Emotions and Group Ties in Social Exchange

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5.1 Introduction

This chapter broadens the implications of a longstanding program of theory and research on the role of emotion in social exchange (for reviews, see Lawler and Thye 2006; Thye et al. 2002). That work poses the following question: Under what conditions can purely instrumental exchange generate relations and groups that become objects of value in their own right, i.e., ends that people value in and of themselves? Social exchange theory assumes self-interested actors (individuals or groups) who form and sustain social ties only insofar as they provide valued individual rewards not readily available elsewhere. In this sense, repeated ongoing social exchanges entail purely transactional ties among two or more actors. Transactional ties are inherently conditional and unstable as individual incentives shift or evolve.

Our program of research shows how these instrumental, transactional ties can become expressive, relational ones and, thus, more stable. In brief, this occurs if repeated exchanges generate everyday positive emotions (pleasure, satisfaction, interest, excitement, pride), and if people attribute those feelings to a social unit (Lawler and Yoon 1996; Lawler 2001; Lawler et al. 2008). Attributing individual feelings to a collective or group entity is crucial to the formation of such expressive, relational ties. The relevant social unit can be a local, immediate relation or small group or larger more encompassing and distant social entity (organization, community, and nation). The underlying theoretical logic is that everyday emotions and feelings mediate the effects of micro or macro social structures on the nature and strength of ties to social units (see Lawler and Yoon 1996; Lawler et al. 2000; Thye et al. 2011). We explain how micro-level processes generate social commitments to groups or larger organizations due to the emotional byproducts of purely instrumental social exchanges.

A recent book (Lawler et al. 2009) generalizes and broadens our theorizing in several ways. The book argues that the interactional foundations of everyday emotions and feelings deepen understanding of macro phenomena including, for example, the forms of commitment likely to emerge in hierarchy and network structures; how local group commitments fragment decentralized organizations; how relational ties enact and sustain social inequalities based on cultural status beliefs; and the strength of national identities in an era of weakened nation states. The book elaborates how and why the emotional dynamics of

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micro processes are involved in or connected to macro-sociological structures and processes and, indirectly to the Hobbesian problem of social order. The purpose of this chapter is to distill this theoretical argument in article form, elaborate its empirical foundations, and further develop the broader implications.

5.1.1 Micro Processes and the Hobbesian Problem

Periods of major social transformations tend to upset and unsettle the ties people form to groups or communities as well as to each other. In the current era, changes unleashed by new technologies of communication (e.g., facebook or twitter), the globalization of economic markets, and the demise of traditional employment contracts all reflect and reinforce fundamental changes in the nature and form of human social ties. To illustrate, employment and work ties are ever-changing and transitory (Cappelli 1999); a greater proportion of social connections approximate the properties of an economic "spot market;" interpersonal communications are increasing digital, cryptic, and tantamount to sequences of "sound bites." Global, macro changes such as these have disconnected people from and loosened their emotional ties to long standing units (e.g., political entities, work organizations, local communities). Social lives are more individualized and ties more transactional (Putnam 2007). These macro level trends help account for evidence revealing a decline of social capital (Putnam 2000, 2001), an increase in the proportion of people living alone (Klinenberg 2012), and a reduction in the number of close confidants people report having (McPherson et al. 2006). These trends also have reawakened the "loss of community" theme (Riesman 1950) that sociologists often return to at times like these; such a theme is manifest in recent work on changing social ties (See also Cacioppo and Patrick 2008; Fischer 2011).

We contend, however, that the community loss theme is an illusory and misleading framing for periods of major social transformation such as currently underway (Lawler et al. 2009). It is as much a myth as it is a reality. As critiques of Putnam's decline of social capital thesis (Stolle and Hooghe 2004) suggest, the apparent decline of ties to traditional institutional realms is misleading because people are connecting in new ways and in different institutional realms. Fischer (2011) amasses substantial evidence indicating, for example, that ties to family and friends have remained largely stable despite major technological, economic, and work-related changes. As people are disconnected from standard social entities, such as fraternal organizations and clubs, they also are "freed" from the social constraints of these entities, giving them opportunities for social connection that previously did not exist, e.g., the extensive YouTube communities that have emerged in the past decade see (Wesch 2009). While social transformations may upset or unsettle extant social ties, people have an immense capacity to adapt and to do so quickly. Face to face time with friends and family may decline, due to job pressures, time spent commuting, and the like (Putnam 2000), but frequency of contact through virtual technologies may grow and substitute. It may not take much contact to maintain or even create a sense of social connection. Direct person to person ties may become more transitory and transactional but larger, more indirect, person to group ties may endure as objects of commitment and make those social ties more relational and less transactional. This is especially likely if ties to groups have a significant emotional or affective component.

Unsettled social ties, whatever the underlying causes, raise the Hobbesian problem of social order, which can be updated and recast as follows: How do individualized, privatized actors create and sustain affectively meaningful social ties to social units—relations, groups, organizations, communities, and nations? That people form and respond to ties with other people (person-to-person ties) is not so problematic because even the most individualized and self-interested actors, if enlightened about the longer term consequences of their actions, will perceive value in collaborations that generate joint goods or products they cannot generate alone (see Hechter 1987; Axelrod 1984; Kollock 1998). Networks or

network-based organizations serve individual interests quite well in this respect. But what about the ties people have to larger units (person-to-group ties), be they local work groups, larger organizations, neighborhoods, communities or ultimately nation states? In an individualized world, how can these social units be perceived as valued sources of reward, pleasure, belonging, and identity? How can they become affective objects of commitment in their own right?

We suggest that in an individualized world, group ties are self-generated from the "bottom up" (See Lawler et al. 2009). That is, they develop and are sustained through repeated social interactions that take place around joint tasks or activities, promoted and framed by the group unit. These foundational social interactions may be purely transactional, whereas the person to group ties may involve affective sentiments about the group itself. In this sense, person to group ties entail a *micro-to-macro* process. It is in local interactional settings that larger entities become salient, real objects toward which people orient their interactions.

This chapter explicates and amplifies that micro-to-macro process. Person-to-person and person-to-group ties can be construed as two fundamental solutions to the Hobbesian problem of order (see Mead 1936; Parsons 1951). Any social order entails intertwined P-P and P-G ties; however, in contemporary sociological theorizing these tend to be conflated and P-G ties are reduced to or recast in terms of P-P ties. In contrast we argue that it is important to treat these dimensions as distinct analytically and empirically. This is an important message of both George Herbert Mead's contrast of specific others with generalized others and Tajfel's social identity theory and related empirical work (Tajfel and Turner 1986; Hogg 2001).[1] Our theorizing indicates that person-to-person ties are the foundation for

person-to-group ties, but that once the latter form they take on a life of their own and transcend the particular P-P interactions that generate or sustain them. The micro-to-macro process through which interactions generate affective sentiments about social units make the group level social objects a source of collective orientation and group-oriented behavior.

5.1.2 Emotions and Commitment

An *emotion* is defined as a relatively short-lived positive or negative evaluative state that involves neurophysiological, neuromuscular, and sometimes cognitive elements (Kemper 1978; Izard 1977). The emotions of concern here are involuntary internal events that simply "happen to people" (Hochschild 1983); they emerge in sequences of social interaction at the micro level and have consequences for the nature and resilience of relational ties to other persons but also to groups.

In theorizing the role of emotions in social exchange (Lawler and Thye 1999), we distinguish the emotional consequences of the (a) interaction context, (b) interaction process, and (c) interaction outcomes. Emotions that are an integral part of the interaction context may result from cultural norms about expressions of emotion (Hochschild 1979) or reflect structural positions or hierarchies (Collins 1975; Kemper 1978). Those generated in the interaction process may represent signals to or information for actors about the course or trajectory of the interaction (Heise 1979; Frank 1988). Finally, emotions produced by interaction outcomes (rewards, success/failure) play an important role in the development of relational ties, cohesion, and solidarity (Collins 1981; Lawler et al. 2009). The upshot is that the context, process, and outcomes of interaction all have important affective elements. Our theorizing falls squarely within the interaction outcome theme, because of its social-exchange based assumption that emotions constitute internal rewards (see Lawler et al. 2009). However, attention to the interaction context and process is essential to explaining when and how emotions can generate

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[1] In one experimental study Hogg and Turner (1985) found that groups are independent of interpersonal relations. That is, groups can be formed without interpersonal relations. They further document that interpersonal relations generate group formation only if those relations are subsumed into the common category of membership through a cognitive process of identification.

expressive or affective commitments to a group entity. We aim to explain how select features of the context and process make it more or less likely that the outcome-generated emotions will strengthen commitment to the group.

Commitment is defined historically in a number of ways. Kanter (1968) contrasts three forms of commitment: continuance, affective, and normative. Continuance commitment refers to the tendency of actors to remain in a group or organization because of the benefits received or the costs of leaving the group or organization. Continuance is an instrumental form of commitment that entails a rational choice. Affective commitment involves an emotional tie to the group organization. Such a tie indicates the degree to which the affiliation or membership is valued in its own right, as an end in itself. This intrinsic value of membership is based on the positive feelings generated by participation in group or organizational activities. Normative commitment is defined in terms of the moral or normative obligation one has to a group or organization. This form of commitment involves a belief that it is right and proper to conform to the rules and to serve a group or organization's collective interests. People with a normative commitment are motivated not by their own interest, but by their sense of duty and obligation to the collective goals. Scholars generally agree that people often initially engage in group relations because of instrumental incentives (i.e., continuance commitment). We assert that under certain conditions continuance commitment develops into affective- and normative-forms of commitment, creating a more solid foundation for social commitment more generally.

Social commitments, therefore, are defined as person to group ties that have significant affective and normative components. We assert that continuance commitment, alone, is not sufficient to sustain social order at the macro level in the long term. Whereas instrumental incentives may be sufficient to foster continuance commitment, the foundation is inherently fragile and only as strong as the stability of the incentives. In the long term, voluntary social order is possible only when people value the ties as ends in themselves and thus actively engage in the production of

social order at deeper levels—levels driven by affective and normative concerns. The question then becomes: how do people move from continuance forms of commitment to these deeper affective and normative forms? We address this process in the following sections.

5.2 Theoretical Backdrop

Our theoretical research program starts from theoretical principles found, respectively, in Durkheim (1915), Homans (1950), and Emerson (1972a, b). Durkheim's analysis of preliterate societies indicated that joint activities were a central basis for social order primarily because of the emotions and feelings generated by such activities. The distinct subunits (e.g., bands, clans, tribes) of a larger society were nomadic and separated during much of the year, but in the summer, they gathered in a single location and during this time there were many collective (religious) rituals that aroused considerable positive affect (collective effervescence). They shared emotions and feelings during these rituals that reaffirmed and strengthened the larger group (societal) affiliation and sustained it when subunits scattered. For Durkheim this process links micro and macro phenomena. Moreover, the idea that collective-level emotional experiences emanate from social interaction in joint activities can be generalized and extended to many group contexts in which people do things together, plan collaborative efforts, or accomplish joint tasks (e.g., see Collins 2004; Lawler et al. 2009).

Homans (1950) further emphasizes the importance of interaction frequency at the micro level (see also Wrong 1995). His analysis distinguishes the "external system" of a group, which represents a fixed stable structure within which people interact, from the "internal system," which is the emergent or endogenously generated set of relations within the group. The external system entails mandated activities (e.g., fixed job tasks) and a system of constraints and opportunities, determining who is likely to interact with whom. Interaction frequencies are "realized" opportunities that connect this external system to the actual

relations that form in the group. The internal system is shaped by *sentiments*, conceived as affective feelings about interaction partners. Sentiments are the proximal cause of relational bonds; more frequent interactions tend to generate positive sentiments which in turn foster stronger and more enduring relations. We build on the notion that repeated interaction is a powerful force for order and stability in part because of the emotions it generates (see Collins 1981; Lawler and Yoon 1993, 1996; Wrong 1995). In comparison, Durkheim's macro approach emphasizes the effects of institutional activities and symbolic behaviors (rituals) that generate collective emotions; whereas Homans' micro approach emphasizes the impact of people engaging each other (social interaction and exchange) to accomplish tasks. Together, they suggest the micro-to-macro links at the heart of our theorizing.

Emerson (1972a, b) elaborates the structural foundations of social exchange relations and eschews the affective component of Homans, while adopting the operant foundation in Homans' (1961) later work. Exchange relations, by definition, entail ongoing and repeated exchange among the same people in which each receives valued rewards. Repetition of exchange among the same actors distinguishes social from economic exchange. Structural dependencies and interdependencies specify or define the incentives (rewards) of actors to interact and exchange with particular others, and determine the distribution of rewards or profits in an exchange relation (Cook et al. 1983; Markovsky et al. 1988). Emerson's intent was to theorize how network structures, involving three or more actors, shape the differentiation of rewards and outcomes within and across ongoing relations in that network. For Emerson, exchange relations are essentially network-embedded ties.

Affect, cohesion and order was not a central agenda for Emerson or other exchange theorists (see Willer 1999), but he noted that cohesion occurs in dyadic relations to the degree that each party is highly dependent on the other. Dependence is determined by the extent that each actor values the goods available from the other and has limited alternatives for receiving those goods

elsewhere. We build on this idea from Emerson that mutual dependencies are the structural basis for cohesive exchange relations, and theorize how mediating emotions and feelings account for the cohesion effects of mutual dependence at the relational level, but also how such emotions transform networks into group entities, and generate affective ties to local or larger groups.

5.2.1 Theoretical Scope

The scope conditions of our theorizing are based on those commonly found in social exchange theory and research, but with two modifications. The standard exchange conditions are as follows: (1) A social context in which at least three persons in a network seek individual gain or profit. (2) The social structure gives them incentives to consider interacting with one or more others in pursuit of that gain. (3) Individuals, at least initially, choose partners from whom they expect the greatest individual gain or benefit. We add two other scope conditions that are not standard in social exchange theorizing: (4) Interactions occur in the context of an ongoing social unit, such as a group, organization, or community. (5) There are proximal, local units as well as larger distal (more removed or distant) social units within which the proximal units are nested. One or more of these units is salient in the sense that actors are aware they are interacting within it. These generic scope conditions suggest that the theory of social commitments should apply to a wide range of social contexts.

The following discussion is organized around the themes above from Durkheim, Homans, and Emerson. The first section on "interaction and emotion" reviews our theory and research on how transactional exchange ties can become expressive through the effects of interaction on positive emotions or feelings. Emotions are the key mediator in this transformation. The second section on "joint tasks and shared responsibility" identifies the structural (objective) and cognitive (subjective) dimensions of joint activities; these conditions lead actors to attribute their individual feelings to relevant social units. The sense

of shared responsibility is the moderator for this spread of emotions upward from relational to group levels and beyond. In other words, "social unit attributions of emotion" is the mechanism by which individually-felt emotions are attributed to relations, groups, or organizations. These also determine when commitments to the local group are stronger than commitments to the larger organization in which the local group is nested. Our theorizing specifies conditions under which individual feelings at the local, immediate group level spread to larger more removed or subtle social units, such as a network or organization (see also Turner 2007).

5.3   Interaction and Emotion

A centerpiece of our theorizing is the simple idea that social interactions generate mild, everyday emotions, such as feeling up, down, pleasure, displeasure, satisfaction, dissatisfaction, excitement, boredom, or enthusiasm. A special property of such affective states is that when people feel them, they tend to "feel them all over," physiologically (Damasio 1999), and moreover they are felt involuntarily. The emotions of primary concern to us are involuntary or simply "happen to people" as Hochschild (1979) suggests. Such affective states are likely to have both motivational and cognitive effects. The motivational effects are due to the fact that positive and negative emotions from interaction or exchange are internal rewards that people want to experience again or internal punishments they wish avoid. The cognitive effects include broader, more global processing of information in the case of positive rather than negative affect, i.e., attending to the "big picture" with respect to causes (see Gasper and Clore 2002).

Of particular note, positive affect generates more inclusive or integrative categorizations of self and other in negotiation settings involving social exchange (Isen 1987; Carnevale and Isen 1986). We assume that the motivational (rewarding) effects stimulate "cognitive work" through which actors ascribe meaning to and interpret the causes of emotions felt. These cognitive effects lead people to perceive the relation or group as a

social unit or object (Lawler 2001). Thus, people are motivated to figure out where their emotions are coming from and the relational unit is a plausible causal agent. At issue is how these feelings might make the exchange relation a more salient and cohesive unit and, thus, become a possible object of affective commitment. Relational cohesion theory developed by Lawler and Yoon (1996) explains how exchange relations can become objects of commitment.

5.3.1   Relational Cohesion Theory

The main tasks for relational cohesion theory (Lawler and Yoon 1996; Lawler et al. 2000) were to (i) ground the "interaction-to-emotion" process in structures of dependence or power, and (ii) demonstrate how and why the interaction-to-emotion effects can make the relational unit an object of commitment (Lawler and Yoon 1996).[2] The structural dependence or interdependence conditions provide incentives for people to exchange with particular others and thus shape the frequencies of exchange. These constitute the instrumental ties among actors. Relational cohesion theory assumes standard conditions of social exchange (i.e., actors seeking individual gain in networks where at least some have alternative partners) but goes a step further. The theory proposes that repeated exchanges among the same actors result in the initial instrumental ties taking on expressive elements. Expressive elements emerge in exchange relations to the degree that the emotion from repeated exchanges has motivational and cognitive effects as suggested above. The instrumental foundations of the exchange relations may remain, even as expressive elements develop and strengthen.

The theory can be portrayed as a causal chain with exogenous structural conditions of

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[2] The research adopts Emerson's (1972b) concept of power and dependence in which (a) power is a structural potential based on dependencies or interdependencies. A's dependence on B (the potential rewards from B) is the foundation for B's power over A and vice versa; mutual dependencies refer to the degree that each is dependent on the other, i.e., interdependence.

interdependence producing commitment behaviors (outcomes) through an endogenous affective process. The theory is diagrammed in Fig. 1. The tripartite forms of commitment behavior were designed to reflect both instrumental and expressive behaviors: (i) staying in the relation despite equal or better payoffs elsewhere, which is the standard instrumental measure of commitment; (ii) unilateral gift giving, which entails token gifts symbolic of an expressive tie; and (iii) investing in a joint venture involving a risk of malfeasance (a prisoner's dilemma). The endogenous process consists of a simple causal chain, indicating that more frequent exchange produces more positive feelings which, in turn, generate the perception of a unifying or cohesive relation.

Two points about the general message of the theory are worth noting. The first is that the structural effects on commitment are indirect and operate only through the endogenous process. If the endogenous process does not operate or breaks down at some point (e.g., if more frequent exchange does not generate more positive emotions), the effects of structural dependencies and interdependencies on commitment will not occur. Thus, the theory makes a strong statement about the importance and centrality of the endogenous process. The second point is that the theory is a response in part to uncertainty-reduction explanations about how commitments are generated by repeated social exchange. Such explanations indicate that with repeated exchange, actors come to know more about each other and thus can anticipate each other's preferences and behaviors. Staying with a known partner avoids the uncertainty and risk of forming a new relation elsewhere. The theory of relational cohesion offers an affective explanation that complements an uncertainty reduction explanation for relational commitments. Research on the theory is detailed next.
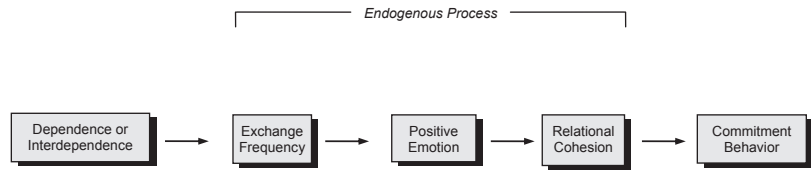
5.3.2 Testing the Theory

The theory was tested across a significant number of experiments. Here we use six studies (published in three papers) to highlight important implications of the theory and research. The first test of relational cohesion theory was conducted by Lawler and Yoon (1996) and included three experiments, one experiment for each of the three forms of commitment behavior (stay behavior, gift-giving, and investing in a joint venture). All three experiments were conducted under highly controlled conditions in which pairs of subjects (college students) represented companies negotiating the price of a product; one was a buyer and one a seller.

The information conditions of the experiments are important to note. Subjects never saw each other and expected no future contact beyond the experiment. The negotiations took place via computers and there were 12 episodes of negotiation (portrayed as "years"). Each episode was independent of the others, meaning that negotiations started anew in each "year." Within each episode (year) there were up to 3 or 5 rounds of offers and counteroffers or until agreement was reached. The only communication between subjects was through the offers (numbers inserted on the computer keyboard) they made to each other on a round. In today's terms, this is theoretically comparable to virtual interaction via internet technologies and software.

The initial 1996 test manipulated equal vs. unequal dependence and low versus high mutual dependence by providing each subject a hypothetical alternative partner. If they did not reach agreement with each other, they could opt for the alternative, which took the form of a drawing that selected an exchange agreement. The drawing was presented in the form of a probability distribution of agreements at different levels of profit for the subject. The expected value of the alternative was always lower than the midpoint value of exchange, but it varied in accord with the structural dependence condition. The expected values were equal versus unequal across the actors and very poor (low mutual dependence) or moderately poor (high mutual dependence) for both. Because of the availability of the alternative, the experimental setting made reaching agreement problematic (grand mean $=0.62$) which was im-

Fig. 5.1 The theory of
relational cohesion

portant to testing the distinct impact of exchange frequency.[3]

The experiment included measures of all variables in the theoretical model (see Fig. 5.1). Elements of the endogenous process were measured after episode 8. Exchange frequency was the proportion of rounds on which subjects reached agreement. Questionnaires measured positive emotions as self-reports along bipolar adjectives of pleasure/satisfaction (e.g., pleased-displeased, contented-discontented etc.) and interest/excitement (e.g., excited-bored, enthusiastic-unenthusiastic, etc.). Questionnaire items also measured the perceived cohesion of the relation with the other (e.g., divisive-cohesive, converging-diverging, etc.).

The commitment behaviors were measured across episodes 8–12. Stay behavior was measured by changing the payoffs from the alternative to nearly equal those subjects could receive from exchange with each other; unilateral gifts were vouchers for pieces of candy to be distributed at the end of the experimental session; and investment behavior took the form of cooperation in a prisoner's dilemma. In the case of gift giving and investment behavior, subjects did not have information on the partner's choices (to give or not, invest or not) until after the conclusion of the 12th (and last) negotiation episode; so, these behaviors could not be exchanged and reciprocated along the way.

The results of the three experiments together provide extensive support for the theory of relational cohesion. First, more frequent exchange generated more positive emotions; and, the effects of the power-dependence structure on these positive emotions were indirect through the frequency of exchange. Second, the effects of ex-

change frequency on perceived cohesion were indirect and through positive emotions, confirming the endogenous process: exchange-to-emotion-to-cohesion. Third, as expected, equal dependence generated more frequent exchange than unequal dependence and relations higher in mutual dependence generated more frequent exchange than those with lower mutual dependence. Of special importance, there is strong and consistent support for the endogenous process of the theory (see Fig. 5.1).

Finally, when each of the three commitment behaviors were regressed on all other variables of the theory (see Fig. 5.1), relational cohesion (perceived) has the primary significant effects; in fact, only one other effect occurs, a positive impact of exchange frequency on stay behavior. The upshot is that the results of these three experiments provide virtually complete support for the role of emotion posited by the theory. All predicted effects occurred and, importantly, there were no problematic direct effects along the pathways specified in Fig. 5.1. The direct effect of exchange frequency on relational cohesion probably reflects an uncertainty-reduction process complementary to the emotional/affective process. Overall, the most important implication of the research is that mild, everyday emotions and feelings mediate the effects of structural dependencies and interdependencies on the emergence of cohesive social ties.

5.3.3 Extension to Productive Exchange

The first comprehensive test of relational cohesion theory (above) took a focal dyad within a hypothetical network as the relational unit. Subsequent studies adapted and extended the theory to three person groups where individuals could contribute to a joint venture (Lawler et al. 2000). This research had two primary purposes: (i) to

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[3] In exchange theory, the structural dependence conditions may be micro level or macro level. Asking how macro structures and cultures foster or create dependencies and interdependencies in local exchanges or groupings is an avenue for linking macro and micro levels.

develop Emerson's concept of "productive exchange" and use it to test relational cohesion theory in a group context, and (ii) to test directly whether the emotional/affective and uncertainty reduction processes represent distinctive pathways to commitment. The prototype of productive exchange is three or more actors who coordinate their behaviors to produce a joint good that none can produce alone or in pairs. In essence the exchange is between the individual and the group. The actors are highly interdependent and there is a single joint good that provides actors their best outcomes, i.e., productive exchange involves an assurance game rather than a social dilemma.[4] Coordination and trust are the key problems faced by actors in productive exchange.

In two experiments, subjects represented companies deciding whether to contribute to a collaborative research and development project. The experimental procedures were similar to those in Lawler and Yoon (1996) with a few exceptions. First, decisions to contribute were made simultaneously over 16 episodes (years), which created the requisite problems of coordination and trust. Second, structural dependencies were manipulated in the same way but referred to how dependent each actor was on the group (collaboration). Finally, the experiments added a questionnaire measure of perceived predictability (uncertainty) of others' behavior, in order to compare uncertainty reduction and emotional/affective mechanisms. Two experiments addressed one of two dependent variables—unilateral, token gifts (to both others), and investing in a social dilemma— both of which were introduced after 12 episodes.

The results of the study provide strong support for the extension of relational cohesion theory to the phenomenon of productive exchange. First, productive exchange was more frequent when actors were more highly dependent on the group and also when they were equally rather than unequally dependent on that group. Second, these structural effects are mediated by the relational cohesion

process. As expected the frequency of productive exchange increased both positive emotion and the perceived predictability of others' behavior, suggesting distinct paths for each. Third, in accord with Lawler and Yoon (1996), positive emotion does promote stronger perceptions of group cohesion, but there are no effects of predictability (uncertainty) on group cohesion. Fourth, distinct processes lead to instrumental and expressive forms of commitment behavior. An emotional pathway, consistent with relational cohesion theory (i.e., exchange-emotion-cohesion) generates more expressive behavior (giving gifts), while an uncertainty-reduction pathway (exchange-predictability) generates more instrumental behaviors (cooperating in a social dilemma). These are dual, parallel processes through which productive exchange strengthens commitments to a group. It is noteworthy, however, that cohesion operates as a proximal condition for commitment only when exchanges foster positive emotions and feelings.

Productive exchange has a more cooperative incentive structure (i.e., an assurance game) than other forms of exchange (see Emerson 1981; Molm 1994; Lawler 2001). In contrast, negotiated exchange (e.g., see Cook et al. 1983; Markovsky et al. 1988; Willer 1999) assumes a network context in which actors compete for exchange partners and necessarily exclude some actors when they exchange with another. Such exchange networks are arenas of competition in which actors vie to be included in exchanges. The network is not a group in any clear sense. In fact, given the underlying competitive conditions, such networks are unfavorable even to psychological group formation, i.e. perceptions of the network as a group. Thus, there are no theoretical reasons to predict network-wide levels of group formation from network exchange or relational cohesion theory.[5] A recent study by Thye et al. (2011) takes up this issue and asks: Why and how

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[4] In an assurance game, actors' highest payoffs are from cooperation but in other respects, the incentive structure is identical to a prisoner's dilemma, i.e., the sucker's payoff remains the worst (Kollock 1998).

[5] Relational cohesion theory predicts and research has shown that "pockets of cohesion" emerge in networks around exchange relations that entail the highest exchange frequencies (see Lawler and Yoon 1998); however, the theory does not analyze whether or how cohesion in relations might affect the cohesion or perceptions of the larger network.

Fig. 5.2 Structural cohe-
sion for several common
networks. (Reprinted from
Thye et al. 2011)

Structural Cohesion & Predicted Group Formation	Name and Network		Type of Network Power	Likelihood of Inclusion L(i)
Highest	4-Full	⧖	Equal Power	1.00
	Triangle	▽	Equal Power	.67
Moderate	4-Line	o-o-o-o	Weak Power	.87
	3-Branch	o-o-o	Strong Power	.67
Lowest	4-Branch	⨂	Strong Power	.50

might actors in competitive exchange networks come to view the overarching network as a group entity? Again, we theorize that emotions play a central, mediating role.

5.3.4   How Networks Become Groups

This theoretical branch of our work asserts that relational cohesion in dyads can lead to network-wide cohesion, contingent on the structural properties of the network. The theory links structural network properties to relational processes in dyads, and these relational processes in turn lead to emergent perceptions of a network-wide group affiliation (Thye et al. 2011). The key network property is structural cohesion. *Structural cohesion* is a function of the kind of power found in the network (the proportion of equal versus unequal power relations within the network) and also the network-level probability that actors are included in exchange. Network structures that entail more equal power relations (see Markovsky et al. 1988; Willer 1999 for operational measures of power) and greater likelihoods of inclusion are more cohesive in purely structural terms. Structural cohesion, as such, is an unrealized potential; whereas exchange processes are the locus of realization, if it occurs. Simply stated, with high structural cohesion more actors should be able to exchange with more others and on more equal terms. The predicted result is that, in the context of repeated exchanges, actors come to perceive the *network itself* as a social unit and orient their behavior partly toward that implied group affiliation or entity. Perceptions of a group and greater

resource sharing capture the predicted cognitive and behavioral effects of emotions that emerge from dyadic exchanges.

To test these predictions, Thye et al. (2011) studied five exchange networks (see Fig. 5.2), composed of three or four actors, who negotiated the division of a fixed pie of resources. The configuration (network) of exchange opportunities manipulated the degree of structural cohesion. Some networks contained more equal power relations and some contained more unequal power relations. There were 20 episodes of exchange, and in each episode they could exchange with only one of their prospective partners and divide 32 units of profit. The questionnaire measures of positive emotion, uncertainty, and dyadic cohesion were collected after episode 16, and perceptions of a group were measured after the 20th (and last) episode. The group-perception items asked subjects to what degree they were mutually dependent, in a similar situation, and felt a common bond with others in the network. In addition to group perceptions, the experiment measured "resource sharing" in a dictator game. From episodes 17 to 20, each actor was given 100 profit points to allocate across network members at the end of each episode. They did not receive information on the others' research allocations until after episode 20, so subjects could not use the resources in a strategic manner.

The results affirm the impact of structural cohesion on the emergence of a perceived group affiliation and resource sharing at the network level. These effects are indirect and mediated by positive emotions, uncertainty reduction, and relational (dyadic) cohesion. Structural cohesion

increases both positive feelings and predictability by generating greater frequencies of exchange; these two mediating processes in turn produce greater cohesion in dyadic exchange relations. Of particular importance, this dyadic-level relational cohesion in the network is the primary cause of both (ii) perceptions of a group and (ii) resource sharing among its members.

These findings constitute the first empirical evidence for a micro to macro process, from dyadic relations within to the overall network as a whole. The interpretation is that relational cohesion in dyads leads people to infer that others in the network, including those they do not interact with, are collectively oriented and trustworthy. This is a rudimentary manifestation of a group entity. The research indicates that group formation emerges in networks that are structurally cohesive, and this tends to occur through emotion-based relational cohesion in dyads within those networks (see Thye et al. 2011).

One broad implication of this research is that repeated interactions in local immediate units may create a sense of social connectedness even beyond the particular local relations. If three or more people jointly pursue individual gains and do so repeatedly, a social connection forms among those with whom they interact. But importantly, a connection may also form with those experiencing the same situation but with whom the focal actors *do not* interact. The strength of the connections may vary, the target of the connection might vary, and the social unit may vary, but the fact of a social connection does not. This is a fundamental reason that the "loss of community" theme is a misleading or even mythical notion. Observations of community loss often ignore or fail to see new or subtle forms of community that stem from processes unleashed by repeated interactions, common goals or objects, or webs of indirect ties formed by patterns of direct ones. Social connections may be difficult, if not impossible, to prevent in part because people are wired to be social and their capacities and inclinations toward collaboration with other humans are a product of group-level natural selection (see Turner 2007; Haidt 2010; Haidt and Kesebir 2010).

To conclude, relational cohesion theory (Lawler and Yoon 1996; Thye et al. 2002) focuses on the relational or dyadic level. It makes no prediction about the aggregate effects of cohesion across relations in a network. However, as Thye et al. (2011) show, structurally-cohesive networks promote a collective sense of shared experience across actors in a network, even though each actor may be able to interact and exchange with only select others. The network may come to constitute a common focus for actors (Collins 1975), they may infer similar emotions by similar others in a similar context (Lawler et al. 2013), and positive emotions may spread across the relations each actor is involved in (Barsade 2002). Once a group is perceived as an entity, it can be a distinct object of affective commitment.

Relational cohesion theory presumes but does not precisely theorize the conditions under which people develop affective ties to groups. Again, the focus is primarily dyadic. A subsequent formulation, the affect theory of social exchange (Lawler 2001; Lawler et al. 2008, 2009) unpacks how and when individual emotions are attached to *relational or group entities*. The theory identifies the structural and cognitive conditions under which people attribute their own individual emotions and feelings to social units shared with others. Whereas the work of Thye et al. 2011 focused on the network-to-group problem when individuals negotiate exchange, the affect theory applies to social interactions abstractly, whether or not these involve social exchange, and explicates further the underlying micro-to-macro process. *Joint tasks*, *shared responsibility*, and *social unit attributions* are the central concepts of the theory. We elaborate these in the following pages.

5.4 Joint Tasks and Shared Responsibility

The theory of social commitments, which draws upon the preceding theoretical ideas and is put forward in a recent book by the authors, specifies that joint tasks are a fundamental basis for forming and sustaining of relational and group ties (see Lawler et al. 2009). Three broad

notions define the contours of the theory. First, if people work on a task together with others, they are likely to feel good if they accomplish the task and bad if they don't. Any episode of social interaction has the potential to generate such emotions or feelings. The second point is that if these joint experiences recur, for example, actors repeatedly accomplish tasks with the same people across time, they may come to interpret their individual feelings as due to the context they share with others involved in the task interactions. Third, given the joint or collective dimension of the task, it is plausible that, under some conditions, they attribute their individual feelings to an enduring social entity in the context—a group, organization, community, etc. In this way, repeated interactions around joint tasks can lead to affective sentiments and ties to relational or group affiliations. By focusing on joint tasks and effects on individual feelings, the theory of social commitments explicates how and when people develop stronger or weaker affective sentiments about group-level units or entities, while also incorporating the relational-cohesion process.

The most central theoretical question posed by the theory is: *Under what conditions are people likely to attribute their individual feelings from task activity to a social unit?* Recognizing that the target unit could be a small local social unit, or a larger more removed and distant organization, an important secondary question is: *Under what conditions do individuals form stronger affective ties to local, immediate social units versus larger, more distant ones?* Here we integrate principles from the "affect theory of social exchange" (Lawler 2001) with the "nested-group theory of affective attachment" (Lawler 1992). The broader, integrative "theory of social commitments" posits that joint tasks are important because they generate a sense of shared responsibility, but more local, immediate groups are typically given greater responsibility and credit for positive events and feelings than larger, more removed social units (see Lawler 1992; Lawler et al. 2009).

5.4.1 Task Activity

The emphasis on "tasks" is a noteworthy feature of the theory. Most social-structural theories stress the incentives or identities that promote social interaction or exchange, but neglect the nature of the tasks to be accomplished. Yet, tasks of one sort or other are implicated in many social structures. Tasks frame and guide instrumental behaviors; they include a set of available methods or procedures (means) for completing the task and an objective or goal toward which these are directed; these means and goals of a task tend to be explicit and situational. Tasks have structural (objective) dimensions and cognitive (subjective) dimensions that shape and constrain how actors define and approach the task and how they interpret success or failure. Tasks are the key to understanding the effects of individual emotions on group ties.

The task may involve a purely individual activity (accomplished alone) or a collective activity (accomplished with others). Work environments are probably the most common place where people explicitly and self-consciously work on tasks that are sometimes individual and sometimes collective. Personal workouts and cutting the grass may represent individual tasks, whereas homeowners associations and business partnerships exemplify joint tasks. The theory of social commitments focuses on joint tasks. Joint tasks may be as simple and short term as friends enjoying a free evening together, or as complex and long-term as parents or partners raising a child.[6] Both kinds have important objective (structural) and subjective (cognitive) components (see Lawler et al. 2009 for a more complex categorization of task activities).

A joint task, by definition, involves two or more actors who cannot accomplish the task

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[6] In psychology, the standard view of tasks is heavily influenced by Steiner's (Emerson 1972b) classification. Steiner distinguishes four tasks based on how individual inputs are combined: adding them (additive task); averaging (compensatory task); selecting best input (disjunctive); blended input (conjunctive). In these terms, productive exchange is a conjunctive task.

alone. Interdependence, it follows, is fundamentally at the base of any joint task. Yet, historically the notion of interdependence primarily refers to the outcome dimension of a task, that is, the rewards generated by success. In contrast, the theory of social commitments focuses on the varying degrees of joint-ness in the *behaviors or activities* that compose the task. The question is: To what degree are individual task behaviors and contributions so blended and intertwined that individual contributions to task success are indistinguishable? The answer has implications for the development of affective group ties.

5.4.2   Structural and Cognitive Task Dimensions

Joint tasks take on joint qualities in a couple of different ways. For instance, I may be assigned by my manager to a work team to jointly solve a financial problem (high structural joint-ness) but I may feel primarily responsible for the outcome (low cognitive joint-ness). The "dual" nature of joint-ness leads the theory to posit two fundamental conditions for social unit attributions, one structural and one cognitive. The structural condition refers to whether individual inputs or contributions are *non-separable*—meaning indistinguishable. This refers to the nature of the task activity itself. When it is hard to tell who did what, then it is difficult to determine what impact each individual had on the collective result because the inputs of individuals are blended or interwoven in the task interaction. Tasks that render individual inputs or contributions inseparable are higher in joint-ness. The origin of this idea is Oliver Williamson's analysis of "governance structures" in which he argues that relational teams are most likely to organize work when the contributions of individual workers to a task are non-separable and, therefore, workers have more sense of a common endeavor (Williamson 1975).

In the context of structural joint-ness, individuals are likely to make subjective inferences about their individualized and blended contributions to task success (or failure). The cognitive condition for social unit attributions of emotions is that

individuals in the group have a sense of *shared responsibility* for the results of the task activity. In the theory, a sense of shared responsibility is the proximate, moderating condition or push for social unit attributions of emotions. When actors have a sense of shared responsibility, they tend to attribute individual feelings from their task activity to social units and their task success to collective effort associated with that unit. While this subjective dimension of joint-ness may be tied closely to the objective properties of the task (non-separability), also important are the framing of the task by leaders or authorities and group members own definitions of the task as they interact to accomplish it. If leaders define the task activity in joint, collective terms, it increases the likelihood that those who accomplish it will have a stronger sense of shared responsibility and attribute individual feelings to the social unit.[7] The result is stronger affective ties to the group and more willingness to orient behavior toward or sacrifice for the group's interests

A sense of shared responsibility counters or mitigates the well-known propensity of people to make self-serving attributions, taking credit for success and blaming others for failure (e.g., Kelley 1967; Weiner 1985; Graham 1991). It may not remove individualized attribution tendencies but a sense of shared responsibility makes the social unit salient as a causal force in the situation. In a work setting, the relevant social unit defining the locus of shared responsibility may be a small face-to-face workgroup, a department or division, or the larger organization (corporation, public agency, university). In most social contexts, people interact in local group settings that are nested within larger, more removed social units. The social-unit locus of shared responsibility determines which social unit actors commit to more strongly. This raises the problem of nested

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[7] We are assuming here that the nature of the task activity and accountability are congruent, i.e., a task with joint activity and joint accountability or with individual activity and individual accountability. A joint task with individual accountability will generate lower sense of shared responsibility, as will an individual task with joint accountability. Each mixed off-quadrant case reduces the overall sense of shared responsibility.

commitments, specifically, whether joint tasks at the local level promote stronger commitments to the more immediate (proximal) or more removed (distal) unit within which the local one is nested.

5.4.3 Nested Group Commitments

The theory of nested-group commitments (Lawler 1992) distinguishes proximal (local, immediate) from distal (removed, overarching) groups. The theory predicts that people tend to attribute positive events and feelings to the proximal group and negative events and feelings to more distal groups. Thus, if a work group faces joint tasks, functions well as a group, and generates positive feelings on the part to members, these feelings are most likely to build commitments to the local group rather than the larger organization. This is a fundamental problem facing decentralized organizations.

Nested commitments theory aims to specify when this is most likely to occur. The argument is that the proximal group advantage is most likely where the tasks are designed and controlled locally. If tasks are designed and controlled distally then positive feelings from task activity should generate commitments to the larger unit as well as to the local unit. Commitments to local and larger unit need not be inversely related for this effect to occur. The broader implication is that group-level mechanisms of responsibility send important signals to people about the degree that their tasks are joint with others, that their responsibilities are shared, and that responsibility is at the local level. The theory of social commitments indicates how the effects of control, responsibility, and accountability bear on the strength of affective ties people develop to local groups and larger ones in which they are nested (Lawler et al. 2009).[8]

5.4.4 Core Theoretical Argument

The crux of the theoretical argument can be expressed as five main propositions: (1) The more indistinguishable are individual efforts and contributions, the greater the sense of shared responsibility for results. (2) Greater sense of shared responsibility the more likely people are to attribute their individual emotions or feelings to a social unit, that is, make social unit attributions. (3) Social unit attributions of positive emotion produce stronger affective commitments to the group, making the group an expressive object; social unit attributions of negative emotions weaken affective commitments to the group. (4) Stronger affective commitments lead to more group-oriented behavior, including more effort on behalf of and contributions to the group activities, more willingness to collaborate with others in the group, and more inclination to compromise individual interests when they conflict with group interests. (5) Affective commitments to local groups are stronger than to larger groups in which the local ones are nested to the degree that responsibility and related perceptions of control are localized.

The theory has been tested in numerous contexts across the last two decades. The most complete test was an experiment (Lawler et al. 2008) that compared the four structural forms of social exchange conceived by Emerson (1972b, 1981): negotiated, reciprocal, generalized, and productive (see also Molm 1994). At the time this was the most comprehensive comparison of these forms of exchange. The rationale for applying the theory to these forms of exchange is that they vary in the extent to which the exchange is a highly joint task and likely to promote a sense of shared responsibility and, by implication, the strength of affective group ties. The theoretical implication is that these forms of exchange have different potentials to generate group cohesion and person to group affective ties.

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[8] Jon Turner (2007) argues that social orders are based on emotions generated at the micro level. Emotions generate greater or lesser degrees of order and stability depending on the degree that they spread from micro to meso to macro levels. Turner (2007) theorizes that one of the conditions promoting the spread of positive emotions is the social-embeddedness of each level within a higher level. He offers a complementary analysis of what we term the "nested commitment" phenomenon.

5.4.5   Predictions for Forms of Exchange

The general theory above predicts different levels of cohesion and commitment across the four forms of exchange. The experimental test was in three-actor exchange networks; these represented what have been termed "null" networks rather than negatively or positively connected ones (Willer 1999). In essence, there is no element of exclusion or requirement of including both partners.[9] With negotiated exchange subjects negotiated the division of a resource with one or both of their prospective exchange partners; with reciprocal exchange they gave resources unilaterally to one or both of the others (and could receive from one or both); in generalized exchange, there was a chain of prospective giving: A could give to B who could give to C who could give to A; finally, in productive exchange the individuals gave resources to a common effort or endeavor from which they could derive individual benefit. Negotiated and reciprocal forms entail "direct" exchange, meaning two or more actors give and receive directly from each other. Productive and generalized are two types of indirect exchange, where another person or the network (group) itself mediates each individual's receipt of benefits.

There are three main predictions of the theory. First, among the four structural forms of exchange, productive exchange generates the greatest group cohesion and strongest affective group ties. The reason is that productive exchange entails the greatest degree of joint-ness (non-separability) and should produce the greatest sense of shared responsibility; these conditions in turn lead to social unit attributions of individual emotions and feelings from repeated exchange. Second, generalized exchange generates the weakest group cohesion and person to

group ties, because structurally the task involves the lowest level of joint-ness and should lead to the least sense of shared responsibility among the four forms of exchange. Third, in these terms, the direct forms of social exchange—negotiated and reciprocal—fall between productive and generalized exchange, yet negotiated exchange tasks involve greater joint-ness than reciprocal ones. Thus, the degree of network cohesion and affectivity of person-to-group ties should correspond to the following order:

Productive > [negotiated > reciprocal] > generalized

To elaborate the rationale for these predictions, let us consider in more detail the nature of each form of social exchange. In productive exchange three or more actors engage in behaviors that jointly produce a single event or good, and each actor benefits from that jointly-produced good. The joint-ness of the task is quite clear here as no single (or pair) of actors can produce the joint good; all three are required to produce a reward. In generalized exchange, actors give to some actors but they receive benefit from others. This creates a chain of possible giving, and the joint-ness of the task lacks the salience of that found in productive exchange. Applying the theoretical principles of the theory (above), the contrast between these two forms of indirect exchange is sharp. Productive exchange should generate stronger social commitments than generalized exchange because productive exchanges are more likely to produce positive emotion and social unit attributions of that emotion.

The prediction of the theory for generalized exchange is a bit controversial. There are plausible theoretical reasons and some research indicating that generalized exchange is a key foundation for cohesion and solidarity (Ekeh 1974; Bearman et al. 2004; Molm 1994; Molm et al. 2007). Solidarity effects of generalized exchange are often illustrated with Malinowski's (1920, 1922) analysis of the Kula rings among the Trobriand islanders (the exchange system of bracelets and necklaces). It is noteworthy, however, that such examples entail settings where a group affiliation already exists, i.e., the group is salient and

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[9] Null relations are defined as those in which each dyadic pair (or possible exchange) is not tied in any way to other dyads in the network. Thus, if you have 2 potential exchange partners, you can exchange with both of them independently. In contrast, exclusive networks allow only one exchange; whereas inclusive networks require both exchanges before any one of them pays off. See Willer (1999) for a good discussion.

exogenous to the social exchange. Our theory disputes whether solidarity effects are inherently produced from generalized exchange or whether they are contingent on and require other exogenous conditions to be met, e.g., an implicit or explicit group identity that already exists or a clear and strong incentive to give. Our predictions for forms of exchange assume a sparse social setting in which no other exogenous conditions (i.e., extant group affiliation) exert a significant pressure or a push toward giving. The point of the theory is not that generalized exchange lacks solidarity effects, but that such effects are not endogenous to this form of exchange, as they are to productive forms.[10]

Turning to the two forms of direct exchange, negotiated exchanges involve explicit agreements about what each actor gives and receives from the exchange, typically in the context of an offer/demand, counter-offer/counter-demand sequences. Exemplars include employment contracts or business partnerships. In contrast, reciprocal exchanges involve unilateral acts of giving at one time followed later by reciprocal acts of giving, without the form or timing of reciprocity being specified. Who gives what and when is not altogether clear and, in fact, the joint-ness of the exchange task is subtle, implicit and low is salience. Exemplars include favors among friends or coworkers over time. Our theory predicts more sense of shared responsibility under negotiated than reciprocal exchange because the joint-ness is more structurally explicit and salient to actors (see Lawler 2001; Lawler et al. 2008). The implication is that negotiated exchange will promote stronger group or relational ties than reciprocal exchange.

A contrasting argument by Molm and colleagues is that negotiated exchange also makes salient underlying conflicting interests and, therefore, weaker cohesion and solidarity should be evident in negotiated compared reciprocal exchange. Molm's prediction has received empirical support especially when the actors have unequal power (Molm et al. 1999, 2000); under equal power they found that the effects do not operate through exchange frequency (Molm et al. 2007). Overall, at this point, it is not completely clear when, under equal power regimes, negotiated and reciprocal exchange have different effects on relational cohesion and solidarity.

5.4.6   The Experimental Test

The experiment involved a series of "interaction" episodes within each of the four structures of exchange. In each episode subjects decided whether to give resources to one or both of the others (depending on the form of exchange). They represented small computer companies, each of which would benefit from resources held by the others. Subjects worked to maximize the profits of their own companies and their own pay was based on their success at this task. They did not have to exchange to generate profits. Across all four forms of exchange, they would receive a default payoff if they chose not to exchange or give to the others; this symbolized the fact that the company had a flow of profit in the absence of any exchanges with the other companies. This experimental feature is also important, theoretically, because it reduces the strength of incentives to exchange. They still have an incentive to exchange with other companies but their profits are not based completely on those exchanges.[11]

The primary dependent variables were included on a mid-questionnaire (administered half way through the session) and a post-questionnaire. In accord with the theory, perceptions of shared responsibility, rates of exchange behavior (giving), positive emotions or feelings, and perceived co-

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[10] Ekeh's (1974) conception of generalized exchange subsumes several mediated, indirect forms exchange and thus interweaves what we term productive (person-group) and generalized (chain). Our theory and research shows that distinct forms within Ekeh's overarching category have very different implications for cohesion and solidarity.

[11] This is an important difference between our experiment and Molm's et al. (2007) where subjects received nothing in the absence of exchange. The default payoff in our experiment created an opportunity cost for giving in generalized as well as the other forms of exchange, whereas in Molm et al,' it appears that subjects had little or no reason not to give in generalized exchange.

hesion of the network were measured on the mid questionnaire. The post questionnaire included the measure of affective commitments to the social unit (network) as well as a second measure of network cohesion. Our focus here is to assess two predictions—namely that among the four structural forms of exchange, (a) productive exchange generates the strongest group ties, and (b) generalized exchange produces the weakest group ties.

The results provide strong support for these predictions of the theory. First and most important, productive exchange produced the strongest effects on all the theoretically relevant dependent variables: highest rates of exchange (giving) behavior, strongest positive feelings (pleasure), greatest network cohesion (perception), and the strongest affective sentiments about the network as a group. Second, productive exchange was the only form in which perceptions of network cohesion grew in strength from the midpoint to the end. Third, consistent with the logic underlying the prediction, productive exchange also produce the greatest sense of shared responsibility (measured on the mid questionnaire). The overall implication is that productive exchange is a distinctive form of indirect exchange that has the capacity to *endogenously* generate micro social orders with affective person-to-unit ties. This occurs in part because of the emotional effects of repeated exchange.

Also consistent with our predictions, generalized exchange produces the lowest rate of exchange behavior (giving), the weakest positive emotions, the lowest perceived network cohesion, and the weakest ties to the network as a group unit. Moreover, generalized exchange was the only form of exchange in which perceptions of network cohesion declined from the midpoint to the end. This decline of network cohesion suggests the limited potential or capacity of generalized exchange structures to promote or sustain emergent micro orders or group ties (Lawler et al. 2008). These findings for generalized exchange run counter to the standard view of generalized exchange as well to research revealing its effects on group solidarity, pro-social behavior, and the like (Ekeh 1974; Molm et al. 2007; Bearman 1997; Gillmore 1987; Uehara 1990).

The results of our research contrasts with those of Molm et al. (2007), which compared three forms of exchange: generalized, reciprocal, and negotiated. Importantly, they observed stronger cohesion or solidarity effects for generalized exchange than for negotiated or reciprocal exchange. There are several differences between the studies that could account for these results, but one stands out for us. In our study, actors gave up something when they gave under generalized exchange (i.e., there was an opportunity cost), whereas there was no cost to giving in Molm et al' standard generalized-exchange condition. When a cost was included (see Molm et al. 2007, p. 236), the rates of giving in generalized exchange dropped to a level comparable to those in our study. It appears that the incentive to initiate giving was lower in our study than in the Molm et al main experiment.[12]

We hypothesize that generalized exchange has solidarity effects especially if one of two conditions are present. First, solidarity should increase if there is a significant structural incentive for the actors to initiate giving or exchange behavior, as implied by the contrast between our findings and Molm et al. (2007). Second, solidarity should increase if the actors develop or already have a shared group affiliation or identity (see related discussion in Lawler et al. 2008). Generalized exchange is known to be a powerful force for social order when it reflects or symbolizes a shared group affiliation or identity, and this is essentially what Ekeh (1974) argued in his "collectivist" approach to social exchange. By creating a spare network setting, we are able to assess the potential of all four forms of social exchange to *endogenously generate* micro orders. Our inference is that generalized exchange boosts solidarity when exchange behaviors (giving) reflect or

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[12] Another interpretation for the differences is that the network conditions for negotiated and reciprocal exchange differed across the two studies. In Molm et al., these were negatively-connected networks in which actors could exchange with only one other in an exchange episode, whereas the networks in Lawler et al. (2008) allowed actors to exchange with all (two) others in the network, with just one, or with neither. This means that the comparison point for generalized exchange was different.

are symbolic of an overarching group affiliation or when the structural incentives to initiate exchange behaviors are sufficiently strong. Absent these conditions, generalized exchange does not have the solidarity effects often attributed to it. Recent empirical evidence supports the notion that a shared group identity is important to the solidarity effects of generalized exchange (see Triplett and Thye 2007; Willer et al. (2012).

The comparison of negotiated and reciprocal exchange is another point of contrast between Molm et al. (2007) and Lawler et al. (2008). These research programs emphasize different theoretical mechanisms: perceptions of shared responsibility (Lawler et al. 2008) versus perceptions of underlying conflict (Molm et al. 2007). One possibility is that the effects for negotiated versus reciprocal exchange are contingent on the degree that each mechanism is operating or dominant in a particular context. If the exchange structure and processes highlight and make salient an underlying conflict of interest, this may undermine the effects of shared responsibility and social unit attributions of emotion in our theory. If the structure and processes make salient the potential benefits of cooperation or collaboration, the resulting sense of shared responsibility may undermine the salience of any underlying conflict of interest.

Kuwabara (2011) recently made progress in ferreting out when these distinct mechanisms operate. He conducted two experiments. Study 1 compared two types of negotiated exchange: distributive and integrative. Distributive exchange involves dividing a fixed pie which is the standard setting used in exchange research, whereas integrative negotiated entails a more joint task with the potential to expand the pie through joint problem solving. Integrative negotiation entails more task jointness and therefore should elicit stronger perceptions of shared responsibility and lower conflict salience compared to distributive exchange. Study 2 used a trust game and compared one-way and two-way trust interactions, arguing that the latter involved a more explicit joint task. In study 1, integrative negotiation generated the strongest cohesion, and in study 2 a repeated, two-way trust game also produced more

cohesion than a one-way trust game. Thus, the results support the importance of joint tasks with shared responsibility, as predicted by our theory (Lawler et al. 2008). Moreover, there is no necessary conflict between the Molm et al. and Lawler et al. analyses of negotiated versus reciprocal exchange if one attends to the mechanisms specified by each theory.

5.5 Research Evidence From Outside the Lab

Recent research, conducted in the field, focuses on the role of shared responsibility and emotion attributions in group commitments. Taylor and Pillemer (2009) test the effects of joint tasks and shared responsibility on turnover among staff in nursing homes. They argue that "caregiving" in nursing homes involves highly coordinated actions and joint tasks in which actors contributions have the property of "non-separabililty." The general hypothesis is that because of this task non-separability, success at caregiving will shape affective sentiments about the organization; and, in turn, these will affect turnover rates. The data were based on a longitudinal survey (two waves, 6 months apart) of staff in 20 randomly selected nursing homes in New York State. The dependent variable was whether the respondent was still working at the nursing home 6 months after the time 1 survey. The main results indicate that the perceived success of the caregiving (joint task) had an indirect effect on actual turnover through positive feelings about the nursing home (person-to-group affective sentiments). There was no direct effect, which affirms the critical mediating role of affective feelings about the organization. Broadly, this study suggests that work tasks, involving non-separable activities, generate commitment behavior (staying) so long as such tasks produce positive feelings toward the organization.

In another field study Price and Collett (2012) use the affect theory of social exchange to examine cohesion and commitment (turnover) among elementary teachers, using a nationally-representative sample. Survey questions measured task

interdependence (as shared control over school policy in several domains), frequency of cooperative action, enthusiasm and satisfaction, perceptions of cohesion, and commitment to the school (intent to stay). The results generally support the emotional pathways to commitment predicted by our theory. First, perceptions of "shared control and responsibility" as well as more "cooperative interaction" fostered positive emotions (enthusiasm about teaching, satisfaction with the school). Second, these positive feelings promoted stronger perceptions of school cohesion, and cohesion in turn increases the propensity (intent) to stay in the school. Both of the above studies offer encouraging evidence for the general applicability of the theory's principles beyond social exchange contexts and beyond the experimental laboratory.

Nested commitment theory (Lawler 1992; Lawler et al. 2009, Chap. 6) addresses how actors credit or blame local and larger units for positive or negative feelings from task activity. The main proposition is that people are likely to attribute positive emotions to the local, immediate social units (e.g., work group, team, department, division) within which joint tasks are enacted, and negative emotions to the larger, more removed or encompassing social units (e.g., corporation, public agency). The implication is that, all other things being equal, joint tasks and the sense of shared responsibility will foster stronger affective ties to proximal (local) units than to distal (removed) units; and this tendency should be especially strong in decentralized organizations. Mueller and Lawler (1999) test this idea in work organizations by comparing a centralized organization (an air force medical center) to a decentralized organization (a public school district). The social units are a school nested in a school system, and a medical center nested in the Air Force.

The hypothesis is that work conditions will affect commitment to these units contingent on whether they are controlled at the local or central organizational level. An affective measure of job satisfaction taps positive emotions from work conditions, and commitment to local or larger units are the primary dependent variables. The results generally correspond with the theory. Work conditions associated with and controlled by the proximal unit tend to affect commitment to that local unit (school or medical center), while those associated with and controlled by the larger unit primarily affect commitment to that distal unit (school system or air force). Job satisfaction partially mediates most of these effects. There also is more evidence of nested commitments in the decentralized than the centralized organization. While more research on nested commitments is needed, this study offers initial support for the general idea that the locus of control over task conditions has an impact on the propensity to form affective ties to the local and larger, encompassing unit.

5.6 New Directions

Recent theory and research in progress extends the research program in a number of new ways. First, research underway extends the theory beyond social exchange by testing its applicability to cooperative open-interaction task groups that lack the mixed-motive character of social exchange contexts (Thye and Lawler 2010). Second, two streams of work penetrate more deeply into the micro processes of the theory. Specifically, a recent paper theorizes how collectively-shared emotions reinforce affective group ties (Lawler et al. 2013); and a research project under development investigates whether relational cohesion in social exchange relations has a neurological foundation, manifest in brain wave activity during social exchange. Each of these extensions is elaborated below.

5.6.1 Moving Beyond Social Exchange

Our theorizing has focused on how and when group ties emerge from social exchange processes. Social exchange contexts are important because (i) they capture or encompass the self-interested, instrumental bases for actors' decisions to exchange with the same others over time, and (ii) they entail by definition a joint task that people cannot accomplish alone. While the

inherent joint-ness of social exchange makes it a good context for investigating emergent group ties, this can be said of much social interaction, whether or not it entails social exchange, *per se*. Many if not most episodes of social interaction entail some degree of jointness (from very low or very high).

Social commitments theory generalizes and adapts exchange-based theoretical principles to social interactions in general and uses these to understand commitments to large scale social units, such as corporations and nations. An important implication is that the theory should apply to cooperative task groups, where there is no necessary tension between individual and collective interests. We hypothesize that task groups with joint tasks should generate stronger and more affective group ties than task groups with individualized tasks (see Lawler et al. 2009). Research in progress tests this hypothesis (Thye and Lawler 2010).

By emphasizing social interactions in joint tasks, our social commitments theory offers a qualification to prevailing sociological theories of group formation. Theory and research tends to identify two fundamental bases for group formation: *shared interests* and *shared identities* (see Anthony 2005). Behavioral manifestations of social order, such as coordination and cooperation (Hechter and Horne 2009), typically are traced to one or both of these foundations. From theories of rational choice and social exchange, cooperation develops and is sustained because of shared interests; from theories of homophily and identity, cooperation occurs and is sustained by shared identities. In combination, the broad message is that the alignment of (i) collective and individual interests and/or (ii) group and self-definitions (identities) underlie cooperation and social order in groups, large and small. These effects may be contingent on or stronger when actors repeatedly interact to accomplish joint tasks.

Even if group members' interests and identities are aligned perfectly, cooperation and collaboration can remain problematic contingent on the task structures and interactions within which the group's work is accomplished. The real world reveals many examples of people and groups with common interests or identities having difficulty working together to achieve collective goals, e.g., faculty members of a university department, politicians of the same party affiliation, and corporate employees in the same unit. Social commitments theory contends that affective ties to groups can overcome such problems, especially in the context of joint tasks that generate positive feelings and a sense of shared responsibility (Lawler et al. 2009; Thye and Lawler 2010).

We hypothesize a qualification of the prevailing theories above based on the role that social interaction around joint tasks plays in the emergence and maintenance of group ties. The theory of social commitments implies that the effects of shared interests and shared identities on stable orders or patterns of cooperation in groups are tenuous and unsustainable, without repeated social interactions around joint tasks. Thus, whereas shared interests and shared identities have the capacity to generate enduring group ties, social interactions around joint tasks and a sense of shared responsibility may be necessary to actualize that capacity and transform instrumental ties into affective and non-instrumental ones. This is the idea being tested in ongoing research.

5.6.2 Theorizing Collective Emotions

Based on social commitments theory, the predicted effects of joint tasks and shared responsibility occur even when actors are separated physically and cannot read each other's emotional cues.[13] Virtual interactions around joint tasks should have the same basic effects on group ties as those in which there is bodily co-presence and potential for emotional contagion; these effects may be weaker, but the social-commitment process should operate nonetheless. A recent paper

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[13] This has been a standard condition of our experiments from the start of the research program (see Lawler and Yoon 1993, 1996). It is one reason for considering the tests of the theory as quite conservative.

aims to specify the conditions under which "collective emotions" are likely to emerge, despite the absence of bodily co-presence (Lawler et al. 2013).

"Collective emotions" are defined as common feelings by members of a social unit as a result of shared experiences (Bar-Tal et al. 2007). These emotions imply mutual inferences or awareness of each other's emotions, whether or not actors have direct evidence (expressions, communications) of others' feelings. In our theory, social unit attributions of emotion do not require or necessarily imply mutual awareness or inferences of others' emotional states; yet, such inferences presumably would strengthen social unit attributions by affirming or validating one's own feelings and attribution judgments. The question then is: When will actors in virtual interaction infer that others have similar feelings? Inferring similar emotions "collectivizes" the individual feelings of actors but also their social unit attributions of those individual emotions, transforming individual feelings into collective feelings perceived to be shared by others in the group.

The theoretical argument boils down to two main points. First, as relational cohesion emerges in an exchange relation (due to the emotional effects of repeated exchange), actors are likely to infer that their partners are feeling the same emotions. These inferences follow a "burden of proof" principle—that is, people infer others involved in the same joint task are experiencing the same feelings absent more detailed information or communication about others' feelings. Such emotional inferences should strengthen the propensity toward commitment behavior even if interacting actors are physically separated or isolated from each other. Second, social unit attributions are a plausible way that emotion inferences "collectivize" individual feelings, while collective emotions enhance the salience and awareness of the shared affiliation and its force in the social context. Inferences of shared emotion reinforce social unit attributions, and social unit attributions in turn strengthen inferences of shared emotions.

5.6.3 Understanding Neurological Bases of Relational Cohesion

Another area of new research seeks to understand how neurological processes interface with and support the development of relational cohesion in exchange relations. Specifically, Kalkhoff et al. (2011) are spearheading a line of inquiry that examines a phenomenon known as inter-brain synchronization. *Inter-brain synchronization* occurs when brain wave activity across multiple individuals becomes "phase locked;" this is sometimes visually detectable when raw electroencephalogram (EEG) signals for electrode pairs across two individuals begin to "dance" in harmony as if being driven by a single person (Condon and Ogston 1966). Synchronization, as a more general phenomenon, is a fundamental property of human interaction (Collins 1981), occurs in a variety of rich domains (Kalkhoff et al. 2011), and is detectable from the very earliest moments of life.

A number of recent studies show that certain kinds of interaction can produce inter-brain synchronization across regions of the brain associated with joint attention (e.g., medial prefrontal cortex) and cooperation (orbito-frontal cortex). More specifically, synchronization occurs among brain waves of theoretical interest, including Beta waves (related to attention focus) and Gamma waves (related to emotions). Synchronization of this sort has been documented by neuroscientists when two individuals engage in activities such as playing guitars, playing cards, imitating movements, and so on. The interesting question for us is not that synchronization occurs, given the emerging body of supporting neurological evidence. Instead, we ask: What are the social and structural conditions that give rise to inter-brain synchronization? On this issue modern neuroscience has little to say; yet, importantly, most of the tasks investigated to date by neuroscientists involve some degree of jointness. Social exchange is good context in which to explore this question.

We suspect that the structures of exchange that have been central to our research may entail the kinds of interactions that produce syn-

chronization. For example, conditions of power dependence (i.e., high mutual dependence, equal relative dependence), network properties (i.e., structural cohesion), and those suggested by the affect theory (i.e., high task jointness) may in fact be the structural and theoretical properties of the interaction that promote synchronization. As a first step, a new project by Kalkhoff, Thye, and Lawler seeks to replicate the basic conditions of the 1996 relational cohesion study conducted by Lawler and Yoon. This time, however, we have equipment to measure and analyze EEG activity across pairs of actors who negotiate exchange. If the data reveal that conditions of structural power unleash positive emotions, relational cohesion, commitment, *and inter-brain synchronization* in social exchange, we gain insight into the neurological substrates of relational cohesion and commitment. This may be a first step in understanding how already-theorized structures give rise to social, biological, and neurological processes that undergird cohesion, commitment, and micro social order.

5.7 Conclusions

The crux of social commitments theory is this: *In social interaction people tend develop affective ties to overarching social units, as well as to other individuals; and person-to-unit ties have important effects on micro and macro orders, independent of relational or networks ties with particular others.* Person-to-unit affective ties are portrayed as an important source of stability and order in large, diverse, geographically dispersed populations. There are two primary reasons for this. First, while affective ties to large social units (nations, societies) require social interactions as a foundation, those interactions need only occur among a very small subset of actors in the population. Second, social unit attributions make it possible for local, individualized, immediate emotions and feelings to have macro level effects. Positive feelings at the micro level have the capacity to strengthen macro orders while negative feelings have the capacity to weaken it (See also Turner 2007). Social unit attributions to

larger, removed social units essentially create or strengthen ties to all members of the larger entity in the absence of direct interaction with them. An important manifestation of these micro-to-macro effects should be found in the capacity of those larger social units to mobilize and sustain widespread actions on behalf of collective goals, values, and interests.

The theory of social commitments (Lawler et al. 2009) abstracts from, generalizes, and extends three prior theories about commitments in exchange relations and organizations: *nested-commitment theory* (Lawler 1992); *relational cohesion theory* (Lawler and Yoon 1996); and the *affect theory of social exchange* (Lawler 2001; Lawler et al. 2008). Social commitments theory posits joint tasks as a structural basis for repeated interactions and positive emotions, and perceptions of shared responsibility as a key contingency (moderator) determining when those feelings are attributed to social units. The nested-commitment principle posits further that people are inclined to attribute positive events and feelings to local, immediate groups in which they interact with others and negative events and feelings to larger more distant units; in other words, they credit local units for good experiences and blame more removed units for bad experiences. This creates a fundamental problem of social order for larger social units. This problem may be reduced if local units are tightly embedded in larger ones or if the larger units or their agents successfully claim responsibility for joints tasks and positive feelings at the local group level

In closing, the problem of social order has a "top down" and "bottom up" dimension. The theory of social commitments explicitly theorizes a "bottom up" process that can generate and sustain non-instrumental ties to large scale social units. Yet, the micro processes also have implications for top-down processes. For example, the joint-ness of tasks may be a part of a larger organizational strategy or culture, and the tendency to perceive shared responsibility in tasks may be different in different cultures. The broader message of the theory of social commitments is that social order at the macro level depends not only on the top-down effects of macro level structure

and culture, but also on whether micro-level interactions generate emotional ties to larger units (see Turner 2007 for a similar point of view). The processes of order operate in both directions, micro-to-macro and macro-to-micro, but our theory argues that tasks and shared responsibility represent important linkages starting from either level, and emotions drive the process.

The theory of social commitments has implications across the spectrum of social units. Tracing the development of our work across the past 3 decades, the bottom-up evolution is evident. In the beginning the concern was with dyads negotiating in relative isolation (Lawler and Yoon 1996) or those embedded in small networks (Lawler and Yoon 1998). As theoretical sophistication grew, the number of mechanisms expanded as did the scope of applications. The program of theory and research tackled problems of cohesion and solidarity in more complex productive exchange structures where emotions and uncertainty reduction both play some role (Lawler et al. 2000; see also Yoon and Thye 2002 for an organizational application). The development of the affect theory (Lawler 2001) opened the door to new theoretical puzzles, such as which forms of exchange are inherently most likely to endogenously generate affective group ties (Lawler e al. 2008). As our work unfolded it continued to expand—eventually addressing the network conditions that produce network-to-group transformations (Thye et al. 2011) and the mechanisms through which emotions are contagious and become collective (Lawler et al. 2013). The nested-commitments principle helped to understand how these processes extend from local to even more distal units. Ironically, the most recent theoretical turn takes us back to the *very* micro level, by investigating the brain and biological processes that correspond to feelings of joint-ness and common emotion (Kalkhoff et al. 2011).

The theory of social commitments is a cumulative result of 20 years of theory and research. It ties together the theoretical mechanisms of past work and extends the scope of our theorizing from dyads and exchange to open interaction groups, to nested group structures and ultimately more macro units such as nation states. The fact that the theory has been so uniformly supported across such a diverse array of empirical tests is a testament to the enduring role of emotions in the production and maintenance of cohesion, person-to-group ties, and social order more generally.

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