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What Shouldn't Money Buy?  
The Psychology of Preferences for Market Solutions  
to Allocation Problems

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# What Shouldn't Money Buy?

## The Psychology of Preferences for Market Solutions to Allocation Problems

### Abstract

This study explores the factors that shape the desirability of using market or non-market procedures as methods for allocating resources. Three issues were addressed in the study. First, do economic, political, and psychological factors influence preferences for market and non-market procedures? Results suggest that economic and psychological, but not political factors, shape procedural preferences. Second, does the social context of the allocation decision influence procedural preferences? Results suggest that preferences differ depending upon context, differences that are explained by changes in the weight placed upon economic and psychological factors. Third, how do psychological connections to the group influence the importance of economic, psychological, and political factors in shaping procedural choice? Results suggest that those who identify with their groups place greater weight on psychological factors when evaluating market and non-market allocation procedures.

## What Shouldn't Money Buy?

### The Psychology of Preferences for Market Solutions to Allocation Problems

As Tobin pointed out (1970), some goods are tradable via markets and some are not, because society, as Okun put it, “won’t put all of its eggs in the market’s basket” (1975: 13). But, why not? The goal of this paper is to explore why people feel that particular allocations should or should not be made via markets.

Decisions about whether goods are tradable through the medium of market prices vary by time, by situation, and by culture. Military conscription in the United States, for example, has been the subject of market transactions in the past, but currently is not; trading in essential goods for which the supply is inelastic – such as sugar in wartime or snow shovels during a blizzard – is frequently viewed as wrong, and has sometimes been prohibited (Kahneman, Knetsch, and Thaler, 1986; Tobin, 1970); and the acceptability of using markets for particular transactions, ranging from selling blood to trading in land, varies widely across cultures (Fiske, 1991).

This study focuses on markets at one time and in one culture. It explores contemporary American society, a society in which: 1) the use of market pricing is as extensive as it has been in any culture (Fiske and Tetlock, 1997); and 2) the scope of market use is expanding as markets are introduced to allocate a wide range of social benefits and burdens ranging from air pollution (Hahn, 1989) to tickets to the Olympics (Gorell, 2001). Our interest in markets in American society flows from the recognition that, even

in the U.S., “People everywhere are, to some extent or with some frequency, resistant to market solutions” (Shiller, Boycko, and Korobov, 1991: 385). This study explores the factors that shape that resistance.

The acceptability of markets as an allocation mechanism is important to organizations both internally and in their relationship to their environment. In both respects, organizations need to understand how to function in ways that create and maintain loyalty and commitment and establish legitimacy both with their members and with external audiences (O’Reilly and Chatman, 1986; Elsbach, 1994). This can be accomplished through markets and prices, or through non-market mechanisms. The typical non-market mechanisms found in organizations reflect hierarchical authority relationships (Williamson, 1985).

Using markets, within organizations (i.e. by transfer pricing) or among organizations, allows for a minimal level of involvement of a central authority. To the degree that people endorse markets as an allocation mechanism they are likely to prefer to minimize centralized control of the allocation of resources, resisting authorities and rules. For example, to the extent people view America’s economic market system as a desirable social allocation mechanism, they resist government regulation of markets (Kluegel and Smith, 1986). To the degree that people are not happy with market allocations, however, other mechanisms, such as the use of organizational rules and authorities for making allocations, are relatively attractive and the decisions of centralized allocation procedures are more readily accepted (Sondak, 1990).

It is useful for organizations to understand the relative acceptability of markets and of varying alternative allocation mechanisms before implementing policies. Affirmative action and comparable worth programs, for example, are designed to constrain the outcomes of market allocations. These programs have experienced fierce opposition among members of a public that generally views markets as the appropriate allocation mechanism for money and status. However, organizations have had greater success gaining support for such non-market procedures when they have designed them to be consistent with people's views about what is an acceptable alternative to markets in this context (Kravitz, 1995; Kravitz and Klineberg, 2000).

Investigations into attitudes toward the use of markets have relied on economic (Frank, 1985; Elster, 1992), sociological and political (Calabresi and Bobbit, 1978; Fiske, 1991; Fiske and Tetlock, 1997; Hahn and Noll, 1983), or psychological insights (e.g., Kahneman, Knetsch, and Thaler, 1986). These discussions, like those in both historical and contemporary philosophical traditions (Locke, 1988; Smith, 1994; Marx, 1964; Rawls, 1971; Nozick, 1974; and Walzer, 1983), identify several issues that might be potentially important in shaping attitudes about markets, but there is little empirical work that directly investigates the factors underlying individuals' preferences for using markets as an allocation mechanism.

One study that does explore individual preferences about the use of markets is by Boyes and Happel (1989). They report a case study using markets – auctions – to allocate

faculty offices. This innovative use of pricing by the chairman of the economics department at a public university's business school was popular among the chairman's economics colleagues, but engendered negative reactions from various constituencies once it was publicized in the student newspaper and later by the local press. Many members of the public and the state legislature felt it was inappropriate to sell state property in this way and the controversy died down only because the money collected went to a scholarship fund.

Shiller, Boycko, and Korobov (1991) compared attitudes toward markets among people in the United States (New Yorkers) and Russia (Moscovites) to test the culture-based argument that people in the former Soviet Union, because of their distinct socialist history and consequent cultural values, would be less likely to accept using markets to allocate resources. They found that people in both countries accepted markets for some allocation situations, but both groups resisted the use of markets in other settings, largely because of concerns about fairness. For example, Americans and Russians alike believed that price increases in response to temporary shortages were unfair. However, the extent to which markets were acceptable was not found to be the same in the two societies. Americans were generally more likely to endorse the exchange of money in a wide variety of social contexts such as charging friends interest on money loaned to them, accounting carefully for expenses incurred in groups of friends, and selling a place in a queue.

Sondak (1998) studied MBA students' attitudes toward using markets to allocate space in oversubscribed elective courses. He found that although their expected outcomes from market allocations influenced students' preferences for allocation mechanisms, the major factor shaping their preferences was students' expectations about how using markets would affect the quality of the interpersonal relations within the business school.

The research outlined makes clear that people think that there are limits to the range of situations in which markets are a suitable allocation mechanism. It does not fully explain why people hold such views. The first goal of this paper is to go beyond past research by considering empirically the utility of three competing approaches – economic, political, and psychological – in explaining what leads people to endorse markets as an allocation mechanism.

### THREE APPROACHES TO UNDERSTANDING VIEWS ABOUT MARKETS

#### Economic Models

One approach to markets is economic. According to this approach, individuals are assumed to have well-specified preferences over various alternative outcomes (often involving their own wealth or access to some desired good) and prefer the alternative that maximizes their expected value (Simon, 1983). As such, people's self-interested judgments about the desirability of the outcomes that social decision processes generate will in large part shape their reactions to and preferences for markets; in addition to concern for their own outcomes, individuals are likely also to value the public interest, or outcomes that are created for their group (Buchanan, 1989).

The economic perspective leads to several hypotheses. First, preferences for market vs. non-market procedures will be shaped by judgments about the anticipated personal outcomes that would occur through the use of alternative procedures such as queues or lotteries. Second, because individuals value the outcomes obtained by the groups to which they belong, individuals' procedural preferences will be shaped by judgments about the impact of the use of varying procedures on the success of their groups. In addition, Sah (1987) compared markets with non-market allocation systems and showed analytically how markets are advantageous to the rich while queues may be better for the poor. A third hypothesis, therefore, is that preferences for markets will be positively associated with income.

### Political Approaches

Political approaches hypothesize that the key issue shaping people's procedural preferences is an adherence to their ideological positions which serve as allocation heuristics that specify who gets what, when, and how (Hamill, Lodge, and Blake, 1985; Fiske and Tetlock, 1997). Libertarians, for example, are more willing to use markets to allocate resources than are Marxists, who broadly oppose market solutions (Tetlock, Peterson, and Lerner, 1996). This argument leads to the political hypothesis that general political ideology will shape reactions to the use of markets as an allocation procedure across a range of specific allocation problems.

## Psychological Models

Psychological approaches suggest that market solutions to allocation problems are evaluated according to perceptions of fairness. Kahneman, Knetsch, and Thaler (1986) showed that evaluations of market transactions were shaped by people's desire to enforce norms of fairness. Other studies also find that people are willing to incur costs, both on others and on themselves, to enforce fairness norms in allocation situations (Bies, Tripp, and Neale, 1993; Fehr, Kirchsteiger, and Riedl, 1993; Rabin, 1993).

These findings are consistent with the psychological literature on social justice, which finds that people are motivated to act in ways that they view as fair (Tyler, Boeckmann, Smith and Huo, 1997; Tyler and Smith, 1997), a motivation that stems from the personal desire to maintain a positive self-identity. This identity goal is furthered when individuals are treated with respect and dignity and, more broadly, by a positive socio-emotional climate within groups, which is also enhanced by treatment with dignity and respect (Tyler and Blader, 2000; Tyler and Lind, 1992). In particular, studies suggest that people are concerned about the fairness of the procedures used to make social allocations (Tyler, et al., 1997); that fair procedures are linked to a positive socio-emotional climate (Tyler and Blader, 2000); and that fair procedures support a positive self-identity (Tyler, et al, 1997).

This procedural justice perspective is supported by the procedural preferences found in experimental games conducted by economists. These studies suggest that there is "pressure to implement social procedures that people broadly deem fair" since the "results

produced by an unbiased procedure tend to be more acceptable than those produced by a biased procedure (Bolton, Brandts, and Ockenfels, 2000: 22)". Consistent with this finding, Arrow (1963) suggests that the social decision process of allocating resources is often itself of value.

Psychological studies of procedural preference in dispute resolution settings similarly suggest that people prefer dispute resolution procedures, in part, because they judge them to be procedurally fair (Thibaut and Walker, 1975; Tyler, Lind, and Huo, 1999).

Procedural justice models further argue that people's evaluations of the justice of allocation procedures are shaped by distinct relational criteria that differ from judgments about the anticipated fairness or favorability of the outcomes expected to result from procedures (Tyler and Lind, 1992). These criteria link procedural concerns to individuals' desire to be treated with dignity and respect and to promote a favorable socio-emotional climate in the groups to which they belong (Tyler and Blader, 2000).

We predict, therefore, that people will endorse markets as an allocation mechanism to the extent that they believe markets will 1) be procedurally fair and 2) contribute to a favorable socio-emotional climate in the group

Summary. Three models—the economic, the political, and the psychological—all suggest hypotheses concerning the factors that will shape people's preference for using market and non-market allocation procedures. The first goal of this study is to test those hypotheses.

## CONTEXTUAL CONSIDERATIONS

A second goal of this study is to investigate whether people's preferences are constant, or vary depending on the allocation context. One possibility is that people's views about the appropriateness of allocation procedures are general and apply broadly across situations. Some observers, however, such as Elster (1992), argue that contextual variables are likely to affect preferences for allocation mechanisms, so that a person could react very differently to the same allocation procedure within different allocation contexts. This prediction suggests that attitudes toward markets are context-dependent.

In this study we examine the influence of three key contextual issues: (1) whether a market is framed as making allocations in private work or public community settings; (2) whether a market is framed as allocating benefits or burdens; and (3) whether the market is framed as an allocation procedure or a decision rule.

### Framing the Structure of the Social Relationship: Work vs. Community Settings

One way of looking at the framing of the choice of allocation mechanisms is to think about the structure of the social relationships that exist in the social context in which that choice is made. Fiske and Tetlock (1997) hypothesize that allocation preferences and social structures will correspond, so that people in social contexts that already widely use market allocations will prefer to use markets in the future. There is some evidence in favor of this hypothesis. Hahn (1989) suggests that markets for solving environmental problems have been most successfully implemented where property rights had previously been most clearly defined. Similarly, Shiller et al. (1991) suggest that institutional and

political history might explain why Russians resist the exchange of money to a greater extent than Americans.

We are particularly interested in whether attitudes toward markets are affected by whether resources are allocated within private work organizations or within public communities. It might be that markets are more acceptable in work organizations than within community contexts because work organizations are generally organized according to rules about the exchange of property, while communities are more typically the domain of non-tradable rights such as voting. However, as Tobin (1970) and Okun (1975) point out, rights belong to people as members of a social unit, and it may be that the nature of the social relationships among members of the social unit is a more important factor for attitudes toward markets than is the prevalence of private property within that context.

If people in work organizations feel closer to one another than do the people in communities, as might be predicted based on the strong levels of identification found within many work organizations (Tyler and Blader, 2000), markets will be less acceptable in work settings than in communities. On the other hand, if people feel stronger ties to their communities, markets should be less acceptable there. In families, for example, in which the strongest ties are typically found, there is particularly strong resistance to the use of market solutions (Fiske and Tetlock, 1997).

We predict that the acceptability of markets is inversely related to the closeness of the

interpersonal relationships in the relevant social context. In this study we expect people to be less supportive of market solutions in work settings, because they have closer social connections in that context when compared to the typical level of social connections existing in most contemporary American communities. We further expect that the weight people place on various factors in evaluating markets will depend on the closeness of the social connections in the context; when relationships are close, people will place greater weight on procedural justice and socio-emotional concerns and when they are distant, they will focus on economic concerns.

#### Framing Allocations as Involving Scarce Benefits vs. Overabundant Burdens

The resources that are to be allocated might be either scarce benefits or overabundant burdens. Past research suggests that the allocation of benefits and burdens is made via different decision processes and that people do not automatically think of benefits and burdens as simply the inverse or absence of the other (Törnblom, 1988; Sondak, Neale, and Pinkley, 1995; Mannix, Neale, and Northcraft, 1995; Northcraft, Neale, Tenbrunsel, & Thomas, 1996). For example, work on the psychology of contingent valuation by Northcraft et al. (1996) found that willingness to pay for a resource and willingness to accept money in exchange for a resource heavily depended on whether the resource was positive or negative. Additional evidence indicates that benefits and burdens are allocated according to different norms of distributive justice (Sondak et al., 1995).

Sondak et al. (1995) argued that because negative events activate greater causal reasoning, allocating burdens is likely to elicit similar processes and thus they found that allocations based on contributions are preferred for overabundant burdens while equality

is preferred for scarce benefits. Based on this finding, we expect that markets, which balance what is contributed in exchange for what is received, will be more acceptable for the allocation of burdens than for the allocation of benefits.

### Framing Markets as an Allocation Procedure or as a Decision Rule

Markets are a procedure in which the willingness to give or accept money shapes allocation in an open exchange (Samuelson, 1970). They are also a decision rule by which desired goods are distributed among people according to who will pay the equilibrium price. For example, desired goods, such as works of art, go to the people who will pay the most to gain them and undesired burdens, such as toxic waste dumps, go to the people who will accept the least compensation for taking them. As an allocation procedure, markets are non-coercive and decentralized, and do not require the intervention of government regulations and regulators (Coase, 1988; Glaeser, Johnson, and Shleifer, 2001). They also can be amoral and socially isolating (Lane, 1991). As a decision rule, markets manifest individual wants but, because they depend on existing distributions of wealth, they violate egalitarian norms (Calabresi and Bobbit, 1978; Walzer, 1983).

Economic analyses often incorporate both concepts of markets – as a procedure and as a decision rule – in that they focus on the impersonal and efficient working of supply and demand to specify who receives what. Similarly, political analyses may rely on or imply both ways of framing markets – as a social decision making process or as a way of determining outcomes. For example, ideologies that focus on individual autonomy frame

the choice of using markets in procedural terms (Nozick, 1974); conversely, ideologies that focus on equality of distribution frame markets as a decision rule (Rawls, 1971). Psychological research has found that when descriptions of decision making procedures focus on the distribution of rewards produced by the decision, procedures are judged more strongly according to the outcomes people receive. When descriptions of decision making procedures focus on the various decision-making considerations that contribute to the decision, however, procedures are judged more strongly according to their effects on social relationships and interpersonal harmony (Tyler et al., 1997; Tyler and Blader, 2000).

This study tests the influence of framing markets as a procedure vs. as a decision rule on how people decide whether markets are acceptable allocation mechanisms. We expect that when markets are framed as a decision making procedure procedural justice and socio-emotional considerations will be more important for judgments about the acceptability of markets, but when markets are framed as a decision rule economic considerations will be more important.

Summary. These contextual arguments all hypothesize that markets will be differentially acceptable in varying social contexts. Further, we expect that this differential acceptability will occur because people in differing social contexts will put different weight on economic, political, and psychological issues when evaluating the desirability of allocation procedures.

## IDENTIFICATION

Recent work in psychology has shown that how people evaluate procedures depends on the strength of their identification with the group in which those procedures are used (Tyler and Blader, 2000). Our final hypothesis, based on the third goal of this paper, tests the identity hypothesis, which developed from psychological models concerning the motivations that lead people to care about the procedural justice of group decision making.

The relational model argues that people are motivated by the desire to affirm the status of the groups to which they belong, as well as their status within those groups (Tyler and Smith, 1999). When identity issues are salient to them, people focus especially heavily on the fairness of group procedures (Tyler and Blader, 2000; Tyler and Smith, 1997, 1999). This tendency suggests that strength of identification with the group will directly affect the weight that people place on procedural justice and its effects on the group's socio-emotional climate when evaluating market and non-market allocation procedures.

This argument is important for understanding the psychology of allocation procedures because it suggests that the acceptability of markets may vary depending on the strength of people's psychological connection to their group, organization, or community. If, as hypothesized, people find markets less acceptable when they value procedural justice and a positive socio-emotional climate, then the question is when will people value these aspects of their organization or community. The identification argument suggests that one factor that will shape the strength of the person's concern about the socio-emotional

climate of their group, and the fairness of its procedures, is the strength of their psychological connection to their group. The identification argument is that when people draw their identity from their group, they are more concerned about the socio-emotional climate of that group and, hence, focus more heavily on whether the allocation procedures in their group are fair. This hypothesis suggests that markets will be generally less acceptable in groups that have stronger social bonds and feelings of common identity.

Summary. The identification hypothesis is that, because procedural justice and social identity are intertwined, greater identification with a group will lead to a greater concern with the fairness of the procedures used when making allocations in the group, with the quality of one's personal treatment, and with the socio-emotional climate of the group.

## METHODS

In this study respondents were presented with allocation decisions and asked to report their preferences for various procedures for making those decisions. For example, respondents were asked how their company should decide who would receive a desirable parking space or who would work on Christmas. Each respondent was asked about the desirability of making that choice via market pricing – giving the parking space to the person who was willing to pay the most for it or having the person work on Christmas who would do so for the least money. Each respondent was also asked about the desirability of making that same allocation via one of eight alternative non-market procedures. The alternative non-market procedures – described in more detail below –

included consensus, lottery, voting, discretionary authority, seniority, equity, equality, and need.

Respondents also evaluated the consequences of using particular procedures to make decisions. For each of the two procedures they considered (market pricing and one of the eight non-market alternatives) respondents made a series of judgments about the likely consequences of using that procedure to make the allocation. For example, if their organization allocated parking spaces via a particular procedure; how likely was it that (1) “they would feel they had been treated with dignity and respect” during the allocation process; that (2) “they would receive the outcome they desired”; etc.

We solicited survey responses from 5000 randomly selected individuals in the United States. The survey was administered by Knowledge Networks via the internet. The sampling strategy used by Knowledge Networks goes beyond the population of existing internet households to sample all households in the United States with telephones by providing a random sample of households with internet access in exchange for completing surveys. The sample is demographically representative of the U.S. population as defined by census data. The sample was available on-line to assigned households for approximately one week in December, 2000; a total of 2824 respondents completed the survey.

Each respondent read a description of an allocation problem and two possible mechanisms for solving the problem; he or she then assessed each of these mechanisms

on a variety of dimensions. The allocation problem was described within either the context of the workplace or the community. The problem concerned either scarce benefits or overabundant burdens.

Each respondent was asked to respond about pricing (i.e., a market mechanism) and one of eight other procedures. The alternative procedures reflect the dual nature of markets as an allocation procedure and an implied standard of distribution. To frame them as an allocation procedure, markets were compared to other common allocation procedures (consensus, lottery, voting, authority, and seniority). These procedures operationalize alternative procedures identified by Fiske (1991) as common instances of communal sharing, equality matching, and authority ranking, which, along with market pricing, are according to Fiske the four universal structures of allocation and other social decisions. To frame them as an implied distribution standard, markets were compared to other allocation rules (equity, equality, and need). These three rules have been often studied by psychologists concerned with the distribution of outcomes (Deutsch, 1985). The design of the survey thus was 2x2x8 (workplace/community x benefits/burdens x allocation mechanism), plus the additional distinction within the comparison mechanisms between allocation procedures and allocation rules.

The main dependent variable was endorsement of a non-market allocation mechanism as a social decision procedure, as compared to market pricing. Mediating variables included a variety of economic, political, and procedural justice concerns including outcome favorability and control; income; political ideology; enhancement of the long-term

success of the relevant group; respect for the rights and dignity of individuals; and intra-group conflict and relationships. We also included demographic information in our analyses.

### Independent Variables

The contextual independent variables were manipulated by means of the scenario that presented the allocation problem to the respondents. For work organizations, we asked respondents to consider alternative ways of assigning desirable parking spaces at a new location (benefit) or deciding who should work on Christmas and New Year's Day (burden). For community settings, we asked respondents to consider how to decide which neighborhoods would receive increased police patrols funded by new federal money (benefit) or which would receive new halfway houses for recently released prison inmates (burden).

All respondents were asked to evaluate market pricing as an allocation mechanism for solving the problem that was presented to them. In all cases this mechanism was labeled "Pricing" and was described as allocating the benefit to those who would pay the most money to acquire it or allocating the burden to those who would demand the least money to accept it. The comparison mechanisms were labeled "Equity," "Equality," "Need," "Consensus," "Lottery," "Voting," "Discretionary Authority," and "Seniority."

Examples of how these mechanisms were described include: "Those employees who have contributed the most to the organization will get the parking places (Equity)"; "Each employee gets to park in the best places on an equal number of days (Equality)"; "The

employees who have the most need for them will get the best places (Need)”; “Let employees discuss and come to agreement about who will get the best parking places (Consensus)”; “Employees who win a lottery will get the best parking places (Lottery)”; “Let employees vote about who will get the best parking places (Voting)”; “The boss will decide who gets the best parking places (Discretionary Authority)”; and “The employees who have worked for the organization the longest will get the best parking places (Seniority).” Equity, equality and need are examples of outcome rules, while the other comparisons involve non-market procedures.

Economic variables. The economic perspective was represented by two scales and self-reported income. Respondents were asked how use of particular procedures would: (1) influence the likelihood that they would get the outcome that they wanted and (2) give them control over the outcome achieved. The reliability of these two-item scales was Chronbach’s alpha = .74 for pricing and Chronbach’s alpha = .75 for the alternative mechanisms. Respondents were also asked how the use of particular procedures would influence the likelihood that their group – that is, their organization or community – would be successful in the long-run. Respondents were asked to report their 1999 household pre-tax income.

Psychological variables. The psychological perspective was represented by three scales. The first scale measured the procedural fairness of the allocation mechanisms. Two questions were asked concerning: (1) the likelihood that the respondent would feel fairly treated and (2) the fairness of the allocation procedure. The reliability of these scales was

Chronbach's alpha = .83 for pricing and Chronbach's alpha = .85 for the alternative mechanisms.

The second scale reflected individual level socio-emotional concerns. Four items were used to assess how each procedure would: (1) influence the likelihood that the respondent would feel treated with respect; (2) influence the likelihood that the respondent's rights would be respected; (3) influence the respondent's trust that his or her needs and concerns would be taken into account; and (4) influence the likelihood that the allocation would be consistent with the respondent's personal ethical standards. The reliability of these scales was Chronbach's alpha = .91 for pricing and Chronbach's alpha = .92 for the alternative mechanisms.

Third, at the group level, respondents were asked about: (1) the likelihood that use of the allocation procedure would lessen conflict in the work organization or community; (2) the likely way that use of the procedures would shape feelings among people in their group toward each other; (3) the likelihood that use of the procedure would shape the ability of people in the work organization or community to work and live well together in the future; and (4) the consistency of the procedures with the values and standards of their group. The reliability of these scales was Chronbach's alpha = .86 for pricing and Chronbach's alpha = .87 for the alternative mechanisms.

Political variables. The political ideology scale was adopted from Rasinski (1987) and contained 10 items that measured attitudes toward social welfare issues; agreement with

these items indicated more conservative attitudes toward these issues. The items were: “Many poor people simply do not want to work hard”; “Most poor people do not have the ability to get ahead”; “Maybe it is not their fault, but most poor people were brought up without ambition”; “All things considered, most people get just what they deserve in life”; “There are too many people getting something for nothing in our society”; “Anybody receiving welfare in this country should be made to work”; “Basic services such as health care and legal assistance should be provided free to all citizens (reversed)”; “Those who are well off should help those who are not (reversed)”; “It is not right for people to go hungry (reversed)”; “Compassion for others is the most important human value (reversed).” The reliability of the scale was Chronbach’s  $\alpha = .64$ .

Demographic variables. The demographic variables included age, sex, race, education, and employment status.

#### Dependent Variable

The dependent variable was calculated as the difference between the endorsement of pricing and the alternative allocation mechanism as solutions to the allocation problem. We measured the endorsement of each mechanism by combining three items: “How desirable do you think it would be to make this decision this way”; “How satisfied would you be with the outcome”; and “How willing would you be to accept a decision made this way.” The reliability of these three-item scales was Chronbach’s  $\alpha = .88$  for pricing and Chronbach’s  $\alpha = .91$  for the alternative mechanisms.

## RESULTS

Before addressing the three key questions of this study, we can compare the desirability of market and non-market procedures. The means for each allocation method are shown in Table 1. The results suggest that, in general, respondents viewed making allocations by markets as undesirable. Every alternative was significantly more desirable than markets except the use of equity. As suggested by earlier studies, there are clear limits to people's enthusiasm for making social allocations via markets.

INCLUDE TABLE 1 HERE

The one exception to the general statement that people preferred non-market solutions to allocations according to price was the finding that the desirability of using equity was not significantly different from that of markets. Equity is the decision rule that is implied by markets (Fiske, 1991); that respondents distinguished between markets and the other allocation mechanisms, but not between markets and equity, validated the distinction we made between markets as procedures and markets as decision rules. This finding supports our comparing the five allocation procedures (consensus, lottery, voting, authority, and seniority) and the three decision rules (equity, equality, and need), which we thought of as two distinct groups of non-market alternatives, to markets.

### Factors Shaping Desirability

The first question we address is the power of economic, political, and psychological models for explaining people's preferences for market and non-market allocation procedures. We used regression analysis to compare these models. The results of the

overall regression are shown in Equation 1, Table 2. The regression shows the effects of the economic, political, and psychological variables, as well as of the demographic information for the respondents. In addition, three contextual factors are included: work organization/community, benefit/burden, framing of markets as outcome/procedure.

The results of the regression first indicate substantial support for the economic perspective on allocation preferences. Overall, as shown in Equation 1, economic judgments had a significant influence ( $\beta = 0.37, p < .001$ ), distinct from the influence of psychological and political judgments. As Equation 2 shows, both anticipated impact on personal outcomes and anticipated impact on group outcomes influenced allocation preferences. Although income had no effect, an important factor shaping people's choices among possible allocation procedures is their assessment of their self and group interest.

INCLUDE TABLE 2 HERE

In addition, Equation 1 shows that people are strongly influenced by their psychological judgments about the procedural fairness of allocation procedures ( $\beta = 0.52, p < .001$ ). So, in addition to their concerns about the favorability of the outcomes received under different allocation procedures, and the influence of the use of different procedures on the long-term viability of work organizations or communities, respondents were concerned about the procedural fairness of allocation procedures.

We found no evidence to support the political perspective on allocation preferences, because ideology had no significant influence on attitudes toward allocation procedures. This result suggests that liberals and conservatives were equally receptive to the use of markets as mechanisms for allocation in the work and community settings studied. It is possible, of course, that the influence of ideology is less direct. Ideology may influence preferences by influencing economic or psychological judgments. However, the results of the regression clearly suggest that ideology makes no direct contribution to our understanding of preferences for allocating resources via various mechanisms.

Finally, the regression indicates that context has some influence upon procedural desirability. The desirability of market procedures is higher in some situations than it is in others. We explore this aspect of the findings below.

#### Factors Shaping Socio-Emotional Climate

Psychological models of procedural justice suggest that people care about procedural justice because they believe that using fair procedures communicates respect toward individuals, such as themselves, and promotes a favorable socio-emotional climate within groups. We used regression analysis to test the hypothesis that people anticipate that the fairness of procedures will shape their personal feelings and the socio-emotional climate of their group. The results of the regressions are shown in Table 3.

INCLUDE TABLE 3 HERE

The results shown in Table 3 strongly support the argument that people associate the fairness of allocation procedures with their anticipated impact on personal feelings and interpersonal climate. The primary factor that people feel will shape their personal feelings and the impact of the allocation on the interpersonal climate in their organization is the fairness of the allocation procedure. In addition, economic and political variables have some influence on anticipated personal feeling and group climate. Those who think they will gain from the allocation are more likely to say that they will feel good afterwards, as well as that the group will have a good interpersonal climate. Liberals are also more likely to say that they will feel good after the allocation and that the group will have a positive interpersonal climate.

#### Social Context Effects

How does framing influence people's feelings? Decisions were framed in three ways including, first, by the context of the allocation, which was either in a work organization or a community; second, by the resource being allocated, which was either a benefit or a burden; and finally, by whether the choice was framed as being between procedures or allocation rules.

Do preferences for market allocations change across context? To answer this question, we compared the average desirability of markets in these different contexts. The results are shown in Table 4. They indicate that all three of the contextual variables shaped the desirability of markets. First, respondents were more likely to prefer markets in a community (i.e. public) setting, as opposed to in a work organization (i.e. private setting).

## INCLUDE TABLE 4 HERE

In addition, people were more likely to prefer markets for burdens than they were for benefits. So, they were more favorable toward the idea of having the person who would work for the least amount of money work on Christmas than they were for having employees bid on desirable parking spaces. Similarly, they were more favorable to having neighborhoods bid on accepting halfway houses than on new police patrols. The results suggest that people think that allowing people to freely choose to take on burdens in exchange for money – as opposed to gain benefits – is especially important.

Finally, people were more likely to prefer markets when their choice between markets and other methods was framed as a choice between decision making procedures rather than between rules of distributing resources. In other words, when they were presented with the choice of distributing resources by markets (which, as Table 1 shows, respondents did not differentiate from equity), as opposed to determining allocations by need or equality, people were more likely to reject the market, relative to when they were presented with the market as a procedure that was compared to other procedures, such as a lottery.

People were more favorable toward using markets when they were framed as a procedure that allows individuals free choice more than when they were framed as a method for allocating by equity. This finding is consistent with the suggestion that people have mixed feelings about the idea of allocating communal goods to whomever has the most

money available to pay for them. For example, people resist allocating water or electricity during periods of scarcity by pricing mechanisms because they feel that doing so denies these resources to people who might need them (Tyler and DeGoey, 1995). However, presenting the market as a decision making procedure seems more acceptable because it evokes the image of free choice implicit in the concept of a market.

We can also assess the weight placed on economic and procedural justice issues when people are considering whether to allocate by markets in different social contexts. That is, we can examine whether there are differences in the degree to which people choose markets because of their economic or psychological consequences within different contexts. To do so, we first considered the weight placed upon economic impact and upon evaluations of whether or not the allocation process reflected procedural justice. We included interaction terms to reflect differences in the weight given to these issues depending on the social context (e.g. work organization vs. community, etc.). The regression analyses are shown in Table 5a.

Table 5a includes three equations. Each equation includes interaction terms for one of the three social context variables considered in this study. For example, Equation 1 includes interaction terms reflecting the influence of whether respondents were thinking about the domain of work vs. a community on the weight they placed on economic or psychological factors when deciding how they felt about market vs. non-market allocation mechanisms. Equation 2 shows the same analysis, but includes interaction terms reflecting differences in the weight given to economic and psychological factors

depending upon whether the resources being allocated were benefits or burdens. Finally, Equation 3 shows the same analysis with interaction terms for differences linked to whether markets were presented as a decision rule or an allocation procedure.

The regression results indicate that all three contextual variables shaped the weight put upon economic variables. Specifically, economic considerations were more important when resources were public rather than private, benefits rather than burdens, and when markets were framed in terms of the outcomes they produce rather than as allocation procedures. In addition, when resources were linked to work organizations (private resources), people were especially concerned with procedural justice.

INCLUDE TABLE 5a HERE

A similar analysis can also be performed comparing the weight placed upon people's judgments about economic impact and their views about impact on the group's socio-emotional climate. As is shown in Table 3, procedural justice was linked to the general socio-emotional climate of a group. However, that climate reflects a broader judgment of the quality of interpersonal relationships and the influence of that broader judgment on the endorsement of markets may vary in importance depending on social context.

The results of that analysis are shown in Table 5b. They indicate that when markets were framed as decision rules judgments about economic impact were given more weight while when they were compared to other procedures people paid particular attention to possible impact on socio-emotional climate.

## INCLUDE TABLE 5b HERE

### Identification

We expected people in this study to be less concerned about their connection to their communities because their work organizations are more central to their identity (Tyler and Blader, 2000). This expectation was met. People were less strongly identified with their communities than they were with their work groups (mean for work = 3.93 (sd = 0.94) and mean for community = 3.58 (sd = 0.96), with high scores indicating high identification; this difference was significant:  $t(2802) = 9.06, p < .001$ ). Because people identify less with their communities than with their organizations, we expected those making allocations in public settings to be less strongly concerned about the feelings and relationships that they would have after an allocation is made using a market or a non-market procedure, but more concerned about outcomes, than those who considered alternative allocation mechanisms within a work setting. Conversely, we expected that those in work settings would be more concerned with how a decision affects procedural justice and the socio-emotional climate than those considering these effects in community settings.

We tested this identification argument using regression analysis. The analysis used two independent variables to predict preferences. Those variables were (1) a summary of economic influence (individual and group benefits) and (2) a summary of procedural justice and socio-emotional impact (procedural fairness, personal feeling, group climate).

We included interaction terms to test the hypothesis that people will care more strongly

about procedural/socio-emotional issues when they identify more strongly with their group (that is, their work organization or community).

Table 6 shows the results of the analysis. As predicted, there was a significant interaction between identification with the group and the weight placed upon procedural/socio-emotional issues when assessing the desirability of markets. As expected, those who identified more strongly with the relevant group were more heavily influenced by procedural/socio-emotional concerns when making their judgments.

INCLUDE TABLE 6 HERE

## DISCUSSION

We conducted this study to investigate why people prefer to use markets to distribute some resources but not others. Our results suggest that several factors are important in understanding how people make choices among possible allocation procedures.

One issue that shapes preferences for market and non-market allocation procedures is anticipated economic outcomes. People's preferences are to an extent shaped by their personal self-interest, with people choosing to make allocations using the procedure that they think is the most likely to lead to outcomes that they personally desire and view as favorable. Further, people have a group or organizational level conception of self-interest. They prefer to use procedures for making allocations that they feel will lead their group to be effective, viable, and successful in the future. Income had no effect on attitudes toward markets. Because perceived self-interest did influence their attitudes,

one possible explanation for this pattern of results is that people do not realize that their wealth is related to how market allocation affects their outcomes. Alternatively, the scenarios we used might not have been perceived to provide an opportunity for the rich to benefit from their wealth.

People's preferences among allocation procedures are also influenced by psychological issues linked to their anticipated feelings and their expectations about the future interpersonal climate in the organization or community. People choose allocation procedures that they think will lead them to feel good about themselves and their relationship to the group. People also prefer allocation procedures that they think will lead to interpersonal harmony and to a favorable socio-emotional climate in the group. Our findings suggest that people desire to use procedures that they think are fair, and thus to enhance both personal well-being and the socio-emotional climate in the group.

The results of the study do not support the argument that people's views about markets are shaped by political variables such as their general political ideology. No direct influence of ideology was found for preference for market vs. non-market allocations. This result suggests that, overall, liberals and conservatives do not differ in their willingness to use markets to make allocations in work and community settings.

We may have found no influence of political ideology on attitudes toward market and alternative allocation mechanism because the ideology scale for social welfare may not very well apply to concrete and personal allocation problems of the type on which we

focused. Here people were trying to decide who would receive a particular parking spot, would have more police patrols, would work on Christmas, or would have a half-way house in their neighborhood. These issues may not trigger the kind of ideological concerns measured by our scale.

In addition, while buying and selling some resources – human organs, for example – is likely to elicit outraged responses from many people (Fiske and Tetlock, 1997), the resources that we asked about were not ones for which most people would find it taboo to consider discussing such an idea. For example, Tetlock et al (1996) report a study in which only those at the extreme ends of an ideology scale found it immoral to buy and sell most forms of labor and property. The responses to our ideology scale indicate that very few respondents were at the extremes of the scale (the scaled ranged from 1 to 5, with low scores indicating conservatism; the mean response was 3.33; the standard deviation of the responses was .58).

This study further finds that people's views about allocations are shaped by contextual issues. One contextual issue we investigated is whether markets are framed as a decision making procedure or as a distribution rule. As a procedure, people have the freedom in markets to decide how much to pay in exchange for something desirable or how little to accept in exchange for something undesirable. As a distribution rule, the willingness to pay or the willingness to accept compensation determines allocations. We found that respondents evaluated the choice about whether to allocate via markets or some other non-market mechanism differently depending upon whether or not we presented the

market mechanism in terms of another decision making procedure or in terms of another allocation rule. When the alternative to markets is another procedure, e.g., a lottery, people focus on how the use of each procedure will shape the interpersonal socio-emotional climate in the group. When the alternative to markets is another decision rule, e.g., equality, people focus on the consequences of these alternative decision rules for the long-term effectiveness and success of the group.

That this way of framing the choice among alternative allocation mechanisms affects people's preferences suggests that it may be possible to influence the degree to which people experience a market mechanism for a particular allocation as being desirable. The same market mechanism will be evaluated differently based upon the frame within which it is considered – if it is viewed as a procedure, it will be evaluated in more strongly socio-emotional terms than if it is viewed as a decision rule. As with other framing effects (Pinkley and Northcraft, 1994; Sondak and Moore, 1993; Tversky and Kahneman, 1981), our findings suggest that people's preferences are malleable and influenced by the manner in which problems and issues are presented to them. By choosing the frame for such choices, organizations and managers, as well as political leaders, might be able to decrease the controversies that often surround their allocation decisions.

This study suggests that two additional aspects of context also matter. It does so by showing that people view different allocation mechanisms as preferable depending upon whether the resources and setting are public or private and whether the allocation involves a benefit or a burden. People in this study were most willing to make market

allocations in the public arena and when burdens were involved. There is no simple preference for or against the use of markets, a preference of the type that might flow from general ideology; instead, people have more nuanced views about the desirability of markets and shape their preferences in reaction to the nature of the resources being allocated and the social context within which an allocation occurs.

As we noted at the beginning of this discussion, the use of markets is becoming ubiquitous across political, work-related, and social allocations. Our findings suggest a model outlining the factors that people use to decide whether or not they support the use of markets for the allocation of particular commodities within particular social contexts. These findings suggest that views on the appropriateness and desirability of making allocations via markets: (1) involve multiple considerations and (2) change depending upon the framing of the problem presented.

Finally, our findings suggest that people's social connection to their organization or community also shapes their evaluations of market and non-market allocation mechanisms. Those people who are more strongly identified with their social group are less supportive of the use of markets. This finding is consistent with the suggestion that those who identify more strongly with their group are more concerned about the socio-emotional climate of that group, and more interested in using fair procedures in allocations (Tyler and Huo, 2002). In this study, as in others, respondents rated non-market procedures as generally more fair, leading them to be more strongly preferred by those who most highly identify with their social groups.

Markets are sweeping the world as a mechanism for allocating resources in both work and community settings; markets have been suggested as a mechanism for resources, ranging, for example, from faculty offices (Boyes and Happel, 1989) to babies (Landes and Posner, 1978). The findings we report here suggest that even in the contemporary United States, where markets are very widely used to allocate community and organizational resources, markets are not the preferred allocation procedure. Further, our results point out two key underlying issues that shape people's reactions to the use of a market in a given situation: their expected impact on self-interest and their expected impact on interpersonal climate. These results substantiate the argument of earlier authors that there is more to people's reactions to markets than economics – people also care about interpersonal climate and respond to the contexts in which allocation decisions are made.

Since fairness is central to the creation and maintenance of positive interpersonal climates, these findings support other research in pointing to the value of incorporating issues of justice and fairness into efforts to explain behavior in social settings. Another example of such evidence are the findings that have emerged in studies of the ultimatum game showing that fairness shapes allocation behavior throughout the world (Henrich, Boyd, Bowles, Camerer, Fehr, Gintis, and McElreath, 2001). Again, people's behavior is best explained by a combination of self-interest and fairness concerns.

Our results support the argument made by Okun (1975), who pointed to a "big tradeoff" between the use of equity and equality in the allocation of compensation within work organizations. In this tradeoff equity was viewed as supporting productivity, while equality enhanced interpersonal harmony. Our findings suggest that the effort to balance these two goals has a broad scope and application. This tradeoff pertains to both benefits and burdens and to allocations in work organizations as well as in communities. Further, our results suggest that people distinguish the personal and organizational levels and seek to make this tradeoff on both levels. On the personal level, they seek to balance gain and personal feelings. On the organizational level, they seek to balance productivity/viability and interpersonal climate. Hence, the tradeoff outlined by Okun (1975) can be viewed as one that involves balancing personal goals with both organizational and community goals, each of which involve both outcome and socio-emotional judgments about the likely consequences of making allocations using different mechanisms.

Why should the leaders of work organizations, as well as political officials and legal authorities, be concerned about how people feel about market allocations? Markets are attractive to people because they represent a process of allocation that minimizes the intervention of authorities and rules. In contrast to appointing a leader or achieving a consensus, markets involve individuals in minimal coordination with the rules and authorities of their organization or community. Hence, the key organizational question is when the members of organizations favor such relative freedom from group structure, and when this minimal level of coordination and the resulting possible lack of a level playing field, is viewed by people as insufficient and undesirable.

The choice between market and non-market allocation procedures highlights the organizational reality that people often resist having their choices constrained by rules and authorities, so organizational authorities have to legitimize the imposition of rules and authority structures that constrain group members from choosing relatively freely via market procedures. Psychological research makes clear both that people resist controls on their freedom of choice (Thibaut and Walker, 1975), and that they often willingly abandon that freedom to choose and embrace the use of rules and authorities to resolve difficult allocation problems (Tyler and DeGoey, 1995).

The legitimacy of non-market procedures in organizations is important because authorities depend heavily for their effectiveness on the voluntary acceptance of their rules and decisions by group members. Managers seeking acceptance of workplace rules (Tyler and Blader, 2000, 2002), legal authorities seeking compliance with the law (Tyler, 1990, 1997, 1999), political officials seeking voluntary payment of taxes or acceptance of conscription into the army (Levi, 1988, 1997; Scholz and Pinney, 1995), and even the people running prisons (Sparks, Bottoms, and Hay, 1996), all depend for their effectiveness upon their ability to gain endorsement from group members. Such acceptance of rules and hierarchies is more likely to the extent that people do not uniformly endorse market procedures or outcomes.

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Table 1

## The Desirability of Different Allocation Procedures

	n	Mean(s.d.)	Market/non-market comparison
Market pricing	2824	4.93(1.85)	
Distributive principles:			
Equity	353	4.58(1.80)	t(347)=1.76, n.s.
Equality	349	2.52(1.63)	t(337)=16.29, p < .001
Need	355	3.03(1.83)	t(344)=13.59, p < .001
Allocation principles			
Lottery	354	4.32(2.02)	t(347)=5.21, p < .001
Authority	354	4.03(1.86)	t(347)=3.48, p < .001
Seniority	355	4.58(2.10)	t(350)=4.08, p < .001
Voting	359	3.33(1.87)	t(351)=12.11, p < .001
Consensus	345	2.98(1.73)	t(336)=14.88, p < .001

NOTE. The scale runs from 1 to 7, with 1 indicating that the mechanism was desirable and that people were willing to accept decisions made via that mechanism.

Table 2

## Factors Shaping Procedural Desirability

	Eq. 1	Eq. 2
Economic variables		
Overall	.37***	----
Personal gain/loss	---	.17***
Group success	---	.23***
Income	.00	.00
Political variables		
Ideology	.00	.01
Psychological variables		
Procedural justice	.52***	.43***
Context		
Work/community	-.04***	-.04***
Benefit/burden	-.04***	-.03*
Outcome/procedure	.03**	.02
Background		
Education	.00	.00
Age	.03*	.02
Gender	.01	.01
Race	-.01	-.01
Adj. R.-sq.	77%	75%

Note. (n = 2,824) Entries are standardized regression weights.

\* p<.05

\*\* p<.01

\*\*\* p<.001

Table 3

## Factors Shaping Socio-emotional Climate

	Personal Feeling	Group Climate
Economic variables		
Personal gain/loss	.26***	.16***
Group viability	.13***	.23***
Income	-.01	.02
Political variables		
Ideology	.02*	.03**
Psychological variables		
Procedural justice	.55***	.53***
Context		
Work/community	-.01	-.02
Benefit/burden	.02*	-.02
Outcome/procedure	-.03*	-.02
Background		
Education	.02	.02
Age	-.03*	-.02
Gender	.00	.01
Race	-.01	-.01
Adj. R.-sq.	75%	76%

Note. (n = 2,824) Entries are standardized regression weights.

\* p<.05

\*\* p<.01

\*\*\* p<.001

Table 4

Mean Preference for Markets by Context

Arena of allocation	n	mean(s.d.)	Comparison of conditions
Work	829	1.61 (2.86)	t(2765) = 5.75, p < .001
Community	1936	0.99 (2.44)	
Resource being allocated			
Benefit	1383	2.04 (2.43)	t(2765) = 18.68, p < .001
Burden	1382	0.31 (2.46)	
Alternative			
Outcome rule	1031	1.41 (2.58)	t(2765) = 3.64, p < .001
Procedure	1736	1.04 (2.58)	

Note. Entries are the number of respondents (n) and the mean (standard deviation). Low numbers indicate that people like the use of the market.

Table 5a

Does the Importance of the Factors Vary Depending on the Situation?

The Influence of Procedural Justice on Procedural Desirability

	Equation 1	Equation 2	Equation 3
	Work/ community	Benefit/ burden	Outcome/ procedure
Economic variables	.40***	.42***	.42***
Income	.00	.00	.00
Procedural justice	.50***	.46***	.44***
Context			
Work/community	-.04***	-.04***	-.04***
Benefit/burden	-.03**	-.03**	-.03**
Outcome/procedure	.02*	.02*	.02*
Interaction with			
Economic variables	.07*	.05*	.05*
Procedural justice	-.09***	-.03	-.01
Education	.00	.00	.00
Age	.02	.02	.02
Gender	.01	.01	.02
Race	-.01	-.01	-.01
Conservatism	.01	.01	.01
Adj. R.-sq.	75%	75%	75%

Note. (n = 2,824) Entries are standardized regression weights.

\* p<.05

\*\* p<.01

\*\*\* p<.001

Table 5b

Does the Importance of the Factors Vary Depending on the Situation?

The Influence of Anticipated Impact on Socio-emotional Issues on Procedural Desirability

	Equation 1	Equation 2	Equation 3
	Work/ community	Benefit/ burden	Outcome/ procedure
Economic variables	.44***	.44***	.40***
Income	-.01	-.01	.00
Socio-emotional variables	.43***	.41***	.46***
Context			
Work/community	-.04***	-.04***	-.04***
Benefit/burden	-.06***	-.06***	-.06***
Outcome/procedure	.03*	.03*	.03*
Interaction with			
Economic variables	.02	.02	.09***
Socio-emotional vars.	-.01	.02	-.07***
Education	.01	.01	.00
Age	.03*	.03	.03*
Gender	.01	.01	.01
Race	-.01	-.01	-.01
Conservatism	.00	.00	.00
Adj. R.-sq.	75%	75%	75%

Note. (n = 2,824) Entries are standardized regression weights.

\* p<.05

\*\* p<.01

\*\*\* p<.001

Table 6

The Influence of Identification on the Importance Placed upon Procedural Issues When  
Forming Judgments of Procedural Desirability

	Regression Coefficients
Economic issues (A)	.39***
Procedural/socio-emotional issues (B)	.48***
Identification (C)	-.02
A * C	-.03
B * C	.05*
Work/community	-.03***
Gain/loss	-.04***
Outcome/procedure	.03***
adj. r-sq.	73%***

Note. (n = 2,824) Entries are standardized regression weights.

- \* p<.05
- \*\* p<.01
- \*\*\* p<.001