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Mutual Dependence and Gift Giving in Exchange Relations

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Abstract

We incorporate elements of a social-constructionist viewpoint into social-exchange theory and show how mutual dependence can produce expressive behavior in the form of gift giving. Exchange networks typically create varying degrees of mutual dependence in component dyads, and greater mutual dependence produces more frequent exchange. We propose that over time, frequent exchange generates an expressive relation and unilateral, token gifts are an indicator of emerging expressiveness in an exchange relation. To experimentally test the impact of mutual dependence on token gift giving, two focal actors, each with one alternative partner, attempted to negotiate an exchange across multiple opportunities. The results indicate that high compared to low mutual dependence increased gift giving, while also enhancing the attitudinal commitment to and perceived closeness of the relation. Consistent with the theory, these effects of mutual dependence were indirect, operating through the frequency of exchange. Broadly, the paper has theoretical implications for how and when endogenous processes in dyads generate certain micro-to-macro effects.
Exchange theory adopts the instrumental premise that actors enter and remain in exchange relations to the extent that these provide more benefit than likely from alternative relations (Homans 1961; Blau 1964; Emerson 1981). Power dependence theory portrays the instrumental foundation as a set of positions and the relations among them—that is, a social structure—in which actors pursue their individual interests through interaction with others (Cook and Whitmeyer 1992). To the degree that a structure leads the same actors to exchange repeatedly over time, an interpersonal relation is likely to form just as groups tend to form around collective experiences and a sense of mutual fate (Rabbie, Schot, and Visser 1989; Kramer 1991; Lawler and Yoon 1993). Such a process has important implications for exchange networks and raises the possibility of incorporating select features of social-constructionism into social-exchange accounts for micro social orders.

Broadly, this paper conceptualizes the development of an exchange relation in a network as incipient “group formation”.

The primary focus is how and when *mutual* dependence in an exchange relation produces commitment behavior in the form of token gifts. *Mutual dependence* is the total or average power in an exchange relation (Emerson 1972, 1981; Bacharach and Lawler 1981; Lawler 1992a; Molm 1987, 1990), that is, the average difference between prospective payoffs within versus outside the focal relation or CLalt (Thibaut and Kelley 1959). Emerson (1972, 1981) termed this “relational cohesion,” thus implying group-formation effects for mutual dependence. *Token gifts* are small, unilateral, unconditional benefits that have the shared meaning that actors are willing to “give without expecting anything in return.” Gift giving is particularly relevant to exchange relations because under some conditions it suggests the transformation of a purely instrumental relation into one with expressive components. We interpret such acts as a rudimentary form of everyday ritual behavior, symbolic or expressive of
common membership in a relation, group, or organization (see Wuthnow 1987; Collins 1981, 1989 for relevant discussions of ritual behavior).

To understand how structural power might foster ritual behavior, in general, and gift giving in particular, this paper builds from common themes of literatures on social exchange (Emerson 1972, 1981), the social construction of reality (Berger and Luckmann 1966), and ritual as an everyday phenomenon (Collins 1981, 1989; Turner 1982; Wuthnow 1987). Our general theoretical argument is that mutual dependence in an exchange relation (dyad) is likely to produce some forms of ritual behavior after an initial period of instrumental exchange; and gift giving is a form of special import to exchange theory. There is a long tradition in exchange theories of considering gifts as a distinct form of exchange constituting a moral statement or definition about the relationship of self and others or self to a larger group (Heath 1976; Ekeh 1974; Arrow 1972).^2

In a recent study, Lawler and Yoon (1993) examined whether an emotional/affective process mediates the impact of equal versus unequal power dependence on gift giving. They treated gift giving as one of two behavioral indicators of commitment in negotiated exchange, the other being stay behavior, that is, remaining in a relation despite equal or better alternatives. The main argument of their theory was that frequent exchange between the same actors is joint behavior that mediates the impact of structural power on gift giving, ostensibly because repeated exchange arouses positive feeling or emotion (Lawler and Yoon 1993). Consistent with the theory, equal compared to unequal power produced more commitment behavior indirectly by enhancing the frequency of exchange and by producing more positive emotion. Lawler and Yoon’s (1993) broader interpretation was that frequent exchange makes the exchange relation a social object, and members of the dyad become affectively attached to that relation because it is
perceived as a source of the positive emotion. In this way, equal power ostensibly produces commitment behavior through an emotional/affective process.

Considering token gift giving as a form of everyday ritual leads to some important theoretical implications that we elaborate in this paper. If gifts are small token items of little instrumental value, it seems reasonable to treat them as representing a “ritualized” type of commitment behavior. Treating token gifts as ritual does not imply that gifts are the only type of ritual or that other forms of commitment (i.e., stay behavior) cannot become ritualized, but it does make gift giving a special form of commitment behavior and enables us to graft social constructionist ideas about ritual (Berger and Luckmann 1966) onto a social-exchange framework.

Developing and forging links between exchange theory and social constructionism is complicated by the fact that these traditions contain disparate assumptions about actors and social systems and also about how to understand or explain social phenomena. We adopt the ontological and epistemological approach of exchange theory and suggest that overlapping ideas and themes—reflected in concepts of commitment, institutionalization, and ritual—provide the basis for building elements of social constructionism into social-exchange theory. Our theory, as a variant of social exchange, assumes actors with instrumental ties who interact and can develop the sort of emotional bonds that social constructionists and Durkheimians typically assume to be present at the outset of the interaction (Durkheim 1915; Collins 1981; Berger and Luckmann 1966).
The following pages elaborate key concepts of ritual and gift giving, and theorize a link between the “objectification of an exchange relation” and token gifts as everyday ritual behavior. We then formulate several hypotheses about the emergence of gift giving in negotiated exchange and test them experimentally.

Concept of Ritual

The concept of “ritual” has historically been associated with collective experiences that affirm for members their common identity, culture, history, or future (Dürkheim 1915; Malinowski 1922; Levi-Strauss 1969). The prototype is often taken to be religious ceremonies in which actors engage in highly focused and emotional behavior with symbolic meaning. This is a fairly limited conceptualization (see Goffman 1967; Collins 1975). Ritual can be construed more broadly as any expressive behavior, undertaken for its own sake and symbolic of a tie to larger collective—a relation, group, or organization (Collins 1975). Goffman (1967) showed that such behaviors are a normal, everyday phenomenon by which actors affirm and shape their ongoing relations with other actors.

To Goffman (1967), everyday ritual behavior communicates common purpose, shared definitions of self and other, and trustworthiness. He emphasized the communicative value of ritual in social interaction, treating it as symbolic behavior with a subtle, but clear, practical function (see also Turner 1982). Others, such as Berger and Luckmann (1966) emphasize how ritual behavior ties individuals to a collective (see also Collins 1975; Wuthnow 1987), which is
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more relevant to our concerns. Token gift giving, we suggest, reflects an emotional/affective actor-to-collective tie (Lawler and Yoon 1993) and presupposes that actors perceive their relation as an objective unit.

Berger and Luckmann’s (1966, pp. 53-60) view is that the objectification of a collective entity underlies ritual behavior. They suggest two basic conditions for objectification and ritualized behavior: (1) the “habitualization” of action, such as, repetitive behavior; and (2) “reciprocal typification” or shared definitions of that repetitive behavior. We apply this view to emerging exchange relations. Habitualization is treated as a basis for typification, and both of these processes are the basis for objectification. Actions are ritualized once they are defined by actors as “This is how things are done [here]” (Berger and Luckmann 1966, p. 59). Objectification of an exchange relation presupposes “incipient institutionalization” of a line of behavior.3

Importantly, Berger and Luckmann (1966) argue that “all actions repeated once or more tend to be habitualized to some degree” (p. 57), which starts the objectification process. This condition, habitualization, is an inherent characteristic of an “exchange relation,” defined by Emerson (1981, p. 42) as a “series of transaction by the same actors over time.” Both Berger and Luckmann’s social-constructionist and Emerson’s social exchange framework imply that the emergence of the social—an incipient social order—stems from repetitive behavior when the same people interact. A similar theme is echoed by Collins’ (1975, 1981, 1989) theory of interaction ritual chains, which ascribes the source of ritual to emotional energy generated by repeated “conversations” among the same actors. In fact, the essential difference between social and economic exchange, according to Emerson (1981), is that the interconnections between transactions among the same actors produce social effects such as trust and commitment. These
effects are social constructions in Berger and Luckmann’s sense, social constructions that reflect objectification and incipient group formation (Callero 1991; Kollock and O’Brien 1992). We contend that objectification stems from “habitualization” and are likely to be manifest in ritualized gift giving in negotiated exchange.

The proposition implied by this reasoning is quite simple: Habitualization of interaction leads to objectification of a larger social unit [e.g., an exchange relation] which, in turn, produces ritual behavior. It would be easy to confuse the repetition of exchange with ritual, because ritual is so closely associated with habit. However, repeated exchange is not sufficient to reflect the symbolic or expressive content of ritual; something more than habit or repetition is needed to make the behavior symbolic of a person-to-collective tie and relevant beyond the immediate situation. Ritual behavior has significance, beyond the completion of the immediate act to the degree that it symbolizes or is expressive of the relations between the individuals or group membership (Turner 1982; Callero 1991). In exchange networks, we suggest that token gifts can be interpreted as such symbolic expressions (see also Heath 1976).

Concept of Gift Giving

Gift giving is a complex, multifarious phenomenon, as is evident from the variety of conceptions and approaches in the literature (Mauss 1954; Schwartz 1967; Titmuss 1971; Arrow 1972; Ekeh 1974; Heath 1976; Akerlof 1982, 1984; Haas and Deseran 1981; Caplow 1982, 1984; Cheal 1986, 1988; Jasso 1993). Exchange approaches generally stress that gifts must be reciprocated or they will cease to occur (Emerson 1972; Blau 1977; Caplow 1984; Cheal 1988); they look for evidence of implicit, subsurface, long-term reciprocity as an explanation for gift
giving (Gouldner 1960). Such approaches also stress that gifts must be costly to the giver to impress the other; some even contend that the costs to the giver must be greater than the benefits to the receiver (Schwartz 1967), otherwise what appears to be gift giving is simply another way for actors to generate joint benefit. Overall, exchange theorists absorb gift giving into a broader utilitarian web and attempt to capture how gifts actually enhance the benefits actors receive from their relationship (Emerson 1981; Heath 1976; Akerlof 1982, 1984).

Social constructionists view gifts as symbolic communications, putting forth a definition of a relationship (e.g., Haas and Deseran 1981), an identity (Schwartz 1967), or a sense of community (Arrow 1972). Gifts by A communicate to B that A defines the interpersonal relation as a trusting, friendly one—and some form of reciprocal action by B confirms that this is a shared definition. In a social constructionist account, reciprocity remains central over time, but the reciprocation of benefits is not important in itself. Of most importance is evidence of reciprocal, convergent definitions of the relation. From this standpoint, the utilitarian value of gifts is relatively trivial.

Our focus is fairly specific and narrow in this paper. We are concerned with the rate of initiating gifts, not reciprocation of them, in a dyadic relation. There is no requirement to give and only a slight loss in giving gifts. This is a very rudimentary form of gifts that is designed to reflect whether actors are beginning to treat the exchange relation as a positive social object toward which expressive acts are directed. Extrapolating from both exchange and social constructionist viewpoints, gifts in an exchange relation can be interpreted as ritual behavior if they are *token* (i.e., have little or no extrinsic value), *unilateral* (i.e., carry the connotation that actors are giving without knowing whether the other will), and *noncontingent* (i.e., there is no explicit expectation of reciprocity). It is also important that gifts come from a value domain
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distinct from those at issue in the exchange (Emerson 1981). The gifts of concern are small, minor items with primarily symbolic import.

HYPOTHESES

We argue that gift giving is the result of an endogenous process through which repetitive exchange produces a definition of the relation as a unit. Two sets of hypotheses integrate basic ideas from social exchange and social constructionist viewpoints. The first set, based on exchange theory (Emerson 1972; Bacharach and Lawler 1981; Molm 1987; Lawler 1992b), predicts effects for mutual dependence. The second set, based on both exchange and social constructionist theories, predicts effects for uncertainty about the payoffs from alternative relations. Our hypotheses propose that power-dependence relations and uncertainty about an alternative relation promote the social construction of an interpersonal relationship by producing more frequent exchange in a focal dyad. Frequent exchange sets apart some exchange opportunities or dyadic relations from others, helping to make the focal relation a distinct “social object” (Lawler and Yoon 1993).

Mutual Dependence Hypotheses

Emerson’s (1972) power dependence theory conceptualizes power as the structural potential to influence and distinguishes this potential from power use or actual, realized power (see also Cook and Emerson 1978; Bacharach and Lawler 1981; Lawler 1992a; Molm 1987, 1990). In an exchange relation, A’s structural potential is a function of B’s dependence on A, and
B’s structural potential is a function of A’s dependence on B. Each actor’s dependence is in turn a positive function of the value of benefits received in exchange and an inverse function of the availability of such benefits from alternative relations. As with most empirical studies of power dependence, we hold constant the value at stake in the focal relation and examine variations in dependence based on the nature of the alternatives available.

We build on the implicit nonzero sum concept of power in power dependence theory (Lawler 1992a; Lawler and Ford 1993). A nonzero sum conception allows for variation in the total amount of power potential in a relation (i.e., mutual dependence), while a zero sum conception assumes that the total amount of power in a relation is fixed. The nonzero sum conception in power dependence is manifest, for example, in the fact that changing networks could give both actors in a dyad more alternatives resulting in each being less dependent on the other, or fewer alternatives making them more dependent. Mutual dependence can vary independently of relative dependence (see Lawler 1992a for more discussion). Emerson (1972) characterized changes in mutual dependence as changes in “relational cohesion,” or the structural push toward collaborative action. Relational cohesion is simply the difference in expected value of exchange in the focal dyad versus exchange in an alternative one (CLalt), averaged across actors in a dyad (Molm 1987; Lawler 1992a). In this study, we ask how variations in total or mutual power dependence—given equal dependence—affect exchange frequency and the initiation of token gifts.

The mutual dependence of actors in negotiated exchange captures the susceptibility of the exchange relation to disruption. The larger the difference between the possible benefit within the focal relation and the alternative, the less vulnerable the focal exchange relation because, among other things, there is more room for misjudgment or miscalculation. Higher total power or
mutual dependence means a larger number and range of negotiated agreements can meet a “sufficiency criterion”—that is, provide more benefits than likely from the alternative. An exchange relation with higher mutual dependence provides the flexibility to adapt to the vicissitudes of the other’s behavior and the larger network. As a result, agreements should not only be more frequent under higher than lower mutual dependence, but such exchange also should draw actors attention to their capacity to produce joint benefits and joint control in the negotiation context. Thus, their relation becomes an object for actors, setting up the conditions for ritual behavior symbolic and expressive of a person-to- relation tie. The hypotheses posit a three step causal chain, indicating that more mutual dependence generates more frequent exchange and, by increasing the frequency of exchange over time, more ritual gifts, as follows:

**Hypothesis 1**: Given equal power potential (dependence), if the mutual dependence of actors is high rather than low, they engage in more frequent exchange and increase the frequency across time.

**Hypothesis 2**: In repetitive negotiations, higher mutual dependence produces more gift giving indirectly by increasing the frequency of exchange over time.

Previous research on dyadic negotiations has found that exchange relations with greater mutual dependence tend to foster more conciliatory bargaining and a greater probability of agreement in one-shot negotiations (Bacharach and Lawler 1981; Lawler and Bacharach 1987; Lawler 1992a). In this prior work, each actor had complete information about each other’s alternatives. The present study provides actors information only on their own alternative, making it possible to test whether the total-power effect in previous work is contingent on actors’
perceiving the dependence of each. These more limited information conditions match the 
information conditions of Emerson, Cook, and associates (Cook and Emerson 1978, 1984; Cook, 
Emerson, Gillmore, and Yamagishi 1983); so if mutual dependence affects the frequency of 
exchange in this study, it indicates a purely structural effect for total power.

Uncertainty Hypotheses

One of the most common explanations for ritual behavior in social constructionist 

writings is uncertainty reduction. Berger and Luckmann (1966) suggest objectification as a 
process by which repetitive behavior reduces uncertainty about the future and they portray ritual 
as an affirmation of the resulting sense of order and regularity. Relatedly, Wuthnow (1987) 
explicitly views uncertainty in the outside environment as shaping ritual behavior. He offers the 
following proposition: Ritual behavior is more frequent and stronger when members of a society 
or group face uncertainty because ritual evokes a shared, taken-for-granted reality that deals 
with the uncertainty. Shared realities embody actors’ moral obligations to one another and ritual 
behavior ostensibly dramatizes and brings forth these obligations in concrete social settings 
(Wuthnow 1987).

The conditions of uncertainty that promote ritual behavior, according to Wuthnow and 
Berger and Luckmann, are fortuitously the same sort of conditions that lead to commitment in 
exchange theory (Cook and Emerson 1984). The focus of the former is the objectification-to- 
ritual sequence and the focus of the latter is the exchange behavior-to-exchange relation 
sequence. Exchange theory can explain the development of repetitive exchange among the same 
actors (i.e., the formation of exchange relations), but it does not explain how their relations then
become social objects for actors and the consequence this has for phenomena such as ritual behavior. Lawler and Yoon (1993) theorize that positive emotions produced by frequent exchange account for objectification. This idea produces a basis for understanding uncertainty. Uncertainty should foster objectification because frequent exchange in the context of uncertainty should produce more positive emotion than otherwise.5

Applied to a focal dyad within a negatively-connected exchange network, alternative partners in the larger network are relevant environmental conditions. Uncertainty is reflected in part by the subjective probabilities of various profits from exchanges with an alternative. Given constant expected value, the “flatter” the distribution of probabilities across a range of possible exchanges with the alternative, the greater the uncertainty. In this context, Wuthnow’s (1978) theorizing and related ideas from exchange theory (Emerson 1981) suggest the following hypotheses:

**Hypothesis 3**: When actors in an exchange relation are highly uncertain about the benefits they are likely to receive from their respective alternative relations, they engage in more frequent exchange with each other and increase the frequency across time.

**Hypothesis 4**: In repetitive negotiations, uncertainty about payoffs from alternative relations increase gift giving *indirectly* by affecting the frequency of exchange over time.

Some support for the impact of uncertainty on repetitive dyadic exchange is provided in a laboratory study by Cook and Emerson (1984). They asked whether a network with more
alternatives of equivalent value for each actor would produce more frequent negotiated agreements within select dyads. They compared two networks—a four-actor closed circle in which each had two potential exchange partners with an expanded network (12 actors) in which each of the four focal actors had two additional alternatives. The results support the hypothesis that the network with more uncertainty (4 alternatives each and a total of 12 actors) produced more frequent exchange within certain dyads.

To conclude, we suggest that token gifts are most likely when actors in dyadic exchange have substantial power over each other—that is, when the relation has more “total power” or mutual dependence (Emerson 1972; Bacharach and Lawler 1981). Under such conditions, actors are particularly likely to negotiate exchanges yielding each significantly more benefit than available elsewhere; and more frequent exchange, in turn, should increase their tendency to provide each other token gifts “without strings attached” as an expression of an emerging interpersonal relation. We predict the same effects and intervening processes for uncertainty as we do for mutual dependence, though there is a firmer theoretical and empirical backdrop for the hypotheses on power-dependence.

METHOD

This experiment investigates a focal dyad in a negatively-connected network in which each focal actor has one alternative partner, and exchange in the focal relation is likely to be more profitable than exchange with the alternative. The actors have equal power dependence but know only their own dependence, that is, their own alternative. The exchange process involves explicit negotiations (Cook and Emerson 1978; Bacharach and Lawler 1981) rather than
nonnegotiated reciprocal transactions (Emerson 1981; Molm 1990). Several, repeated
negotiation episodes occur over time in the focal dyad, and while repeated negotiations must
occur, repeated agreements need not. The experiment adapts a standard two-party explicit
bargaining context (Pruitt 1981; Lawler and Bacharach 1987; Lawler and Yoon 1993).

Experimental Design and Subjects

A 2 x 2 design manipulated mutual dependence (low or high) and uncertainty of payoffs
from the alternative partner (low or high). Fifty-two dyads (all females) were randomly assigned
to one of the four experimental conditions (13 dyads per cell). Dyads were composed of “real”
subjects who bargained with each other across a series of eight independent negotiation episodes.
The primary behavioral dependent variables were the frequency of agreement during the first
half (first four episodes), the frequency of agreement for the second half (last four episodes), and
the number of gifts given during the last half. A post experimental questionnaire measured
attitudinal commitment (propensity to stay in the relation), self-reports of positive feelings
(pleasure/happiness and interest/excitement), and the perceived closeness of the exchange
relation.

Procedures

Upon arrival, subjects took a seat in separate rooms and read written instructions
explaining that they would bargain anonymously with a person in the next room. One of them
represented an organization called Alpha attempting to buy a raw material (iron ore), the other an
organization called Beta attempting to sell the raw material. Thus, it was an intergroup setting with one issue, the price of iron ore.

Instructions indicated that the study would simulate up to 12 years of negotiation, one negotiation episode per year. The negotiations were separate and independent, because the price set for one year had no formal bearing on that in subsequent years. Each year the two organizations negotiated anew over the price. If an agreement was not reached in a given year, the price paid (by Alpha) or received (by Beta) was determined by an agreement with an alternative supplier or buyer.

As the instructions explained, the two organizations had engaged in preliminary discussions and their offers were quite far apart. Alpha’s representative had offered a price of one cent per unit, while Beta’s representative had asked for 17 cents per unit. In light of this gap, the subjects’ task was to negotiate on behalf of their group’s interests. Alpha was to negotiate for as low a price as possible, Beta for as high a price as possible. Subjects’ pay depended on the agreement price.

The instructions contained a “profit list,” indicating their own group’s profits at 17 potential agreement prices, represented by the numbers 1 to 17. Subjects had information only on their own profit stated in terms of points. For Alpha an inverse, linear relationship existed between profit and price levels on each issue, for Beta a positive, linear relationship. Consistent with related work (Lawler and Bacharach 1987; Lawler, Ford, and Biegen 1988), subjects did not have exact information on their negotiation partner’s profit at each price level.

The bargaining took place via written offers across a maximum of five bargaining rounds in each year (episode). A round consisted of one offer by each bargainer. When making an offer, subjects had three options: (1) stick with and repeat their last offer, (2) accept the last offer made
by the other, or (3) make a counteroffer (i.e., concession). Subjects had to confine offers to one of the 17 price levels and they could not retract earlier concessions.

Negotiation continued until a price agreement emerged on the issue or until the end of the fifth round. If agreement was not reached, subjects received zero points (profit) from their negotiation, but then reached agreement with a simulated other through a drawing (see Bacharach and Lawler 1981; Lawler and Bacharach 1987 for similar procedures).

Gift Option

The initial instructions indicated they would have the option of giving gifts later in negotiations. The later instructions, read after year four indicated “gifts allow you a way to express how you feel about your relationship to [the other].” The instructions likened the gifts to giving a person candy, flowers, or a card acknowledging a relationship. Gifts were made by completing a form at the end of each bargaining episode from years five through eight. On the form, subjects indicated whether they wished to provide a gift or not. The form served as a voucher that subjects could exchange for pieces of candy after the experiment. If subjects did not send a gift, they kept the voucher for themselves and could exchange it for additional pieces of candy. Importantly, the instructions indicated they would not know if the other gave them a gift until the experiment was over. This removed the possibility of subjects treating gifts as an explicit exchange. At the end of the experimental session, the experimenter brought subjects a large container with a variety of candy, and they chose one piece for each gift voucher.
Experimental Manipulations

Low vs. High Mutual Dependence

Mutual dependence was manipulated by varying the expected value of the alternative (see Bacharach and Lawler 1981; Lawler and Bacharach 1987 for similar procedures). The expected value of agreement with the alternative partner was 275 points under high mutual dependence but 375 points under low mutual dependence. Each party had knowledge of only their own alternative. The expected value of the optimal (midpoint) agreement in the focal dyad was 400 points. That they could gain more with the focal than the alternative partner is called for by the scope conditions for our argument. This actually provides a conservative test of mutual dependence effects. Even if alternatives are not as good as the focal relation, we argue that the quality of alternatives provide a varying power potential with implications for gift giving.

Insert Table 1 Here

Low vs. High Uncertainty

The probability distribution of the payoffs from the alternative manipulated uncertainty. In the low uncertainty condition, the probability distribution was highly peaked (leptokurtic) at the expected value, whereas under high uncertainty, it was flatter (platykurtic). The probability distributions for each experimental condition are in Table 1.
Dependent Measures

Three dyad-level variables reflect the causal steps in our theorizing: frequency of agreement during the first half (agreement frequency-1), frequency of agreement of during the last half (agreement frequency-2), and the number of gifts (summed across actors) during the last half.

The frequency of agreement was measured as the frequency of episodes (years) in which focal negotiations yielded agreement during sessions one to four and five to eight. We take the association of earlier (agreement frequency-1) and later frequencies of agreement (agreement frequency-2) as reflecting habitualization.

Gift giving was measured as the average number of gift slips transferred between parties between episodes five to eight. Each actor could give zero or one gift at the end of each year; so, the dyad measure ranges from zero to eight.

Post-questionnaire

Self-report measures of positive emotion or mood were included on the postquestionnaire administered after episode (year) eight. At the time, the subjects completed the questionnaire, they did not know the experiment was over. Subjects reported their feelings along a series of bipolar adjectives; and factor analysis yielded two dimensions that correspond to the pleasure/happiness (Isen 1987; Kemper 1978) and interest/excitement (Izard 1977; Deci 1975). This result is consistent with our earlier study (Lawler and Yoon 1993). The pleasure/happiness index summed four items: pleased-displeased, happy-unhappy, confident-insecure, and
contented-discontented (Cronbach’s alpha = .86); the interest/excitement summed three items: interested-dull, energetic- tired, and motivated-unmotivated (Cronbach’s alpha = .74). Dyad scores were the sum of individual scores.7

Other measures include attitudinal commitment and the perceived closeness of the relation (5 items). To measure the attitudinal commitment, we asked two questions: (1) “If you had another chance to bargain over the same issue and you could choose who you bargain with, how likely would you be to choose your present negotiation partner?” and (2) “If you needed to work with someone on a cooperative task and could choose your partner, how likely would you be to choose the person with whom you are negotiating?” The index of attitudinal commitment summed responses to each question and dyad scores summed individual scores. The zero-order correlation between the two items is .62. Items composing an index for perceived closeness of the relation included friendly- unfriendly, cooperative-competitive, close-distant, coming together- coming apart, and team oriented-self oriented (Cronbach’s alpha = .87).8

RESULTS

Analyses of variance are used to test the predicted main effects on the frequency of exchange. These are the only direct effects predicted by the hypotheses. The mediating role of the frequency of exchange is evaluated with ordinary least- squares regression, testing the indirect effects of mutual dependence and uncertainty on gift giving through the frequency of exchange.
Analyses of Variance

Exchange Frequency

Table 2 contains the mean frequency of agreement by experimental condition for the first four episodes (agreement frequency-1), the last four episodes (agreement frequency-2), and across all episodes (agreement frequency-T). A 2x2 analysis of variance for each measure of exchange frequency reveals a consistent pattern of effects—significant main effects for mutual dependence [F’s (1, 51) = 10.27, 6.35, and 11.73 and p’s < .001, .05, .01 respectively], and dependence by uncertainty interactions [F’s (1, 51) = 4.75, 3.96, 6.21, all p’s < .05]. The effect for power is consistent with hypothesis 1—the frequency of agreement is greater when actors are more dependent on each other (both have poorer alternatives), and this pattern occurs across both uncertainty conditions despite the interaction. In contrast, the predicted main effect (hypothesis 3) for uncertainty does not occur (all F’s < 1).

The pattern of the uncertainty by power interactions reveals the predicted positive effect of uncertainty on exchange frequency under low mutual dependence—higher uncertainty produces more frequent agreements—but the opposite effect occurs under higher mutual dependence. A t-test indicates that the difference in overall exchange frequency between high and low uncertainty conditions is marginally significant under low mutual dependence (t (52) = 1.47, p < .10, one-tailed), while the reverse pattern under high mutual dependence does not reach
statistical significance ($t = 1.01, \text{ ns}$). The interaction is too tenuous to dwell on, but the trends suggest the plausibility of our uncertainty prediction under lower mutual dependence and, importantly, the pattern for mutual dependence remains the same across both uncertainty conditions. The remainder of the results section will focus on the effects of mutual dependence.

*Exchange Frequency by Round Blocks*

As an initial indicator of the “habitualization” of exchange, we conducted an analysis of variance by round blocks, the first four episodes constituting one block and the last four the second. The results reveal a block main effect, $F (1, 103) = 11.15, p < .01$, consistent with the theory. The rate of agreement is greater in the second block than in the first ($M = .55$ for the first block, $.69$ for the second block). There are no significant interactions of block with mutual dependence or uncertainty.

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**Insert Table 3 Here**

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**Regression Analysis**

The primary test of the theory is provided by a regression analysis that determines whether repetitive exchange is a mediating process through which mutual dependence affects gift giving. In this analysis, we test a simple causal chain: High mutual dependence increases the exchange frequency early on (agreement frequency-1) which, in turn, increases later exchange
(agreement frequency-2) which, in turn, enhances gift giving. Recall that we conceptualize the path from power to early exchange to later exchange frequency as involving habitualization, and the path from later exchange frequency to gift giving as involving typification and objectification. These are Berger and Luckmann’s (1966) main conditions for ritual behavior. Table 3 contains the results. Consistent with hypothesis 2, the results indicate that mutual dependence (total power) affects gift giving through the growth of repetitive exchange across time. First, the impact of mutual dependence on early exchange frequency is quite strong ($\beta = .674$) and the impact of early exchange frequency on later exchange frequency is also quite strong ($\beta = .421$). Second, the direct effect of mutual dependence on later exchange frequency is not statistically significant when early exchange frequency is controlled. The impact of mutual dependence on later exchange frequency is indirect, and mediated by early exchange frequency, yielding an indirect effect of .284 ($.674 \times .421$). Third, controlling for antecedent variables (model 3), only later exchange frequency has a significant affect on gift giving. Adding this effect, the indirect effect of mutual dependence on gift giving is .157. The overall implication is support for our main hypotheses about the indirect impact of mutual power dependence on gift giving.
Questionnaire Data

Parallel Regressions

The post questionnaire data on attitudinal commitment, self-reported emotion, and perceived closeness of the relation can be used to corroborate the rationale underlying our hypothesis. There are reasonable zero-order correlations between gift giving and pleasure/happiness ($r = .45$), perceived closeness ($r = .48$), and attitudinal commitment ($r = .21$), making it at least plausible that these are part of a common process. If the same indirect process that produces gift giving also produces positive emotion, attitudinal commitment, and perceived closeness, this would add significant weight to the rationale for the hypotheses and to our inferences about gift giving in the study. Thus, we conducted parallel regression analyses that simply substituted attitudinal commitment, positive emotions, and perceived closeness of the relation for gift giving. Table 4 contains these results.

Mutual dependence produces attitudinal commitment (i.e., inclination to stay in the relation) in exactly the same way that it produces gift giving. Controlling for all antecedent variables, only later exchange frequency enhances attitudinal commitment to the relation ($\beta = .465$, $p < .01$). Combining these results with those in Table 3, greater mutual dependence leads to more attitudinal commitment to the relation by increasing early exchange frequency and, indirectly, later exchange frequency. The pattern results for pleasure/happiness is identical ($\beta = .421$, $p < .01$) as are those for perceived closeness of the relation ($\beta = .541$, $p < .01$).

Thus, parallel causal models for gift giving, attitudinal commitment, pleasure/happiness, and perceived closeness of a relation cohere nicely and this is striking. The findings, as a whole,
are consistent with our theorizing about expressiveness being produced by frequent exchange and about the role mutual dependence plays as an exogenous, structural condition.

*Motivation for Giving Gift*

Subjects also were asked on the post-questionnaire to indicate whether they gave gifts because they “felt positive toward the other,” because they expected the other “would give gifts to [them],” or to “increase [their] own profits.” Of these items, only the first (positive feelings) was correlated significantly with gift giving ($r = .41, p < .01$). The reciprocity and profit motivations had negative but nonsignificant associations with gift giving ($r’s = —.20, —.15$, respectively). This offers validation to our interpretation of gift giving as expressive rather than instrumental behavior in this study (see Lawler and Yoon 1993 for additional evidence).

**DISCUSSION**

The theory and research suggests how instrumental and expressive features of dyads can become intertwined and produce affectively-based commitments in exchange networks (Lawler and Yoon 1993). We assume a situation in which people make choices jointly with others, in this case two-party negotiations, and in the process of making joint choices, they experience an “emotional buzz.” This emotion is felt individually but it also makes them more aware of something they share—a relation. The relation therefore becomes an object of attachment, setting up the conditions for expressive behavior. As a result, even people making rational choices on the basis of self-interest may become more willing to act on behalf of something larger—a
relation, group, or organization. Ritual behavior, such as token unilateral gifts, is a manifestation of this process.

An experimental laboratory setting created a purely token form of gift giving that involved a value domain distinct from the negotiated exchange (see Emerson 1981, 1987). The structural context for examining gift giving was a minimal exchange network (negatively-connected) with two focal actors, who negotiated repeatedly and who each had an alternative partner from whom they could get profitable agreements, though not as profitable as in the focal negotiation. Their degree of dependence on each other (mutual dependence) was either low or high in the context of an equal power dependence relation.

We use Berger and Luckmann’s (1966) social-constructionist explanation for ritual behavior to analyze gift giving as a special type of commitment behavior in negotiated social exchange (see Lawler and Yoon 1993). Three theoretical steps are involved in our effort to incorporate social-constructionist ideas within a social exchange framework: (1) conceptualizing repetitive exchange as “habitualizing behavior,” (2) theorizing that “objectification of an exchange relation” involves “typification,” that is, a definition of the relation in positive terms, and (3) interpreting token gifts as ritual behavior expressive of such an objectified relation. We argue that greater mutual dependence (or total power) in an equal-power relation is especially likely to foster habitualization and typification and, thereby, produce more gift giving in negotiated exchange.

The results of the experiment were consistent with our theoretical hypotheses that mutual dependence should enhance repetitive agreement directly and gift giving indirectly. The first step examined the direct effect of power dependence on the frequency of exchange early in the negotiations. Again, the results clearly and strongly support the power dependence hypothesis—
high mutual dependence increased the frequency of exchange early in the repetitive negotiations. The second step was to test the prediction that the frequency of agreement increases from early to later in the negotiations. Again, the results support the prediction. In fact, when later-agreement frequency was regressed on early-agreement frequency, controlling for the manipulated variables, only the early-agreement frequency had a significant effect on the later frequency. These results are consistent with the notion that mutual dependence fosters the “habitualization” of exchange.

The final and most important step the test of the theory examined was whether gift giving was produced by repetitive exchange. We argue that as the frequency of exchange cumulates or grows, actors “objectify” or “typify” the relation and this, in turn, leads them to initiate more gift giving. Our behavioral and questionnaire results support this theoretical reasoning. First, the regression analysis indicated that controlling for antecedent variables, the frequency of agreement in the later half of the negotiations significantly affected the rate of gift giving; in fact, none of the other variables (mutual dependence, uncertainty, early-agreement frequency) had significant direct effects on gift giving when later-agreement frequency was controlled. Second, a variety of questionnaire measures—attitudinal commitment, self reports of pleasure/happiness, the closeness of the relation with the other—are not only correlated in the expected manner with gift giving, but also are produced through the same causal process as that producing gift giving. We cannot test several aspects of the theoretical rationale for the main hypotheses because the questionnaire was administered at the end of the experimental session, but the results of the questionnaire data are consistent with key parts of the reasoning underlying the behavioral hypotheses.9
The results did not support hypotheses on the uncertainty. The hypothesis was that greater uncertainty attached to payoffs from alternative relations would increase the frequency of exchange in the focal relation and, in turn, gift giving. While there was no clear support for this hypothesis, the results did reveal an interesting, albeit weak, pattern. Uncertainty produces more agreements under low mutual dependence, while the pattern is reversed under high mutual dependence, though not statistically significant. This weak interaction might be interpreted as a framing effect (Kahneman and Tversky 1979).

Framing effects stem from the fact that people respond differently to prospective gains and prospective losses. When making a choice between prospective gains, people prefer a sure gain—that is, they avoid risk; thus, when choosing between losses, they prefer risk and choose the option with the less certain losses. These framing effects are diminished if there are large differences of expected value (Kahneman and Tversky 1979). In our experiment, actors were only choosing among prospective gains. Lower mutual dependence should produce the framing effects of prospective gains; thus, when people are less mutually dependent they should be more averse to risk and reach more agreements in the focal relation. Under high mutual dependence the framing effects should be weaker or “wash out,” because of a large difference of expected value between the focal and alternative relation. The significant interaction of uncertainty and mutual dependence is generally consistent with this framing interpretation. Frequent exchange among the same actors may involve uncertainty-avoidance behavior instead of uncertainty-reduction behavior, the basis of our original hypothesis.

In combination with an earlier study (Lawler and Yoon 1993), there is now significant support for the idea that structural power (equal vs. unequal dependence and mutual dependence) affects token gift giving indirectly through the frequency of exchange. Lawler and Yoon (1993)
provide support for the hypothesis that an emotional/affective process accounts for the positive impact of exchange frequency on gift behavior, and the present study incorporates a social-constructionist account of how the “objectification of the exchange relation,” a cognitive process, promotes ritualized gift giving. While the results are consistent with this overarching theorizing, evidence for the objectification process and for ritualization is inferential because we have not directly tested the role of these. Future work should bring together the two dimensions of structural power in a single theoretical formulation and, in this context, explicate further and directly test the predicted relationship between the emotional/affective and objectification processes.

Broader Implications

This theory and research should be viewed as having a complementary relationship to rational choice explanations for commitment formation. The most basic idea from rational choice is that repetitive exchange between the same actors will emerge and continue as long as the expected value of payoffs within the focal relation exceed those available from alternative relations (Elster 1986). The experiment establishes power dependence conditions that produce such a difference in expected value, and one can interpret the impact of mutual dependence on repetitive exchange in rational choice terms. Our theory suggests, however, that in the course of producing repetitive exchange, power dependence (structural) conditions also engender incipient group formation in the dyad due to the emotional/affective consequences of actors jointly dealing with and resolving negotiation problems.
Using rational choice principles, social exchange theory can provide a good explanation for how and why a pattern of repetitive exchange comes about, but not for the emotional and affective consequences of repeated and profitable exchange. Moreover, neither exchange theory nor other related perspectives, such as transaction-costs economics, can explain actors’ tendency to give each other token benefits “without strings attached.” The explanation in our theory is that the objectification of the exchange relation leads to behavior expressive of that relation. The process of objectification starts with the “emotional buzz” involved in actors accomplishing a joint task, this makes the relation more salient as an object and a target for affective attachment (Lawler 1992b; Lawler and Yoon 1993; Markovsky and Lawler 1994). The basic result is emergent group formation within the dyad or “incipient institutionalization” in Berger and Luckmann’s (1966) terms. Incipient institutionalization promotes the initiation of ritual behavior symbolic of the relevant social entity, in this case, the dyad.

Overall, the research suggests how endogenous processes in dyads within a minimal exchange network, produce a particularly important form of commitment behavior: gift giving. For theoretical reasons, we focus on the early stages of an exchange relation and treat the initiation of gifts where actors do not know if the other is similarly inclined. The purpose is to understand how and when exchange relations begin to take on expressive properties. When this occurs, the emerging tie within the dyad is likely to have ramifications for the larger network. If members of the dyad interact more with each other and become affectively attached to their relation, then their relations with others in the larger network will change, and the relation of those others to still others also will change. Endogenous processes, like those we identify, are a starting point for important micro-to-macro effects in exchange networks.
In a recent theory of group solidarity, Markovsky and Lawler (1994) indicate that when an actor experiences positive emotion in repeated interaction with members of a group, they will begin to view the group as an object and become attached to it as well. The objectification of an exchange relation may spread in this way to a larger group or network and serve as a foundation for group-oriented action (see also Lawler 1992b). Our theory predicts that objectification of the larger group would enhance the per capita rate of gift giving among group members and, more generally, what Organ (1990) and others have termed “organizational citizenship behavior,” that is, the willingness to do extra, unrequired, and uncompensated things.

An important further question is how “incipient institutionalization” in an exchange relation might give rise to more “sedimented institutionalization.” Berger and Luckmann (1966, pp. 57-60) suggest that habitualization and typification are sufficient for incipient institutionalization but that a “third force” is necessary for emerging institutional patterns to “harden.” The third force may constitute a specific or generalized other or a referential structure that justifies and legitimizes the developing patterns of behavior. At the level of a dyad, “sedimented institutionalization” is implied if the dyadic relation becomes so close that members not only reduce contact with others in the network in favor of interaction in the focal relation but act as if these alternatives are not present or are irrelevant. One indicator of such a condition is a decrease in the degree that actors attend to or think about the alternative during negotiations.

The post-questionnaire of the experiment contains some relevant evidence. One item asked actors how much they thought about the alternative during the negotiations and another asked whether the alternative became more or less important to them in the later episodes of bargaining. The results are generally consistent with the behavioral data. Higher mutual dependence reduced the degree that subjects reported thinking about the alternative and (F =
3.95, p < .05) and under low uncertainty in particular, higher mutual dependence reduced the perceived importance in the later episodes (interaction effect $F = 4.21$, p < .05). Also as one would expect, gift giving was negatively associated with each of these items ($r$’s = —.27 and —.26, p’s < .05 and .06, respectively). Thus, there is some indication that incipient group formation promoted the sort of perceptions important to sedimentation or the “hardening” of institutionalization in Berger and Luckmann’s (1966) terms.

Another condition, reflecting a “hardening of institutionalization,” is that the relation exerts a moral/normative constraint on actors. The transition from incipient to sedimented institutionalization is a possible way to examine how and when the emotional/affective processes produce a relation that exerts a moral/normative constraint on actors. In our theorizing, relations that “enable” actors to jointly resolve problems and produce mutual benefits ostensibly become objects for positive feelings of accomplishment (see Lawler 1992b). Projecting such a process further, we hypothesize that exchange relations which “enable” actors to do things (i.e., provide opportunities for choice, etc.) also come to “constrain” them as moral obligations are associated with the relation and informal or formal sanctioning emerges. The moral/normative character of exchange relations can develop from emotional/affective processes that, in turn, have their source in rational choices about who to exchange with. This is a broader view of how micro social orders develop from negotiated exchange. Future theoretical and empirical work should address this.

To conclude, exchange networks create differential power-dependence among actors or positions and also varying levels of mutual dependence among component dyadic relations. The paper suggests, theoretically and empirically, how mutual dependencies in a social structure can foster incipient commitment and gift giving. The underlying process is that frequent exchange
among the same actors engenders positive emotion and leads them to objectify the dyadic relation and engage in rudimentary forms of ritual behavior. Thus, structurally-based dependencies, by shaping frequencies of exchange in given dyads, stimulate emotional and cognitive processes that add expressive components to instrumental exchange relations.
Notes

1. We assume a dyad embedded in a larger exchange network and focus solely on exchange that is explicit and negotiated (Cook and Emerson 1978; Lawler and Yoon 1993) rather than implicit and nonnegotiated (Molm 1990, 1992). The exchange opportunity occurs repeatedly, given the social structure (i.e., network), and endogenous processes within dyads are the proximal causes of ritual behavior.

2. Gift giving is central to what Ekeh (1974) terms generalized exchange, exemplified by the Kula Ring (Malinowski 1922). The contrast of gift exchange with negotiated exchange in Emerson (1981) and Akerlof (1982) resembles Ekeh’s (1974) contrast between generalized and restricted exchange. The idea is that gifts both reflect and reproduce trust, commitment, and cohesion in instrumental relations (e.g., Akerlof 1982, 1984; Ekeh 1974). We take this to imply that if people are willing to make token, unilateral gifts, an element of expressiveness has been introduced into a purely instrumental exchange relation.

3. If third parties legitimize such a reciprocal typification over time, the institutional objects “harden and thicken,” that is, become sedimented (see Berger and Luckmann 1966, p. 59). This should enhance the constraining effect of a relation or group in an emerging micro order.

4. The proposition assumes a key idea from Lawler and Yoon (1993)—namely that repetitive exchange fosters objectification through an emotional process. People ostensibly get an “emotional buzz” from accomplishing a joint task with others, such as reaching agreements, and this makes their relation more salient as a unit. This process was documented empirically in a prior study (Lawler and Yoon 1993); here we assume it and focus on the objectification-to-ritual link.
5. The implications of uncertainty have also been examined in organizational studies of contracting (Williamson 1975, 1981; Pfeffer, Salanczik, and Leblebici 1978; Ouchi 1979). Organizational studies suggest that uncertainties due to the lack of information and the presence of opportunism increase transaction costs and thereby make market price mechanisms inefficient. Given such uncertainties, contracts internalize market transactions into a hierarchical organizational structure (Williamson 1975, 1981) or act as a substitute for trust in transactions (Okun 1981). Whatever the organizational form or underpinnings, the broad arguments in this literature dovetail with our approach. A key difference is that we offer a social-constructionist account that emphasizes the emotional/affective consequences of repeated agreements (contracts) between the same individual actors.

6. These initial instructions prevented later instructions from being a surprise. Lawler and Yoon’s (1993) study indicated that this early mention of the gift giving option did not produce a “mental set.”

7. Lawler and Yoon (1993) propose pleasure/happiness and interest/excitement as two facets of positive emotion. Based on Izard (1977) and recent analyses of the circumflex model of emotion (Watson 1988; Watson, Clark, and Tellegen 1988; Watson and Tellegen 1985), they define pleasure/happiness as “feeling gratified” and interest/excitement as “feeling energized.” Consistent with these expectations, varimax rotation with Kaiser normalization showed two factors with the following factor loadings: For the pleasure/happiness dimension, pleased-displeased (.94), happy-unhappy (.91), confident-insecure (.56), and contented-discontented (.79); for the interest/excitement dimension, interested-dull (.73), energetic-tired (.78), and motivated-unmotivated (.84). The zero-order correlation between the two dimensions was — .091.
8. Principal component factor analysis confirmed one factor and the factor loadings are as follows: friendly-unfriendly (.79), cooperative-competitive (.68), close-distant (.76), coming together-coming apart (.86), and team oriented-self-oriented (.82).

9. In Lawler and Yoon (1993), equal power was compared to unequal power (holding total power or mutual dependence constant), and the results were that equal power produced more interest/excitement indirectly through more frequent exchange; equal power did not increase pleasure/happiness. The current study held equal power constant and found that more mutual dependence in the relation indirectly produced more pleasure/happiness, but there was no effect on interest/excitement. Both studies indicate that positive emotions mediate the impact of structural power, but different dimensions of positive emotion are important. Perhaps, greater mutual dependence (total power) enhances the pleasure/happiness derived from negotiated agreements, whereas inequalities of dependence dampen interest/excitement developed within the negotiation process.
Table 1. Manipulations of Mutual Dependence and Uncertainty*

<table>
<thead>
<tr>
<th>Points from alternative</th>
<th>Uncertainty</th>
<th></th>
<th></th>
<th>Uncertainty</th>
<th></th>
<th>Points from alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Mutual Dependence</td>
<td>Low</td>
<td>High</td>
<td>Low Mutual Dependence</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>350 or more</td>
<td>1%</td>
<td>14%</td>
<td>1%</td>
<td>14%</td>
<td>350 or more</td>
<td></td>
</tr>
<tr>
<td>325</td>
<td>1%</td>
<td>14%</td>
<td>1%</td>
<td>14%</td>
<td>325</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>10%</td>
<td>15%</td>
<td>10%</td>
<td>15%</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>275</td>
<td>76%</td>
<td>16%</td>
<td>76%</td>
<td>16%</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>10%</td>
<td>15%</td>
<td>10%</td>
<td>15%</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>225</td>
<td>1%</td>
<td>14%</td>
<td>1%</td>
<td>14%</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>200 or less</td>
<td>1%</td>
<td>14%</td>
<td>1%</td>
<td>14%</td>
<td>200 or less</td>
<td></td>
</tr>
</tbody>
</table>

*Note: The midpoint agreement in the focal dyad was worth 400 points to each subject.
Table 2

Table 2. Agreement and Gift Frequencies by Experimental Condition (N = 52)

<table>
<thead>
<tr>
<th></th>
<th>High Dependence</th>
<th></th>
<th>Low Dependence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Uncertainty</td>
<td>Low Uncertainty</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Agreement Frequency-1</td>
<td>2.23</td>
<td>3.15</td>
<td>1.92</td>
<td>1.54</td>
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<tr>
<td>Agreement Frequency-2</td>
<td>2.85</td>
<td>3.38</td>
<td>2.69</td>
<td>2.08</td>
</tr>
<tr>
<td>Agreement Frequency-T</td>
<td>5.08</td>
<td>6.54</td>
<td>4.62</td>
<td>3.62</td>
</tr>
<tr>
<td>Gift Frequency</td>
<td>5.54</td>
<td>5.85</td>
<td>5.08</td>
<td>5.08</td>
</tr>
</tbody>
</table>

Note: Agreement frequency-1 indicates it is for the first 4 bargaining episodes (years), agreement frequency-2 for the 5th to 8th bargaining episodes, and agreement frequency-T for all (8) bargaining episodes.
Table 3

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Agreement Frequency-1</td>
<td>.674***</td>
<td>.307</td>
<td>.057</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.106)</td>
<td>(.108)</td>
<td>(.739)</td>
<td></td>
</tr>
<tr>
<td>Agreement Frequency-2</td>
<td>.160</td>
<td>.210</td>
<td>-.115</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.106)</td>
<td>(.096)</td>
<td>(.647)</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>-.473*</td>
<td>-.252</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.150)</td>
<td>(.141)</td>
<td>(.949)</td>
<td></td>
</tr>
<tr>
<td>Agreement Frequency-1</td>
<td>.421**</td>
<td></td>
<td>-.243</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.129)</td>
<td></td>
<td>(.939)</td>
<td></td>
</tr>
<tr>
<td>Agreement Frequency-2</td>
<td></td>
<td></td>
<td>.554***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.971)</td>
<td></td>
</tr>
</tbody>
</table>

R²                     | .248               | .310  | .247  |

Notes: See Note 1, Table 1.
High mutual dependence, high uncertainty are dummy variables; omitted categories are low mutual dependence and low uncertainty.
* p < .05, ** p < .01, *** p < .001; standard errors in parentheses.
Table 4

Table 4. Standardized Regression Coefficients (OLS) for Positive Emotions, Closeness of Relation, Attitudinal Commitment (N = 52).

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>(1) Pleasure-Happiness</th>
<th>(2) Interest-Excitement</th>
<th>(3) Closeness of Relation</th>
<th>(4) Attitudinal Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Mutual Dependence</td>
<td>-.066 (.301)</td>
<td>-.158 (.165)</td>
<td>-.184 (.248)</td>
<td>-.092 (.681)</td>
</tr>
<tr>
<td>High Uncertainty</td>
<td>.145 (.263)</td>
<td>-.070 (.145)</td>
<td>-.110 (.248)</td>
<td>-.065 (.560)</td>
</tr>
<tr>
<td>Interaction</td>
<td>-.159 (.386)</td>
<td>.215 (.213)</td>
<td>-.114 (.363)</td>
<td>-.099 (.875)</td>
</tr>
<tr>
<td>Agreement</td>
<td>.048 (.382)</td>
<td>.152 (.210)</td>
<td>-.218 (.359)</td>
<td>.049 (.865)</td>
</tr>
<tr>
<td>Frequency-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreement</td>
<td>.421** (.395)</td>
<td>.031 (.218)</td>
<td>.541** (.372)</td>
<td>.465** (.895)</td>
</tr>
<tr>
<td>Frequency-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.262</td>
<td>.030</td>
<td>.269</td>
<td>.246</td>
</tr>
</tbody>
</table>

Notes: See Note 1, Table 1.

High mutual dependence, high uncertainty are dummy variables; omitted categories are low mutual dependence and low uncertainty.

* p < .05, ** p < .01, *** p < .001; standard errors in parentheses.
References


Mutual Dependence and Gift Giving in Exchange Relations


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