(2) *Comparative advantage in the production of moral interpretations*: In our framework, comparative advantages in supplying voters with acceptable moral interpretations of political issues determine the power of parties and interest groups. This comparative advantage need not coincide with the strength of interest groups in Olson's (1965) sense. For the latter, to take up just one specific dimension, it is beneficial if their members are as homogenous as possible. In contrast, the moral approach to income redistribution emphasizes the benefits which accrue to otherwise rich groups that have a small number of poor members. Government support programs for farmers illustrate the point. Most of these programs benefit richer farmers more than proportionately. In the US, government subsidies double the income of the richest farmers while they raise the income of the poorest by only 50% (e.g., Schultze, 1972). If farming associations are dominated by rich farmers, why do they care about their poorer members at all? Based on a moral approach to voting, we would argue that by losing the poorer farmers as members, these associations forego the possibility to win the voter's heart (or at least to appeal to his conscience) by pointing to the needs of their poorest members. Therefore, poor farmers are able to grab a (small) piece of the cake although their associations are dominated by the interests of the rich members.

(3) *Agenda setting power*: If moral cues can be used to guide the voter's decision, the agenda setting power of committees and parliaments becomes even more important than traditionally assumed. However, a free press which produces its own moral interpretations of policy proposals designed by vested interests, and the openness of the political process (initiatives, referendums) serve as countervailing powers to the agenda setter's influence.

(4) *Communication*: In most instances, the political process will generate a number of moral interpretations for every proposal. A moral approach to income distribution then also needs to explain how individuals choose among these interpretations. Experimental evidence suggests that communication guides this selection process to some extent. In a variation of the basic dictator and gangster games discussed above, we allowed dictators to talk to other dictators, and gangsters to other gangsters before they made their decisions. These collusion games resulted in lower fairness ratios, i.e., dictators contributed less, gangsters appropriated more funds after having talked to other subjects in the same position. Since most societies are stratified, communication takes place more often within than across groups. This may serve to validate norms which imply low levels of transfers across groups.

(5) *Economic considerations*: As our experiments have shown, individuals behave more fairly if it is less expensive to do so. If the price effect applies to norm adherence, one may suspect that it also influences the choice of moral interpretations. People would then choose the norms which are relatively inexpensive to observe. A number of studies corroborate this conjecture (see, recently, Babcock and Loewenstein, 1997). Isaac, Schmidtz, and Walker (1989) find that individuals "cheap ride" in environments of voluntary contribution mechanisms with provision points and multiple positive-contribution equilibria. While trying to achieve the provision point to produce the public good, individuals seek "cheap" equilibria which imply low personal contributions. Similarly, subjects who preferred (larger) cash payments to themselves over (smaller) amounts of charity made out in their name accepted the cash emphasizing that it would allow them to make even more generous donations (Carter and Guerette, 1992). In this example, individuals found a morally acceptable interpretation even for their refusal to donate to the needy.

Quite often, the same norm appears to be compatible with completely different and sometimes even with opposing choices. Fehr and Gächter (1997) analyzed the effects of (ex-ante announced) ex-post information about individual contributions in a ten-round public good environment. Despite the ex-post information they find the familiar downward trend in individual contributions. What is interesting in our context is that new groups always start out with high levels of contributions even if subjects have already experienced the deterioration of contributions several times. We suspect that single deviations from the contribution norm serve as "excuses" to contribute less. When starting a new game, no such "excuses" exist and the norm applies. Once other players have violated the norm, one feels free to do the same and

thus contributes to a further decline in payments. Formally, this behavior is captured by Rabin's (1993) fairness equilibria.

Lobbies will be able to find moral arguments which support a decision that is in line with the economic interests of the agents for many political issues. If individuals seek inexpensive moral interpretations they will thus vote *as if* they followed economic logic in a "traditional" sense. However, one cannot assume that moral considerations always bend to economic interests. Therefore, the "as if" assumption is of limited value and the explanatory power of economic models can be improved by considering the underlying moral concepts (for an application to the feasibility of compensation mechanisms, see Frey, Oberholzer-Gee, and Eichenberger, 1996).

5. Conclusions

Based on experimental results, we have shown that fairness considerations influence human behavior. This is true for private decisions where the opportunity costs of acting fairly are fully taken into account. Dictators are willing to share part of their endowment with anonymous recipients, and gangsters refrain from appropriating all the funds available to them. Even in private decisions, we do not observe the corner solutions predicted by the income-maximizing hypothesis.

Considerations of fairness become more important as we move from the sphere of private decisions to democratic voting. This is due to a shift in prices which causes fair behavior to become cheaper. With regard to redistributive decisions, the prevailing social norms serve to moderate the inclination of gangsters to appropriate funds, while the dictators become more generous than in private decisions. Our empirical observations are consistent with the hypotheses that individuals observe social norms more closely if these imply smaller sacrifices and that subjects do not derive any additional benefits by being more generous than the norm indicates.

Since moral considerations are important for voting decisions, they must be considered endogenous to the political process. Politicians and interest groups will try to influence perceptions of morals and fairness. This creates conflicting views regarding the relevant social norm. As the price of norm-adherence systematically influences individual decisions, we speculate that economic considerations also guide the individual choice of social norms. However, even if social norms represent just a soft constraint on individual behavior, economic theory should no longer disregard possible influences of morals on political outcomes.

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Notes

1. Field evidence, however, highlights the importance of taking behavior: The aid to families with dependent children in the US, for example, does not only depend on the willingness of taxpayers to support such programs, but also on the (political) ability of the poor to demand such resources (Plotnick and Winters, 1985).
2. To test the robustness of the gangster game, we repeated the experiment in the Spring of 1997 with 24 students at the University of Pennsylvania. The procedures were identical to the ones described above. However, the endowments were allocated randomly (see section II.B. for the results of random allocation in Switzerland) and US$ replaced the SFr. Gangsters appropriated $4.98 on average. This corresponds to a fairness ratio of 29%.
3. The Basle experiments are thus directly comparable to the ones conducted at the University of Pennsylvania.

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