

Economic Transactions among Friends

ASYMMETRIC GENEROSITY BUT NOT AGREEMENT IN BUYERS' AND SELLERS' OFFERS

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Two experiments tested the idea that economic transactions among friends are influenced by a norm of generosity. Whereas a fairness norm ought to promote agreement in offers between buyers and sellers, a generosity norm should promote altruistic disagreements caused by sellers offering lower prices than buyers—a reversal of the well-known endowment effect. Supporting the present account, in both studies, offers among friends showed a reversal of the endowment effect. Moreover, disagreement in buying and selling offers was stronger among friends than among acquaintances, and (in study 2) the perceived generosity of offers, but not their perceived fairness, mediated this effect. Finally, both studies demonstrated that generosity is asymmetric: whereas selling offers among friends were generous by all comparative standards, buying offers were not.

Keywords: *generosity; fairness; economic transactions; friendship; endowment effect; norms*

Economic transactions are fraught with the potential for interpersonal conflict. The transactors may be differentially motivated to trade (Mandel 2002), and even if both parties are sufficiently motivated, they must reach agreement on the exchange value of the relevant goods. Since those goods are often of considerable value to their owners and may be believed to be even more valuable to their prospective owners, there is considerable room for disagreement and a need for effective negotiation. Certainly, the potential for disagreement is not a showstopper for economic transactions: innumerable market transactions occur around the world every day. But, nor does the overall level of economic activity undercut the possibility that this level would be even higher but for disagreement in the valuation of goods between buyers and sellers.

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Indeed, research in behavioral economics (e.g., Casey 1995; Kahneman, Knetsch, and Thaler 1990; Thaler 1980) has shown that participants endowed with a commodity (i.e., owners) tend to set higher minimum selling prices than the maximum offering prices set by unendowed participants (i.e., buyers), thus creating disagreement. This phenomenon, called the *endowment effect*, is often attributed to loss aversion—the tendency for people to view losses as looming larger than gains of corresponding objective magnitude (Kahneman and Tversky 1979). Accordingly, the endowment effect is believed to arise because the pain of giving up an endowment tends to exceed the pleasure of acquiring it. In support of this explanation, endowment effects are more likely to be observed when prospective gains and losses are difficult to integrate due to high uncertainty about future exchange prices (van Dijk and van Knippenberg 1996) or due to reduced comparability of consumer goods (Chapman 1998; van Dijk and van Knippenberg 1998). Moreover, offers are influenced primarily by outcomes that reflect what buyers and sellers perceive they stand to lose from the transaction (Carmon and Ariely 2000).

Research in social cognition has shown that the endowment effect is also influenced by other psychological factors that may have a strong bearing on the ability to resolve conflict and negotiate successfully. For example, the magnitude of the endowment effect is predicted by buyers' and sellers' "egocentric empathy gaps"—namely, the degree to which they fail to imagine how valuable a given commodity is likely to be to the other transactor (Van Boven, Dunning, and Loewenstein 2000). It has also been shown that the nature of the relationship between buyers and sellers can influence the magnitude of buyer-seller price disagreement. Specifically, Halpern (1994, 1997) has shown that friendship can moderate the endowment effect, leading to stronger agreement in price offers between buyers, sellers, and even sellers' agents. Whereas buying and selling offers among strangers produced disagreement consistent with the endowment effect, offers among friends showed either an attenuation or reversal of the endowment effect.

Halpern (1994, 1997) interpreted the effect of relationship on buyer-seller price agreement in terms of a script theory. Her account proposes that individuals have scripts for both normal economic transactions and transactions among friends and that the degree of disagreement in pricing between buyers and sellers reflects how the elements of these scripts influence these parties' offers. The present article builds directly on this earlier research and theorizing by examining elements that have been proposed to underlie the relevant scripts for economic transactions between friends. A key notion developed in this article is that a motivation for buyers and sellers who are friends to *agree* on price is perhaps a less important element of the friendship script than the motivation for these parties to be *generous*, especially on the seller side of the relationship. This idea is buttressed both by a reexamination of Halpern's findings and by two new experiments reported in this article.

SCRIPTS AND NORMS

Scripts have been described as "cognitive structures" that guide expectancies and behavior in a particular situational context (Fiske and Taylor 1991; Schank and Abelson 1977). Scripts can govern expectancies about episodes that are of extremely

long duration, such as life scripts (Rubin and Berntsen 2003), or much briefer episodes. For example, many individuals have acquired a script for dining at a restaurant. They may know “how to dress appropriately,” “how to order,” “how to behave during the meal,” and even “how to pay for the bill.” Indeed, there is even evidence showing “restaurant script” impairment in schizophrenics both on recall (i.e., recalling the elements of a typical restaurant experience) and ordering (i.e., correctly arranging the elements of a typical restaurant script) tasks (Chan et al. 1999). More generally, recent neuroscientific studies (e.g., Funnell 2001) suggest that semantic memory is organized in terms of script-like features.

Scripts are in turn under the constraint of even more generalized cognitive structures called *norms*. For instance, the restaurant script is directed by social norms, which may be expressed as directives such as “be courteous,” “be cleanly,” and “be appropriately generous” (e.g., see Aarts and Dijksterhuis 2003). These normative factors will determine how a script is applied. Thus, a script for “going to a restaurant on a first date” will likely differ in various respects from a script for “going to a restaurant with one’s best friend” because the norms governing social interactions between friends and prospective intimate partners also differ in key respects. More generally, the norms that are activated in a given context will be influenced by the nature of the relationship between the parties involved in a social interaction. These norms will, in turn, exert influence on the elements of scripts that are implemented.

NORMS FOR ECONOMIC TRANSACTIONS BETWEEN FRIENDS

Most economic transactions are subject to social norms of fairness that depend to some degree on the situational context (e.g., Deutsch 1975; Messick and Sentis 1983; Thompson and Loewenstein 1992). For example, a hot and thirsty traveler may be willing to pay \$6 for a bottle of beer in a five-star hotel and feel no subsequent buyer’s remorse, while an equally hot and thirsty traveler might decline the opportunity to pay that price (or feel ill-used and unhappy if he or she did pay it) for the same bottle of beer in a small rundown liquor store. The thesis of this article is that social norms, which guide judgments of appropriate valuation, will also depend on the nature of the relationship between buyer and seller. Most economic transactions involve agents whose relationship stems directly from the transaction itself, such as buying from an authorized dealer. In these pure-exchange relationships, economic transactions are likely to be governed by genuine self-interest and, perhaps to some extent, by a norm of self-interest (Miller 1999). According to Miller (1999), people learn that it is normal and, indeed, desirable in many situations to behave in a self-interested manner—as *Homo economicus* as it were. Whether normative or genuine, economic self-interest motivates people to buy low and sell high, thus contributing to disagreements between buyers and sellers.

As the importance of the communal relationship between prospective buyers and sellers increases, however, normative pressures other than self-interest are likely to influence behavior (Fiske 1992; Greenhalgh and Chapman 1996; Thompson and

DeHarpport 1998). By far, most communal ties fall into the fuzzy category of friendship (Fischer 1982; Kelley 1979). Compared to strangers, friends tend to be less self-interested (Morgan and Sawyer 1967), more altruistic (Sahlins 1972), more concerned with a sense of equality and fairness (Boulding 1973; Shapiro 1975), and more willing to accept suboptimal agreements to avoid confrontations or competitive interactions (Fry, Firestone, and Williams 1983; Pinkley 1990). Maclean Parks et al. (1996) found that friends were more likely than acquaintances to divide adventitious outcomes (e.g., sharing an unexpected find of two \$50 bills), further suggesting that normative pressures toward fairness are salient in the context of friendship.

In economic transactions between friends, however, even strategies designed to promote equality, such as reciprocity, agreement, or equal division, may be discouraged as being "too efficient" despite their transparent fairness. As Mills and Clark (1982) explained, although it is normative in exchange relationships to promptly and commensurately repay someone who has provided you some benefit, it is inappropriate to do so in a communal relationship where afforded benefits should be regarded as acts of generosity that are mutually beneficial. Their account suggests that generosity is a central normative factor governing interactions between friends and that it may be even more important than a fairness norm (Gouldner 1960).

A study by Van Lange, Ouwerkerk, and Tazelaar (2002; see also Roberts and Sherratt 1998) provides empirical support for this view, as well as an indication of why generosity may be so important. These authors found that participants who played a social dilemma game under conditions of noise reached more cooperative agreements when the other player (actually a computer program) used a generous tit-for-tat (TFT) strategy in which an extra positive token was added to offers (TFT + 1) rather than the standard TFT strategy based on reciprocity alone (Axelrod 1984). As the authors noted, the generous TFT strategy helps avoid the repeated reciprocation of competitive choices that would be triggered by the misperception of a cooperative choice if the standard TFT strategy were adopted. Van Lange et al.'s research suggests that generosity will be most advantageous when the transactions between actors are ongoing and when there is a potential for noise to lead these transactions into a negative spiral. Notably, both of these conditions characterize friendship. Although friends are more likely than acquaintances to share similar attitudes and perceptions (Kenny and Kashy 1994), there is still considerable room for divergent construals. Given the importance of continuity in friendships, generosity is likely to attenuate conflicts that may stem from misunderstandings, miscommunications, and other forms of noise. This may partly explain why observers are more likely to attribute positive outcomes to the actors' dispositions and negative outcomes to the situational factors when the actor is described as a friend rather than an acquaintance (Taylor and Koivumaki 1976; see also Campbell et al. 2000). Thus, the endurance of friendships may depend on coating construals of one's friends, especially those construals that are articulated to one's friends, with a generous sprinkling of "positive spin."

As noted earlier, in the context of economic transactions, Halpern (1994, 1996, 1997) proposed that transactions among friends follow a *friendship script* that would attenuate the endowment effect. The friendship script account posits that transactions

between friends are structured so that they foster feelings of goodwill and harmony, reciprocal obligation and accountability, and agreement in price offers between buyers and sellers. In support of the friendship script account, Halpern (1994, 1997) found that although the endowment effect was observed in offers made by participants who imagined transacting with a stranger, the effect was eliminated when participants imagined transacting with a real friend of theirs. Indeed, among participants in the friend condition, Halpern (1994, 1997) reported that selling offers did not differ significantly from buying offers. She interpreted this finding as providing support for the idea that the motivation for friends to agree on price is a key feature of the friendship script that follows from normative pressures toward equality-based fairness. Although Halpern's findings provide tentative support for the friendship script account, there are important theoretical and methodological issues that require further investigation, and these issues are described next.

THE PRESENT RESEARCH

THE DISAGREEMENT HYPOTHESIS

A key theoretical issue addressed in this article concerns Halpern's (1994, 1997) proposal that friends seek agreement in price offers. Like pure reciprocity, the motivation to seek agreement in price is consistent with an equality-based fairness norm. That is, if both parties agree on an exchange value, then they will likely perceive the other's offer as fair. Consistent with this "agreement hypothesis," Halpern (1994) found that mean buying and selling prices were in stronger agreement in the friend condition than in the stranger condition. However, contrary to the agreement hypothesis, the average disagreement (i.e., across all commodities) between mean buying and selling prices was in fact greater in the friend condition than in the stranger condition in Halpern (1997, study 3). Notably, the sign of the discrepancies between mean buying and selling prices for each commodity was also reversed, indicating that, on average, participants were making significantly higher buying offers than selling offers when they imagined transacting with a friend—a reversal rather than a "mere" elimination of the endowment effect. Consistent with the literature on friendship norms reviewed earlier, this pattern of findings strongly suggests that "being generous" may be an even more important element of a friendship script for economic transactions than being in agreement. Because Halpern (1997) conducted directional (i.e., one-tailed) statistical tests of the difference between buyers' and sellers' offers under the hypothesis that selling prices would exceed buying prices, she concluded that all of the differences in the friend condition were nonsignificant. She noted, however, that if the statistical tests had been two-tailed, then they would have been significant for each of the five commodities examined in that study. Thus, it appears that support for the agreement hypothesis is not as strong as warranted by the friendship script account and that there is at least tentative evidence that a norm of generosity may be an even more influential determinant of economic valuation between friends than a norm of agreement (or fairness).

As well, Halpern (1994, 1997) measured agreement only in terms of the magnitude of the difference in mean buying and mean selling prices within each relationship condition. If, however, people are more motivated to agree on offers with the other party when that individual is a friend, as the friendship script account predicts, it would be instructive to ask participants what they thought the *other party* would have offered. A measure of disagreement for each participant could thus be computed by subtracting each participant's buying offer from his or her selling offer. Moreover, by taking the absolute value of these differences, a stringent test of the agreement hypothesis that takes into account nonsystematic sources of disagreement could be conducted. This approach was undertaken in the present research. In study 1, participants indicated selling prices for themselves and buying prices for the other party if they were in the owner role or they indicated buying prices for themselves and selling prices for the other party if they were in the nonowner role. Each participant in study 1 was asked to provide these offers for three distinct types of relationships: friendship, acquaintanceship, and a pure-exchange relationship with a vendor (i.e., a stranger). In study 2, the effect of relationship on disagreement was further examined using a between-participants design.

According to the friendship script account, there should be less absolute disagreement among friends than among either acquaintances or strangers. However, the preceding reexamination of Halpern's (1994, 1997) results suggests that a norm of agreement may not be as strong in economic transactions among friends as a norm of generosity, which should motivate "altruistic disagreement" between buyers and sellers. Indeed, transactions with acquaintances likely represent a middle ground between transactions with friends and transactions with strangers in the sense that the competing normative pressures of generosity and self-interest should be more balanced among acquaintances than among friends or strangers. Thus, the *disagreement hypothesis* may be expressed as follows:

Compared to friends or strangers, acquaintances will tend to offer prices that agree more with what they think the other party will offer.

THE ASYMMETRIC GENEROSITY HYPOTHESIS

A reexamination of Halpern's (1994, 1997) results reveals another remarkable finding that bears on the idea that a norm of generosity is important in economic transactions between friends. Consistent with a script-based implementation of a norm of fairness, Halpern (1994) originally predicted that participants in the friend condition would offer prices that were close to the midpoint of the typical price range. She found, however, that mean buying and selling offers (for each of the commodities) in that condition were consistently below the midpoint in both studies. A similar finding was observed in Halpern (1997, study 3). This stable pattern of results is consistent with a form of "asymmetric generosity" in economic transactions between friends: owners are expected to act generously by offering low selling prices to their friends, but nonowners are not expected to make high or even

midpoint buying offers when transacting with friends. In other words, the onus is on the seller and not the buyer to be generous in economic transactions between friends.

The asymmetry in the generosity of buying and selling offers between friends is not entirely surprising if economic transactions among friends are viewed as a form of gift giving. In most cultures, it is inappropriate to express one's communal bonds with others through the giving of money (Camerer 1988; Waldfogel 2002). Resource exchange in communal relationships is meant to underscore the uniqueness of the relationship (e.g., Foa and Foa 1974), and money is a poor symbol in that regard, precisely because it is fungible. Thus, it is not surprising that gift givers prefer to give gift vouchers rather than their monetary equivalents as gifts (Teigen, Olsen, and Solas 2005). Compared to gift receivers, gift givers also prefer gifts that reflect the gift's exclusivity rather than its usefulness (Teigen, Olsen, and Solas 2005). Moreover, gift receivers prefer gifts that require time and effort on the part of givers (Robben and Verhallen 1994). Offering money simply does not do well to satisfy these preferences.

This literature suggests that economic exchanges among friends will be more an exercise in gift giving on the part of owners than buyers. That is, normative pressures toward generosity should be stronger for sellers, who are offering their friend a valued good, than for buyers, who are offering their friend a monetary compensation for that good. Indeed, acting as if one is obliged to pay a generous amount of money to one's friend for something he or she is offering might in fact be viewed as an affront to one's friendship—a sign that one does not feel close enough to accept his or her act of generous giving. At best, we might expect friends to offer monetary compensation at a rate no higher than the fair market price. However, it is plausible that people would even offer lower monetary amounts to friends than to acquaintances or strangers, thereby making friends' selling offers look even more generous. Moreover, because gift giving is primarily an exercise in decision making for the giver—not the receiver—givers tend to be more concerned with conforming to norms governing gift giving, such as making sure a gift arrives on time (Teigen, Olsen, and Solas 2005). In economic transactions among friends, this asymmetry might translate into sellers being more concerned about generosity norms than buyers.

Building on Halpern's (1994, 1997) findings and the preceding line of reasoning, the *asymmetric generosity hypothesis* may thus be stated as follows:

Friends will tend to make lower, more generous selling offers than either acquaintances or strangers. However, the friend's buying offers will tend to be no greater than those of acquaintances or strangers.

The asymmetric generosity hypothesis leads to the following predictions: (1) selling offers will be lower among friends than among acquaintances or strangers, (2) buying offers will either not differ as a function of relationship or be even lower among friends than among acquaintances or strangers, and (3) selling offers will be lower than buying offers among friends. Whereas the first of these three predictions is

consistent with both the friendship script account and the asymmetric generosity hypothesis, the second prediction is consistent only with the latter. Given that the friendship script account proposes agreement between friends, support for the last of these three predictions would also offer stronger support for the asymmetric generosity account, which predicts a reversal rather than a “mere” elimination of the endowment effect among friends.

METHODOLOGICAL ISSUES

The present research was also designed to overcome two methodological limitations associated with past research. First, in Halpern's (1994, 1997) tests of the friendship script account, the manipulation of relationship was confounded with level of abstraction. Whereas participants in the friend condition were asked to think of a *specific* friend of theirs whom they like very much, whom they trust, and with whom they wish to maintain this relationship indefinitely, participants in the stranger condition were asked to imagine transacting with a *nonspecific* person, who was a fellow student whom they had never met before and would never encounter again. Thus, the target transactor was a real person in the friend condition but a hypothetical person in the stranger condition. In the present research, this confound was eliminated. Participants imagined transacting with a hypothetical friend, acquaintance, or stranger in study 1, and they imagined transacting with a real friend or acquaintance in study 2.

A second methodological concern is that Halpern (1994, 1997) provided her participants with normative information on pricing in the form of typical price ranges. It is not unlikely that this information would have influenced participants' offers. Although participants were free to make offers outside of these typical price ranges, Halpern (1994) noted that they rarely did. In the present research, participants learned what the original purchase price of the target commodity was, but they were not given information about typical price ranges that might have suggested to them what they *ought* to offer. Given that people usually learn the price of a commodity rather than a typical price range, the present research also bears closer resemblance to the types of personal economic transactions that occur in everyday life.

STUDY 1

METHOD

Sample. A total of 149 university undergraduates from a university in England volunteered for this study in response to a request to complete a survey about music CD purchases.

Design. Participants were randomly assigned to one of six experimental conditions in a 2 (Ownership: owner, nonowner) \times 3 (Relationship: friend, acquaintance,

dealer) mixed factorial design in which ownership was manipulated between participants and relationship was manipulated within participants.¹

Procedure. Participants were asked to consider one of nine scenarios (see note 1) in which either they or another person named Pat bought a music CD. For example, consider the scenario in which both the owner and nonowner are described as having a high degree of satisfaction with the CD. In the owner condition, participants read the following:

A week ago you bought a CD for £15. After listening to it a few times, you really like eight of the ten tracks on the CD. Pat, who hasn't bought the CD yet, also listens to it and, like you, really likes eight of the tracks.

In the nonowner condition, the roles of the participant and Pat were reversed as follows:

A week ago Pat bought a CD for £15. After listening to it a few times, Pat really likes eight of the ten tracks on the CD. You, who have not bought the CD yet, also listen to it and, like Pat, you really like eight of the tracks.

Participants then indicated the price in British pounds for which they thought the owner would sell the CD and the price for which the nonowner would buy the CD. In the owner condition, participants were first asked three questions about their selling offers that varied by relationship: "What is the minimum amount for which you would be willing to sell the CD to Pat, if Pat was [an acquaintance you hardly knew/a very close friend/a used-CD dealer]?" Then, participants were asked three questions about their expectations of the other party's buying offers: "What is the maximum amount you think Pat would be willing to pay to buy this CD from you, if you were [an acquaintance Pat hardly knew/a very close friend/a used-CD dealer]?" In the nonowner condition, participants indicated the minimum price that they expected Pat would be willing to sell the CD to them and the maximum price they would be willing to pay to buy the CD from Pat. Thus, participants in the owner condition indicated their selling offers and their expectation of the nonowner's buying offer, whereas in the nonowner condition, participants indicated their buying offers and their expectation of the nonowner's selling offer.

1. Owner and nonowner satisfaction with the CD were also each manipulated between participants such that the owner and nonowner were described as either liking two (low satisfaction) or liking eight (high satisfaction) of the ten tracks on the album (for these conditions, owner and nonowner satisfaction was fully crossed) or else nothing was said about their satisfaction with the album (owners and nonowners were matched in the no-information condition). These manipulations, however, were not of key theoretical interest in this article and served primarily to ensure that the results obtained were not attributable to only a single vignette. Moreover, replicating Halpern (1997, studies 2 and 3), neither satisfaction manipulation moderated the key hypothesized interaction between transaction and relationship ($p > .20$). Thus, the data are collapsed in study 1 over the two satisfaction manipulations.

TABLE 1
 Mean Offers as a Function of Transaction, Ownership, and Relationship in Study 1

Transaction	Ownership	Relationship		
		Friend	Acquaintance	Stranger
Sell	Owner	7.43	11.42	10.92
Sell	Nonowner	8.06	12.44	10.74
Sell	<i>M</i>	7.74	11.97	10.86
Buy	Owner	7.75	10.36	8.99
Buy	Nonowner	9.29	10.20	8.96
Buy	<i>M</i>	8.47	10.32	8.98

RESULTS

A summary of the descriptive findings of study 1 are presented in Table 1, which shows participants' mean offers as a function of transaction (i.e., buying vs. selling), ownership, and relationship. The subsections below present inferential tests of the predictions derived from the disagreement hypothesis and the asymmetric generosity hypothesis.

The disagreement hypothesis. The disagreement hypothesis states that, compared to acquaintances, friends or strangers will offer prices that are in stronger disagreement with what they think the other party will offer to them. To test this hypothesis, a difference score was calculated for each participant within each of the relationship conditions by subtracting his or her buy estimate from his or her sell estimate. Because the disagreement hypothesis does not make predictions regarding the direction of disagreement, the absolute values of the difference scores were computed and served as the basis for differentiating between the disagreement hypothesis in the present account and the agreement hypothesis in the friendship script account.

In support of the disagreement hypothesis, Table 2 shows that the mean level of absolute disagreement was in fact greatest in the friend condition and smallest in the acquaintance condition. A 2 (Ownership) \times 3 (Relationship) mixed analysis of variance (ANOVA) on absolute disagreement revealed that only the predicted main effect of relationship was significant, $F(2, 284) = 2.33$, $MSE = 7.15$, one-tailed $p < .05$, partial $\eta^2 = .02$. Moreover, providing a direct test of the disagreement hypothesis, a Helmert contrast revealed that absolute disagreement in the acquaintance condition was significantly lower than in the friend and dealer conditions, $F(1, 142) = 4.21$, $MSE = 8.64$, $p < .05$, partial $\eta^2 = .03$.

The asymmetric generosity hypothesis. The asymmetric generosity hypothesis states that friends tend to offer lower (and hence more generous) selling prices than acquaintances or strangers but that friends' buying offers do tend not to be higher than those of acquaintances or strangers. One prediction, then, is that participants'

TABLE 2
 Mean Absolute Disagreement between Buying and Selling Offers
 as a Function of Relationship in Study 1

	<i>Relationship</i>		
	<i>Friend</i>	<i>Acquaintance</i>	<i>Stranger</i>
<i>M</i>	2.92	2.37	2.58
<i>SD</i>	3.36	2.93	2.66

selling offers would be lower in the friend condition than in either the acquaintance or dealer condition. Supporting this prediction, a 2 (Ownership) \times 3 (Relationship) mixed ANOVA on selling offers revealed that only the main effect of relationship was significant, $F(2, 288) = 102.42$, $MSE = 6.71$, $p < .001$, partial $\eta^2 = .42$. Moreover, providing direct support for this prediction, a Helmert contrast revealed that the mean selling offer in the friend condition was significantly lower than the mean selling offers in the other two conditions, $F(1, 144) = 188.65$, $MSE = 10.22$, $p < .001$, partial $\eta^2 = .93$. The mean selling offers in each of the relevant conditions are shown in the top two rows of Table 1. These findings support the asymmetric generosity hypothesis by showing that (1) owners will sell for a lower price to a friend than to either an acquaintance or a stranger, and (2) nonowners expect owners to sell to them for a lower price if they are a friend than if they are not.

On the buying side, the asymmetric generosity hypothesis states that friends will not present more generous buying offers than acquaintances or strangers. A 2 (Ownership) \times 3 (Relationship) mixed ANOVA on buying offers supported this prediction: the main effect of relationship was significant, $F(2, 284) = 17.42$, $MSE = 6.91$, $p < .001$, partial $\eta^2 = .11$. The relationship-by-ownership interaction effect was also significant, $F(2, 284) = 4.71$, $MSE = 6.91$, $p < .05$, partial $\eta^2 = .03$. (The main effect of ownership, however, was not significant, $F < 1$.) As can be seen in Table 1, the interaction effect is largely attributable to the difference in buying offers for friends between participants in the owner and nonowner conditions. On average, participants indicated that they would offer their friend more money for the CD than they thought their friend would offer to them for the same CD. The *expected* buying offers of "owners" were significantly lower in the friend condition than the other conditions, Helmert $F(1, 72) = 14.55$, $MSE = 18.72$, $p < .001$, partial $\eta^2 = .17$. By contrast, "nonowners" buying offers in the friend condition did not significantly differ from their buying offers in the other conditions, Helmert $F(1, 70) = 0.73$, $MSE = 8.11$, $p = .40$, partial $\eta^2 = .01$. Despite these differences, both simple effects support the prediction of the asymmetric generosity hypothesis that friends do not make more generous buying offers than acquaintances or strangers.

Finally, according to the asymmetric generosity hypothesis, a reversal of the endowment effect should be observed among friends. Consistent with this prediction, a 2 (Transaction) \times 3 (Relationship) repeated-measures ANOVA revealed a significant

interaction effect, $F(2, 286) = 33.19$, $MSE = 4.59$, $p < .001$, partial $\eta^2 = .19$. Providing direct support for the prediction, and as can be seen in Table 1, whereas an endowment effect was observed in the acquaintance condition ($F(1, 148) = 35.07$, $MSE = 5.77$, $p < .001$, partial $\eta^2 = .19$) and the stranger condition ($F(1, 144) = 49.84$, $MSE = 5.12$, $p < .001$, partial $\eta^2 = .26$), a reversal of the endowment effect was observed in the friend condition, $F(1, 147) = 4.04$, $MSE = 4.59$, $p < .05$, partial $\eta^2 = .03$.

Having demonstrated that selling prices among friends are more generous than among acquaintances or strangers, I further examined the behavioral basis for this difference. One possibility is that asymmetric generosity is driven mainly by sellers who refuse to ask for money and simply decide to give their CD to their friend. Alternatively, selling offers might generally be lowered but not given away. The latter possibility is perhaps more likely because it balances normative pressures toward generosity with considerations of fairness to the owner who still had to purchase the CD. Finally, the difference in mean selling offers as a function of relationship might largely reflect opportunism on the part of sellers in the acquaintance and dealer conditions. That is, sellers might set a price for the CD that is above what was originally paid (i.e., £15).

Figure 1 presents the distribution of selling prices as a function of relationship in the form of stem-and-leaf displays. Although £0 offers contributed somewhat to the observed effect, only 11 percent of participants in the friend condition provided selling offers of £0. Opportunistic selling (offers greater than £15) played a negligible role and represented less than 3 percent of participants' selling offers even in the dealer condition. Finally, a Helmert contrast test revealed that, even if selling offers of £0 or greater than £15 are omitted from the analysis, the mean selling offer in the friend condition ($M = 8.52$) is significantly lower than in the other two conditions ($M = 11.55$), $F(1, 123) = 213.27$, $MSE = 5.35$, $p < .001$, partial $\eta^2 = .63$. Thus, the findings support the hypothesis that participants in the friend condition attempt to balance normative pressures toward making generous selling offers toward their friends with concerns about the fairness of those offers to sellers themselves.

DISCUSSION

The findings of study 1 provided support for the disagreement hypothesis and the asymmetric generosity hypothesis. In cases where Halpern's (1994, 1997) friendship script account and the norm of generosity account led to different predictions, the findings invariably supported the latter account. Notably, in support of the disagreement hypothesis but contrary to the friendship script account's agreement hypothesis, participants exhibited *more* disagreement with what they expected of their trading partner when that person was described as a friend rather than as an acquaintance. Moreover, in support of the asymmetric generosity hypothesis, the source of disagreement in offers between friends was due to the fact that sellers made generous offers relative to both buyers and relative to other sellers who transacted with either an acquaintance or a stranger. Demonstrating the importance of normative factors in economic transactions, the findings revealed a clear reversal of the well-documented endowment effect.

drive selling offers to exceed buying offers. If the present account is correct, then perceived generosity is expected to reliably mediate the effect of relationship on disagreement, whereas perceived fairness would not.

The inclusion of generosity and fairness measures also permitted tests of the possible bases for the asymmetric generosity effect. One possibility is that buyers are less constrained by pressures toward generosity than sellers. If so, the correlation between buying offers and the perceived generosity of these offers should be weaker than the correlation between selling offers and generosity. That is, thinking about one's offers in terms of a given normative constraint, such as generosity, should presumably strengthen the relation between these measures. Along a similar line of reasoning, another possibility is that buyers are more sensitive to fairness norms, in which case we may also predict that participants' fairness ratings would correlate more strongly with their buying offers than with their selling offers. These hypotheses were tested in study 2.

METHOD

Sample. A total of 156 undergraduates from a university in Canada participated in study 2 in exchange for bonus credit in a psychology course.

Design. Participants were randomly assigned to one of eight experimental conditions in a 2 (Ownership: owner, nonowner) \times 2 (Relationship: friend, acquaintance) \times 2 (Transaction: buy, sell) factorial between-participants design.

Procedure. Participants completed a brief questionnaire that began with a manipulation of relationship. In the friend condition, participants were instructed as follows:

Think of a friend who is very close to you. This person may be your best friend, someone from high school, a friend from college, or anyone you think of as a good, close friend.

In the acquaintance condition, participants were instructed as follows:

Think of an acquaintance whom you know by name but who is not particularly close to you and with whom you have little interaction. This person may be an acquaintance you know from high school or college or anyone you think of as an acquaintance.

Participants were then asked to write down the initials of their friend or acquaintance in the space provided.

Next, ownership was manipulated by having participants consider a situation in which either they (in the owner condition) or the person they had brought to mind (in the nonowner condition) owned a \$35 ticket to a live show. In the scenario, the owner could no longer use the ticket because of an important commitment that arose after it was purchased, and the nonowner was interested in buying the ticket. For instance, in the friend/owner condition, participants read the following:

Imagine you have a ticket to a live show that cost you \$35. Due to another commitment that you can't get out of, you now have to sell the ticket. Your friend is interested in buying the ticket from you and knows how much you paid for it.

Finally, the manipulation of transaction followed the presentation of the various scenarios by asking participants to either indicate a buying price or a selling price for the ticket. Participants in the sell condition indicated how much the owner would offer to sell the ticket if the other party was interested in buying it, whereas participants in the buy condition indicated how much the nonowner would offer to buy the ticket. Thus, participants indicated their own offers if they were in either the owner/sell or the nonowner/buy conditions, and they indicated the nonowner's expected offer if they were in either the nonowner/sell or the owner/buy conditions. For instance, participants in the friend/owner/sell condition were asked, "How much would you offer to sell the ticket for if your friend was interested in buying it?" By contrast, participants in the friend/owner/buy condition were asked, "How much do you think your friend would offer you to buy the ticket?" All participants were subsequently asked, "How generous do you think this offer is?" and "How fair do you think this offer is?" The order of these questions was counterbalanced across participants. Participants responded to these questions on 7-point rating scales ranging from 1 (*not at all [generous, fair]*) to 7 (*extremely [generous, fair]*).

RESULTS

The disagreement hypothesis. The disagreement hypothesis predicts a significant interaction effect between transaction and relationship, such that the difference between mean buying and selling offers would be greater in the friend condition than in the acquaintance condition. A 2 (Ownership) \times 2 (Transaction) \times 2 (Relationship) ANOVA revealed significant main effects of relationship ($F(1, 148) = 9.23, MSE = 48.24, p < .005$, partial $\eta^2 = .06$) and transaction ($F(1, 147) = 7.38, p < .01$, partial $\eta^2 = .05$). As predicted, these effects were qualified by a significant transaction-by-relationship interaction effect, $F(1, 148) = 6.64, p < .02$, partial $\eta^2 = .04$. Supporting the disagreement hypothesis, the difference in the acquaintance condition between buying and selling offers was not significant ($F < 1$). By contrast, the difference between buying and selling offers in the friend condition was significant, $F(1, 76) = 9.60, MSE = 70.67, p < .005$, partial $\eta^2 = .11$. As shown in Table 3, this difference revealed a reversal of the endowment effect in the friend condition in line with the asymmetric generosity hypothesis. No other effect in the ANOVA model was significant.

To test the hypothesis that perceived generosity mediates the relation between relationship and disagreement, a mediator test using the regression approach proposed by Kenny, Kashy, and Bolger (1998) was conducted. As shown in Figure 2, each of the conditions required for mediation was met. First, the predictor (relationship) significantly predicted the mediator (generosity). Second, controlling for the predictor, the mediator significantly predicted the criterion (disagreement).² Third, controlling for the mediator, the effect of the predictor on the criterion was significantly reduced,

2. Disagreement was calculated within levels of relationship by first subtracting the mean buying offer from sellers' offers and by subtracting buyers' offers from the mean selling offer and then taking the absolute values of these difference scores. Thus, higher scores indicate stronger disagreement.

TABLE 3
Mean Offers as a Function of Transaction,
Ownership, and Relationship in Study 2

Transaction	Relationship		
	Ownership	Friend	Acquaintance
Sell	Owner	26.25	32.50
Sell	Nonowner	27.63	33.88
Sell	<i>M</i>	26.92	33.19
Buy	Owner	32.50	32.74
Buy	Nonowner	33.16	33.95
Buy	<i>M</i>	32.82	33.34

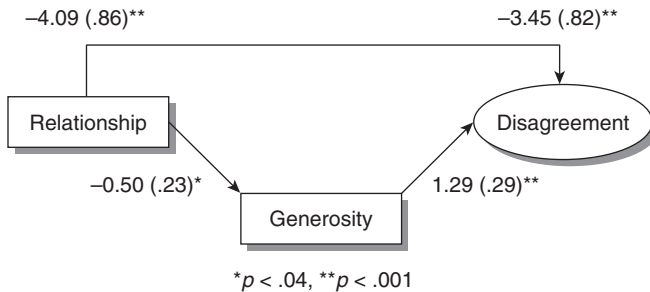


Figure 2: Mediator Model of Disagreement between Buyers and Sellers in Study 2

NOTE: The friend and acquaintance conditions were dummy coded 1 and 2, respectively. The values reported are nonstandardized regression weights, and the standard errors are reported in parentheses.

Sobel $t = 1.97$, $p < .05$. Mediation in this case was partial, as the relationship-disagreement relation was still significant after controlling for perceived generosity. However, consistent with the norm of generosity account, there was no evidence that this effect was mediated by the perceived fairness of offers. A mediation analysis substituting perceived fairness as the proposed mediator revealed that, unlike generosity, fairness did not reliably mediate the effect of relationship on disagreement, Sobel $t = 1.56$, $p = .12$. Finally, attesting to the discriminant validity of these two constructs, generosity and fairness were weakly, albeit significantly, correlated, $r = .25$, $p < .003$.

The asymmetric generosity hypothesis. As the preceding ANOVA revealed, study 2 provided support for the asymmetric generosity hypothesis. That is, participants' offers in the friend condition exhibited a reversal of the endowment effect (see Table 3), whereas buying and selling offers did not significantly differ in the acquaintance

\$32.22 in the acquaintance condition, $t(70) = 2.03$, $SE = 1.50$, $p < .05$, Cohen's $d = 0.49$. Thus, it appears that participants in the friend condition attempt to balance normative pressures toward making generous selling offers toward their friends with concerns about the fairness of those offers to sellers themselves. This interpretation is further strengthened by correlational analyses presented in the next section.

Correlational analyses. Like study 1, study 2 provides support for the idea that sellers are more generous than buyers in the context of friendship. Collapsing across relationship, the correlation between selling offers and the perceived generosity of those offers was significant, $r(77) = -.51$, $p < .001$. The correlation between generosity and buying offers was also significant, $r(75) = .24$, $p < .04$. However, consistent with the hypothesis that generosity is a more pressing normative constraint for sellers than for buyers, the difference in the magnitude of the absolute correlations was significant, $z = 1.95$, one-tail $p < .03$. A similar analysis with participants' fairness ratings revealed quite a different result. In contrast to generosity, fairness was not reliably correlated with selling offers, $r(77) = -.17$, $p > .13$. However, fairness was moderately correlated with buying offers, $r(75) = .50$, $p > .001$. Consistent with the idea that fairness is a more pressing concern for buyers than for sellers, the difference in the magnitude of the absolute correlations was significant, $z = 2.31$, $p < .05$.

Although there was insufficient statistical power in study 2 to examine the preceding differences in correlational strength separately for friends and acquaintances, the pattern of correlations as a function of transaction and relationship is nevertheless revealing. These findings are presented in Table 4. Several observations are noteworthy. First, whereas the correlations between generosity and offers are of moderate magnitude among friends, they are small to negligible among acquaintances. Second, in support of the asymmetric generosity hypothesis, among friends, the correlations with generosity were somewhat greater in magnitude for selling offers than for buying offers. Third, it appears that fairness is moderately correlated with buying offers in both relational contexts, such that higher buying offers are perceived as fairer. By contrast, fairness was correlated with selling offers only among friends. Perhaps most interesting, however, is the fact that this correlation was positive, indicating that higher selling offers were viewed as being fairer. This suggests that when people contemplate the fairness of buying offers, their default is to think about how fair the offer is to the seller. By contrast, the results suggest that, among friends at least, when people contemplate the fairness of selling offers, their default is to think about how fair the offer is to the seller—not the buyer. This finding corroborates the view that friends who act as sellers must balance the objectives of being (or at least appearing) generous to their friends, yet fair to themselves.

DISCUSSION

The findings of study 2 lend additional support to both the disagreement hypothesis and the asymmetric generosity hypothesis and, more generally, to the norm of generosity account. This support was obtained despite two important changes in

TABLE 4
 Correlation of Offers with Generosity and Fairness as a
 Function of Relationship and Transaction in Study 2

<i>Correlated Rating</i>	<i>Transaction</i>		
	<i>Relationship</i>	<i>Sell</i>	<i>Buy</i>
Generosity	Friend	-.62**	.44*
Generosity	Acquaintance	-.22	.09
Fairness	Friend	.45*	.53*
Fairness	Acquaintance	-.09	.55**

NOTE: The *df* for each correlation ranged between 36 and 38.

* $p < .01$. ** $p < .001$.

procedure from study 1—use of a between-participants design that would mitigate any potential demand characteristics stemming from direct comparisons across relationship and use of real friends and acquaintances as exchange partners. The findings of study 2 also shine additional light on the respective roles of perceived generosity and perceived fairness in mediating the effect of relationship on buyer-seller disagreement. Importantly, the findings showed that, whereas perceived generosity significantly mediated that relation, perceived fairness did not. These findings bolster support for the idea that friendship influences scripts for economic transactions primarily through the application of a norm of generosity. Nevertheless, the findings suggest that people are sensitive to how fair the buying offers would be to sellers and, among friends, how fair selling offers would be to sellers.

GENERAL DISCUSSION

Like many other forms of social behavior, economic transactions are governed by social norms that vary in applicability across situational and relational contexts. Whereas norms of self-interest and reciprocity may dominate in exchange relationships, a norm of generosity may be even more important in communal relationships where high value is placed on cultivating the relationship and maximizing mutual benefits. This idea was examined in the present research by asking participants to consider economic transactions as a function of relationship types that naturally vary in their degree of communality. Consistent with Halpern (1994, 1997), the present findings clearly indicated that relationship does have an influence on people's expectations regarding what they, as well as others with whom they imagine transacting, would do. In both studies, buying and selling offers between friends resulted in a full-fledged reversal of the endowment effect.

Although these findings—namely, reversals of the endowment effect among friends—are consistent with the past findings of Halpern (1994, 1997), they do not square well with the key proposal of the friendship script account, which posits that

friends are motivated to seek agreement in their buying and selling offers due to normative pressures toward equality-based fairness. Just as a norm of equality-based fairness may promote equal distributions in allocation tasks (e.g., Austin 1980) or strict reciprocity (i.e., equal responses) characterized by TFT strategies (e.g., Axelrod 1984), the friendship script account predicts that a norm of fairness will promote equality (i.e., agreement) in price offers between buyers and sellers who are friends.

The present research indicates, however, that it is important to distinguish a norm of fairness from a norm of generosity. Although both normative pressures appear at face value to be congruent with a communal orientation, the predictions that follow regarding buyer-seller disagreement are markedly different in the two cases. Normative pressures toward fairness have been proposed to lead buyers and sellers to seek agreement in price. By contrast, normative pressures toward generosity were hypothesized in this article to lead to "altruistic disagreements" between buyers and sellers. That is, buying and selling offers between friends were predicted and found to be discrepant—indeed, more discrepant than among acquaintances—but with the discrepancy being indicative of generosity, at least on the part of sellers. The present findings thus strongly supported the idea that a generosity norm rather than a fairness norm is the driving force behind the reversal of the endowment effect observed in offers between friends. This interpretation was further supported by the mediator analyses in study 2, which demonstrated that the perceived generosity—but not the perceived fairness—of offers mediated the effect of relationship on the level of disagreement between buying and selling offers.

The present findings are highly congruent with Mills and Clark's (1982) account of the distinction between communal versus exchange relationships. As noted earlier, their account predicts that transactions among friends will not be governed by strict reciprocity or other equality-based fairness principles. Rather, behavior in that relational context is expected to reinforce the bonds of the relationship through a de-emphasis on "keeping track of the financial record" and an emphasis instead on being generous and patient in the reciprocation process (i.e., not expecting immediate compensation for providing a benefit). Whereas fairness concerns ought to promote good record keeping and efficient paybacks, generosity concerns are inconsistent with a policy of "financial bean counting." Indeed, it is not unlikely that friends who are too efficient in keeping track of what they give and receive will nonetheless be regarded as stingy or lacking in trust even if they act in a manner to maintain an equal balance sheet. Along similar lines, Clark (1981) found that when participants read vignettes of two individuals exchanging benefits, participants were more likely to perceive them as friends when the benefits were noncomparable than when they were comparable. As Clark explained, the noncomparability of benefits militates against the perception that the second benefit represents an act of repayment and instead reinforces the idea that benefits are provided primarily with the goal of fulfilling the needs of one's friends.

A particularly interesting result of the present research is that friends provide quite generous selling offers, but their buying offers were far less generous. The correlational analyses conducted in study 2 suggest that people are more likely to think

about selling offers in terms of how generous they are for the buyer than they are to think about buying offers in terms of how generous they are for the seller, especially among friends. By contrast, the findings suggest that, although people tend to think about buying offers in terms of how fair they are to the seller, they do not tend to think about selling offers in terms of how fair they are to the buyer. Rather, among friends, selling offers appear to be scrutinized in terms of how fair they are to the sellers themselves. This is not entirely surprising given the normative pressures toward generosity that sellers apparently have to deal with. As sellers become more generous in their offers, they may approach a point of “giving away” something that they personally value, thus raising concerns about fairness to oneself. In essence, the present findings suggest that the rule for sellers is something akin to “be generous to your friends, but don’t be a sucker,” whereas the rule for buyers is something akin to “be fair to your friends, but don’t offend them by undermining their displays of generosity.” The correlational findings of study 2 suggest that it may be useful to examine in future research the perceived fairness of offers separately in terms of fairness to oneself versus fairness to the other party. Future research could also examine what participants mean by fairness or ask them to rate the importance of equality-based fairness principles in setting offers either as buyers or sellers.

In a related vein, future research might examine why, among friends, sellers in the present exchange paradigm tend to be guided by a norm of generosity, whereas distributors of a resource in allocation paradigms tend to be guided by an equality principle. An interesting possibility is that being fair in *communal exchanges* tends to mean being generous—at least for owners of the valued goods—whereas being fair in *communal allocations* tends to mean distributing the available goods equally among the relevant parties. Communal exchanges appear to enact an “I give this to *you*” script, whereas communal allocations appear to enact an “I give this to *us*” script. Although, in principle, both may be regarded as forms of giving, in practice, individuals tasked with allocating a resource will likely be construed as having to make a decision about *sharing* rather than giving. The findings of the present research suggest that economic transactions among friends resemble acts of giving, which place a premium on the giver’s generosity toward the receiver, more closely than acts of sharing, which place a premium on the allocator’s fairness as expressed by the equal distribution of goods.

REFERENCES

- Aarts, H., and A. Dijksterhuis. 2003. The silence of the library: Environment, situational norm, and social behavior. *Journal of Personality and Social Psychology* 84:18-28.
- Austin, W. 1980. Friendship and fairness: Effects of type of relationship and task performance on choice of distribution rules. *Personality and Social Psychology Bulletin* 6:402-8.
- Axelrod, R. 1984. *The evolution of cooperation*. New York: Basic Books.
- Boulding, K. E. 1973. *The economy of love and fear*. Belmont, CA: Wadsworth.
- Camerer, C. 1988. Gifts as economic signals and social symbols. *American Journal of Sociology* 94:180-214.
- Campbell, W. K., C. Sedikides, G. D. Reeder, and A. J. Elliot. 2000. Among friends? An examination of friendship and the self-serving bias. *British Journal of Social Psychology* 39:229-39.

- Carmon, Z., and D. Ariely. 2000. Focusing on the forgone: How value can appear so different to buyers and sellers. *Journal of Consumer Research* 27:360-70.
- Casey, J. 1995. Buyer-seller pricing disparities. *Management Science* 41:979-99.
- Chan, A. S., H. Chiu, L. Lam, A. Pang, and L. Y. Chow. 1999. A breakdown of event schemas in patients with schizophrenia: An examination of their script for dining at restaurants. *Psychiatry Research* 87:169-81.
- Chapman, G. B. 1998. Similarity and reluctance to trade. *Journal of Behavioral Decision Making* 11:47-58.
- Clark, M. S. 1981. Noncomparability of benefits given and received: A cue to the existence of friendship. *Social Psychology Quarterly* 41:375-81.
- Deutsch, M. 1975. Equity, equality, and need: What determines which value will be used as the basis of distributive justice? *Journal of Social Issues* 31:137-49.
- Fischer, C. S. 1982. What do we mean by "friend"? A deductive study. *Social Network* 3:287-306.
- Fiske, A. P. 1992. The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review* 99:689-723.
- Fiske, S. T., and S. E. Taylor. 1991. *Social cognition*. New York: Random House.
- Foa, U. G., and E. B. Foa. 1974. *Societal structures of the mind*. Springfield, IL: Charles C Thomas.
- Fry, W. R., I. Firestone, and D. Williams. 1983. Negotiation power and outcome of stranger dyads and dating couples: Do lovers lose? *Basic and Applied Social Psychology* 4:1-16.
- Funnell, E. 2001. Evidence for scripts in semantic dementia: Implications for theories of semantic memory. *Cognitive Neuroscience* 18:323-41.
- Gouldner, A. W. 1960. The norm of reciprocity: A preliminary statement. *American Sociological Review* 25:161-78.
- Greenhalgh, L., and D. I. Chapman. 1996. *Relationships between disputants: An analysis of their characteristics*. East Lansing: Michigan State University Press.
- Halpern, J. J. 1994. The effect of friendship on personal business transactions. *Journal of Conflict Resolution* 38:647-64.
- . 1996. The effect of friendship on decisions: Field studies of real estate transactions. *Human Relations* 49:1519-47.
- . 1997. Elements of a script for friendship in transactions. *Journal of Conflict Resolution* 41:835-68.
- Kahneman, D., J. L. Knetsch, and R. Thaler. 1990. Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy* 98:728-41.
- Kahneman, D., and A. Tversky. 1979. Prospect theory: An analysis of decision under risk. *Econometrica* 47:263-91.
- Kelley, H. H. 1979. *Personal relationships: Their structures and processes*. Hillsdale, NJ: Lawrence Erlbaum.
- Kenny, D. A., and D. A. Kashy. 1994. Enhanced co-orientation in the perception of friends: A social relations analysis. *Journal of Personality and Social Psychology* 67:1024-33.
- Kenny, D. A., D. A. Kashy, and N. Bolger. 1998. Data analysis in social psychology. In *The handbook of social psychology*, vol. 1, 4th ed., edited by D. Gilbert, S. Fiske, and G. Lindzey, 233-65. Boston: McGraw-Hill.
- Mandel, D. R. 2002. Beyond mere ownership: Transaction demand as a moderator of the endowment effect. *Organizational Behavior and Human Decision Processes* 88:737-47.
- Messick, D. M., and K. P. Sentsis. 1983. Fairness, preference, and fairness biases. In *Equity theory*, edited by D. M. Messick and D. M. Cook, 61-94. New York: Praeger.
- Miller, D. T. 1999. The norm of self-interest. *American Psychologist* 54:1-8.
- Mills, J., and M. S. Clark. 1982. Communal and exchange relationships. In *Review of personality and social psychology*, edited by L. Wheeler, 121-44. Beverly Hills, CA: Sage.
- Morgan, W. R., and J. Sawyer. 1967. Bargaining, expectations, and the preference for equality over equity. *Journal of Personality and Social Psychology* 6:139-49.
- Parks, J. M., T. L. Boles, D. E. Conlon, E. DeSouza, W. Gatewood, K. Gibson, J. J. Halpern, D. C. Locke, J. C. Nekich, P. Straub, G. Wilson, and J. K. Murnighan. 1996. Distributing adventitious outcomes: Social norms, egocentric martyrs, and the effects on future relationships. *Organizational Behavior and Human Decision Processes* 67:181-200.

- Pinkley, R. 1990. Dimensions of conflict frame: Disputant interpretations of conflict. *Journal of Applied Psychology* 75:117-26.
- Robben, H. S. J., and T. M. M. Verhallen. 1994. Behavioral costs as determinants of cost perception and preference formation for gifts to receive and gifts to give. *Journal of Economic Psychology* 15:333-50.
- Roberts, G., and T. N. Sherratt. 1998. Development of cooperative relationships through increasing investment. *Nature* 394:175-9.
- Rubin, D. C., and D. Berntsen. 2003. Life scripts help to maintain autobiographical memories of highly positive, but not highly negative, events. *Memory & Cognition* 31:1-14.
- Sahlins, M. 1972. *Stone age economics*. Chicago: Aldine-Atherton.
- Schank, R. C., and R. P. Abelson. 1977. *Scripts, plans, and understanding*. Hillsdale, NJ: Lawrence Erlbaum.
- Shapiro, E. G. 1975. Effect of expectations of future interactions on reward allocations in dyads: Equality or equity? *Journal of Personality and Social Psychology* 31:873-80.
- Taylor, S. E., and J. H. Koivumaki. 1976. The perception of self and others: Acquaintanceship, affect, and actor-observer differences. *Journal of Personality and Social Psychology* 33:403-8.
- Teigen, K. H., M. V. G. Olsen, and O. E. Solas. 2005. Giver-receiver asymmetries in gift preferences. *British Journal of Social Psychology* 44:125-44.
- Thaler, R. H. 1980. Toward a positive theory of consumer choice. *Journal of Economic Behavior and Organization* 1:39-60.
- Thompson, L., and T. DeHarpport. 1998. Relationships, goal incompatibility, and communal orientation in negotiations. *Basic and Applied Social Psychology* 20:33-44.
- Thompson, L., and G. Loewenstein. 1992. Egocentric interpretations of fairness and interpersonal conflict. *Organizational Behavior and Human Decision Processes* 51:176-97.
- Van Boven, L., D. Dunning, and G. Loewenstein, G. 2000. Egocentric empathy gaps between owners and buyers: Misperceptions of the endowment effect. *Journal of Personality and Social Psychology* 79:66-76.
- van Dijk, E., and D. van Knippenberg. 1996. Buying and selling exchange goods: Loss aversion and the endowment effect. *Journal of Economic Psychology* 17:517-24.
- . 1998. Trading wine: On the endowment effect, loss aversion, and the comparability of consumer goods. *Journal of Economic Psychology* 19:485-95.
- Van Lange, P. A. M., J. W. Ouwerkerk, and M. J. A. Tazelaar. 2002. How to overcome the detrimental effects of noise in social interaction: The benefits of generosity. *Journal of Personality and Social Psychology* 85:768-80.
- Waldfogel, J. 2002. Gifts, cash, and stigma. *Economic Inquiry* 40:415-27.