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The Structure of Reciprocity

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Reciprocity is one of the defining features of social exchange and social life, yet exchange theorists have tended to take it for granted. Drawing on work from a decade-long theoretical research program, I argue that reciprocity is structured and variable across different forms of exchange, that these variations in the structure of reciprocity have profound effects on the emergence of integrative bonds of trust and solidarity, and that these effects are explained and mediated by a set of risk- and conflict-based processes. I discuss the consequences of this work for organizational theories of embeddedness and the production of social capital through network ties. Finally, I ask how the structure of networks and the structure of reciprocity are related to one another, and explore possible implications of the structure of reciprocity for exchange theorists' assumptions about actor motivations.

Keywords: social exchange, reciprocity, solidarity, networks

Reciprocity, the giving of benefits to another in return for benefits received, is one of the defining features of social exchange and, more broadly, of social life. Many sociologists have recognized its importance over the years. In the early 1900s, Hobhouse (1906:12) called reciprocity “the vital principle of society” and Simmel (1950:387) noted that social equilibrium and cohesion could not exist without “the reciprocity of service and return service.” In the

mid-1900s, both Becker and Gouldner called attention to the seemingly universal character of reciprocity. Becker (1956:1) referred to our species as “homo reciprocus,” while Gouldner (1960) suggested that a “norm of reciprocity” helps assure that people help others who have helped them in the past. More recently, evolutionary biologists and experimental economists have proposed that we are hard-wired for reciprocity, and have described reciprocity as the evolutionary basis for cooperation in society (Nowak and Sigmund 2000).

Exchange theorists, on the other hand, have tended to take reciprocity for granted, partly because it is part of the definition of exchange. Emerson (1972b), for example, noted that since reciprocity is not a variable attribute of exchange relations, it is of little theoretical interest. Reciprocity has also been overlooked because sociological exchange theorists have for decades concentrated on forms of exchange that involve only a single type of reciprocity: two-party direct exchanges in which bilateral agreements are jointly negotiated.

Throughout my career, I have studied a different form of exchange—what I and others have called reciprocal exchange (Molm 1994). In reciprocal exchange, actors perform

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individual acts that benefit another, like giving help or advice, without negotiation and without knowing whether or when the other will reciprocate. My focus on reciprocal exchange came out of my early training in behavioral sociology (Burgess and Bushell 1969); many of the early behavioral experiments were conducted under minimal information conditions in which the reciprocal exchange of benefits was all that subjects experienced, so reciprocity was very salient. I was influenced, too, by the classical theories of our tradition; reciprocal exchange is what Homans (1961), Blau (1964), and Thibaut and Kelley (1959) all had in mind when they developed the social exchange approach in the 1950s and 1960s. I would argue that it is also what Emerson (1972a, b) had in mind when he developed his theory of power-dependence relations.

About 15 years ago, I became interested in how these different forms of exchange that my colleagues and I were studying—negotiated exchange versus reciprocal exchange—might be affecting our theories and our experimental findings. I wrote an initial paper on this topic back in the early 1990s (Molm 1994), and in the late 1990s I began a new program of research comparing different forms of exchange. One product of that work is an extensive set of findings about the effects of different forms of exchange on both behavior and affective bonds. A second product is a theory of reciprocity that explains why different forms of exchange have such different effects on the development of trust and affective bonds. A third product—an ongoing one—is an effort to link this theoretical and experimental work to organizational and network theories of embeddedness and social capital. And a fourth product is some very preliminary thoughts on the implications of reciprocity for the motivational assumptions that underlie our theories of exchange. This latter product also owes a debt to my earlier work on coercive power and risk aversion (Molm 1997).

In this address I draw on this work, now in its final phases, to make three central points about reciprocity and its effects, and to discuss the implications of this work for theories

of social capital, organizations, networks, and social exchange.

I begin by developing these three points:

1. **Reciprocity is structured.** It is not just a norm, not just a process, and it is variable across different forms of exchange.
2. **The structure of reciprocity has profound consequences for social relationships, not only for exchange and power but for the emergence of trust and solidarity.**
3. Dimensions of reciprocity produce these effects through mechanisms of risk, uncertainty, and conflict.

I then turn to the implications of this work for both social life and social theory, by addressing these questions: First, what are the consequences of reciprocity in interpersonal relationships for organizational theories of embeddedness and for the production of social capital through network ties? Second, what is the relation between the structure of reciprocity and the structure of exchange networks? Third, what does a theory of reciprocity suggest about the actor motivations that underlie the development of exchange relations, and what are the implications for our theories of social exchange?

RECIPROCITY IN SOCIAL EXCHANGE: A RESEARCH PROGRAM

The Structure of Reciprocity

One of the hallmarks of contemporary exchange theory is its emphasis on structure. This emphasis has its roots in the classical theories of Blau (1964) and Simmel (1950), but it was Emerson (1972b) who really transformed the exchange approach from the study of the actors who exchange to the study of the structures that govern exchange. The structure on which Emerson and others have focused is the structure of exchange networks—their size, shape, and connections. As three decades of path-breaking research have shown, network structure is highly important; it defines the opportunity structure for exchange and

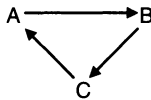
DIRECT RECIPROCITY



a. Unilateral Flow of Benefits in Reciprocal Exchange

b. Bilateral Flow of Benefits in Negotiated Exchange

INDIRECT RECIPROCITY



c. Unilateral Flow of Benefits in Chain-generalized Exchange

Figure 1. The Structure of Reciprocity in Three Forms of Exchange

affects the distribution of power among actors and the inequality of benefits.¹ But it is not the only structure that matters in exchange relations.

Network structures describe how actors and relations of direct exchange are connected to one another. The structure of reciprocity describes, instead, how actors' exchange behaviors and exchange benefits are connected to one another. My work has focused on two key dimensions of structure that underlie and distinguish different forms of exchange: first, whether benefits can flow unilaterally or only bilaterally between actors; second, whether benefits are reciprocated directly or indirectly. These two dimensions distinguish among three primary forms of social exchange: direct negotiated exchange, direct reciprocal exchange, and indirect or generalized exchange (Figure 1).

The first dimension, whether benefits flow unilaterally or bilaterally, distinguishes between the two forms of direct exchange—negotiated and reciprocal—that were the original focus of my theorizing and my research (Figure 1a, b). In reciprocal

exchange, benefits flow unilaterally: Each actor's outcomes depend solely on another's *individual* actions (A gives to B, and B gives to A). This means that actors can initiate exchanges that are not reciprocated, and vice versa. 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 always *bilateral*: Actors jointly negotiate an agreement that provides benefits for both actors (A and B), whether equal or unequal.

To understand what this difference means for the flow of benefits in exchange networks, consider the simple three-actor network in Figure 2. In this negatively connected network (Emerson 1972b), actors choose among partners who are alternative sources of the same

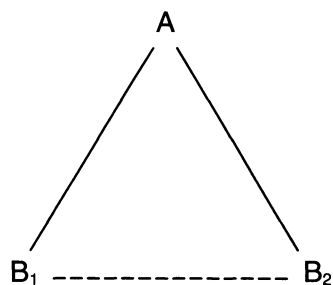


Figure 2. A Three-Actor Exchange Network
 Note: Solid lines indicate potential relations with high exchange value, and dashed lines indicate potential relations with low exchange value.

¹ This work includes research by Cook, Emerson, and their associates on power-dependence theory (Cook and Emerson 1978; Cook and Yamagishi 1992); by Willer, Markovsky, and their associates on network exchange theory (Markovsky, Willer, and Patton 1988); by Friedkin (1992) on expected value theory; and by Bienenstock and Bonacich (1992) on game theoretic solutions.

resource, such as raw materials or advice. Each actor has two alternative partners, as indicated by the lines connecting them. When exchanges are negotiated, actors in the network explore potential exchanges with each of their alternative partners until they reach an agreement with one particular partner. That agreement creates a dyadic unit; it specifies the benefits that each actor will receive from the exchange, and the mutual exchange of those benefits forms a discrete, self-contained transaction. In some networks, like this one, the creation of that dyadic unit (e.g., an agreement between A and B₁) can leave other actors (B₂) with no agreement and no benefits.

In contrast, when exchanges are reciprocal, exchange activity is not restricted to dyadic units. Benefits flow unilaterally, from one actor to another, and *all* actors in the network can initiate exchange with another actor at any given time. Some initiations may be reciprocated immediately, others later, and some never. For example, in this network, both Bs might initiate exchange with A, say by giving some kind of assistance to A, while A reciprocates B₁'s giving. B₂'s giving to A is not reciprocated immediately, but might be later—and in the meantime, A still benefits from B₂'s giving. Because acts of unilateral giving are reciprocated over time, in the course of ongoing relations rather than discrete transactions, the unit of exchange necessarily becomes the *relation* of recurring interactions between actors that Emerson (1972a) envisioned as the smallest unit of analysis in exchange theory. This relation takes the form of a series of sequentially contingent, individual acts, in which discrete transactions are difficult to identify because the same act that completes one exchange often initiates another.

Later in the program we incorporated a third form of exchange in our analysis—generalized exchange (Molm, Collett, and Schaefer 2007). Generalized exchange adds a second dimension to the structure of reciprocity, whether reciprocity is direct or indirect (Figure 1c). In generalized exchange, one actor gives benefits to another, and receives benefits from another, *but not from*

the same actor. Benefits flow unilaterally, as in reciprocal exchange, but reciprocity is indirect. A's giving to B is not reciprocated directly, by B's giving to A (as in reciprocal and negotiated exchange), but rather by a third party in the social circle, whom we can call C. A, B, and C might compose a chain-generalized system of exchange (as shown in Figure 1c), or they might be part of a larger, more diffuse network, with no defined structure—what Takahashi (2000) has called “pure-generalized” exchange. In structures of indirect reciprocity, each actor is dependent not on a single other, as in direct forms of exchange, but on all actors who contribute to maintaining the collective system (Yamagishi and Cook 1993).

For many years, sociologists paid little attention to generalized exchange. Homans (1961) felt strongly that exchange theorists should concentrate their attention on direct exchanges, and we did. But along with scholars from other disciplines, sociologists are increasingly recognizing both the prevalence of generalized reciprocity in modern social life and its role in the production of societal cooperation. Generalized exchange is not simply a form of interaction that occurred in the primitive societies studied by early anthropologists (Lévi-Strauss 1969; Malinowski 1922; Mauss 1925), but a common and important feature of business organizations, neighborhoods, and the vast and growing network of online communities (Kollock 1999; Lazega and Pattison 1999; Uehara 1990).

Integrative Outcomes of the Structure of Reciprocity

When I began this research program, I was interested in studying how different forms of exchange, varying on these dimensions of reciprocity, affect power use. Because of the differences in how benefits flow through networks in negotiated and reciprocal exchange, the effects of network structure on power—particularly the effects of actors' access to alternative partners—should differ for the two forms of exchange. My colleagues and I found some support for these predictions (Molm, Peterson, and Takahashi 1999), but

the most interesting findings were unexpected and serendipitous.

In addition to our behavioral measures of exchange and power use, we asked subjects to evaluate their partners and relationships on a series of semantic differential scales that were included in a post-experimental questionnaire. When we examined subjects' responses, we found striking differences between the two forms of exchange on a variety of affective dimensions. These findings essentially changed the course of the research program and led to a new focus on what I call *integrative outcomes*: outcomes that reflect how exchange brings people together, through the emergence of bonds of trust, affective regard, and solidarity.²

This movement from the study of power to the study of trust and affective bonds was part of a more general shift during the 1990s, particularly among power-dependence theorists, including my colleagues Karen Cook and Edward Lawler.³ It marked a return to the classical roots of the exchange tradition and a recognition of the dual effects that mutual dependence can have on relationships: what Peter Blau (1964) called "differentiation" (processes of power and conflict) and "integration" (processes of attraction and cohesion). The study of power and inequality that dominated exchange work during the 1980s and into the 1990s was about differentiation; the study of trust, commitment, and affective bonds is about integration. Our return to these topics also coincided with the growing interest of organizational, political, and social network theorists in the development of social capital

and the well-being of communities (Paxton 2002; Portes 1998; Putnam 1993).

Over the years, as the research program developed and a theory of reciprocity began to take shape, my colleagues and I studied a variety of integrative bonds, reflecting ties to both the exchange partner and the relationship. Here is a brief summary of what we found in many experiments over the years:

First, actors engaged in reciprocal exchange trust their partners more, express more affective regard for them, and feel more committed to them than actors engaged in negotiated exchange (Molm, Takahashi, and Peterson 2000). They also perceive their relationships as more united and harmonious—as relations between partners rather than adversaries (Molm, Collett, and Schaefer 2007).

Second, behaviors that signal the exchange partner's trustworthiness—such as their behavioral commitment to the actor—have stronger effects on trust and affect when exchanges are reciprocal rather than negotiated (Molm et al. 2000). Actors who negotiate agreements are just as likely to form *behavioral* commitments, but these commitments are less likely to translate into *affective* bonds.

Third, despite the seemingly greater procedural fairness of negotiated exchange (the joint decision-making, greater "voice," advance knowledge of terms), actors perceive their partner's treatment of them as fairer when exchanges are reciprocal, both for exchanges that are objectively equal and ones that are objectively unequal (Molm, Takahashi, and Peterson 2003). Actors are also more willing to participate in unequal exchanges that disadvantage them when exchanges are reciprocal rather than negotiated (Molm, Collett, and Schaefer 2006).

Fourth, generalized exchange produces stronger integrative bonds, on all of these dimensions (greater trust, affective regard, and solidarity), than either form of direct exchange (Molm et al. 2007).

All of these effects are independent of key dimensions of behavior: Actors who engage in exchanges with the same frequency and the same equality (or inequality) feel differently about their partners and

² I define trust as the belief that the exchange partner can be relied upon to help, rather than to exploit, the actor. Affective regard refers to positive feelings toward the partner, combined with positive evaluations of the partner's character. Solidarity is the actor's assessment of the relationship with the partner as one of unity and harmony, a partnership that is mutually beneficial to both.

³ See, for example, Cook's work on trust (Cook 2005; Cook and Hardin 2001; Cook, Hardin, and Levi 2005); Lawler and Yoon's work on relational cohesion theory (Lawler and Yoon 1993, 1996, 1998), and Lawler's (2001) affect theory of exchange.

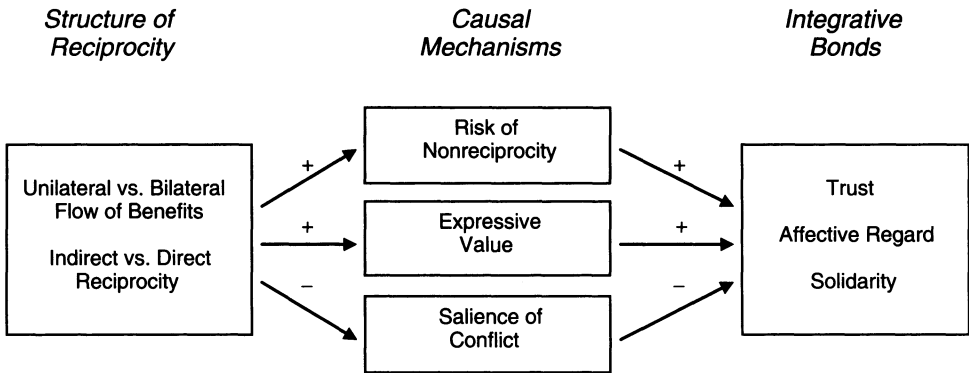


Figure 3. Causal Model for the Reciprocity Theory of Social Exchange

relationships when those exchanges take different forms. These effects are also independent of the resources exchanged, the value of the resources, the structure of the network, and the history of association among actors. They are solely the product of how exchange is experienced under different structures of reciprocity, and what those different experiences mean for the emergence of integrative bonds.

A Theory of Reciprocity in Social Exchange

So, what is it about that experience that produces these strong and consistent effects? The reciprocity theory of exchange that we developed and tested in the second phase of the project links the structure of reciprocity to integrative bonds through its effects on a set of risk- and conflict-based mechanisms (Molm et al. 2007), as shown in Figure 3.

First, the unilateral flow of benefits in reciprocal and generalized exchange makes exchange risky and uncertain. When actors give to another with no assurance of reciprocity, they risk potential loss—giving to another while receiving little or nothing in return. And when reciprocity is indirect, rather than direct, risk is even greater; actors are dependent on the actions of multiple others in a collective system rather than on a single other. Risk increases integrative bonds by promoting trust; as many scholars have recognized, risk is a necessary condition for proving one's own trustworthiness, and for judging

another's (Kelley and Thibaut 1978; Kollock 1994; Molm et al. 2000; Yamagishi and Yamagishi 1994).

In addition to building trust, acts of reciprocity that are voluntary and uncertain—rather than a taken-for-granted part of a bilateral agreement—convey expressive value, over and above the instrumental benefits of exchange (Molm et al. 2007). In direct exchange, such acts communicate regard for the partner and a desire to continue the relationship (Kollock and O'Brien 1992; Kranton 1996; Offer 1997).

Acts of indirect reciprocity convey even greater expressive value, because they benefit another to whom the giver owes no direct debt and at the same time contribute to maintaining a collective enterprise that benefits the network as a whole.

The structure of reciprocity also affects integrative bonds by making either the competitive or the cooperative aspects of mixed-motive exchanges more salient to the actors (Molm et al. 2006). Bilateral flows of benefit heighten awareness of the competitive, conflictual elements, while unilateral flows mute their salience, by making it harder for actors to compare what each receives from exchange, and by diffusing responsibility for both the costs and the inequalities of exchange. Indirect reciprocity further reduces the salience of conflict, by removing any direct reciprocal relation between benefactor and recipient. Heightened awareness of conflict increases sensitivity to inequalities in exchange (Deutsch 2000) and increases

actors' tendencies to perceive the partner's behavior in a negative light (Hegtvedt and Killian 1999).

Our research supported the independent effects of all three of these causal mechanisms, and also produced new findings suggesting that no single mechanism could account for all of the differences between the forms of exchange:

First, increasing the riskiness of negotiated exchanges, by making agreements nonbinding, should increase trust, and it does (Molm, Schaefer, and Collett 2009). But the trust produced is less resilient—less forgiving of the partner's occasional digressions from trustworthiness—and less affect-based than the trust between reciprocal exchange partners. **In reciprocal exchanges, trust and affective regard for the partner go hand-in-hand; in negotiated exchanges, trust is not tied to affective bonds, and it is quickly destroyed when the other's trustworthiness is less than ideal.**

Second, we can reduce the differences between reciprocal and negotiated exchange by making conflict more salient in reciprocal exchange (Molm et al. 2006). But the gap between the two forms of exchange in feelings and perceptions never closes completely, and actors remain far more willing to participate in unequal reciprocal exchanges that disadvantage them than in unequal negotiated exchanges.

Third, under some conditions actors allocate their reciprocal giving, and their feelings of trust and affective regard, to different partners, exchanging most often with the partner whose resources are more valuable, but forming stronger integrative bonds with the partner whose reciprocity is more constant (Molm et al. 2007). These bonds of trust and solidarity contribute to building reserves of social capital that may influence behavioral choices in the future; for example, when choosing a partner for a new and risky endeavor.

IMPLICATIONS FOR ORGANIZATIONS, EMBEDDEDNESS, AND SOCIAL CAPITAL

The structure of reciprocity has consequences not only for interpersonal relationships, but

for organizations and communities. For many years scholars assumed that forms of exchange based on direct reciprocity or generalized reciprocity were fairly irrelevant in large, complex, modern societies, in which many transactions occur among strangers and binding agreements are necessary to reduce risk.

We tended to associate these forms of exchange, and their reliance on repeated interactions among the same actors, with small, close-knit communities, or exchanges among family and friends.

We now recognize that these assumptions were incorrect, or at least overstated. Reciprocal and generalized forms of exchange are neither rare nor unimportant in modern life. Since Granovetter's (1985) classic work, sociologists have increasingly documented the extent to which even economic exchanges are embedded in networks of social relationships with diverse structures of reciprocity. In the organizational literature, scholars commonly distinguish between purely "arms-length" market exchanges characterized by negotiated deals with monetary outcomes and reciprocal exchanges embedded in long-term relationships in which domains of value expand beyond the purely economic (Kranton 1996; Larson 1992; Uzzi 1996). More recently, organizational theorists have shown that generalized reciprocity explains patterns of behavior in a variety of organizational settings, including across units (Lazega and Pattison 1999), across industries (Zuckerman and Sgourev 2006), and within professional collectives (Westphal and Zajac 1997).

These embedded relationships and generalized exchange networks produce a number of valuable outcomes: reduced transaction costs, greater knowledge sharing, facilitated decision-making, and forms of assistance that would otherwise not occur (Kollock 1999; Levine and Baker 2008; Uzzi 1996). Many of these benefits are tied, implicitly or explicitly, to the development of trust and affective bonds.

Organizational theorists have typically attributed these positive outcomes to the personal nature of embedded relationships: the history of association between actors, their

close personal ties, exchanges in multiple resource domains, and so forth (Kranton 1996; Uzzi 1996). But as important as these factors are, our research shows that reciprocal forms of exchange can produce strong bonds of trust and solidarity between actors even in the absence of a close personal relationship, whereas repeated exchanges between the same actors—even ones showing strong evidence of behavioral commitment—are less likely to generate bonds of trust and affective attachment when those exchanges are negotiated, especially when the actors in the relationship are unequal in power.⁴

All of this suggests that the structure of reciprocity is an underappreciated and highly important aspect of creating social capital through networks of relationships and through embeddedness. Social capital has been conceptualized in many ways, but one of the most widely accepted is Nan Lin's (2002) definition of social capital as *access to resources through network ties*.

This is the definition that Karen Cook used in her 2004 Cooley-Mead address (Cook 2005), and it has the advantage of emphasizing the source of social capital—our connections to others, and to their networks—rather than its outcomes, such as trust. While network ties may be a necessary ingredient for building social capital, though, I would argue that they are not a sufficient one. Just as organizational theorists have found that networks need strong, embedded ties as well as weak, arms-length ties to produce the benefits associated with social capital (Uzzi 1999), our work suggests that the structure of reciprocity in these networks must include either direct or generalized reciprocity, with unilateral giving. In addition, the kinds of resources that are usually associated with social capital and acquired through network ties—such as social support, information about opportunities, informal kinds of assistance—are most typically acquired, in

natural settings, through reciprocal or generalized forms of exchange, not negotiated exchange.

My current research, which is the final phase of my long-term project on reciprocity, is designed to link the social psychology of reciprocity more directly with the organizational literature, by studying relations in which different forms of exchange are combined in more complex relationships of dynamic histories and contextual embeddedness. As organizational researchers have documented, some relationships evolve over time, changing in form from their initial history to their later development (DiMaggio and Louch 1998). For example, a personal relationship, characterized by reciprocal exchange, may precede a business relationship with negotiated transactions. In others, the use of one form of exchange may be embedded in a relationship that is based primarily on a different form, with both forms of exchange characterizing the relation at a particular time and with the actors in the relation experiencing both forms repeatedly during their interaction. Although Granovetter (1985) and others have focused on embedded economic behavior, the direction of embeddedness works in both ways: Just as economic transactions are often embedded in social relations, new social relationships are sometimes reverse-embedded in economic transactions (Uzzi 1996).

Our research abstracts one key element—the *form* of exchange—from these complex sets of relationship histories and contexts, and tests, in a series of laboratory experiments, how the earlier or dominant form of exchange “sets the stage” for understanding and responding to experiences with the later or embedded form of exchange. This work is one example of the ways in which laboratory experiments and research in natural settings can mutually inform and build upon one another. We have recently completed the first experiment, studying dynamic histories of relationships, and our results so far are quite striking, showing that *any experience with reciprocal exchange, whether it comes early in a relationship or later,*

⁴ As Lawler and Yoon's (1996, 1998) work shows, repeated negotiated exchanges can lead to affective bonds and feelings of commitment when actors are equal in power.

fundamentally changes the affective character of the relationship.

RELATIONS BETWEEN THE STRUCTURE OF RECIPROCITY AND THE STRUCTURE OF NETWORKS

The role of both networks and reciprocity in the production of social capital raises a more general question of how the structure of networks connecting actors, and the structure of reciprocity connecting their behaviors and benefits, are related to one another. Let me briefly describe three aspects of their relationship.

First, each structure has independent effects on integrative bonds, net of the other. Integrative bonds are stronger in forms of exchange with unilateral flows of benefit and indirect reciprocity (Molm et al. 2000, 2007), and they are stronger in networks with high mutual dependence and equal power (Lawler and Yoon 1998).

Second, the two structures interact with each other in their effects on integrative bonds. Effects of the structure of reciprocity are greater in networks of unequal power and greater for power-disadvantaged actors than for power-advantaged actors. Power differences accentuate the risk- and conflict-based mechanisms that underlie effects of the structure of reciprocity (Molm et al. 2007). They increase the risk and uncertainty of reciprocal exchange, particularly for disadvantaged actors, and they increase the salience of conflict in negotiated exchange—again, particularly for disadvantaged actors. An important consequence of these effects is that reciprocal exchange reduces the differences in how actors in an unequal power relation perceive each other.

Third, exchange networks structure interaction in ways that either encourage repeated exchanges between the same actors or reduce the likelihood of such behavioral commitments, and those commitments are important for the development of integrative bonds—especially in forms of exchange with unilateral giving (Molm et al. 2000). In generalized exchange, networks that create structured patterns of giving, such as chain-generalized

exchange, encourage repeated acts of unilateral giving from a particular benefactor to a particular recipient. In direct exchange, networks that create differences in power—differences in actors' relative dependencies on particular partners—affect the formation of behavioral commitments (Cook and Emerson 1978). More dependent, less powerful actors will seek committed relations with their more advantaged partners, to reduce uncertainty, and whether their advantaged partners reciprocate that commitment has strong effects on their feelings for them. But when exchange networks are balanced on power, offering all actors alternative partners who are equally dependent on them and who offer equivalent resources of equal value, actors will be structurally indifferent as to whom they exchange with, and they will be less likely to develop regular patterns of reciprocity with any particular partner. Commitment could come from other sources—from common social identities, for example (Tajfel and Turner 1986)—but it will not come from the network structure.

These connections between the structure of power in exchange networks, and the structure of reciprocity in different forms of exchange, suggest an important link between Blau's (1964) processes of differentiation and integration. Although power inequality reduces integration, its negative effects can be countered by forms of exchange with unilateral giving. Reciprocal exchange enables actors to overcome the divisions created by power and to develop the trust and affective bonds that promote productive exchange relations. As a result, power and trust need not be mutually exclusive, as some have suggested (e.g., Granovetter 2002).

IMPLICATIONS FOR ASSUMPTIONS ABOUT ACTORS' MOTIVATIONS

Finally, the structure of reciprocity may affect our theories of exchange in a more fundamental way, through its implications for our assumptions about actors' motivations. Virtually all exchange theories, from classical to contemporary, assume that actors

are self-interested, seeking to increase outcomes they positively value and decrease outcomes they negatively value. This general motivational assumption has been elaborated in two distinct models. Rational actor models assume actors cognitively weigh the potential benefits and costs of alternatives, based on available information, and make choices that maximize outcomes over the long term. Learning models assume, instead, that actors simply respond to consequences of past actions, without conscious weighing of alternatives, and often without maximizing outcomes—especially if short-term and long-term benefits are at odds.

The structure of reciprocity may affect these assumptions in at least two ways. First, it may affect which of these models—the rational actor model or the learning model—is a better fit for our theories. Just as Emerson (1987) suggested that the role of rational calculation versus conditioned learning may depend on whether actors make comparisons within or across value domains, so may rational actor assumptions be more compatible with negotiated transactions, which encourage actors to calculate and compare the relative benefits of alternative agreements, while learning principles may apply more to reciprocal and generalized exchange, in which actors sequentially respond to other's actions over time. It is no surprise, I believe, that with the rise of theorizing based on negotiated exchanges, beginning in the late 1970s, rational actor models also became more common.

Second, the structure of reciprocity affects the role of risk in behavioral choices. Although the general motivational assumption of exchange is that actors seek to gain benefits and avoid losses, nearly all contemporary theories base predictions on the first half of that assumption—that actors try to maximize benefits or profits. But my research on reciprocal exchange—both my earlier study of coercive power (Molm 1997), which focused exclusively on reciprocal exchange, and my more recent work comparing different forms of exchange—suggests that risk avoidance dominates behavior in reciprocal exchange, with

actors opting for reciprocity even when it does not maximize their outcomes. In reciprocal exchange, both advantaged and disadvantaged actors give to others as others give to them, avoid unilateral giving for any extended period, and choose steady, predictable commitments over other, more profitable strategies that would require accepting some uncertainty and some short-term costs in order to maximize long-term gain (Molm, Peterson, and Takahashi 1999, 2001).⁵

That people are loss averse, and that losses loom larger than equivalent gains in making decisions, is now a well-established principle of behavioral economics (Kahneman and Tversky 1979; Tversky and Kahneman 1991). But it is a principle that most contemporary exchange theorists, focusing exclusively on reward exchanges under relatively risk-free conditions, have been able to ignore. In my work on coercive power, loss aversion explained why actors who were disadvantaged on reward power rarely used coercion against their advantaged partners as a means of reducing the inequality of their exchanges (Molm 1997). Coercion was risky for these highly dependent actors, and fear of loss constrained their actions. More generally, as risk increases in social exchange, loss aversion becomes more important. Consequently, we should expect that minimizing losses would be more important in reciprocal than in negotiated exchange, and most important in generalized exchange. And, indeed, opportunity costs have the strongest suppressive effect on generalized exchange, because they increase risk in these already highly risky structures (Molm et al. 2007).

⁵. The option of accepting some short-term costs in return for long-term gain assumes a continuing relation of recurring exchanges between the same actors. This is an assumption, more generally, of the social exchange framework and power-dependence theory (Emerson 1972b; Molm 2006), and it characterizes the study of both reciprocal and negotiated exchange in this research program. At the same time, it is worth noting that while reciprocal exchange requires repeated interaction between actors, negotiated exchange does not—negotiated transactions can be either one-shot or recurring, and either independent or serially dependent. For a more extended discussion of these differences, see Molm (1994).

Finally, there is an additional motivation that may explain why actors in reciprocal exchange choose to give to others who give to them, even when that exchange pattern does not maximize their gains: as we have seen, the act of reciprocity itself has value—expressive value—over and above the instrumental value of benefits obtained through exchange. Consequently, maintaining or increasing the frequency of the partner's reciprocity may be a stronger motivation than maximizing the value of the benefits obtained from exchange. The possibility of this kind of motivation in exchange is consistent not only with the results of this research program, but with recent work by Lawler and his associates emphasizing the role of affective and emotional processes in social exchange (Lawler 2001; Lawler and Yoon 1993).

CONCLUSION

Reciprocity is both a defining feature of social exchange and a source of societal cooperation and solidarity. Here, I have briefly described a program of research and a theory of reciprocity that offers a more nuanced conception of reciprocity as a variable characteristic of exchange whose effects on solidarity and trust depend on its structure. Forms of exchange in which actors reciprocate unilateral acts of giving, either directly or indirectly, promote bonds of trust, affective regard, and solidarity by increasing risk and uncertainty and by muting the salience of conflict. Actors who engage in these forms of exchange experience a fundamentally different relationship than actors who negotiate bilateral agreements with binding terms. I have suggested that the bonds of trust and solidarity produced by particular structures of reciprocity contribute to the creation of social capital in communities and to our understanding of the effects of embeddedness in organizations. Both direct and generalized reciprocity promote positive feelings and perceptions of relationships that counter the negative effects of power inequality and that strengthen the networks and communities of which they are a part.

The theory I have outlined begins with micro structures of reciprocity and describes their effects on integrative bonds. But these effects can also lead to structural change in ways I have not considered here. Direct or generalized reciprocity might not only counter the negative effects of power inequality, but lead to efforts to change the structure of power. Whether trust and solidarity emerge, and to what extent, might affect both the endurance of exchange relationships and the stability of exchange networks. In these and other ways, relations between micro structures of reciprocity and more macro structures of society are themselves likely to be reciprocal.

REFERENCES

- Becker, Howard. 1956. *Man in Reciprocity*. New York: Praeger.
- Bienstock, Elisa Jayne and Phillip Bonacich. 1992. "The Core as a Solution to Exclusionary Networks." *Social Networks* 14:231–43.
- Blau, Peter M. 1964. *Exchange and Power in Social Life*. New York: Wiley.
- Burgess, Robert L. and Don Bushell. 1969. *Behavioral Sociology: The Experimental Analysis of Social Process*. New York: Columbia University Press.
- Cook, Karen S. 2005. "Networks, Norms, and Trust: The Social Psychology of Social Capital." *Social Psychology Quarterly* 68:4–14.
- Cook, Karen S. and Richard M. Emerson. 1978. "Power, Equity, and Commitment in Exchange Networks." *American Sociological Review* 43:721–39.
- Cook, Karen S. and Russell Hardin. 2001. "Norms of Cooperativeness and Networks of Trust." Pp. 327–47 in *Social Norms*, edited by Michael Hechter and Karl Dieter Opp. New York: Russell Sage.
- Cook, Karen S., Russell Hardin, and Margaret Levi. 2005. *Cooperation Without Trust?* New York: Russell Sage.
- Cook, Karen S. and Toshio Yamagishi. 1992. "Power in Exchange Networks: A Power-Dependence Formulation." *Social Networks* 14:245–65.
- Deutsch, Morton. 2000. "Justice and Conflict." Pp. 41–64 in *The Handbook of Conflict Resolution: Theory and Practice*, edited by Morton Deutsch and Peter T. Coleman. San Francisco, CA: Jossey-Bass.
- DiMaggio, Paul and Hugh Louch. 1998. "Socially Embedded Consumer Transactions: For What Kinds of Purchases Do People Most Often Use Networks?" *American Sociological Review* 63:619–37.

- Emerson, Richard M. 1972a. "Exchange Theory, Part I: A Psychological Basis for Social Exchange." Pp. 38–57 in *Sociological Theories in Progress*, Vol. 2, edited by Joseph Berger, Morris Zelditch Jr., and Bo Anderson. Boston, MA: Houghton-Mifflin.
- . 1972b. "Exchange Theory, Part II: Exchange Relations and Networks." Pp. 58–87 in *Sociological Theories in Progress*, Vol. 2, edited by Joseph Berger, Morris Zelditch, Jr., and Bo Anderson. Boston, MA: Houghton-Mifflin.
- . 1981. "Social Exchange Theory." Pp. 30–65 in *Social Psychology: Sociological Perspectives*, edited by Morris Rosenberg and Ralph H. Turner. New York: Basic Books.
- . 1987. "Toward a Theory of Value in Social Exchange." Pp. 11–45 in *Social Exchange Theory*, edited by Karen S. Cook. Newbury Park, CA: Sage.
- Friedkin, Noah. 1992. "An Expected Value Model of Social Power: Predictions for Selected Exchange Networks." *Social Networks* 14:213–29.
- Gouldner, Alvin W. 1960. "The Norm of Reciprocity: A Preliminary Statement." *American Sociological Review* 25:161–78.
- Granovetter, Mark. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91:481–510.
- . 2002. "A Theoretical Agenda for Economic Sociology." Pp. 35–61 in *The New Economic Sociology: Developments in an Emerging Field*, edited by Mauro Gillen, Randall Collins, Paula England, and Marshall Meyer. New York: Russell Sage.
- Hegtvedt, Karen A. and Caitlin Killian. 1999. "Fairness and Emotions: Reactions to the Process and Outcomes of Negotiations." *Social Forces* 78:269–302.
- Hobhouse, L. T. 1906. *Morals in Evolution: A Study in Comparative Ethics*. London, UK: Chapman and Hall.
- Homans, George C. 1961. *Social Behavior: Its Elementary Forms*. New York: Harcourt, Brace, and World.
- Kahneman, Daniel and Amos Tversky. 1979. "Prospect Theory: An Analysis of Decision Under Risk." *Econometrica* 47:263–91.
- Kelley, Harold H. and John W. Thibaut. 1978. *Interpersonal Relations: A Theory of Interdependence*. New York: Wiley.
- Kollock, Peter. 1994. "The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust." *American Journal of Sociology* 100:313–45.
- . 1999. "The Production of Trust in Online Markets." Pp. 99–123 in *Advances in Group Processes*, vol. 16, edited by Edward J. Lawler, Michael Macy, Shane Thye, and Henry A. Walker. Greenwich, CT: JAI Press.
- Kollock, Peter and Jodi O'Brien. 1992. "The Social Construction of Exchange." Pp. 89–112 in *Advances in Group Processes*, vol. 9, edited by Edward J. Lawler, Barry Markovsky, Cecilia Ridgeway, and Henry A. Walker. Greenwich, CT: JAI Press.
- Kranton, Rachel E. 1996. "Reciprocal Exchange: A Self-Sustaining System." *The American Economic Review* 86:830–51.
- Larson, Andrea. 1992. "Network Dyads in Entrepreneurial Settings: A Study of the Governance of Exchange Relationships." *Administrative Science Quarterly* 37:76–104.
- Lawler, Edward J. 2001. "An Affect Theory of Social Exchange." *American Journal of Sociology* 107:321–52.
- Lawler, Edward J. and Jeongkoo Yoon. 1993. "Power and the Emergence of Commitment Behavior in Negotiated Exchange." *American Sociological Review* 58:465–81.
- . 1996. "Commitment in Exchange Relations: Test of a Theory of Relational Cohesion." *American Sociological Review* 61:89–108.
- . 1998. "Network Structure and Emotion in Exchange Relations." *American Sociological Review* 63:871–94.
- Lazega, Emmanuel and Philippa E. Pattison. 1999. "Multiplexity, Generalized Exchange, and Cooperation in Organizations: A Case Study." *Social Networks* 21:67–90.
- Levine, Sheen S. and Wayne E. Baker. 2008. "The Emergence of Generalized Reciprocity." Presented at the 2008 annual meetings of the American Sociological Association, Boston, MA.
- Lévi-Strauss, Claude. 1969. *The Elementary Structures of Kinship*. Revised ed. Boston, MA: Beacon.
- Lin, Nan. 2002. *Social Capital: A Theory of Social Structure and Action*. Cambridge, UK: Cambridge University Press.
- Malinowski, Bronislaw. 1922. *Argonauts of the Western Pacific*. New York: E. P. Dutton.
- Mauss, Marcel. 1954. *The Gift*. Glencoe, IL: Free Press.
- Markovsky, Barry, David Willer, and Travis Patton. 1988. "Power Relations in Exchange Networks." *American Sociological Review* 53:220–36.
- Molm, Linda D. 1994. "Dependence and Risk: Transforming the Structure of Social Exchange." *Social Psychology Quarterly* 57:163–76.
- . 1997. *Coercive Power in Social Exchange*. Cambridge, UK: Cambridge University Press.
- . 2006. "The Social Exchange Framework." Pp. 24–45 in *Contemporary Social Psychological Theories*, edited by Peter J. Burke. Stanford, CA: Stanford University Press.
- Molm, Linda D., Jessica L. Collett, and David R. Schaefer. 2006. "Conflict and Fairness in Social Exchange." *Social Forces* 84:2331–52.
- . 2007. "Building Solidarity through Generalized Exchange: A Theory of Reciprocity." *American Journal of Sociology* 113: 205–42.
- Molm, Linda D., Gretchen Peterson, and Nobuyuki Takahashi. 1999. "Power in Negotiated and

- Reciprocal Exchange." *American Sociological Review* 64:876–89.
- . 2001. "The Value of Exchange." *Social Forces* 80:159–85.
- Molm, Linda D., David R. Schaefer, and Jessica L. Collett. 2007. "The Value of Reciprocity." *Social Psychology Quarterly* 70: 199–217.
- . 2009. "Fragile and Resilient Trust: Risk and Uncertainty in Negotiated and Reciprocal Exchange." *Sociological Theory* 27:1–32.
- Molm, Linda D., Nobuyuki Takahashi, and Gretchen Peterson. 2000. "Risk and Trust in Social Exchange: An Experimental Test of a Classical Proposition." *American Journal of Sociology* 105:1396–1427.
- . 2003. "In the Eye of the Beholder: Procedural Justice in Social Exchange." *American Sociological Review* 68: 128–52.
- Nowak, Martin A. and Karl Sigmund. 2000. "Shrewd Investments." *Science* 288:819–20.
- Offer, Avner. 1997. "Between the Gift and the Market: The Economy of Regard." *Economic History Review* 3:450–76.
- Paxton, Pamela. 2002. "Social Capital and Democracy: An Interdependent Relationship." *American Sociological Review* 67:254–77.
- Portes, Alejandro. 1998. "Social Capital: Its Origins and Applications in Modern Sociology." *Annual Review of Sociology* 24:1–24.
- Putnam, Robert D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.
- Simmel, Georg. 1950. *The Sociology of Georg Simmel*, translated and edited by Kurt Wolff. Glencoe, IL: Free Press.
- Tajfel, Henri and John C. Turner. 1986. "The Social Identity Theory of Intergroup Behavior." Pp. 7–24 in *Psychology of Intergroup Relations*, edited by Stephen Worchel and William G. Austin. Chicago, IL: Nelson-Hall.
- Takahashi, Nobuyuki. 2000. "The Emergence of Generalized Exchange." *American Journal of Sociology* 105:1105–34.
- Thibaut, John W. and Harold H. Kelley. 1959. *The Social Psychology of Groups*. New York: Wiley.
- Tversky, Amos and Daniel Kahneman. 1991. "Loss Aversion in Riskless Choice: A Reference-Dependent Model." *Quarterly Journal of Economics* 106:1039–47.
- Uehara, Edwina. 1990. "Dual Exchange Theory, Social Networks, and Informal Social Support." *American Journal of Sociology* 96:521–57.
- Uzzi, Brian. 1996. "The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect." *American Sociological Review* 61:674–98.
- . 1999. "Embeddedness in the Making of Financial Capital: How Social Relations and Networks Benefit Firms Seeking Financing." *American Sociological Review* 64:481–505.
- Westphal, James D. and Edward J. Zajac. 1997. "Defections from the Inner Circle: Social Exchange, Reciprocity, and the Diffusion of Board Independence in U.S. Corporations." *Administrative Science Quarterly* 42:161–83.
- Yamagishi, Toshio and Karen S. Cook. 1993. "Generalized Exchange and Social Dilemmas." *Social Psychology Quarterly* 56:235–48.
- Yamagishi, Toshio and Midori Yamagishi. 1994. "Trust and Commitment in the United States and Japan." *Motivation and Emotion* 18:129–66.
- Zuckerman, Ezra W. and Stoyan V. Sgourev. 2006. "Peer Capitalism: Parallel Relationships in the U. S. Economy." *American Journal of Sociology* 111:1327–66.

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