Conflict and Fairness in Social Exchange

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Abstract
Inherent to all social exchange relations are elements of both cooperation and competition. We develop and test a theoretical model which proposes that the relative salience of the competitive, conflictual elements of exchange mediate and explain the negative effects of negotiated exchange, as compared with reciprocal exchange, on actors' evaluations of fairness. By creating inequality within rather than across transactions, and by making relations between one actor's gain and another's cost more transparent, negotiated exchanges alter the relational context of exchange to one of competition and conflict and heighten actors' sense of unfairness. Results of experimental tests show that (1) the salience of conflict increases and perceived fairness decreases as we make reciprocal exchanges more like negotiated exchanges on dimensions of conflict, (2) the salience of conflict mediates and explains the relation between the form of exchange and perceived fairness, (3) conflict affects fairness directly rather than through self-serving attributions, and (4) regardless of the relative conflict in reciprocal exchange, actors reciprocally exchange with unfair partners far more often than they negotiate agreements with them.

The mutual dependence that underlies social exchange relations has two distinct faces: a cooperative face based on the mutual benefits that can be obtained from exchange and a competitive face that reflects the conflict of interests inherent in direct exchange (Blau 1964). This duality is common to all mixed-motive structures, including exchange, in which actors' interests partially correspond and partially conflict. Both actors are better off with exchange than they would be without it, but at the same time, actors benefit in inverse proportion to what each gives the other.

The relative emphasis on the cooperative or competitive aspects of social exchange can vary with both the objective structure of exchange and the subjective perception of exchange. We propose that the form of exchange – reciprocal or negotiated – affects both of these. Objectively, the joint negotiation of binding agreements makes the structure of negotiated exchange more cooperative than the structure of reciprocal exchange, in which actors individually give benefits to each other without negotiation. Subjectively, however, the process of negotiation can increase the salience of the conflictual, competitive face of exchange. These two consequences have been the basis for alternative predictions of the effects of the form of exchange on such integrative outcomes as commitment, solidarity, trust and affective ties (Lawler 2001; Molm, Takahashi and Peterson 2000, 2003).

Here, we examine how the relative salience of the conflict in direct exchange relations affects actors' perceptions of the fairness of their partner's behavior, the fairness of the

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distribution of benefits and the fairness of the exchange process. While most sociological research on the fairness of exchange has focused on the cognitive processes of justice judgments (comparing inputs and outcomes, evaluating actual benefits against just benefits, weighting under-reward and over-reward), we propose that the relational context of exchange sets the stage for these judgments, affecting whether actors are concerned with justice and whether they respond to objective inequalities as unfair. More specifically, we propose that the more conflictual and competitive actors perceive their relationship, the more likely they are to perceive inequalities as unjust and their partners as unfair. And that perception is directly tied to whether actors' exchanges have key characteristics of reciprocal or negotiated exchange.

Previous work shows that actors in negotiated exchanges perceive their partner's behavior as more unfair than actors in reciprocal exchanges, even when the network structure, the partner's behavior and the inequality of exchange are equivalent (Molm et al. 2003). We develop and test an explanation of that finding, which links the form of exchange to perceived fairness through two sets of mediating variables: (1) the salience of conflict, and (2) the attribution of responsibility and intent, with the former affecting the latter. If the salience of conflict does indeed explain the differences between the two forms of exchange in perceived fairness, then *increasing* the salience of conflict in reciprocal exchange should *reduce* the perception of fairness in reciprocal exchanges and *reduce* the differences between the two forms of exchange.

We test this logic in an experiment that directly manipulates dimensions of reciprocal exchange to increase the salience of conflict in these exchanges, thus systematically increasing their comparability to negotiated exchange on these dimensions. We then measure intervening perceptions of conflict and attributions of responsibility and intent, and examine the extent to which they mediate, and thus explain, effects of the variations in exchange form on three targets of perceived fairness: the partner's behavior, the distribution of exchange outcomes and the exchange process.

Theoretical Background

Social Exchange, Inequality and Fairness

Our analysis addresses the perception of fairness in direct exchange relations between two actors, A and B, each of whom controls resources that the other values. We assume A and B are individual persons, acting alone or representing a group, embedded in a larger network that provides each of them with alternative partners for obtaining valued resources. We also assume that A and B interact repeatedly over time. Examples are co-workers in an office and friendship networks.

The exchanges between A and B may produce either equal or unequal benefits for the two actors. Unequal benefits usually result from unequal power, produced by differences in actors' structural positions in exchange networks (Emerson 1972). Our interest here is not in structural determinants of inequality, however, but in the classic question of how actors evaluate the *fairness* or *justice* of their exchanges. As the literature on justice has evolved, scholars have identified three main targets of justice evaluations: outcomes (distributive justice), processes (procedural justice) and interaction partners (interactional justice). Our study examines all three.

Distributive justice refers to how people evaluate the fairness of the reward distributions that result from exchange or allocations. This is the form of justice that most sociological theory and research have addressed. Evaluations of distributive justice are based on the *justice expectations* that actors bring to the relation from past experience or social norms (such as equity or equality) and on the *social comparisons* that they make with others. Early

exchange theorists assumed that actors compare their outcomes (and inputs) to those of specific others (Adams 1965; Homans 1974); later theories made the target of comparison a more general "justice standard" and focused on the cognitive process of comparing actual outcomes to just outcomes (Berger et al. 1972; Jasso 1980). Attribution theorists argue that departures from just outcomes prompt further cognitive work, encouraging individuals to analyze the cause of injustice and to assign responsibility and intent (Utne and Kidd 1980).

Theories of procedural justice, which developed later, address the fairness of the process or procedures through which outcomes are obtained (Leventhal, Karuza and Fry 1980; Lind and Tyler 1988; Thibaut and Walker 1975). Some procedural justice theorists argue that fair procedures are more fundamental than fair outcomes, and that procedural justice influences the perception of distributive justice. As the tradition has evolved, procedural criteria have expanded to include elements of both formal decision-making procedures (e.g., consistency, neutrality and voice) and interpersonal treatment (which conveys information about respect and status). Tyler and Lind's (1992) relational model of procedural justice encompasses both.

Recently, scholars of organizational justice have argued for a distinction between the fairness of formal decision procedures and the fairness of interpersonal treatment (Bies 2001; Cropanzano et al. 2001). These researchers use the term *interactional justice* to refer to the latter – fairness of the treatment that an actor receives from others. In organizational contexts, the target of interactional justice is often the supervisor; in the direct exchange processes that we study, the target is the exchange partner.

Forms of Exchange

We study how perceptions of fairness are affected by two forms of direct exchange: *negotiated exchange* and *reciprocal exchange* (Blau 1964; Emerson 1981; Molm, Peterson and Takahashi 1999). In *negotiated exchange*, actors jointly negotiate the terms of an agreement that gives both parties benefits of equal or unequal value. In the negotiated exchanges studied by exchange researchers, these agreements are also strictly binding; i.e., they automatically produce the benefits agreed upon (Cook and Emerson 1978; Markovsky, Willer and Patton 1988). In *reciprocal exchange*, actors individually perform beneficial acts for another (such as giving assistance or advice) without knowing whether or when the other will reciprocate (Molm et al. 1999). Exchange relations evolve gradually, as beneficial acts prompt reciprocal benefit (A assists B with work, B subsequently does a favor for A, and so on).

These two forms of exchange vary on several theoretical dimensions, two of which are particularly important for fairness evaluations. The first is the *contingency of actors' outcomes* on either joint action or individual action. In reciprocal exchange, each actor's outcomes are contingent solely on another's *individual* actions; i.e., A's behavior produces benefits for B, and vice versa. Consequently, benefits can flow *unilaterally*: actors can initiate exchanges that are not reciprocated, and they can receive benefit from another or multiple others *at the same time* – without giving in return. An influential politician, for example, might enjoy favors from numerous supporters who may or may not benefit from the politician's patronage in the future. In contrast, when exchanges are negotiated, each actor's outcomes depend on the *joint* actions of self and other, and the flow of benefits is *bilateral*.

Second, the two forms of exchange vary on the *timing* with which equality or inequality emerges; this difference follows directly from the first. In negotiated exchanges, each bilateral transaction provides either equal or unequal outcomes for actors. Thus, inequality occurs *within* transactions and results from differences in the *value* of benefits exchanged (or the profit received), not from variations in the reciprocity of exchange (a given in bilateral transactions). When a buyer and seller negotiate the purchase of a used car, for example, both

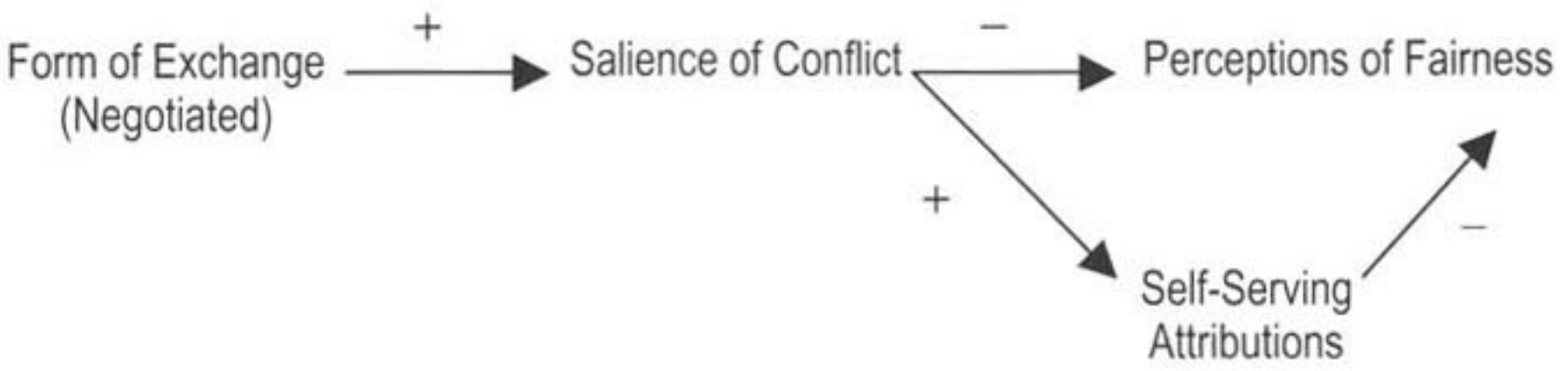
presumably profit, to varying degrees, from the single bilateral transaction. In reciprocal exchanges, equality or inequality instead develops over time not on discrete transactions, and it is potentially determined by differences in both the *rates* at which actors reciprocate each other's giving and the *value* of that reciprocity. Two co-workers, for example, might regularly help each other with both technical assistance and career advice, with the value and frequency of assistance and advice varying over time.

These distinctions are the basis for the theoretical logic linking the form of exchange to perceived fairness. We develop that logic below and test it in a laboratory experiment.

The Causal Model

Figure 1 shows the basic logic of our theoretical argument. The causal sequence links the form of exchange to perceived fairness through two intervening mechanisms: the salience of conflict and attributions of causality. Below, we describe the logic underlying each of the paths in the model, and the objectives of our research.

Figure 1. The Causal Model



The Form of Exchange and the Salience of Conflict

The first path in the model is the most critical and our primary focus. The major theoretical issue is how and why the form of exchange affects the relative salience of the cooperative or competitive aspects of the two actors' interests. Two theories predict opposing effects of the form of exchange on perceptions of relational conflict, based on the dimensions of form we identified above: the contingency of actors' outcomes and the timing of inequality. The first dimension, the contingency of outcomes on joint or individual action, makes negotiated exchanges *structurally* more cooperative than reciprocal exchanges (Lawler 2001; Molm et al. 1999). Joint action – negotiating an agreement – is required before either actor benefits, and after an agreement is reached, outcomes are also joint: exchanges are always bilateral with both actors obtaining some benefit (equal or unequal) from the agreement. Lawler and Yoon's (1993, 1996) studies of relational cohesion in negotiated exchanges and Lawler's (2001) recent affect theory of exchange make a strong case for the greater perceived "cooperativeness" of negotiated exchange, based on this structural difference. Lawler and Yoon argue that actors' repeated, successful negotiations produce positive emotions that are attributed, in part, to the relationship itself. Lawler's (2001) affect theory of exchange further proposes that attributions to the relationship are more likely when individuals share responsibility for their outcomes, and that shared responsibility increases with "jointness of task" – the degree to which individual contributions to task outcomes are inseparable. Because jointness of task is greater in negotiated than in reciprocal exchange, Lawler predicts stronger perception of shared responsibility, stronger global emotions and stronger attribution of those emotions to the relationship in negotiated than in reciprocal exchange.

Molm and colleagues, on the other hand, have argued that negotiation heightens the salience of conflict in exchange relations (Molm et al. 2003). They propose that the same features that make negotiated exchange more structurally cooperative than reciprocal exchange – joint decision-making, the bilateral flow of benefits and the two-party unit created by the task of negotiation – also bring into sharp relief the inherent conflict of interests between actors in exchange relations. They do so by affecting the temporal emergence of inequality in the two forms of exchange, producing three differences that contribute to our prediction (in Figure 1) of greater salience of conflict in negotiated than in reciprocal exchanges.

First, actors' outcomes are more easily compared in the bilateral transactions of negotiated exchange than in the sequentially contingent, unilateral acts of reciprocal exchange. Because each negotiated transaction produces either equal or unequal outcomes for actors, success or failure is more obvious. In reciprocal exchanges, it is more difficult for actors to keep track of who fares better, or who owes whom, because equality or inequality develops over time. When outcome comparisons are easier and more obvious, actors' awareness of the objective inequalities and their subjective reactions to them should increase, heightening feelings of competition and conflict.

Second, in negotiated exchanges, actions of the two parties (offering less, bargaining harder, refusing to make concessions) are, by definition, acts of commission explicitly directed at the other person with the intent of obtaining a more favorable deal for the actor at the other's expense. In reciprocal exchanges, inequality can instead result from acts of omission – from *not* acting – rather than from tough bargaining. One friend regularly takes another out to dinner, for example, while the other reciprocates only occasionally. The interpretation of such acts of omission is often more ambiguous: If A reciprocates B's giving less often, is A deliberately paying less for B's favors or is the inequality between A and B an unanticipated side effect of A's exchange with another actor? If the latter, B may be less likely to perceive A's behavior as competitive and their relation as conflictual.

Third, the relative costs of exchange are more transparent and the relation of one actor's gain to another's loss more direct in negotiated than in reciprocal exchange. In negotiated exchange, bilateral agreements favor one actor at another's expense; i.e., the more A offers B, the less A gains from the exchange. In reciprocal exchanges, a comparable inequality is produced when actors reciprocate each other's giving at different rates. If disadvantaged actors must give more frequently to maintain their powerful partner's intermittent reciprocity, they pay more for the benefits they receive and their advantaged partner pays less. This difference in relative costs affects actors' abilities to obtain benefits from other relations. If, for example, one spouse does most of the household work, the other will have more time to pursue career advancement or leisure activities. But because the relation between one actor's cost and the other's gain is more indirect in reciprocal exchanges, and operates through the relative opportunities that each has to invest in other rewarding activities, the "zero-sum" aspect of exchange – the more you get, the less I get – is likely to be less salient in reciprocal exchange than in negotiated exchange.

The Salience of Conflict and Perception of Fairness: Direct and Indirect Paths

The model in Figure 1 proposes that the salience of conflict affects perceived fairness both directly and indirectly. The indirect path links conflict to fairness through its effect on self-serving attributions; i.e., conflict increases the tendency to assign responsibility and intent to the partner for unsatisfactory outcomes, which in turn decreases perceived fairness. The direct path proposes that the salience of conflict decreases perceived fairness without the intervening role of attributions.

The indirect path, through attributions of responsibility and intent, is the route proposed by attribution theories of justice (Cohen 1982; Utne and Kidd 1980). These theories begin with the assumption that individuals search for attributional information to help explain unsatisfactory outcomes by inferring causality, responsibility and intent. These attributions are often self-serving; i.e., individuals are more likely to take credit for good outcomes while blaming their partner for poor outcomes (Nisbett and Ross 1980). The salience of conflict increases this tendency. The more actors perceive their relation as conflictual, the more likely they are to hold the other responsible for unsatisfactory outcomes and to perceive the other's behavior as intentional (Hegtvedt and Killian 1999; Thompson and Lowenstein 1992). On the other hand, the more cooperative actors perceive their relation to be, and the more mutual their interests, the less likely they are to make self-serving attributions (Lawler 2001). As the path linking attributions to fairness indicates, attributing responsibility and intent to another heightens the severity of felt injustices and increases the likelihood that disadvantaged actors will protest or take action to restore equity. Thus, attributions are linked theoretically to both the perception of fairness and behavioral reactions to perceived unfairness.

A direct effect of conflict on fairness should occur to the extent that relational conflict increases actors' *sense of injustice* (Deutsch 2000), i.e., actors' tendency to perceive objective inequalities as unfair without mediating cognitions. Both Deutsch (1983) and Scher and Heise (1993) have criticized social psychological theories of justice for their strong emphasis on the individual, cognitive, information-processing aspects of justice evaluations. Deutsch (1983) criticizes the theories for focusing too much attention on the individual rather than the social interaction from which justice emerges, and for ignoring the relation between conflict and justice. Scher and Heise (1993) argue that emotional reactions, rather than cognitive processes, lead to judgments about fairness. These emotions arise from the social interaction itself in situations where justice concerns are at issue. Together, these arguments suggest a direct link between the salience of conflict and perception of injustice. By increasing an actor's sensitivity to inequality and injustice, the salience of conflict in the relation increases the likelihood that an actor will perceive an unequal exchange as unfair without necessarily attributing responsibility.

We test these arguments on the three justice targets identified earlier: the exchange outcomes (distributive justice), exchange process (procedural justice) and exchange partner (interactional justice). Interactional justice bears the most direct relation to the logic of our causal model, particularly the indirect path through attributions: if actors perceive their partner's interests as conflicting with their own, and blame the partner for unequal exchanges, then the partner is the most logical target of feelings of unfairness. However, interactional justice and distributive justice are often closely linked; actors who perceive interactional injustice are also likely to believe their outcomes are unfair. Procedural justice bears the most direct connection to the form of exchange itself, that is, to the process by which actors exchange benefits. Its relation to the salience of conflict, however, is less obvious than for the other two forms of justice.

The Research

We test the causal model in Figure 1 in a controlled laboratory experiment that allows us to manipulate dimensions of reciprocal exchange that should affect the salience of conflict while holding constant the network structure, resources and context of exchange. In essence, we increasingly make reciprocal exchanges more like negotiated exchanges on the dimensions of conflict we have identified, and examine whether differences between the two forms of exchange in perceived fairness decrease as we do so and whether those differences are explained by the intervening variables in the model. To create comparable distributions of

benefits across the forms of exchange, we use computer-simulated actors who are programmed to exchange with our real subjects in particular ways.

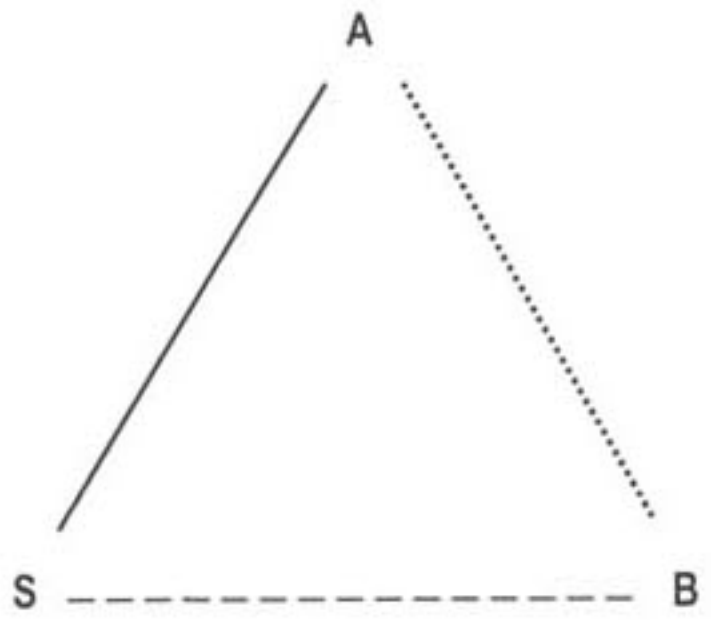
Experimental Design

The single factor in our experimental design is the form of exchange: negotiated exchange and three modes of reciprocal exchange. The three modes of reciprocal exchange systematically increase factors that should increase the salience of conflict, with conflict lowest when reciprocal exchanges of fixed value create inequality across (but not within) transactions, at indirect cost to the actor, and highest when reciprocal exchanges – like negotiated exchanges – create inequality within transactions of variable value at direct cost to the actor. Reciprocal exchanges of variable value and indirect cost should be intermediate in conflict. We study all four variations in the form of exchange under the condition of subject disadvantage to which our causal model theoretically applies.1 Forty undergraduate subjects were randomly assigned to one of the four conditions, with 10 subjects (five males and five females) in each condition.

Experimental Procedures

Subjects (S) engaged in either reciprocal or negotiated exchanges with two alternative partners (A and B) to whom they were connected in three-actor networks (Figure 2). The two partners were computer-simulated, allowing us to make subjects' absolute and relative outcomes comparable across the different forms of exchange. The focal relation between S and A offered high but unequal exchange value; the alternative relation between S and B offered equal exchanges of low value. Subjects remained in the same network positions throughout the experiment and interacted repeatedly with the same two partners. Relations in the networks were negatively connected and operationalized in the traditional way (Cook and Emerson 1978): in negotiated exchanges, an agreement with one actor precluded an agreement with another on that exchange opportunity; in reciprocal exchanges, initiating an exchange with one actor precluded initiating exchange with another on that opportunity.

Figure 2. The Exchange Network



Note: S = Subject; A and B are simulated actors. The solid line between S and A indicates a high-value relation; the dashed line between S and B, a low-value relation; and the dotted line between A and B, a hypothetical relation.

Subjects were seated in isolated rooms to maintain the deception that they were interacting with real persons. Following detailed instructions and practice trials, subjects participated in a series of exchange opportunities: 100 opportunities in the negotiated exchange experiment (the maximum that could be completed in a two-hour session), and 200 opportunities in the reciprocal exchange experiment. At the end of each opportunity, they were informed about the source and amount of any points gained, and their total earnings were cumulated and shown on their computer screens. Negotiated and reciprocal exchange sessions took roughly the same amount of time (thus controlling for effort), and subjects were not informed of the number of opportunities in either. The monetary value of points was adjusted so that subjects in the reciprocal exchanges earned the same amount as subjects in the negotiated exchanges for comparable behaviors (i.e., 1 point = 1 cent in the reciprocal conditions and 2 cents in the negotiated conditions).

In all conditions, subjects had full information about the size and shape of the network, the potential value of exchange in each of their relations, the number of points that they and their partners received from their exchanges, and who exchanged with whom on each opportunity. This information is necessary for making fairness judgments. Subjects did not know the potential value of exchanges between the two simulated actors or the outcomes of their (hypothetical) exchanges. By omitting this information, both the equal and unequal exchanges between S and S's two partners were made plausible.

At the end of the exchange period, subjects responded to a post-experimental questionnaire that included measures of the dependent variables, and to an open-ended question asking them to describe any strategies used during the experiment. They were then paid the amount they had earned and debriefed.

Manipulating the Form of Exchange

Subjects engaged in one of four forms of exchange: reciprocal exchange with fixed value and indirect cost (our baseline reciprocal condition), reciprocal exchange with variable value and indirect cost, reciprocal exchange with variable value and direct cost, and negotiated exchange (which, by definition, has variable value and direct cost). The settings for the four forms were designed to be as comparable as possible on all dimensions other than their distinguishing differences.

In the *negotiated exchange* setting, actors (real and simulated) negotiated the relative benefits that each would obtain from an agreement over a series of exchange opportunities. In the high-value relations, S and A could divide 24 points on each exchange; in the low-value relations, S and B could divide 4 points. Each opportunity consisted of up to five rounds of negotiation. On each round, all actors simultaneously made offers to both partners. Actors made offers by *requesting* the number of points they wanted to receive; an actor's *request* for points was then converted, by the computer, into an *offer* of the remaining points for the other. After the first round, actors could accept another's offer, repeat their last offer or make a counteroffer. Negotiations continued until two actors reached an agreement or the five rounds were up. As soon as an agreement was reached, both actors received the amounts agreed upon (agreements were binding) and were told how much the other actor received. If no agreement was reached, no points were received.

In the three *reciprocal* exchange settings, each actor simultaneously gave points to one of his or her alternative partners, without communication, on each exchange opportunity. The subject was then informed that each of the others either added *n* points to the subject's earnings or did not act toward the subject, and the subject's cumulative points were updated. The three versions of this form of exchange vary (1) whether the *value* of benefits that an actor can give to an exchange partner on a single opportunity is fixed or variable (and thus

under the control of the actor), and (2) whether the relation between the partner's gain and the *cost* of exchange to the actor is direct or indirect.

The first reciprocal exchange setting, *reciprocal exchange with fixed value and indirect cost*, is a replication of the form originally studied by Molm et al. (2003). In this baseline condition, the *value* of the benefits that each actor can give another is fixed and equal to half the total points that actors in the negotiated setting can divide on each opportunity. The cost of exchange is indirect; i.e., giving to one partner reduces an actor's opportunity to invest in a potentially rewarding exchange with the other partner, but incurs no direct costs to the actor.

In the second reciprocal exchange setting, *variable reciprocal exchange with indirect cost*, actors choose not only which partner to reward, but how much benefit to give from a range of points. Giving actors in reciprocal exchanges control over the value they give makes it possible for sequential acts of giving to produce unequal benefits for exchange partners, and this changes the partner's acts of inequality to acts of commission rather than merely omission. In the third reciprocal exchange setting, *variable reciprocal exchange* with direct cost, actors not only choose how many points to give to another from a range of points, but can keep any points not given to the partner. Points given to another triple in value for the other, while points kept for self remain the same. Thus, as in negotiated exchange, actors incur a direct cost when they give more to the partner (and keep less for self), which should make the zero-sum aspect of exchanges more transparent.

Programming the Simulated Actors

Unequal Exchanges with Partner A

In all four conditions, A's behavior was programmed to create unequal exchanges between A and S in which S was disadvantaged. For every 14 points that A received from S, S received an average of 10 points from A.[2] While this level of inequality was equivalent across the different forms of exchange, it was produced in different ways.

In the *negotiated exchanges*, inequality was created by programming A to make an initial request of 14 to 16 points from S. After the first round, A decreased its request by 1 point (if its initial offer was not accepted) and then repeated that request on any subsequent rounds. Thus, after the first round, A requested an average of 14 points, thus offering 10 points to S.

In the *fixed reciprocal exchanges with indirect cost*, inequality was created by manipulating the *rate* of A's reciprocity of S's giving, while holding constant the value of A's reciprocity. S and A could give 14 points to each other on each opportunity, and A was programmed to reciprocate S's prior giving only 10 of every 14 times.[3]

In both of the *variable reciprocal exchange* conditions, the opposite was true. Inequality was created by manipulating the *value* of A's reciprocity – the number of points with which A reciprocated S's giving – while holding constant the rate of A's reciprocity. A used a modified tit-for-tat strategy, reciprocating S's prior giving 90 percent of the time and initiating giving 10 percent of the time. This manipulation makes reciprocal exchanges more similar to negotiated exchanges, in which the rate of reciprocity is always 1.0 (all negotiated exchanges are bilateral) and inequality results from the relative value obtained within transactions. In the *variable reciprocal exchanges with indirect cost*, S and A could give each other 10 to 18 points on each opportunity (a mid-point of 14), and A always gave 4 points fewer to S than S gave to A on the previous opportunity within the constraints of range. This meant that the *actual* range of A's giving was controlled to vary from 10 to 14, as in the negotiated conditions, while S could give A up to 18 points.[4] In the *variable reciprocal exchanges with direct cost*, S and A could give each other up to 6 points per opportunity (with points tripled in value when given), and A always reciprocated S's giving with one point fewer than S gave on the previous opportunity. Because

points given were tripled in value for the other, this pattern meant that exchanges between S and A always produced 4 points fewer for S than for A (with no constraints of range).[5]

Equal Exchanges with Partner B

B's behavior was programmed to create equal, low-value exchanges between S and B in all conditions. In the negotiated exchanges, B requested 2 to 4 points on the first round, lowered its request by 1 point on the second round, and repeated that request on any subsequent rounds. In the reciprocal conditions, B responded to S's prior behavior with the modified tit-for-tat strategy that A used in the variable-value conditions. In the fixed-value exchanges, S and B could give each other 2 points each opportunity; in the variable-value exchanges with indirect cost, 1 to 3 points (a mid-point of 2); and in the variable-value exchanges with direct cost, each could give or keep 2 points (with points tripled if given). In the variable-value conditions, B matched S's giving on the previous opportunity.

Measures

At the conclusion of the experimental session subjects responded to a series of seven-point bipolar semantic differential scales, measuring evaluations of their exchange partners, the distribution of exchange benefits and the process of exchange. Subjects' evaluations of their focal partner, A, and their relationship with A, provided the primary data for developing measures of perceived fairness and mediating perceptions of conflict and attribution.

Perceptions of Fairness

We derived a measure of our primary dependent variable – perception of *interactional fairness* – from three items asking subjects to evaluate the fairness of A's behavior toward the subject as unfair/fair, unjust/just, and inequitable/equitable. Subjects' scores on the three items were averaged to form a scale with a potential range of 1 (unfair) to 7 (fair) and a neutral midpoint of 4 (Cronbach's $\alpha = .89$).

Perception of *distributive fairness* was measured by asking subjects, "Over the course of the experiment, do you think the distribution of points between you and Person A was fair or unfair?" Responses could range from 1 (unfair) to 7 (fair) with a neutral midpoint of 4.

Perception of *procedural fairness* was measured by subjects' responses to the following item (with wording varied for negotiated or reciprocal exchange): "In the experiment you earned money [by receiving points from other participants, who in turn earned money by receiving points from you/ by negotiating agreements with other participants that determined how many points each of you received]. How fair or unfair do you think that process for earning money was?" Scores again ranged from 1 (unfair) to 7 (fair).

We also analyze *exchange frequency* – the proportion of exchange opportunities on which subjects made agreements with A (negotiated exchange) or gave points to A (reciprocal exchange) – as a *behavioral* indicator of perceived fairness. Because exchange with A was far more profitable for S than exchange with B, even in the disadvantaged conditions, subjects who refused to exchange with A incurred significant costs. We interpret this refusal as both a behavioral indicator of subjects' negative feelings toward A and as an effort to restore fairness in one of the only ways available – by not engaging in unfair exchanges.

Mediating Variables

Two items assessed the *salience of conflict* to the subjects. One item, on *relational conflict*, asked subjects to describe their relationship with A as harmonious or conflictual. The second item, on *partner competitiveness*, asked subjects to describe A's behavior toward them as

cooperative or competitive. High scores on either item indicate greater salience of the relation or the partner as conflictual and competitive.

A series of three successive items provided data for measures of *attributions* about responsibility and intent. The series began by asking subjects' perception of the inequality of their exchange: "How equal or unequal were the total points that you and A received from each other: very unequal in your favor, very unequal in A's favor or somewhere in between? (If you think the points were equal, mark 4 on the scale.)" A score of 1 indicated inequality in S's favor; a score of 7, in A's favor. The second item asked subjects for their *attribution of responsibility* for the inequality: "Who would you say was more responsible for how equal or unequal the points were that you and A received from [your agreements/each other]: you, A or both of you? (If you think you were both equally responsible, mark 4 on the scale.)" A score of 1 indicated primary attribution to self; a score of 7, to A. The third item assessed subjects' *attribution of intent* to A's behavior: "To the extent that A's actions affected the equality or inequality of the points you received, how intentional or unintentional do you think Person A's actions were?" A score of 1 indicated that A's actions were unintentional; a score of 7, intentional.

Results

Replication and Extension of Original Findings

Table 1 reports the means and standard deviations for all four dependent variables by experimental condition. We first compare the means for the forms of exchange originally studied by Molm et al. (2003) to see if we replicate the finding that actors engaged in reciprocal exchanges with fixed value and indirect cost perceive their partners as significantly more unfair than actors engaged in negotiated exchanges. The means for these conditions are shown in the first and fourth columns of Table 1. The results of *t*-tests comparing mean interactional fairness confirm the findings of Molm et al. (2003): Actors engaged in unequal fixed-value reciprocal exchanges perceive their partners as significantly fairer than actors engaged in unequal negotiated exchanges ($t = 3.32$, d.f. $= 18$, $p < .005$). The mean difference is even larger than that originally found, close to 2 pts. (1.93) on the seven-point scale. The form of exchange also has a significant, although somewhat smaller, effect on distributive fairness ($t = 2.23$, d.f. $= 18$, $p < .05$), but no effect on procedural fairness ($t = .80$). Our results also show the marked differences in exchange frequency that were originally observed for the two forms of exchange ($t = 4.27$, d.f. $= 18$, $p < .001$). Again, the differences are even greater than those reported in Molm et al. (2003); subjects exchanged with their partner twice as often in the reciprocal as in the negotiated exchanges.

Increasing the Salience of Conflict in Reciprocal Exchange

Our two new conditions – reciprocal exchange with variable value and indirect cost, and reciprocal exchange with variable value and direct cost – were designed to increase the salience of conflict and reduce the differences in perceived fairness between negotiated and reciprocal exchange. We examine the effects of each of the new conditions, in turn, and then analyze the relation between all four forms of exchange and perceived fairness.

Comparing the means in Table 1 shows that making the value of reciprocal exchange variable and under the control of the actor while costs remain indirect (column 2) decreases the original differences between negotiated exchange (column 4) and reciprocal exchange

Table 1: Means and Standard Deviations for Subjects' Perceived Fairness and Exchange Frequency, by Form of Exchange

	Reciprocal Exchange			
Subjects' Responses	Fixed Value/ Indirect Cost	Variable Value/ Indirect Cost	Variable Value/ Direct Cost	Negotiated Exchange
Perceived Fairness				
Interactional Fairness	4.73	3.83	3.50	2.80
	(1.13)	(1.56)	(1.91)	(1.45)
Distributive Fairness	4.00	3.40	3.10	2.40
	(1.89)	(1.78)	(1.91)	(1.26)
Procedural Fairness	4.70	3.40	4.50	4.30
	(1.25)	(1.43)	(2.17)	(.95)
Exchange Frequency[a]	.69	.60	.72	.34
	(.17)	(.15)	(.13)	(.19)

Note: Numbers in parentheses are standard deviations.
[a]Mean proportion of opportunities on which S exchanged with A.

with fixed value (column 1) by 47 percent for interactional fairness and 38 percent for distributive fairness. Consequently, the mean differences between negotiated exchange and this new reciprocal condition in interactional and distributive fairness are reduced to nonsignificance. Procedural fairness continues to be unaffected by the form of exchange. While introducing variable value to reciprocal exchange reduces perceived interactional and distributive fairness, however, it does not reduce the frequency with which subjects exchanged with A, which is still .60 in the new reciprocal condition. Consequently, the form of exchange (negotiated versus reciprocal with variable value and indirect cost) still has a significant effect on exchange frequency ($t = 3.28$, d.f. $= 18$, $p < .01$).

Our third mode of reciprocal exchange adds a direct cost of giving more benefits to the partner. As the means in Table 1 show, adding direct cost to the variable-value reciprocal exchanges (column 3) further lowers evaluations of interactional fairness and distributive fairness, but by a smaller amount. The original differences between negotiated and reciprocal exchange are reduced by an additional 17 to 18 percent for interactional and distributive fairness, respectively. Increasing the salience of conflict continues to produce no systematic pattern for procedural justice and no effect on the frequency of reciprocal exchange, which remains quite high at .72.

The graphs in Figure 3 summarize the relations between the form of exchange and our four dependent variables for all four conditions. The graphs for interactional and distributive fairness (Figures 3a and 3b) show consistently ordered relationships with perceived fairness decreasing as features are added that should increase the salience of conflict. Polynomial contrasts confirm significant linear relations between form and interactional fairness ($F[1,36] = 7.95$, $p < .01$) and between form and distributive fairness ($F[1,36] = 4.35$, $p < .05$), with no deviation from linearity. In contrast, no pattern is evident for procedural fairness (Figure 3c); reciprocal exchange with variable points and indirect cost appears to be perceived as less procedurally fair than the other three conditions, but none of the differences between conditions are significant. Figure 3d shows a nonlinear relation between form and exchange frequency; none of the reciprocal conditions differ from one another, but all three differ significantly from negotiated exchange ($p < .01$ on Scheffe's test).

Tests of the Causal Mechanisms

Finally, we test whether the salience of conflict and attributions of responsibility and intent *mediate* the significant linear relations shown in Figure 3a and 3b between exchange form and two of our four dependent variables: interactional fairness and distributive fairness.[6]

Table 2 shows subjects' mean responses to the potential mediating variables: perception of relational conflict, perception of partner's competitiveness, perception of inequality in points, attributing responsibility for inequality to the partner and judging the partner's actions as intentional. All of the means increase as we move from the original reciprocal exchange condition with fixed value to negotiated exchange with one exception: Subjects' perception of inequality does not vary with the form of exchange ($F[3,36] = .67$, $p = .42$). Across all four conditions, subjects correctly perceived that their exchanges with A were unequal in A's favor.

Table 2: Means and Standard Deviations for Subjects' Salience of Conflict and Self-Serving Attributions, by Form of Exchange

	Reciprocal Exchange			
Subjects' Responses	Fixed Value/ Indirect Cost	Variable Value/ Indirect Cost	Variable Value/ Direct Cost	Negotiated Exchange
Salience of Conflict				
Relation Conflictual	3.20	3.50	3.70	4.70
	(.63)	(1.35)	(1.89)	(1.06)
Partner Competitive	4.00	4.30	5.10	6.50
	(1.76)	(1.77)	(2.64)	(.71)
Self-Serving Attributions				
Points Unequal	5.50	5.80	5.40	6.10
	(1.18)	(1.03)	(1.65)	(.88)
Partner Responsible	4.10	4.20	4.50	5.30
	(2.08)	(2.62)	(2.07)	(1.34)
Partner Intentional	5.30	5.80	5.90	6.10
	(1.06)	(.92)	(1.66)	(1.20)

Note: Numbers in parentheses are standard deviations.

Within conditions, however, subjects' perceptions of inequality did vary. Theoretically, attributing responsibility and intent to the partner should have a negative effect on fairness only to the extent that the partner is perceived as the cause of *unfavorable* outcomes; consequently, we give greater weight to these attributions by multiplying them by subjects' perception of the extent to which the point distribution favored A. The weighted attributions have a potential range of 1 (1×1) to 49 (7×7).

To test the causal model shown in Figure 1, we make the simplifying assumption that our manipulations of the form of exchange represent four points on an underlying, continuous variable (with reciprocal exchange with fixed value anchoring the low end, and negotiated exchange the high end, of the variable). This assumption allows us to use ordinary least squares analysis to test each of the paths in the model. The assumption of interval data is supported by the significant linear relations between our four variations in

Figure 3. Relations between the Form of Exchange and Four Dependent Variables

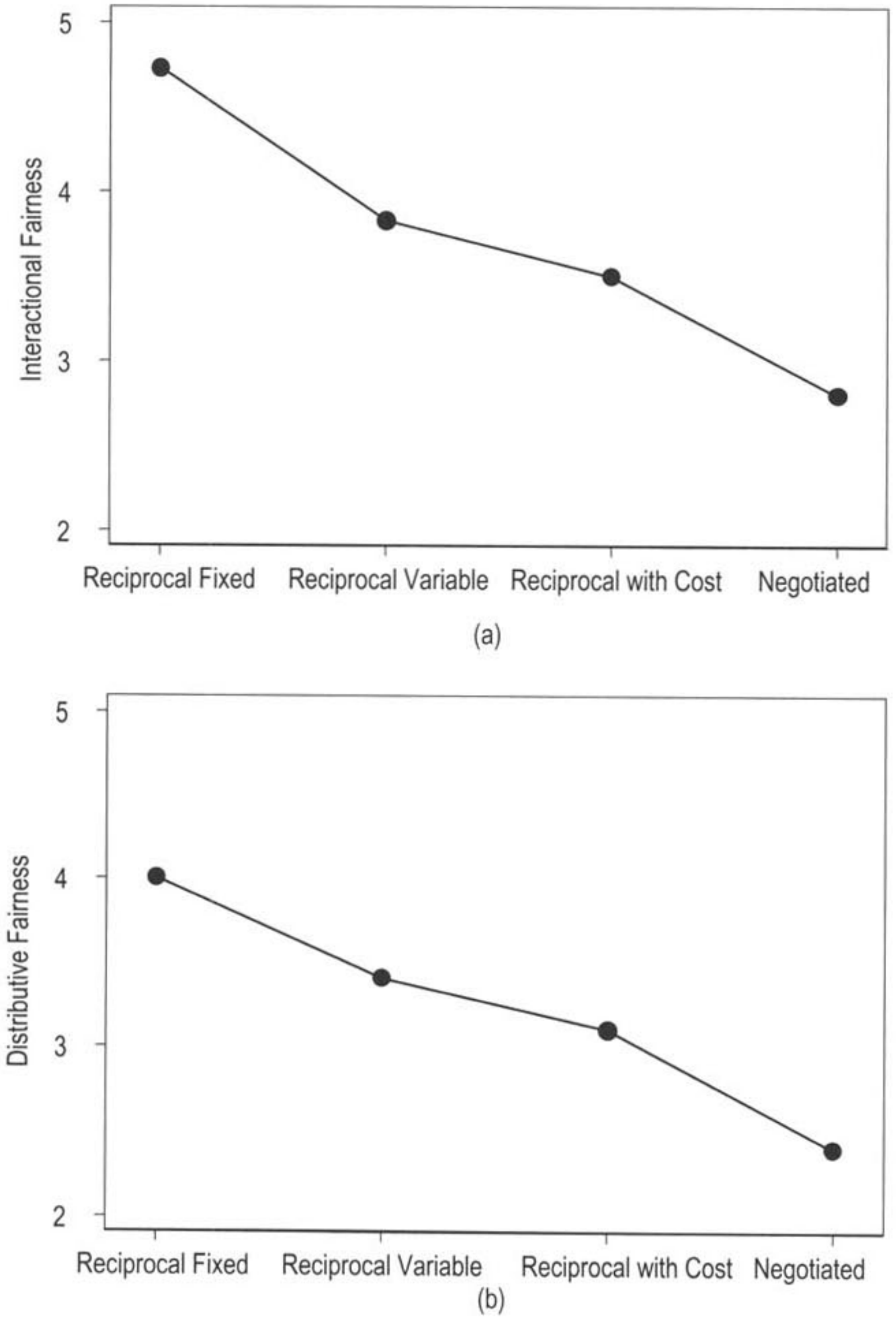
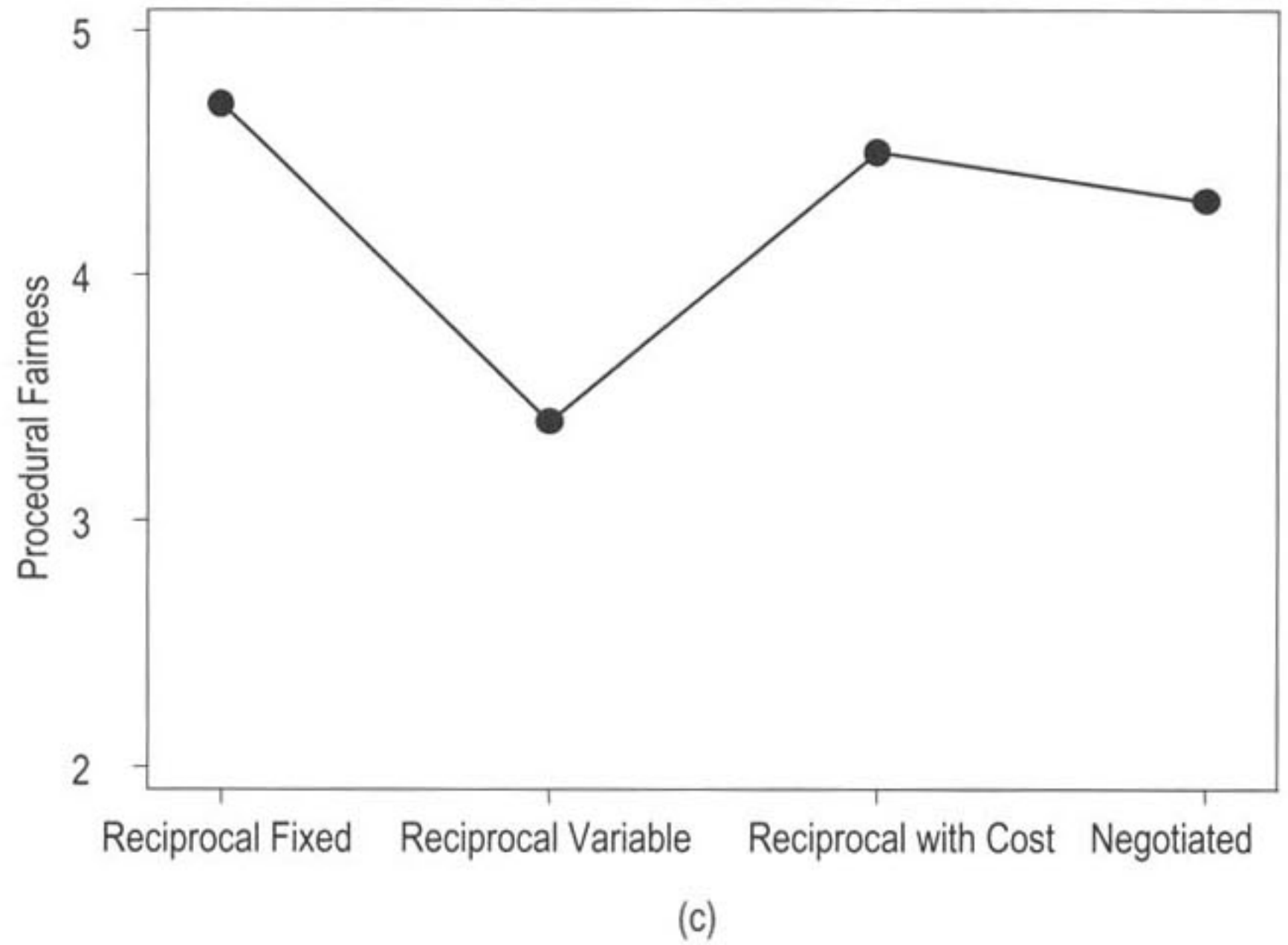
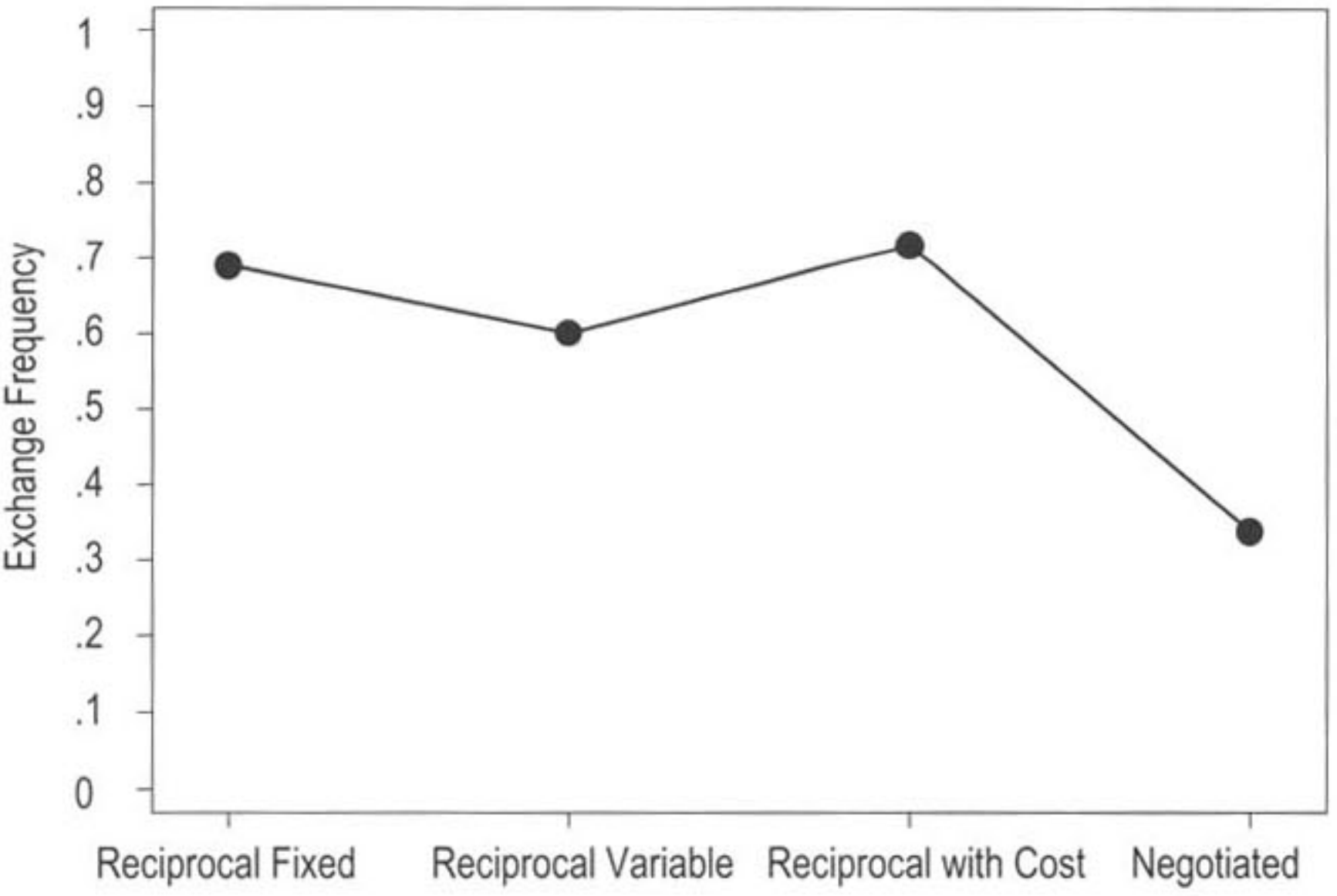


Figure 3. Relations between the Form of Exchange and Four Dependent Variables *(continued)*



(c)



(d)

form and perceptions of interactional and distributive fairness. Polynomial contrasts also show significant linear relations between form and relational conflict ($F[1,36] = 6.38$, $p < .02$) and between form and partner competitiveness ($F[1,36] = 10.04$, $p < .005$), the conflict variables that are proximal to exchange form in our causal model.

Table 3 shows the regression coefficients for the first path in the model, the effects of the form of exchange on the salience of conflict. As the form of exchange acquires more of the characteristics of negotiated exchange, our model predicts that the salience of conflict should increase. The results show that the form of exchange significantly affects both conflict measures, with effects on partner competitiveness the stronger of the two. Giving actors the ability to reciprocate with varying value and adding a direct cost to giving greater value to the other heighten the salience of conflict as predicted.

Table 3: Unstandardized OLS Coefficients from the Regression of Salience of Conflict on the Form of Exchange

	Salience of Conflict	
Independent Variable	Relation Conflictual	Partner Competitive
Form of Exchange	.47**	.83***
	(.18)	(.26)
	[.38]	[.46]
R^2	.15	.21

Note: Numbers in parentheses are standard errors; numbers in brackets are standardized coefficients; N = 40.
$^{**}p < .01$ $^{***}p < .001$ (one-tailed tests)

We next examine the paths leading to self-serving attributions. Our causal model predicts stronger attribution of responsibility and intent to the partner as the form of exchange takes on more characteristics of negotiated exchange, with this relation mediated by the increasing salience of conflict produced by the form of exchange. To test these predictions, Table 4 shows the result of regressing our two weighted attributional measures (attribution of responsibility and intent) on the form of exchange (Model 1) and on the form of exchange and the salience of conflict (Model 2). Both effects of form are in the predicted direction in Model 1, but only the effect on attribution of intent to the partner is significant ($p < .05$); the effect on responsibility is borderline ($p = .07$). With both conflict measures included in Model 2, these modest effects of form disappear completely, indicating that the effect of form on self-serving attributions is mediated by the salience of conflict, as our model predicts. Only perception of the partner's competitiveness is significant, but its relation to the two attributions is quite strong. Perception of the partner as competitive increases the attribution of intent and responsibility to the partner for the inequality of exchange outcomes.

Finally, Table 5 shows the result of regressing our two dependent variables – evaluations of interactional fairness and distributive fairness – on all prior variables in the causal model. Successively adding the variables in each path of the causal model shows that (1) the form of exchange significantly affects perceptions of both interactional fairness and distributive fairness (Model 1); (2) with the salience of relational conflict and partner competitiveness controlled, the significance of the form of exchange disappears, indicating that the form of exchange affects perceived fairness through its effects on the salience of conflict (Model 2); and (3) adding controls for the attribution of responsibility and intent does not significantly alter these relationships (Model 3). Thus, this analysis strongly supports the mediating effects

Table 4: Unstandardized OLS Coefficients from the Regression of Self-Serving Attributions on the Form of Exchange and the Salience of Conflict

	Weighted Attributions[a]			
	Partner Responsible		Partner Intentional	
Independent Variables	Model 1	Model 2	Model 1	Model 2
Form of Exchange	2.90†	.42	2.72*	.35
	(1.96)	(2.13)	(1.45)	(1.43)
	[.23]	[-.00]	[.29]	[.04]
Relation Conflictual	—	-.02	—	-.66
		(1.77)		(1.19)
		[-.00]		[-.09]
Partner Competitive	—	3.00**	—	3.23***
		(1.26)		(.85)
		[.43]		[.62]
R^2	.06	.20	.09	.36

Note: Numbers in parentheses are standard errors; numbers in brackets are standardized coefficients; N = 40.

[a] Weighted by subject's perception of the extent to which the inequality of points favored the partner.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ (one-tailed tests)

Table 5: Unstandardized OLS Coefficients from the Regression of Interactional and Distributive Perceived Fairness on All Independent Variables

	Interactional Fairness			Distributive Fairness		
Independent Variables	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Form of Exchange	-.61**	-.06	-.05	-.51*	.17	.17
	(.21)	(.17)	(.17)	(.24)	(.17)	(.17)
	[-.42]	[-.04]	[-.03]	[-.33]	[.11]	[.11]
Relation Conflictual	—	-.44**	-.45***	—	-.36**	-.38**
		(.14)	(.14)		(.14)	(.14)
		[-.37]	[-.38]		[-.26]	[-.30]
Partner Competitive	—	-.42***	-.30**	—	-.61***	-.55***
		(.10)	(.12)		(.10)	(.12)
		[-.52]	[-.38]		[-.70]	[-.64]
Partner Responsible (weighted)	—	—	-.01	—	—	.00
			(.01)			(.01)
			[-.08]			[.04]
Partner Intentional (weighted)	—	—	-.03	—	—	-.02
			(.02)			(.01)
			[-.17]			[.04]
R^2	.18	.63	.66	.11	.69	.70

Note: Numbers in parentheses are standard errors; numbers in brackets are standardized coefficients; N = 40.

* $p < .05$ ** $p < .01$ *** $p < .001$ (one-tailed tests)

of the salience of conflict on the relation between the form of exchange and perceptions of interactional and distributive fairness, but shows that the effect of conflict on fairness is direct and not mediated by self-serving attributions. Attributions of responsibility and intent affect perceptions of fairness (zero-order correlations between both variables and perceptions of fairness range from .36 to .54, $p < .05$ to $< .001$) as attributional theorists predict, but they do not mediate the effects of either the form of exchange or the salience of conflict on fairness.[7]

Conclusions

Four main conclusions emerge from our study. First, the conflict that is inherent in all exchange relations becomes more salient as the form of exchange acquires more of the characteristics of negotiated exchange – characteristics that bring actors face to face with the inverse relation between their own interests and those of their partner. Second, the salience of conflict mediates and explains the relation between the form of exchange and perceptions of both the fairness of the partner's behavior and the fairness of the distribution of benefits. Reciprocal exchanges are perceived as more interactionally and distributively fair than negotiated exchanges *because* they are perceived as less conflictual and competitive. Third, the salience of conflict affects fairness directly rather than indirectly through individuals' tendencies toward self-serving attributions. And fourth, increasing the salience of conflict in reciprocal exchange does *not* affect the difference in actors' behavioral responses to inequality in reciprocal and negotiated forms of exchange. Actors are far less willing to enter into unequal negotiated agreements than to participate in unequal acts of reciprocal exchange, however that inequality is produced.

These findings have important implications for theories of exchange, theories of justice and exchanges in natural settings. First, our study clearly speaks to current debates over the relative cooperativeness or competitiveness of different forms of exchange and their effects on bonds of affect and solidarity in exchange relations (Lawler 2001; Molm et al. 2000, 2003). We show that despite the greater ***structural*** cooperativeness of negotiated exchanges, they are *perceived* as less cooperative and more conflictual than reciprocal exchanges. We identified and tested three features of negotiated exchange that potentially contribute to this perception: the establishment of inequality *within* bilateral transactions rather than *across* sequential transactions, the partner's more active and unambiguous role in producing inequality, and a more direct and transparent relation between one actor's cost and another's benefit. Our research shows that altering reciprocal exchanges to have more of these characteristics – while maintaining the fundamental distinction between the individual, non-negotiated acts of reciprocal exchange and the jointly bargained agreements of negotiated exchange – does indeed increase actors' sense of unequal exchanges as conflictual and competitive and, consequently, unfair.

Our manipulations did not affect the greater structural cooperativeness of negotiated exchanges; all of our comparisons preserved that difference. But rather than reducing the sense of conflict in negotiated exchanges, we propose that the cooperative structure of negotiation may instead have the *opposite* effect. By providing a stronger moral framework for caring about injustice, the cooperative elements of negotiated exchanges may actually increase the likelihood that actors will take action to restore justice even at high cost to self. If so, the more cooperative structure of negotiated exchange may account for the high rates at which disadvantaged actors refused to negotiate agreements with an unfair partner. Making an agreement with another is a cooperative act and one that is fundamentally inconsistent with perception of another as competitive and unfair. Participants in negotiated exchanges were willing to accept significant cost to self to avoid exchanging with an unfair partner, while participants in reciprocal exchanges continued to engage in such exchanges

at far higher rates. Second, our results have potential implications for theories of justice, particularly attributional theories. In contrast to theories that argue that the relative competitiveness or cooperativeness of the relation should affect perceived fairness through its effect on self-serving attributions (Thompson and Lowenstein 1992), we find no evidence of mediation by attribution of responsibility or intent. Furthermore, the salience of conflict does not affect cognitive perceptions of objective inequality. Disadvantaged subjects in all forms of exchange correctly perceived the distribution of benefit as unequal in their partner's favor, but perceptions of inequality translated into perceptions of unfairness only as the conflict in the relation became more salient. Attributing responsibility and intent for unequal outcomes to the partner does increase perceptions of the partner and the outcome distribution as unfair (Cohen 1982), but these attributions do not mediate the relation between the salience of conflict and fairness. This finding suggests that the features of the exchange process that enhance the conflictual elements of exchange affect perceived fairness through a more direct process, not by prompting an attributional search for the causes of inequality. Heightened conflict creates a relational context in which inequality is more likely to be perceived as unfair, regardless of attributions of responsibility or intent.

Our findings also support Bies' (2001) call for distinguishing between the fairness of decision procedures and the fairness of interpersonal treatment; clearly, our subjects perceived the two quite differently, with the form of exchange strongly affecting the latter but not the former. The lack of patterned results for procedural fairness may reflect the conflict that subjects faced in evaluating the procedures in the different forms of exchange. On the one hand, negotiated exchanges meet more of the criteria of procedural fairness such as joint decision-making, communication of offers and counteroffers, and advance knowledge of terms (Molm et al. 2003). On the other hand, the same procedures that ostensibly make negotiated exchanges fairer also increase the salience of conflict and actors' negative affect toward one another. The different responses may also reflect the different loci of control involved in the two types of justice (i.e., the process by which subjects exchanged benefits was dictated by the experimenter, while interpersonal treatment was under the partner's control).

In natural settings, exchanges vary on the same kinds of characteristics that we studied in the laboratory. The prototypical form of reciprocal exchange that served as our baseline, in which actors exchange benefits of fixed value and inequality emerges primarily from different rates of reciprocity that impose different opportunity costs on participants, describes many of our everyday exchanges: helping a neighbor with a discrete task, giving a co-worker advice on a problem, accompanying our spouse to his or her office party. Exchanges tend to have these characteristics when the resources exchanged are not divisible on some continuous scale and the primary cost is the time invested in the act of benefitting another. As our research shows, inequalities in these kinds of exchanges, produced by differences in the frequencies with which individuals perform acts that benefit one another, are less likely to be evaluated as unfair even if they are perceived as objectively unequal.

When the resources exchanged become divisible and quantifiable so that individuals can easily compare and actively control the value of their reciprocity, fairness becomes more of an issue. To the extent that inequality occurs on discrete, identifiable transactions, inequality is more likely to be perceived as unfair. And when those characteristics are combined with the cooperative structure of formally negotiated exchanges, concerns with the fairness of the transaction can actually dominate behavior and lead to actions that help neither party. This has important implications for the widespread use of negotiation in economic and political transactions. While the process of negotiation is objectively fair, unintended effects on subjective feelings of injustice may affect transactions and relationships in undesirable ways. Our research suggests that one way to counter these negative effects is to embed negotiated transactions in social relationships that include reciprocal exchanges on other dimensions (Granovetter 1985). Another alternative is to conduct negotiations with third-party mediators

who may reduce the salience of conflict by making bargaining less direct (Lind et al. 1993). Both of these options have received considerable attention in the organizational literature, and both could improve exchange outcomes by reducing the salience of relational conflict.

Notes

1. We also studied two of our four forms of exchange – negotiated exchange and reciprocal exchange with variable value and indirect cost – under conditions in which the subject was equal or advantaged in exchange. Differences between negotiated and reciprocal exchange on perceived fairness tended to decrease as exchanges became more favorable to the subject, as we expected, but none of the interactions between form and level of inequality reached statistical significance. In the interests of space, we have omitted these conditions from the results reported here.

2. This fairly moderate level of inequality was based on previous research by Molm et al. (2003). Higher levels of inequality produce substantially lower frequencies of exchange in the negotiated conditions, but have little effect on perceived fairness in either reciprocal or negotiated exchange.

3. To create a ratio of 10 gives from A for every 14 gives from S, the probability of A's giving if S gave on the previous opportunity was .64, and the probability of A's giving if S did not give was .07. These conditional probabilities produce an expected outcome of approximately 10 points per opportunity [$(14 \times .64) + (14 \times .07) = 9.94$].

4. Analyses were conducted with and without controls for the number of points that S gave to A in this condition; results were essentially the same.

5. For example, if S gave 4 points to A, keeping 2 for self, then on the next opportunity A gave 3 points to S, keeping 3 for self. S's total points for that exchange were $[2 + (3 \times 3)] = 11$, and A's total points were $[3 + (4 \times 3)] = 15$. At the midpoint of the 1 to 6 point range, the exchange ratio was 10:14, as in the other conditions.

6. Because we found no systematic relation between form and procedural fairness, and because the relation between form and exchange frequency is nonlinear, we do not test our causal model on these two dependent variables.

7. We also tested the interaction terms between exchange form and each of the mediating variables for the relevant models; adding the interaction terms did not significantly increase R^2 for any of the models. In addition, we replicated the regression analyses in tables 3-5 with the two reciprocal conditions with variable value (and either indirect or direct cost) combined as a single point on the continuum; the pattern of results was identical.

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