

# Negotiation

Leigh L. Thompson, Jiunwen Wang,  
and Brian C. Gunia

Kellogg School of Management, Northwestern University, Evanston, Illinois 60208;  
email: leighthompson@kellogg.northwestern.edu

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## Key Words

mixed-motive interaction, decision making, bargaining, value  
creation, value claiming

## Abstract

Negotiation occurs whenever people cannot achieve their own goals without the cooperation of others. Our review highlights recent empirical research that investigates this ubiquitous social activity. We selectively review descriptive research emerging from social psychology and organizational behavior. This research examines negotiation behavior and outcomes at five levels of analysis: intrapersonal, interpersonal, group, organizational, and virtual. At each level, we review research on negotiation processes and outcomes, and we discuss the implications of various processes and outcomes for the two functions of negotiation: value creation (integrative negotiation) and value claiming (distributive negotiation).

## Contents

INTRODUCTION .....	492
The Intrapersonal, Interpersonal, Group, Organizational, and Virtual Systems .....	493
Integrative and Distributive Negotiation .....	493
INTRAPERSONAL LEVEL .....	494
Power .....	494
Gender .....	496
Affect .....	497
INTERPERSONAL LEVEL .....	499
Economic and Social Psychological Foundations .....	499
Interpersonal Effects of Emotions in Negotiation .....	499
Interpersonal Improvisation in Negotiation .....	500
Subjective Value in Negotiation .....	500
Trust and Tactics .....	501
Relationships and Negotiations .....	502
GROUP LEVEL .....	502
Social and Group Identity .....	502
Relational and Collective Identity .....	503
Culture .....	504
Groups and the Discontinuity Effect .....	504
ORGANIZATIONAL LEVEL .....	505
Choice of Negotiation Partner .....	505
Reputation and Negotiation Through Time .....	506
VIRTUAL LEVEL .....	507
Moderators and Mediators .....	507
CONCLUSION .....	508

## INTRODUCTION

Anytime people cannot achieve their goals without the cooperation of others, they are negotiating. By this definition, negotiation is a ubiquitous social activity. Research on negotiation has been influenced by a wide variety of fields, including mathematics, management, organizational behavior, social psychology, cognitive psychology, economics, communication studies, sociology, and political science. The

products of this multidisciplinary approach have been intense theoretical development and an impressive body of empirical findings.

Negotiation research has undergone several phases, characterized by different paradigms of thought. For example, during the 1980s, negotiation research was heavily influenced by game theory and behavioral decision theory. During the 1990s, negotiation research was strongly influenced by social psychology. At the turn of the millennium, negotiation research has become decidedly cognitive in flavor. Each generation of research has provided scholars with a new vantage point from which to examine the complex dance of negotiation.

One of the most important theoretical distinctions in negotiation scholarship is the one defining normative and descriptive research (Raiffa 1982). Normative research, largely derived from game theory, economics, and mathematics, proposes optimal models of the negotiation problem and prescribes what people would do if they were wise and all-knowing (cf. Luce & Raiffa 1957, Nash 1951). In this review, we focus on descriptive research, which recognizes that negotiators do not always behave in a game-theoretic, optimal fashion. The way negotiators actually behave usually departs significantly from normative, economic models (but not necessarily from behavioral economic models; Camerer 2003). For example, whereas normative models predict that people will/should almost always defect in a prisoner's dilemma or social dilemma, actual defection rates are dramatically lower than 100% (Camerer 2003, Komorita & Parks 1995). Moreover, normative models of negotiation dictate that parties should reach Pareto-optimal settlements, defined as agreements that cannot be improved upon without hurting one or both of the parties' outcomes. However, very few negotiators reach Pareto-optimal outcomes on a regular basis (Thompson 2009, Thompson & Hastie 1990).

Our focus is limited to descriptive research influenced by social psychology and its close cousin, organizational behavior—both of which have strongly influenced negotiation research

since 1980. We focus on empirical studies that examine the individual negotiator within one or more of five systems—intrapersonal, interpersonal, group, organizational, and virtual. We use these systems as a guide for organizing our review. Within each system, we focus on two overarching themes: integrative negotiation and distributive negotiation, described further below.

### **The Intrapersonal, Interpersonal, Group, Organizational, and Virtual Systems**

We use the term “intrapersonal system” to signify the ways that negotiation behavior and outcomes depend upon the perceptions and inner experiences of the negotiator. For example, the intrapersonal system might include research on how an individual’s sense of power influences his or her negotiation behavior, satisfaction, and outcomes. The interpersonal system refers to the ways that negotiators’ behavior and outcomes depend upon the presence of the other party or parties—negotiations in the context of others, and the dyadic aspects of negotiation behavior. Investigations of how a negotiator’s mood influences the other party’s behavior and the ultimate negotiation outcome exemplify this system. The group system encompasses social dynamics that extend beyond a single dyad—for example, group identity, cultural identity, coalitions, and conformity. The organizational system represents a higher level of analysis and examines the negotiator as embedded in a larger network or marketplace. For example, some studies at this level investigate how negotiators choose optimal counterparties in a marketplace of negotiators. Finally, the virtual system focuses on how negotiators’ medium of interaction—such as face-to-face, phone, or email—affects the nature and quality of negotiation processes and outcomes. Several studies have investigated whether negotiators are more likely to discover mutual value when negotiating face-to-face or via computer (cf. Morris et al. 2002, Naquin & Paulson, 2003, Purdy et al. 2000).

### **Integrative and Distributive Negotiation**

Whereas the independent variables or causal factors underlying negotiation have been highly eclectic and strongly influenced by the contemporary theoretical milieu, the dependent variables under investigation have remained consistent across several decades. The main reason for this consistency is the influence of economics on negotiation research. Within negotiation research, the two dependent variables that appear in virtually every published study of negotiation are negotiation processes and outcomes.

Negotiation processes include negotiators’ behaviors, cognitions, emotions, and motivations. For example, much social psychological research has focused on negotiator satisfaction and the perceived relationship between the parties (see Curhan et al. 2006 for a review). Negotiation outcomes include the integrative and distributive features of the agreement. By “integrative,” we mean the extent to which the negotiated outcome satisfies the interests of both parties in a way that implies the outcome cannot be improved upon without hurting one or more of the parties involved (i.e., Pareto optimality) (Pareto 1935). A classic example of Pareto optimality is the story of the two sisters who quarreled bitterly over a single orange (Fisher & Ury 1981). The sisters resolved the dispute by cutting the orange in half, such that each sister received exactly 50%. Later, the sisters discovered that one only needed the juice whereas the other only needed the rind; unfortunately they had failed to realize this during the negotiation itself. Cutting the orange in half was not an integrative outcome, because another feasible solution would have simultaneously improved both sisters’ outcomes—one sister could have received all of the juice and the other all of the rind. This solution would have fully maximized both parties’ interests. The fact that another feasible solution would have been better for both parties suggests that the actual outcome was suboptimal or Pareto inefficient, as opposed to integrative.

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#### **Negotiation:**

an interpersonal decision-making process necessary whenever we cannot achieve our objectives single-handedly. Negotiations include not only the one-on-one business meetings, but also multiparty, multicompany, and multimillion-dollar deals. People negotiate in their personal lives (e.g., with their spouses, children, schoolteachers, neighbors) as well as in their business lives

#### **Pareto-optimal:**

Pareto optimality, or Pareto efficiency, is an important concept in economics with broad applications in game theory, engineering, and the social sciences. The term is named after Vilfredo Pareto, an Italian economist who used the concept in his studies of economic efficiency and income distribution. Informally, Pareto-optimal situations are those in which any change to make any person better off would make someone worse off

#### **Integrative:**

negotiations are integrative when all creative opportunities are leveraged and no resources are left on the table

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**Distributive:**

a negotiation is distributive when negotiators are mainly concerned about their own economic outcomes and not the joint outcomes of all negotiating parties

**Best alternative to a negotiated agreement (BATNA):**

determines the point at which a negotiator is prepared to walk away from the negotiation table. In practice, it means that the negotiators should be willing to accept any set of terms superior to their BATNA and to reject outcomes that are worse than their BATNA

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The distributive aspect of negotiation refers to how negotiators divide or apportion scarce resources among themselves. For example, in the classic ultimatum game (Güth et al. 1982, Ochs & Roth 1989), one person (“player 1”) receives a fixed amount of money (say \$100) to divide with another person. Player 1 proposes a split of the \$100; if player 2 agrees, the proposed split takes effect. If player 2 rejects the proposal, each party gets \$0. The split that Player 1 proposes can be perceived to be fair or acceptable to player 2, leading player 2 to accept the offer. In this case, the distributive aspect of the negotiation is the proportion of the original \$100 that each negotiator receives.

Recently, the initial focus on the economic outcomes of negotiation has widened to include investigations of subjective outcomes. Whereas rational behavior in negotiation is usually equated with the maximization of economic gain, joint or individual, some have argued that it is equally appropriate to consider social-psychological outcomes, such as the quality of the relationship, the degree of trust between parties, each negotiator’s satisfaction, and each person’s willingness to negotiate with the other in the future. In an attempt to measure subjective concerns, Curhan and his colleagues surveyed people on what they value in negotiation (Curhan et al. 2006). Four distinct considerations emerged: feelings about instrumental outcomes (i.e., how much money they made), feelings about themselves (e.g., how competent they were in the negotiation), feelings about the process (e.g., whether the conversation was constructive) and feelings about the relationship (i.e., whether the negotiation preserved or strengthened it).

## INTRAPERSONAL LEVEL

Negotiation research at the intrapersonal level of analysis clearly recognizes the multiparty nature of negotiation, but it emphasizes how the inner experience of the negotiator impacts negotiation processes and outcomes, and vice-versa. We focus on three interrelated intrapersonal constructs that have received

significant research attention in recent years—power, gender, and affect. Many studies of power, gender, and affect in negotiations follow from research stimulated by the work of Steele (Steele & Aronson 1995), Banaji (Blair & Banaji 1996), Greenwald (Greenwald et al. 1996), Bargh (Bargh & Pietromonaco 1982), and others on the behavioral effects of unconscious priming. This research examines how subtle, below-threshold activation of concepts influences above-threshold behaviors. In negotiations, above-threshold behaviors substantially impact negotiation processes and outcomes, which may unconsciously activate other cognitions and behaviors.

## Power

Power refers to an individual’s relative ability to alter other people’s outcomes (Keltner et al. 2003). Several studies examine psychological power as a state, operationalized through priming, but others examine power as a trait or individual difference. Although negotiators may have several sources of structural power (French & Raven 1959), the most commonly investigated source of power is the negotiator’s best alternative to a negotiated agreement (BATNA; Fisher & Ury 1981).

A negotiator’s BATNA has become the primary indicator of a negotiator’s relative power in negotiation. The BATNA concept was formally introduced by Fisher and Ury in 1981; however, the concept actually traces back to the social exchange theory of Thibaut & Kelley (1959). Exchange theory cites rewards (borrowed from psychology) and resources (borrowed from economics) as the foundation of interpersonal exchanges. Rewards refer to the benefits a person enjoys from participating in a relationship (Thibaut & Kelley 1959), whereas resources are any commodities, material or symbolic, that can be transmitted through interpersonal behavior (Foa & Foa 1975) and give one person the capacity to reward another (Emerson 1976). Satisfaction with an exchange relationship is derived in part from the evaluation of the outcomes available in a relationship.

Outcomes are equal to the rewards obtained from a relationship minus the costs incurred.

People in social exchanges compare the outcomes of the current exchange with the outcomes they could achieve in an alternative exchange—these alternative outcomes are operationalized as the “comparison level of alternatives,” or CLalt. When the CLalt exceeds the outcomes available in a current relationship, the person is more likely to leave the relationship. The concept of CLalt is parallel to BATNA. When one’s BATNA is better than an agreement one can reach with a particular negotiation counterpart, one should choose to not agree and exercise the BATNA instead.

Negotiators’ BATNAs are strongly related to their reservation point (RP). RPs are the quantification of a negotiator’s BATNA (Raiffa 1982). According to Raiffa (1982), a negotiator’s RP is the point at which a negotiator is indifferent between reaching a deal with party A or walking away from the table and exercising his/her BATNA. For a seller, prices exceeding reservation points are acceptable; for a buyer, prices less than reservation points are acceptable. RPs are generally operationalized as the value attached to a negotiator’s BATNA, plus or minus the value of any idiosyncratic preferences they attach to reaching agreement versus exercising the BATNA.

Just as BATNA traces to Thibaut & Kelley’s (1959) earlier concept of CLalt, reservation price traces to Walton & McKersie’s (1965) concept of resistance point, described in their book *A Behavioral Theory of Labor Relations*. Resistance point is a negotiator’s subjectively determined bottom line—the point at which negotiators are indifferent between reaching agreement and walking away, in the midst of the negotiation. Walton & McKersie (1965) postulated that negotiators who had more attractive resistance points were in a more powerful position because they could simply offer the other party just enough to meet their resistance point and claim the rest (the surplus) for themselves. Although the concept of reservation price has largely displaced the concept of resistance point

in recent academic research, resistance points provided an important theoretical step toward specifying the concept of bargaining zone. Bargaining zone is basically the overlap between two negotiators’ RPs—the buyer’s RP minus the seller’s RP. If this number is positive, a zone of possible agreement (ZOPA) is said to exist; if it is negative, no ZOPA exists.

Research studying the effects of power have documented that there is a strong, causal relationship between the attractiveness of a negotiator’s BATNA and the negotiator’s ability to claim resources in a given negotiation (Galinsky & Mussweiler 2001, Magee et al. 2007, Mussweiler & Strack 1999). Negotiators with attractive BATNAs are considered “powerful”; these negotiators are decidedly more assertive in negotiations. For example, powerful people move first, both by initiating negotiations and by making the first offer (Magee et al. 2007). When power is primed (by instructing people to write about a time when they felt powerful or to perform a word-completion task involving words about power), these individuals often make the first offer in negotiations. If the concept of BATNA is a measure of structural power, then chronic tendencies to dominate others in social relationships reflect personal power. Both structural and personal power can improve negotiators’ outcomes by leading them to make the first offer (Galinsky & Mussweiler 2001, Magee et al. 2007, Mussweiler & Strack 1999).

Although having power may increase a negotiator’s propensity to make a first offer, this may depend on the nature of the negotiation. Specifically, it is reasonable to assume that if both negotiators have attractive BATNAs, their motivation to reach mutual agreement is not as high as that of two negotiators with very poor alternatives. Thus, the effects of one’s power in a negotiation may depend on the size of the bargaining zone. Given that BATNAs establish the minimum level of benefits one would receive, irrespective of what occurs in the negotiation, their influence quickly diminishes once benefits equivalent to the BATNA value have been attained.

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**Reservation point:** determined not by what the negotiator wishes and hopes for, but rather by what her BATNA represents. A reservation point is a quantification of a negotiator’s BATNA with respect to other alternatives

**Bargaining zone:** the range between negotiators’ reservation points. Between a buyer and a seller, the bargaining zone will be between the highest price a buyer is willing to pay and the lowest price a seller is willing to sell for

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In one study, strong BATNAs improved negotiators' outcomes more when the bargaining zone was small rather than large (Kim & Fragale 2005). When the bargaining zone was large, power tended to derive more from a negotiator's contribution to the negotiation. In this case, contribution refers to the benefits that a negotiator contributes beyond the value of the counterparty's BATNA. For instance, if the counterparty is selling a house and has a BATNA (e.g., another buyer offering \$200K for the house) and the negotiator offers \$210K for the house, the difference, or \$10K, is the contribution.

Once an offer equaled the value of one's BATNA in Kim and Fragale's research, outcomes depended more on the extent to which the counterparty could contribute value beyond the BATNA. Contributions thus exerted an important influence on negotiation outcomes, especially as the potential agreement became more valuable (relative to negotiators' BATNAs).

## Gender

Power is manifested and expressed by negotiators in many ways. For example, power can depend upon structural factors (e.g., BATNA) or on personal characteristics. A negotiator's structural power can change when environmental conditions change, but personal power is, for the most part, fixed. For example, a negotiator who is selling her house and has an attractive offer from a very motivated buyer has a lot of structural power; however, if the buyer suddenly withdraws the offer on the house (perhaps due to a failed home inspection), the negotiator's power plummets. Conversely, a negotiator who is a vice president of a major company and has a lot of personal charm also holds high power, which is more resilient to temporary fluctuations of the market (except in the case of losing her job!). One important source of personal power is gender.

To exert influence in a negotiation, gender must be activated or made salient (Kray & Thompson 2005). In a series of investigations

modeled after Steele & Aronson (1995), Kray et al. (2001) did just this. Specifically, they investigated whether the mere activation of gender (and its accompanying stereotypes) impacts negotiation performance. The prevailing stereotype is that women are less assertive and agentic than men. Because many people see negotiation as a situation requiring assertive and agentic behavior, stereotypically female traits may seem inconsistent with negotiation once the connection is made salient. For these reasons, the mere mention of negotiation might create an internal conflict within women: On one hand, they may believe that performing well requires them to engage in counterstereotypical behaviors. On the other hand, they may believe that others expect them to behave in an accommodating, nonassertive fashion.

Kray et al. (2001) hypothesized that the mention of gender might operate much like stereotype threat (Steele & Aronson 1995). Gender salience might thus operate like a low-power state, preventing women from acting assertively. In their study, women did, in fact, get worse outcomes than did men in mixed-gender negotiations, when an implicit gender stereotype was subtly activated. However, it was reasoned that explicit activation of the gender stereotype may allow women to counteract it. As predicted, explicitly activated gender stereotypes led to a stereotype-reactance effect, in which women actually outperformed men by claiming more resources (presumably in an attempt to defy the stereotype). Women effectively said, "Well, unassertive behavior and accommodation may be the cultural stereotype of women, but it is surely not me!"

In another series of studies, Kray and colleagues (2004) reasoned that negotiation, like other social activities, can be construed as either a masculine or feminine activity. The masculine construal of negotiation involves agency and assertiveness. It is also possible to construe successful negotiation as understanding human behavior, perceiving nonverbal cues, and building trust. Arguably, these skills are more consistent with the classic female stereotype. Indeed, women outperformed men when traditionally

feminine traits were linked with negotiation success, and each gender outperformed the other when the other gender was linked with negotiation ineffectiveness (Kray et al. 2001).

The implications of stereotype activation may also depend on whether negotiators have high or low power (Kray et al. 2004). Specifically, activation of an explicit male stereotype led to negotiated outcomes that favored the high-power negotiator, whereas activation of an explicit female stereotype led to more integrative, win-win outcomes that were beneficial for both parties, much like the sisters who discovered the juice-and-rind tradeoff.

Other studies (Small et al. 2007) examine gender differences in the willingness to initiate negotiation (Babcock et al. 2006, Bowles et al. 2007; but see Gerhart & Rynes 1991), tracing these differences to power differences. Because women traditionally have less power than do men in U.S. society (Eagly & Wood 1982), they initiate negotiations less often; however, this difference is attributable to the fact that situations framed as “negotiation” conflict with politeness norms that prevail in low-power groups (Babcock et al. 2006). Consistent with this reasoning and the links between gender and power, framing negotiations as opportunities to “ask” eliminated gender differences in negotiation initiation, as did priming psychological power (Kray et al. 2001). Along similar lines, Bowles et al. (2007) traced differences in the initiation of negotiation behavior to observers’ reactions. Both male and female observers penalized female job candidates for initiating negotiations. Consistent with Small et al.’s (2007) politeness argument, participants rated women who initiated negotiations as less nice and more demanding. Moreover, women were less likely than were men to initiate negotiations with a male (but not a female) evaluator.

Another stream of gender research examines what happens when women do, in fact, initiate negotiation. Although gender differences in actual negotiation behavior have received exhaustive research attention (e.g., Deal 2000, Gerhart & Rynes 1991, Major et al. 1984, Stevens et al. 1993, Watson 1994), recent

meta-analyses (Stuhlmacher & Walters 1999, Walters et al. 1998) characterize such differences as modest and context dependent. According to these meta-analyses, women negotiate slightly more cooperatively than do men, but situational factors such as relative power of the negotiator, integrative potential of the task, and mode of communication often override this effect. In addition, other individual differences (i.e., social motives) explain cooperation in negotiation more readily than gender does. For example, negotiators with a prosocial motive behave more cooperatively (and achieve better outcomes) than do those with an egoistic motive (De Dreu et al. 2000). Gender differences seem to explain relatively little variance by comparison, and it is possible that the variance they do explain reflects underlying gender differences in social motives.

There are behavioral implications of gender-dependent power. For example, does maintaining steady eye contact have different power implications for male and female negotiators (Swaab & Swaab 2009)? When negotiators made eye contact (and when visual access was possible), agreement quality was maximized for women but minimized for men (Swaab & Swaab 2009). Apparently, women and men had different affective experiences during negotiation. When men made eye contact, perceived power differences were exacerbated, creating a sense of discomfort that undermined agreement quality.

## Affect

Forgas’s (1995) affect infusion model considers the impact of mood on cognitive processing, identifying two overarching conditions under which mood is likely to affect information processing. The first condition is when situations require cognition about difficult, peripheral subjects; the second is when situations require judgment of obscure, atypical subjects (Forgas 1995). According to the affect infusion model, the adoption of information processing style also depends on a combination of factors such as the novelty, complexity, and salience of

the task, and the personality, motivation, affective state, and cognitive capacity of the person involved in the judgment process.

The implication for negotiation processes and outcomes is that feeling good or feeling bad should have important consequences for negotiator cognition and strategies (Lanzetta 1989). In one study, positive mood generated superior individual outcomes in negotiations with integrative potential characterized by cooperative negotiation strategies (Forgas 1998). In another study, positive mood decreased evasive and equivocal communications, especially in high-conflict negotiations (Forgas & Cromer 2004).

One line of research qualifies these findings by demonstrating that the impact of affect depends on power. For example, agreement quality was better predicted by the chronic, positive affect of high-power negotiators than that of low-power negotiators (Anderson & Thompson 2004). Apparently, the more powerful negotiator's emotions were more influential than the less powerful negotiator's emotions. Furthermore, trait-positive affect, combined with high structural power (i.e., a strong BATNA), helped negotiation dyads reach more integrative agreements without harming either negotiator's individual outcomes (Anderson & Thompson 2004). Recently, investigations of negative affect such as anger expressions have also been examined (Sinaceur & Tiedens 2006). Anger expressions produced concessions from negotiators with a poor BATNA, presumably because the angry negotiator communicated "toughness." This finding contrasts somewhat with earlier investigations in which feelings of high anger and low compassion produced lower joint outcomes, but not lower individual outcomes (Allred et al. 1997). Similarly, when negotiators expressed positive affect, negative affect, or neutral affect in a take-it-or-leave-it ultimatum, positive-affect negotiators were most likely to have their ultimatum accepted. Negative-affect negotiators were the least successful (Kopelman et al. 2000).

Other research examined the relationship between economic outcomes, negotiator

behavior, and satisfaction (an affective response to negotiation). For example, a negotiator's focus on RP or aspirations influences feelings of success in a negotiation (Thompson 1995). Negotiators with low RPs felt more successful than did those with high RPs, even though their final settlements were identical. Furthermore, negotiators with low aspirations felt more successful than did negotiators with high aspirations, even though the final settlement was identical. Aspirations influenced negotiators' perceptions of success more than did RPs. In general, aspirations, relative to RPs, exerted a more powerful influence on the demands people made to others in negotiations and how successful they felt about negotiated outcomes.

Along similar lines, negotiators might feel dissatisfied when the counterparty accepts their first offer (Galinsky et al. 2002). Apparently, when the counterparty immediately accepts one's first offer, a counterfactual thought process is produced (e.g., "Oh no, I should have asked for more!"). This counterfactual thought process results in dissatisfaction, even when negotiators' outcomes were objectively superior to agreements reached later in negotiations. Thoughts about how much better they could have done overwhelmed negotiators' objective outcomes. These findings are consistent with studies demonstrating that negotiators' satisfaction depends heavily on the comparison value on which they focus attention: Negotiators who focused on their target price consistently achieved better outcomes but were less satisfied than those who focused on their BATNA (Galinsky et al. 2002). Yet, focusing on the target price during a negotiation and the BATNA after a negotiation allowed negotiators to achieve superior outcomes without the accompanying dissatisfaction.

An array of negative cognitions and emotions confront negotiators who fail to reach deals (O'Connor & Arnold 2001). For example, negotiators who failed to reach agreement (i.e., impasse) found themselves caught in a distributive spiral such that they interpreted their performance as unsuccessful, experienced negative emotions, and developed

negative perceptions of their counterpart and the process. Moreover, they were less willing to work with their counterpart in the future, planned to share less information and behave less cooperatively, and lost faith in negotiation as an effective means of managing conflicts (O'Connor & Arnold 2001).

## INTERPERSONAL LEVEL

### Economic and Social Psychological Foundations

Traditionally, negotiation at the interpersonal level has been viewed via the lens of mixed-motive interaction. The concept of mixed-motive interaction was first introduced by economist Thomas Schelling (1960) to refer to situations where two or more parties face a conflict between two motives: cooperation (the integrative aspects of negotiation) and competition (the distributive aspects). In negotiations, individuals must cooperate to avoid impasse and reach mutual agreement, but compete to gain sufficient resources for themselves. Two-person bargaining is thus a classic example of a mixed-motive interaction. Indeed, Lax & Sebenius (1986b) emphasize that all negotiators must balance the "twin tasks" of negotiation: creating value and claiming value.

The interpersonal system in negotiation was also richly stimulated by basic research in the areas of emotional contagion, mimicry, and behavioral synchrony (Chartrand & Bargh 1999). One finding in these areas, for example, is that people tend to engage in face rubbing, foot shaking, and smiling more in the presence of someone who engages in that behavior (Chartrand & Bargh 1999). Another is that behavioral mimicry increases liking and rapport between interaction partners (Tiedens & Fragale 2003). Beyond behavioral mimicry, more complex interpersonal mimicry such as mood contagion (see Neumann & Strack 2000) and dominance complementarity (see Tiedens & Fragale 2003) have also been documented. Mood contagion effects demonstrate that people easily assume the moods of

others. Dominance complementarity findings demonstrate that people respond to others' dominant behavior with a submissive stance, and vice versa. Furthermore, they demonstrate that when one party complements dominant behavior with submissive behavior, this facilitates interpersonal liking (Tiedens & Fragale 2003).

### Interpersonal Effects of Emotions in Negotiation

Emotions influence negotiations at the interpersonal as well as intrapersonal level. In fact, research on emotions in negotiation bridges the intrapersonal and interpersonal level. Two specific emotions, anger and happiness, have received particular attention from negotiation researchers (Van Kleef et al. 2004a). Participants in one study received information about the emotional state (anger, happiness, or none) of their opponent (Van Kleef et al. 2004a). Consistent with the research noted above, participants conceded more to an angry opponent than to a happy one. Apparently, people used emotion information to infer the other's limit (i.e., their RP), and they adjusted their demands accordingly. However, this effect was absent when the other party made large concessions. Angry communications (unlike happy ones) induced fear and thereby mitigated the effect of the opponent's experienced emotion. Negotiators were especially influenced by their opponent's emotions when they were motivated to consider them (Van Kleef et al. 2004b).

The processes and mediators behind the interpersonal effects of emotions may be influenced by the extent to which individuals are motivated to process information systematically and deeply (De Dreu & Carnevale 2003, Van Kleef et al. 2004b). For instance, participants in one study (Van Kleef et al. 2004b) received information about the opponent's emotion (anger, happiness, or none). Those in the angry condition received a message saying "this offer makes me really angry," whereas those in the happy condition received a message saying "I am happy with this offer." As predicted,

negotiators conceded more to an angry opponent than to a happy one, but only when they had low (rather than high) need for cognitive closure—a measure of their chronic motivation to process information systematically. Also, participants were only affected by the other's emotion under low rather than high time pressure, because time pressure reduced their capacity for information processing. Finally, negotiators were only influenced by their opponent's emotions when they had low (rather than high) power, presumably because high-power negotiators had less need and were less motivated to process this information. These results support the motivated information-processing model, which argues that negotiators are only affected by their opponent's emotions if they are motivated to consider them.

### **Interpersonal Improvisation in Negotiation**

Other research has utilized a more qualitative approach to unpack interpersonal processes in negotiations. Beyond the focus on economic outcomes in negotiations, negotiators may sometimes also be focused on relationship processes and outcomes (McGinn & Keros 2002).

Specifically, McGinn & Keros (2002) highlight the improvisation and the logic of exchange in socially embedded transactions. Socially embedded transactions take into account the fact that negotiators can have deep social ties or share mutual social ties with one another. This is in contrast to the arm's length transaction between individuals, in which individuals share little familiarity or affect and no prolonged past or expected future ties (Granovetter 1973, Podolny & Baron 1997, Uzzi 1997).

By improvisation, McGinn & Keros (2002) conjecture that most people at the outset of a negotiation do not construe it as such. This is because, whereas arm's length transactions are often guided by a logic of profit maximization, embedded transactions (such as between friends) go beyond the focus on outcomes alone;

they tend to focus on rules of friendships as opposed to rules of the market.

In a qualitative fashion, McGinn & Keros (2002) used a sense-making lens to illuminate microprocesses underlying socially embedded transactions, investigating how social networks affect the logic of exchange governing the transaction. Transcript analysis of two-party negotiations revealed that most pairs of negotiators quickly coordinated a shared logic of exchange and improvised in accord with its implied rules throughout their interaction. The improvisation took the form of opening up, working together, or haggling. Negotiators used three dynamic processes—trust testing, process clarification, and emotional punctuation—when they had difficulty moving the interaction toward a coherent, mutually agreed-upon pattern. Social embeddedness, or the extent to which an individual shares other social connections with another individual (Granovetter 1973), eases coordination within negotiation (McGinn & Keros 2002).

### **Subjective Value in Negotiation**

As noted above, negotiators have noneconomic, relational concerns as well as economic ones. Besides their concern with economic gains, negotiators are also concerned about their feelings about the self, the negotiation process, and the relationship (Curhan et al. 2006). Moreover, the "subjective value" accrued from these components of negotiation have long-lasting impact (Curhan et al. 2009). For example, the subjective value that actual managers derived from job offer negotiations predicted their subsequent job attitudes and turnover intentions better than the economic value they achieved: Subjective value measured at the outset of a negotiation predicted managers' job satisfaction and likelihood of quitting a full one year later. Curiously, negotiators' economic outcomes (i.e., their actual salaries) did not predict satisfaction or turnover. Arguably, the subjective value gained from a negotiation may have more long-lasting impact than the actual economic gains from the negotiation.

However, one potentially important consideration is whether subjective value conflicts with economic value in negotiations. To examine this, negotiators who held relational goals were compared with negotiators who held economic goals. If relational goals hinder economic gain, then it would be reasonable to expect negotiators to underperform relative to economically motivated negotiators (Curhan et al. 2008). Indeed, negotiators in egalitarian organizations reached less-efficient (i.e., worse) economic outcomes but had higher relational capital than did those who negotiated in hierarchical organizations. By directly pitting economic gain against relational considerations, this study showed how the structure of one's environment (egalitarian versus hierarchical) can influence one's own goals and therefore negotiation outcomes.

### Trust and Tactics

Mutual trust is an essential ingredient in effective organizations (see Dirks & Ferrin 2001) and negotiations (Kimmel et al. 1980). Trust, defined as the intention to accept vulnerability based upon positive expectations of the counterpart's behavior and intentions (Rousseau et al. 1998), allows negotiators to exchange the information necessary for integrative agreements. Distrusting negotiators are reluctant to share information or ask questions, believing that their counterparts will take advantage of shared information and respond to their questions dishonestly. Conversely, trusting negotiators believe their counterparts will use information to identify integrative agreements. They also tend to believe information that the counterpart shares, accepting it as sincere and accurate (Parks et al. 1996). As a result, trusting negotiators exchange more information about preferences and priorities and achieve more integrative outcomes (Butler 1995, Kimmel et al. 1980, Pruitt & Kimmel 1977, Weingart et al. 1993).

Despite the importance of trust, violations of trust are common (see Elangovan & Shapiro 1998 for a review), jeopardizing the

integrativeness of negotiation outcomes. Given the mixed-motive nature of negotiation, it is tempting for negotiators to use deception to maximize their personal gain. Yet, deception is likely to compromise trust. Thus, an important question is when people will lie in negotiations. People tend to lie when the lures of temptation and uncertainty align with powerless and anonymous victims (Tenbrunsel & Diekmann 2007). The more negotiators stand to gain economically, the more likely they are to lie (Bazerman et al. 1998). Moreover, the more uncertainty negotiators have about material factors, the more likely they are to lie. Of course, liars often garner a reputation as such, making it more difficult for them to win counterparts' trust in the future (Glick & Croson 2001).

Given that negotiators may sometimes resort to deceptive tactics in negotiations, another important consideration is how interpersonal trust broken by deceptive behavior can be restored. One theory holds that broken trust can never be fully restored, even if the trust breaker performs a series of consistently trustworthy actions (Schweitzer et al. 2006), such as fulfilled promises, apologies, and consistently reliable behavior. A promise to change behavior can significantly speed the trust recovery process, but prior deception harms the effectiveness of a promise in accelerating trust recovery. Another perspective holds that apologies can effectively restore trust when the trust violation concerns a matter of competence, but not when it concerns a matter of integrity (Kim et al. 2004).

In a given negotiation, tactics such as threats, bluffs, and disclaimers can affect negotiators' relationships and the grounds for their trust. For example, a buyer-seller simulation with two negotiation periods examined the behavioral and attitudinal consequences of threats, bluffs, and disclaimers (Shapiro & Bies 1994). Some negotiators received a threat stated as a disclaimer, whereas others did not. Changes in negotiators' evaluations of their partner and negotiation outcomes were examined after some were led to believe their partner had stated a false threat (a bluff). Negotiators who used

threats were perceived as more powerful, but they were also perceived as less cooperative and achieved lower integrative agreements than those who did not use threats.

### **Relationships and Negotiations**

Perhaps the most straightforward question one could investigate about the interpersonal aspects of negotiation is whether people involved in a relationship can fashion integrative agreements better than strangers can. Kelley (1982) studied how couples negotiate problems of interdependence. Yet, the first study that truly examined how people in relationships, versus strangers, negotiate was Fry et al.'s (1983) study of dating couples. Paradoxically, strangers were more likely to reach win-win (mutually beneficial agreements) than were dating couples, although the effect did not reach conventional levels of significance. The authors' reasoning was that couples (and perhaps friends) are uncomfortable asserting their own needs and therefore are more willing to settle for sub-optimal agreements.

The orientation that friends bring to a negotiation seems to dictate the outcomes they achieve. Pairs of friends who are similar in communal orientation are most likely to capitalize on joint interests (Thompson & DeHarpport 1998). However, when friends are dissimilar in communal orientation, their ability to identify compatible issues declines precipitously. Friends who are high in communal orientation are more likely to allocate resources equally than are friends low in communal orientation. The existence of friendships also has significant implications for one's negotiation outcomes (Seidel et al. 2000). Seidel and colleagues analyzed more than 3000 actual salary negotiations and found that having friends in high places within the relevant organization improved salary negotiation outcomes.

Whereas the studies reviewed above tend to focus on economic outcomes, negotiations also involve symbolic resources such as identity and legitimacy. Glynn (2000) studied identity and legitimacy during a musicians' strike at the

Atlanta Symphony Orchestra. Glynn analyzed the musicians and administrators as competing parties vying for the legitimacy to define the core identity of the orchestra. Embedded within the multilayered negotiation, Glynn reports, "were conflicts over status and power and, implicitly, control over the resources that would confer such status and power" (p. 291). This study illustrates that relationships not only influence negotiations, but negotiations can reconstitute and reshape relationships.

### **GROUP LEVEL**

The group system focuses on how group dynamics influence negotiation processes and outcomes. In this section, we selectively focus on four major streams of research at the group level: social and group identity, relational and collective identity, group culture, and teams and the discontinuity effect. Some of this research uses paradigms derived from game theory (e.g., social dilemmas), but we include it in this review because it speaks directly to descriptive negotiation research.

#### **Social and Group Identity**

According to the group identity perspective, which is part of a larger social identity tradition (e.g., Tajfel et al. 1971), the stronger an individual's group identity, the less sharply he or she distinguishes between self-interest and collective interest. For negotiation, this implies that distributive (personal gains) are less focal than integrative (mutual gains) for negotiators who consider counterparts members of their group. This conjecture has been examined most directly in the social dilemma literature, which examines situations where individual and collective interest are largely opposed.

There are two perspectives concerning choice in a social dilemma situation. From a purely economic point of view, the rational choice is to defect because it yields greater outcomes. Of course, if everyone defects, then the collective welfare of the group suffers. The social psychological viewpoint is that defection

is undesirable and people are best served when everyone puts self-interest aside and chooses to maximize group interests. Kramer & Brewer (1984) pioneered the study of group identity in social dilemma and negotiation research. By emphasizing the common fate among group members and the salience of a superordinate group identity, they showed that the degree of cooperation in social dilemmas increases (Brewer & Kramer 1986, Kramer & Brewer 1984). Another way of inducing group identity is to extend the length of time a person expects to be part of a group. In one study (Mannix & Loewenstein 1993), people who expected to be part of a group for a long time were more concerned with the welfare of the group than were people who anticipated a fleeting interaction. Moreover, negotiators who perceived that other group members would leave cooperated less than did those who expected the group to remain intact (Mannix & Loewenstein 1993).

These studies suggest that making group identity salient tends to activate different negotiation processes, producing different outcomes. Yet, the importance of group identity in mixed-motive interactions such as negotiation has not gone unchallenged. Kerr & Kaufman-Gilliland (1994) examined the impact of social identity on cooperation in social dilemmas. In a carefully constructed set of studies, they found strong support for the idea that it is negotiators' verbal promises that increase cooperation in social dilemmas, not simply the extent to which negotiators feel identified with their group.

### **Relational and Collective Identity**

Recently, work on identity has moved from the extent to which individuals feel they are a part of their group to the nature of the identity. For example, Markus & Kitayama (1991) focused on whether people hold independent or interdependent identities, or self-construals. A person who holds an independent self-construal defines himself or herself in terms of the attributes, preferences, and traits that make him

or her unique and autonomous. In contrast, a person with an interdependent self-construal is more likely to define himself or herself in terms of his or her social and group relationships (Gardner et al. 1999, Markus & Kitayama 1991). In a one-on-one, dispute-negotiation context, Seeley et al. (2007) primed independent versus interdependent self-construals and found that negotiators with interdependent self-construals were more generous than were independent negotiators. However, this effect completely reversed in a team-on-team context, such that teams with independent self-construals (i.e., highly defined by their own attributes) were more generous than teams with interdependent self-construals (i.e., defined with reference to the other team). All of these effects held primarily for high-power negotiators. The implication is that interdependent self-construals seem to evoke a benevolent use of power in dyadic contexts but a more exploitative use of power in intergroup contexts.

Very little research has examined the possibility of reverse causality between negotiation and social identity—that the negotiation process itself could influence people's identity. Thompson (1993) examined how negotiation affects intergroup relations. People who negotiated with an out-group member developed more favorable evaluations of the out-group, whereas people who negotiated with an in-group member were more likely to show in-group favoritism. However, when the negotiation situation dictated that negotiators could not reach a mutually beneficial agreement, the positive effects of interpersonal negotiation disappeared. Thus, negotiation with out-group members improves intergroup relations in negotiations with integrative potential. Furthermore, outcomes are comparable regardless of the counterpart's group membership. Whereas individuals expecting to negotiate with out-group members thought they would obtain lower outcomes than those expecting to negotiate with in-group members, the value of the actual outcomes achieved did not differ.

## Culture

One important aspect of group identity is culture, or the distinctive characteristics of a particular social group (Lytle et al. 1995). Culture is manifest in a group's values, beliefs, norms, and behavioral patterns. An underlying feature of Western cultures is the use of formal logic and avoidance of contradiction (Nisbett et al. 2001). In contrast, in non-Western cultures, cognition is characterized by a holistic system of thought. Individuals view themselves as embedded and interdependent with a larger social context. They also tend to focus their cognitive attention on relationships and context (Peng & Nisbett 1999).

One result of this difference in systems of thought is that negotiators from different cultures make more or less use of emotional appeals. Emotional appeals are relatively inconsistent with formal logic. Thus, negotiators from non-Western cultures tend to make more emotional appeals than do U.S. negotiators (Drake 1995). For instance, Taiwanese negotiators used more normative statements referring to social roles and relationships than did U.S. negotiators (Drake 1995). Conversely, U.S. negotiators used more statements emphasizing logic and reasoning than did Taiwanese negotiators.

Another important cultural difference between Western negotiators and non-Western negotiators is the motivation that they bring to the negotiating table. Motivation is the focused and persistent energy that drives cognition and behavior (Mook 2000). Motivation impacts how negotiators approach negotiations and evaluate outcomes. In Western cultures, negotiators tend to judge negotiation outcomes by the joint profit that accrues and the value that they themselves claim (Lax & Sebenius 1986c, Neale & Bazerman 1992). However, in non-Western cultures, negotiators may care more about relational capital—the mutual trust, knowledge, and commitment that can accrue from negotiating—more than economic outcomes (Gelfand et al. 2006).

For example, Japanese negotiators place a high value on relational capital: They prefer

and even insist on negotiating with people with whom they have a relationship or social network, even if it means forgoing potential economic benefits (Graham & Sano 1989, Yamagishi & Yamagishi 1994). Indian managers, on the other hand, may assume lower relational capital in the form of mutual trust than do American managers, and negotiations may serve to reaffirm their assumptions (Gunia et al. 2009). In two studies, Indian managers' lower level of trust led to low joint gains relative to the gains of American managers.

Culture also has important effects on how individuals perceive causality. Psychological research has demonstrated that members of Western cultures tend to make the fundamental attribution error more often than do members of non-Western cultures (Nisbett et al. 2001, Peng & Nisbett 1999). That is, they underestimate the impact of situational factors and overestimate the impact of others' dispositional factors in causing events (Ross 1977). The result for negotiation is that U.S. negotiators tend to make dispositional attributions for their counterpart's behaviors and discount potential situational attributions (Morris et al. 1999). Dispositional attributions for negative behaviors lead to negative consequences in negotiations. Specifically, dispositional attributions led to competitive perceptions of the situation and counterpart, resulting in a preference for adversarial instead of collaborative procedures.

## Groups and the Discontinuity Effect

A central question in group research is whether "two heads are better than one" (Insko et al. 1987, 1988, 1990; Schopler et al. 1991, 1993). This question was first addressed using a simple prisoner's dilemma game in which negotiators were offered a cooperative (trusting) choice or a defecting (self-interested, exploitive) choice. Overwhelmingly, one-on-one negotiators made more cooperative choices than did group-on-group negotiators, under identical payoffs. Insko et al. (1987) coined the term "discontinuity effect" to describe

the empirical finding that one-on-one negotiation behavior cannot be simply extrapolated to group-on-group negotiation behavior. Schopler & Insko (1992) argued that the discontinuity effect was driven by group members' fear of being exploited by the out-group as well as their greed for additional payoffs.

Thompson et al. (1996) examined the discontinuity effect in a markedly different negotiation paradigm, in which parties' interests were not completely opposed and a mutually attractive, optimal outcome existed but was not apparent to negotiators. This paradigm was similar to the sisters-and-orange parable in the introduction. In terms of integrative outcomes, group-on-group configurations produced more integrative agreements than did solo-on-solo or solo-on-group. In terms of distributive outcomes, groups earned more than solos. The authors reasoned that in such a negotiation, information processing is paramount; indeed, groups asked more relevant questions, shared more information, and formed more accurate judgments than did solos (see also Peterson & Thompson 1997). The group-on-group configuration apparently allowed negotiators to seek and process more of the relevant information.

Morgan & Tindale (2002) attempted to resolve the disparate findings between Insko et al. (1987) and Thompson et al. (1996). Morgan and Tindale's insight was that the disparate-appearing findings were based upon dramatically different negotiation tasks: Insko and colleagues used a prisoner's dilemma task, whereas Thompson and colleagues used an integrative bargaining task; the tasks differ in many important ways (see Thompson 2009 for a review of the differences). In Morgan & Tindale's (2002) study, negotiators were allowed to reach an agreement on either a cooperative or competitive integrative bargaining task in one of three formats (group versus group, group versus single, or one-on-one). Next, negotiators were asked to choose between maintaining the agreed-upon settlement or defecting within a prisoner's dilemma payoff structure. Groups continued to show the discontinuity effect, such

that they opted to defect. This was true even when they had performed better than the solo negotiator with whom they had just negotiated. Groups shared motives for defection that differ depending upon the nature of the task and opponent (Morgan & Tindale 2002).

## ORGANIZATIONAL LEVEL

The organizational system represents a higher level of analysis than the previous levels; it examines the negotiator as embedded in a larger network or marketplace. This level of analysis is crucial because in organizations and in markets, dyads rarely operate in isolation from their social context. Instead, each negotiator typically participates in multiple dyadic relationships, and these dyadic relationships aggregate to form a complex social structure that surrounds each dyad and influences trust, expectations, and interpersonal perceptions.

Heider (1958) documented that two people can be connected by a third party, who strengthens or disturbs the relationship among the two. Contemporary sociologists have also documented how dyadic relationships and interpersonal behavior may be influenced by the overall network structure in which the dyad is embedded (e.g., Burt & Knez 1996, Coleman 1990, Granovetter 1985). Despite these foundations, relatively little research has examined how negotiation dyads operate within their larger social context. In this section, we review three streams of negotiation research at the organizational level. The first two examine how interpersonal connections (choosing negotiation partners and reputations) influence negotiation processes. The third looks at how organizational or institutional forces impact negotiations.

### Choice of Negotiation Partner

A critical issue facing employees and employers, buyers and suppliers, and joint venture partners is whom to select as a negotiation partner. The vast majority of studies in the existing negotiation literature have simply assigned negotiation

partners (Tenbrunsel et al. 1999). One of the earliest studies that examined this problem of search and deliberation in partner choice was Sondak & Bazerman's (1989) study of matching in quasi-markets. In this paradigm, a large market of buyers and sellers was created and negotiators were told to partner with whomever they pleased, to make a deal. The main finding was that substantial economic suboptimality exists as the result of selection mismatches. People may choose to negotiate with their friends, even though the integrative potential of negotiating with a stranger may be higher (see also Northcraft et al. 1998). Similarly, when people had the option to choose their friend as negotiation partner in a simulated housing market, they often stopped searching and reached a deal with the friend—overlooking other, potentially fruitful negotiation relationships. Ultimately, this led to market inefficiencies (Tenbrunsel et al. 1999).

### Reputation and Negotiation Through Time

One consideration that influences the integrative and distributive outcomes negotiators achieve in organizational systems is their reputation. Much sociological and macro organizational research has documented the importance of reputation in markets (e.g., Raub & Weesie 1990). In one investigation (Glick & Croson 2001), the impact of reputations among management students in a semester-long negotiation course was examined. Students rated one another on the basis of firsthand experience, from least cooperative to the most cooperative. Four reputational profiles emerged: the “liar-manipulator” (who will do anything to gain advantage), “tough-but-honest” (very tough negotiator who makes few concessions but will not lie), “nice-and-reasonable” (makes concessions), and “cream puff” (makes concessions and is conciliatory regardless of what the other does). Once reputations spread through the market, behavior changed. People acted much tougher when dealing with perceived liar-manipulators, for example. Furthermore,

people used tough or manipulative tactics in a defensive fashion with liar-manipulators and tough-but-honest negotiators, but used them in an opportunistic fashion with cream puffs (Glick & Croson 2001).

Other research examined how reputation is related to history of negotiation behavior, also in an MBA class (Anderson & Shirako 2008). The development of reputations was tracked among individuals who engaged in multiple negotiation tasks across several weeks. Reputations were only mildly related to the actual history of behavior. However, the link between reputation and behavior was much stronger for some individuals than others. The link was strongest for those who were well known and received the most social attention. In contrast, behavior had little impact on the reputations of lesser-known individuals.

Another, similar perspective suggests that dyadic negotiation is not an isolated event, but rather influences subsequent dyadic negotiations (O'Connor et al. 2005). Specifically, the quality of the deals negotiators reached at any point in time were strongly influenced by their previous bargaining experiences. Negotiators who reached an impasse in a prior negotiation were more likely either to impasse in their next negotiation or to reach deals of low joint value relative to those who had reached an initial agreement. Notably, the impact of past performance on subsequent deals was just as strong for negotiators who changed partners on the second occasion. These results highlight the role of bargaining history as a predictor of negotiation behavior. Moreover, they suggest that, at least in some cases, negotiations should be conceptualized as interrelated exchanges rather than discrete incidents.

Organizations also impact negotiations via institutional forces. One controversial perspective argues that organizations or institutions may serve as barriers to negotiations (Wade-Benzoni et al. 2002). Specifically, normative factors (obligations, operating procedures), cognitive factors (cultural values, cognitive frameworks), and regulatory factors (regulations and laws) may impede negotiations.

For example, organizations with cultures emphasizing strict adherence to procedure may discourage negotiation by explicitly prohibiting it (normative factor) or by preventing employees from even perceiving it as a viable alternative (cognitive factor). The value-laden lens that organizationally embedded actors bring may also lead to impasse or prevent people from reaching economically efficient outcomes.

## VIRTUAL LEVEL

Given the ubiquity of computer-mediated communication technology in business communications, consumer transactions, and interpersonal relationships, virtual negotiation is currently a fertile ground for research (Nadler & Shestowsky 2006).

A straightforward question one might ask is whether negotiation is best conducted face-to-face or via computer-mediated communication technology. Answers to this question are surprisingly mixed (see Nadler & Shestowsky 2006 for a review). In some cases, negotiators who interact via computer-mediated technology are less likely to reach integrative outcomes than are negotiators who interact face-to-face (Arunachalam & Dilla 1995, Barefoot & Strickland 1982) or via paper and pencil (Griffith & Northcraft 1994). On the other hand, some studies report no reliable effect of communication medium (Morris et al. 2002, Naquin & Paulson 2003, Purdy et al. 2000).

With regard to confidence and satisfaction, parties who negotiate face-to-face feel more confident in their performance and satisfied with their negotiation outcome than do those who negotiate via computer (Naquin & Paulson 2003, Purdy et al. 2000, Thompson & Coovert 2003). Moreover, compared to parties who negotiate face-to-face, parties who negotiate via email desire less future interaction with their counterpart (Naquin & Paulson 2003). Despite these differences in subjective outcomes, studies that examined the emotional content of messages in email and face-to-face negotiations

found no differences between the two mediums (Morris et al. 2002).

## Moderators and Mediators

Though the effects of information technology on interpersonal outcomes in negotiation may currently seem inconclusive, some studies have identified important mediators that may help to explain the effects of technology on negotiation in the future. For instance, negotiators behave more honestly when negotiating face-to-face than via writing (Valley et al. 1998). The communication medium in which bargaining takes place also affects the efficiency and distribution of outcomes (Valley et al. 1998). Face-to-face communication may facilitate more truth-telling and trust than communication via writing, thus influencing negotiation outcomes.

However, negotiators may sometimes behave less cooperatively when they have visual access to one another than when they do not (Carnevale & Isen 1986, Carnevale et al. 1981). In one investigation, researchers examined the influence of positive affect and visual access on the process and outcome of negotiation in an integrative bargaining task (Carnevale & Isen 1986). Only when negotiators were face-to-face and not in a positive affective state were there heavy use of contentious tactics, reduced tradeoffs, and few integrative solutions. In other words, when negotiators had visual access and were potentially experiencing negative affect, they were more likely to use contentious tactics.

Other research has examined contexts in which email negotiations may fail or succeed. For instance, Moore et al. (1999) proposed that there were “long” and “short” routes to success in electronically mediated negotiations. A long route to success would involve many of the aspects of deliberate cognitive processing; a short route would involve more heuristic, superficial processing of information (Fiske 1988, Sloman 2002).

To understand why email negotiations often fail, another study (Moore et al. 1999) examined two distinct elements of negotiators’

relationships: shared membership in a social group and mutual self-disclosure. Some participants negotiated with a member of an out-group (a student at a competitor university), whereas others negotiated with a member of an in-group (a student at the same university). In addition, some negotiators exchanged personal information with their counterparts, such as their hometown and hobbies, whereas others did not. When neither common in-group status nor a personalized relationship existed between negotiators, email negotiations were more likely to end in impasse. These results were attributable to the positive influence of mutual self-disclosure and common group membership on negotiation processes and rapport between negotiators, especially in a relatively impersonal context like email.

## CONCLUSION

Our review has focused on a subset of research findings that have strongly impacted the study and practice of negotiation. The research findings span several decades, but the investigations meaningfully build upon one another because the key criteria by which scholars evaluate the quality of negotiation has remained essentially unchanged since the dawn of negotiation research. Modern negotiation research has greatly benefitted from its economic roots, which have provided rigorous methods by which to measure the mutual value created by two or more parties, each motivated to pursue their own interests. The robust empirical fact that most negotiators fail to fully maximize their own gains (as well as mutual gains) when seated at the bargaining table has greatly fueled the fires of negotiation research.

Our focus on intrapersonal, interpersonal, group, organizational and virtual systems has allowed us to examine the wide lens through which the apparently simple task of negotiation may be meaningfully studied. The intrapersonal system provides the most close-up view of negotiation, taking us into the mind and heart of the negotiator, who is either anticipating or engaging in a negotiation. The

interpersonal system is particularly meaningful in negotiation research because the dyadic process allows us to examine the presence or absence of interpersonal phenomena such as behavioral synchrony and mutual gaze, which cannot be reduced to the intrapersonal level. The group and organizational systems have been influenced by rich social psychological, as well as sociological and organizational, traditions. Negotiation research, like the universe, appears to be expanding rather than contracting. Indeed, the virtual level has allowed globally dispersed researchers themselves to collaborate while investigating negotiation at a virtual level. Rather than reporting to a physical laboratory, today's research participants often negotiate via computer with people they will never meet.

It is curious how some research topics within the domain of social and organizational psychology sustain themselves over time, whereas others are mere flashes in the pan. Negotiation and bargaining research, by nearly any standard, has withstood the test of time. There are several reasons for its longevity. First, the multidisciplinary nature of negotiation has brought scholars together, especially from social psychology and organizational behavior and also from game theory and economics. These multidisciplinary collaborations have created a rich network of negotiation scholars that lead to shared volumes, conferences, and even jobs and research positions, thereby ensuring the longevity of the field. Nearly every business school offers a course in negotiation that many MBA students take, requiring a cadre of trained faculty members. The faculties often receive their training in PhD programs or in post-doctoral programs that focus primarily on negotiation. Graduate students are attracted to such positions and develop research ideas that are relevant to the broad array of negotiation theory.

A second factor that has contributed to the continued popularity of negotiation research is the fact that it is considered an essential business, if not a life, skill. The demand for negotiation skills spurs the development of negotiation books, courses, seminars, cases, and

teaching materials that require theoretical rigor and background. The existence of a normative theory by which to evaluate the performance of negotiators provides a foundation for meaningful research and theory. The existence of descriptive theory provides meaningful insights into negotiations as they typically unfold.

If there is a downside to negotiation research it might be that negotiation has done more taking than giving, meaning that often the negotiation scholarship is essentially about social or organizational phenomena that could frankly be studied as easily in other contexts. For example,

one might study behavioral synchrony or mirroring in negotiation, but it is equally plausible to study these same phenomena in other contexts, like small, collaborative teams or job interviews. Similarly, more than two decades of research have focused on extending Kahneman et al.'s (1982) research on judgment biases (e.g., framing, anchoring, overconfidence) to two-party negotiations (for a review, see Neale & Bazerman 1994). Despite this prodigious borrowing, our review suggests that negotiation research has yielded many insights of its own and is poised to yield many more in the future.

### SUMMARY POINTS

1. Intrapersonal processes such as one's psychological power and mood impact negotiation processes and outcomes.
2. Interpersonal processes such as display of emotions also impact negotiation processes and outcomes.
3. When negotiation takes place not between individuals but rather between groups, group identity, culture, and structure of negotiation will affect whether groups (teams of negotiators) do better than solo negotiators.
4. The social context and network in which one is embedded also influences negotiations, through choice of negotiation partner and formation of reputation.
5. When negotiations are not face-to-face but rather are computer-mediated, many variables come into play in determining whether computer-mediated negotiations harm or facilitate negotiations.

### DISCLOSURE STATEMENT

The authors are not aware of any biases that might be perceived as affecting the objectivity of this review.

### LITERATURE CITED

- Allred KG, Mallozzi JS, Matsui F, Raia CP. 1997. The influence of anger and compassion on negotiation performance. *Organ. Behav. Hum. Decis. Process.* 70(3):175–87
- Anderson C, Shirako A. 2008. Are individuals' reputations related to their history of behavior? *J. Personal. Soc. Psychol.* 94(2):320–33
- Anderson C, Thompson LL. 2004. Affect from the top down: how powerful individuals' positive affect shapes negotiations. *Organ. Behav. Hum. Decis. Process.* 95(2):125–39
- Arunachalam V, Dilla WN. 1995. Judgment accuracy and outcomes in negotiation—a causal-modeling analysis of decision-aiding effects. *Organ. Behav. Hum. Decis. Process.* 61(3):289–304
- Babcock L, Gelfand M, Small D, Stayhn H. 2006. Gender differences in the propensity to initiate negotiations. In *Social Psychology and Economics*, ed. D De Cremer, M Zeelenberg, JK Murnighan, pp. 239–62. Mahwah, NJ: Erlbaum

- Barefoot JC, Strickland LH. 1982. Conflict and dominance in television-mediated interactions. *Hum. Relat.* 35(7):559-66
- Bargh JA, Pietromonaco P. 1982. Automatic information processing and social perception: the influence of trait information presented outside of conscious awareness on impression formation. *J. Personal. Soc. Psychol.* 43(3):437-49
- Bazerman MH, Tenbrunsel AE, Wade-Benzoni K. 1998. Negotiating with yourself and losing: making decisions with competing internal preferences. *Acad. Manag. Rev.* 23(2):225-41
- Berderskey C, McGinn KL. 2009. Open to negotiation: phenomenological assumptions and knowledge dissemination. *Organ. Sci.* In press
- Blair IV, Banaji MR. 1996. Automatic and controlled processes in stereotype priming. *J. Personal. Soc. Psychol.* 70(6):1142-63
- Bowles HR, Babcock L, Lai L. 2007. Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. *Organ. Behav. Hum. Decis. Process.* 103(1):84-103
- Brewer MB, Kramer RM. 1986. Choice behavior in social dilemmas: effects of social identity, group size, and decision framing. *J. Personal. Soc. Psychol.* 50(3):543-49
- Butler JK. 1995. Behaviors, trust, and goal achievement in a win-win negotiating role play. *Group Organ. Manag.* 20(4):486-501
- Burt RS, Knez M. 1996. A further note on the network structure of trust: reply to Krackhardt. *Rationality Soc.* 8(1):117-20
- Camerer C. 2003. *Behavioral Game Theory: Experiments in Strategic Interaction*. New York: Russell Sage Found./Princeton, NJ: Princeton Univ. Press
- Carnevale PJD, Isen AM. 1986. The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation. *Organ. Behav. Hum. Decis. Process.* 37(1):1-13
- Carnevale PJD, Pruitt DG, Seilheimer SD. 1981. Looking and competing: accountability and visual access in integrative bargaining. *J. Personal. Soc. Psychol.* 40(1):111-20
- Chartrand TL, Bargh JA. 1999. The Chameleon effect: the perception-behavior link and social interaction. *J. Personal. Soc. Psychol.* 76(6):893-910
- Coleman JS. 1990. *Foundations of Social Theory*. Cambridge, MA: Harvard Univ. Press
- Curhan JR, Elfenbein HA, Xu H. 2006. What do people value when they negotiate? Mapping the domain of subjective value in negotiation. *J. Personal. Soc. Psychol.* 91(3):493-512
- Curhan JR, Neale MA, Ross L, Rosencranz-Engelmann J. 2008. Relational accommodation in negotiation: effects of egalitarianism and gender on economic efficiency and relational capital. *Organ. Behav. Hum. Decis. Process.* 107(2):192-205
- Deal JJ. 2000. Gender differences in the intentional use of information in competitive negotiations. *Small Group Res.* 31(6):702-23
- De Dreu CKW, Carnevale PJ. 2003. Motivational bases of information processing and strategy in conflict and negotiation. In *Advances in Experimental Social Psychology*, ed. MP Zanna, 35:235-91. New York: Academic
- De Dreu CKW, Weingart LR, Kwon S. 2000. Influence of social motives on integrative negotiation: a meta-analytic review and test of two theories. *J. Personal. Soc. Psychol.* 78(5):889-905
- Dirks KT, Ferrin DL. 2001. The role of trust in organizational settings. *Organ. Sci.* 12(4):450-67
- Drake LE. 1995. Negotiation styles in intercultural communication. *Int. J. Confl. Manag.* 6(1):72-90
- Eagly AH, Wood W. 1982. Inferred sex differences in status as a determinant of gender stereotypes about social influence. *J. Personal. Soc. Psychol.* 43(5):915-28
- Elangovan AR, Shapiro DI. 1998. Betrayal of trust in organizations. *Acad. Manag. Rev.* 23(3):547-66
- Emerson RM. 1972. Exchange theory: Part II. Exchange relations in networks. In *Sociological Theories in Progress*, ed. J Berger, M Zelditch, B Anderson, 2:58-87. Boston, MA: Houghton Mifflin
- Fisher R, Ury W. 1981. *Getting to Yes: Negotiating Agreement Without Giving In*. Boston, MA: Houghton Mifflin
- Fiske ST. 1988. Compare and contrast: Brewer's dual-process model and Fiske et al.'s continuum model. In *Advances in Social Cognition, Vol. 1: A Dual Model of Impression Formation*, ed. TK Srull, RS Wyer, pp. 65-76. Hillsdale, NJ: Erlbaum
- Foa UG, Foa EB. 1975. *Resource Theory of Social Exchange*. Morristown, NJ: General Learning Press
- Forgas JP. 1995. Mood and judgment: the affect infusion model (AIM). *Psychol. Bull.* 117(1):39-66

- Forgas JP. 1998. On feeling good and getting your way. *J. Personal. Soc. Psychol.* 74(3):565–77
- Forgas JP, Cromer M. 2004. On being sad and evasive: affective influences on verbal communication strategies in conflict situations. *J. Exp. Soc. Psychol.* 40(4):511–18
- French JRP, Raven B. 1959. The bases of social power. In *Studies in Social Power*, ed. D Cartwright, pp. 150–67. Ann Arbor, MI: Inst. Soc. Res.
- Fry WR, Firestone IJ, Williams DL. 1983. Negotiating process and outcome of stranger dyads and dating couples. Do lovers lose? *Basic Appl. Soc. Psychol.* 4:1–16
- Galinsky AD, Mussweiler T. 2001. First offers as anchors: the role of perspective-taking and negotiator focus. *J. Personal. Soc. Psychol.* 81(4):657–69
- Galinsky AD, Mussweiler T, Medvec VH. 2002. Disconnecting outcomes and evaluations: the role of negotiator focus. *J. Personal. Soc. Psychol.* 83(5):1131–40
- Galinsky AD, Seiden VL, Kim PH, Medvec VH. 2002. The dissatisfaction of having your first offer accepted: the role of counterfactual thinking in negotiations. *Personal. Soc. Psychol. Bull.* 28(2):271–83
- Gardner WL, Gabriel S, Lee AY. 1999. “I” value freedom, but “we” value relationships: self-construal priming mirrors cultural differences in judgment. *Psychol. Sci.* 10(4):321–26
- Gelfand MJ, Major VS, Raver J, Nishii L, O’Brien KM. 2006. Negotiating relationally: the dynamics of the relational self in negotiations. *Acad. Manag. Rev.* 31(2):427–51
- Gerhart B, Rynes S. 1991. Determinants and consequences of salary negotiations by male and female MBA graduates. *J. Appl. Psychol.* 76(2):256–62
- Glick S, Croson R. 2001. Reputation in negotiations. In *Wharton on Making Decisions*, ed. S Hoch, H Kunreuther, pp. 177–86. New York: Wiley
- Glynn MA. 2000. When cymbals become symbols: conflict over organizational identity within a symphony orchestra. *Organ. Sci.* 11(3):285–99
- Graham JL, Sano Y. 1989. *Smart Bargaining*. New York: Harper Business
- Granovetter M. 1973. The strength of weak ties. *Am. J. Sociol.* 78:1360–80
- Granovetter M. 1985. Economic action and social structure: the problem of embeddedness. *Am. J. Sociol.* 91(3):481–510
- Greenwald AG, Draine SC, Abrams RL. 1996. Three cognitive markers of unconscious semantic activation. *Science* 273(5282):1699–702
- Griffith TL, Northcraft GB. 1994. Distinguishing between the forest and the trees: media, features, and methodology in electronic communication research. *Organ. Sci.* 5(2):272–85
- Gunia BC, Brett JM, Kamdar D. 2009. Paying a price: the consequences of cultural assumptions about trust in negotiation. Manuscript under review
- Güth W, Schmittberger R, Schwarze B. 1982. An experimental analysis of ultimatum bargaining. *J. Econ. Behav. Organ.* 3(4):367–88
- Heider F. 1958. *The Psychology of Interpersonal Relations*. New York: Wiley
- Insko CA, Hoyle RH, Pinkley RL, Hong GY, Slim RM, et al. 1988. Individual-group discontinuity: the role of a consensus rule. *J. Exp. Soc. Psychol.* 24(6):505–19
- Insko CA, Pinkley RL, Hoyle RH, Dalton B, Hong GY, et al. 1987. Individual versus group discontinuity: the role of intergroup contact. *J. Exp. Soc. Psychol.* 23(3):250–67
- Insko CA, Schopler J, Hoyle RH, Dardis GJ, Graetz KA. 1990. Individual-group discontinuity as a function of fear and greed. *J. Personal. Soc. Psychol.* 58(1):68–79
- Kahneman D, Slovic P, Tversky A. 1982. *Judgment Under Uncertainty: Heuristics and Biases*. London: Cambridge Univ. Press
- Kelley HH. 1982. *Personal Relationships: Their Structure and Processes*. Hillsdale, NJ: Erlbaum
- Keltner D, Gruenfeld DH, Anderson C. 2003. Power, approach, and inhibition. *Psychol. Rev.* 110(2):265–84
- Kerr NL, Kaufman-Gilliland CM. 1994. Communication, commitment, and cooperation in social dilemmas. *J. Personal. Soc. Psychol.* 66(3):513–29
- Kim PH, Ferrin DL, Cooper CD, Dirks KT. 2004. Removing the shadow of suspicion: The effects of apology versus denial for repairing competence- versus integrity-based trust violations. *J. Appl. Psychol.* 89(1):104–18
- Kim PH, Fragale AR. 2005. Choosing the path to bargaining power: an empirical comparison of BATNAs and contributions in negotiation. *J. Appl. Psychol.* 90(2):373–81

- Kimmel MJ, Pruitt DG, Magenau JM, Konar-Goldband E, Carnevale PJD. 1980. Effects of trust, aspiration, and gender on negotiation tactics. *J. Personal. Soc. Psychol.* 38:9–22
- Komorita SS, Parks CD. 1995. Interpersonal relations: mixed-motive interaction. *Annu. Rev. Psychol.* 46:183–207
- Kopelman S, Rosette AS, Thompson LL. 2000. The three faces of Eve: strategic displays of positive, negative, and neutral emotions in negotiations. *Organ. Behav. Hum. Decis. Process.* 99:81–101
- Kramer RM, Brewer MB. 1984. Effects of group identity on resource use in a simulated commons dilemma. *J. Personal. Soc. Psychol.* 46(5):1044–57
- Kray LJ, Reb J, Galinsky AD, Thompson LL. 2004. Stereotype reactance at the bargaining table: the effect of stereotype activation and power on claiming and creating value. *Personal. Soc. Psychol. Bull.* 30(4):399–411
- Kray LJ, Thompson LL. 2005. Gender stereotypes and negotiation performance: an examination of theory and research. *Res. Organ. Behav.* 26:103–82
- Kray LJ, Thompson LL, Galinsky A. 2001. Battle of the sexes: gender stereotype confirmation and reactance in negotiations. *J. Personal. Soc. Psychol.* 80(6):942–58
- Lanzetta JT. 1989. Expectations of cooperation and competition and their effects on observers' vicarious emotional responses. *J. Personal. Soc. Psychol.* 56:543–54
- Lax DA, Sebenius JK. 1986a. Three ethical issues in negotiation. *Negotiation J. Process Dispute Settlement* 2(4):363–70
- Lax DA, Sebenius JK. 1986b. Interests—the measure of negotiation. *Negotiation J. Process Dispute Settlement* 2(1):73–92
- Lax DA, Sebenius JK. 1986c. *The Manager as Negotiator, Bargaining for Cooperative and Competitive Gain*. New York: Free Press
- Luce RD, Raiffa H. 1957. *Games and Decisions: Introduction and Critical Survey*. New York: Wiley
- Lytle A, Brett JM, Barsness Z, Tinsley CH, Janssens M. 1995. A paradigm for confirmatory cross-cultural research in organizational behavior. In *Research in Organizational Behavior*, ed. LL Cummings, BM Staw, 17:167–214. Greenwich, CT: JAI
- Magee JC, Galinsky AD, Gruenfeld DH. 2007. Power, propensity to negotiate, and moving first in competitive interactions. *Personal. Soc. Psychol. Bull.* 33(2):200–12
- Major B, Vanderslice V, Mcfarlin DB. 1984. Effects of pay expected on pay received: the confirmatory nature of initial expectations. *J. Appl. Soc. Psychol.* 14(5):399–412
- Mannix EA, Loewenstein GF. 1993. Managerial time horizons and interfirm mobility: an experimental investigation. *Organ. Behav. Hum. Decis. Process.* 56(2):266–84
- Markus HR, Kitayama S. 1991. Culture and the self: implications for cognition, emotion, and motivation. *Psychol. Rev.* 98(2):224–53
- McGinn KL, Keros AT. 2002. Improvisation and the logic of exchange in socially embedded transactions. *Adm. Sci. Q.* 47(3):442–73
- Mook J. 2000. *Motivation*. New York: Prentice Hall
- Moore DA, Kurtzberg TR, Thompson LL, Morris MW. 1999. Long and short routes to success in electronically mediated negotiations: group affiliations and good vibrations. *Organ. Behav. Hum. Decis. Process.* 77(1):22–43
- Morgan PM, Tindale RS. 2002. Group vs individual performance in mixed-motive situations: exploring an inconsistency. *Organ. Behav. Hum. Decis. Process.* 87(1):44–65
- Morris M, Nadler J, Kurtzberg T, Thompson LL. 2002. Schmooze or lose: social friction and lubrication in e-mail negotiations. *Group Dyn. Theory Res. Pract.* 6(1):89–100
- Morris MW, Larrick RP, Su SK. 1999. Misperceiving negotiation counterparts: when situationally determined bargaining behaviors are attributed to personality traits. *J. Personal. Soc. Psychol.* 77(1):52–67
- Mussweiler T, Strack F. 1999. Comparing is believing: a selective accessibility model of judgmental anchoring. In *European Review of Social Psychology*, ed. W Stroebe, M Hewstone, Vol. 10, pp. 135–68. Chichester, UK: Wiley
- Nadler J, Shestowsky D. 2006. Negotiation, information technology, and the problem of the faceless other. In *Negotiation Theory and Research*, ed. LL Thompson, pp. 145–72. New York: Psychol. Press
- Naquin CE, Paulson GD. 2003. Online bargaining and interpersonal trust. *J. Appl. Psychol.* 88(1):113–20

- Nash J. 1951. Non-cooperative games. *Ann. Math.* 54(2):286–95
- Neale MA, Bazerman MH. 1992. Negotiator cognition and rationality: a behavioral decision-theory perspective. *Organ. Behav. Hum. Decis. Process.* 51(2):157–75
- Neale MA, Bazerman MH. 1994. *Negotiating Rationally*. New York: Free Press
- Neumann R, Strack F. 2000. “Mood contagion”: the automatic transfer of mood between persons. *J. Personal. Soc. Psychol.* 79(2):211–23
- Nisbett RE, Peng KP, Choi I, Norenzayan A. 2001. Culture and systems of thought: holistic versus analytic cognition. *Psychol. Rev.* 108(2):291–310
- Northcraft GB, Preston JN, Neale MA, Kim P, Thomas-Hunt M. 1998. Non-linear preference functions and negotiated outcomes. *Organ. Behav. Hum. Decis. Process.* 73:54–75
- Ochs J, Roth AE. 1989. An experimental study of sequential bargaining. *Am. Econ. Rev.* 79:355–84
- O’Connor KM, Arnold JA. 2001. Distributive spirals: negotiation impasses and the moderating role of disputant self-efficacy. *Organ. Behav. Hum. Decis. Process.* 84(1):148–76
- O’Connor KM, Arnold JA, Burreis ER. 2005. Negotiators’ bargaining histories and their effects on future negotiation performance. *J. Appl. Psychol.* 90(2):350–62
- Pareto V. 1935. *The Mind and Society: A Treatise on General Sociology*. New York: Harcourt Brace
- Parks CD, Henager RF, Scamahorn SD. 1996. Trust and messages of intent in social dilemmas. *J. Confl. Resolut.* 40:134–51
- Peng KP, Nisbett RE. 1999. Culture, dialectics, and reasoning about contradiction. *Am. Psychol.* 54(9):741–54
- Peterson E, Thompson LL. 1997. Negotiation teamwork: the impact of information distribution and accountability on performance depends on the relationship among team members. *Organ. Behav. Hum. Decis. Process.* 72(3):364–83
- Pham MT. 2007. Emotion and rationality: a critical review and interpretation of empirical evidence. *Rev. Gen. Psychol.* 11(2):155–78
- Podolny JM, Baron JN. 1997. Resources and relationships: social networks and mobility in the workplace. *Am. Sociol. Rev.* 62:673–93
- Pruitt DG, Kimmel MJ. 1977. Twenty years of experimental gaming: critique, synthesis, and suggestions for the future. *Annu. Rev. Psychol.* 28:363–92
- Purdy JM, Nye P, Balakrishnan PV. 2000. The impact of communication media on negotiation outcomes. *Int. J. Confl. Manag.* 11(2):162–87
- Raiffa H. 1982. *The Art and Science of Negotiation*. Cambridge, MA: Harvard Univ. Press
- Raub W, Weesie J. 1990. Reputation and efficiency in social interactions: an example of network effects. *Am. J. Sociol.* 96(3):626–54
- Ross LD. 1977. The intuitive psychologist and his shortcomings: distortions in the attribution process. In *Advances in Experimental Social Psychology*, ed. L Berkowitz, 10:173–220. New York: Academic
- Rousseau DM, Sitkin SB, Burt RS, Camerer C. 1998. Not so different after all: a cross-discipline view of trust. *Acad. Manag. Rev.* 23(3):393–404
- Schelling TC. 1960. *The Strategy of Conflict*. Cambridge, MA: Harvard Univ. Press
- Schopler J, Insko CA. 1992. The discontinuity effect in interpersonal and intergroup relations: generality and mediation. *Eur. Rev. Soc. Psychol.* 3:121–51
- Schopler J, Insko CA, Graetz KA, Drigotas S, Smith VA, Dahl K. 1993. Individual-group discontinuity: further evidence for mediation by fear and greed. *Personal. Soc. Psychol. Bull.* 19(4):419–31
- Schopler J, Insko CA, Graetz KA, Drigotas SM, Smith VA. 1991. The generality of the individual-group discontinuity effect: variations in positivity-negativity of outcomes, players’ relative power, and magnitude of outcomes. *Personal. Soc. Psychol. Bull.* 17(6):612–24
- Schweitzer ME, Hershey JC, Bradlow ET. 2006. Promises and lies: restoring violated trust. *Organ. Behav. Hum. Decis. Process.* 101(1):1–19
- Seeley E, Gardner W, Thompson L. 2007. The role of the self-concept and social context in determining the behavior of power-holders: self-construal in intergroup vs. dyadic dispute resolution negotiations. *J. Personal. Soc. Psychol.* 93(4):614–31
- Seidel ML, Polzer JT, Stewart KJ. 2000. Having friends in high places: effects of social networks on discrimination in salary negotiations. *Adm. Sci. Q.* 45:1–24

- Shapiro DL, Bies RJ. 1994. Threats, bluffs, and disclaimers in negotiations. *Organ. Behav. Hum. Decis. Process.* 60(1):14–35
- Sinaceur M, Tiedens LZ. 2006. Get mad and get more than even: when and why anger expression is effective in negotiations. *J. Exp. Soc. Psychol.* 42(3):314–22
- Sloman SA. 2002. Two systems of reasoning. In *Heuristics and Biases: The Psychology of Intuitive Judgment*, ed. T Gilovich, D Griffin, D Kahneman, pp. 379–96. London: Cambridge Univ. Press
- Small DA, Gelfand M, Babcock L, Gettman H. 2007. Who goes to the bargaining table? The influence of gender and framing on the initiation of negotiation. *J. Personal. Soc. Psychol.* 93(4):600–13
- Sondak H, Bazerman MH. 1989. Matching and negotiation processes in quasi-markets. *Organ. Behav. Hum. Decis. Process.* 44(2):261–80
- Steele CM, Aronson J. 1995. Stereotype threat and the intellectual test: performance of African-Americans. *J. Personal. Soc. Psychol.* 69(5):797–811
- Stevens CK, Bavetta AG, Gist ME. 1993. Gender differences in the acquisition of salary negotiation skills: the role of goals, self-efficacy, and perceived control. *J. Appl. Psychol.* 78(5):723–35
- Stuhlmacher AF, Walters AE. 1999. Gender differences in negotiation outcome: a meta-analysis. *Pers. Psychol.* 52(3):653–77
- Swaab RI, Swaab DF. 2009. Sex differences in the effects of visual contact and eye contact in negotiations. *J. Exp. Soc. Psychol.* 45(1):129–36
- Tajfel H, Billig MG, Bundy RP, Flament C. 1971. Social categorization and intergroup behavior. *Eur. J. Soc. Psychol.* 1(2):149–77
- Tenbrunsel AE, Wade-Benzoni KA, Moag J, Bazerman MH. 1999. The negotiation matching process: relationships and partner selection. *Organ. Behav. Hum. Decis. Process.* 80(3):252–83
- Tenbrunsel AE, Diekmann K. 2007. When you are tempted to deceive. *Negotiation* 1:9–11
- Thibaut JW, Kelley HH. 1959. *The Social Psychology of Groups*. New York: Wiley
- Thompson L. 1993. The impact of negotiation on intergroup relations. *J. Exp. Soc. Psychol.* 29(4):304–25
- Thompson L. 1995. The impact of minimum goals and aspirations on judgments of success in negotiations. *Group Decis. Negotiation* 4:513–24
- Thompson L, Peterson E, Brodt SE. 1996. Team negotiation: an examination of integrative and distributive bargaining. *J. Personal. Soc. Psychol.* 70(1):66–78
- Thompson LF, Coovert MD. 2003. Teamwork online: the effects of computer conferencing on perceived confusion, satisfaction, and postdiscussion accuracy. *Group Dyn. Theory Res. Pract.* 7(2):135–51
- Thompson LL. 2009. *The Mind and Heart of the Negotiator*. Upper Saddle River, NJ: Prentice Hall. 4th ed.
- Thompson LL, Hastie R. 1990. Social perception in negotiation. *Organ. Behav. Hum. Decis. Process.* 47(1):98–123
- Thompson LL, DeHarpport T. 1998. Relationships, good incompatibility, and communal orientation in negotiations. *Basic Appl. Soc. Psychol.* 20(1):33–44
- Tiedens LZ, Fragale AR. 2003. Power moves: complementarity in dominant and submissive nonverbal behavior. *J. Personal. Soc. Psychol.* 84(3):558–68
- Uzzi B. 1997. Social structure and competition in interfirm networks: the paradox of embeddedness. *Adm. Sci. Q.* 42:35–67
- Valley KL, Moag J, Bazerman MH. 1998. “A matter of trust”: Effects of communication on the efficiency and distribution of outcomes. *J. Econ. Behav. Organ.* 34(2):211–38
- van Kleef GA, De Dreu CKW, Manstead ASR. 2004a. The interpersonal effects of anger and happiness in negotiations. *J. Personal. Soc. Psychol.* 86(1):57–76
- Van Kleef GA, De Dreu CKW, Manstead ASR. 2004b. The interpersonal effects of emotions in negotiations: a motivated information processing approach. *J. Personal. Soc. Psychol.* 87(4):510–28
- Wade-Benzoni KA, Hoffman AJ, Thompson LL, Moore DA, Gillespie JJ, Bazerman MH. 2002. Barriers to resolution in ideologically based negotiations: the role of values and institutions. *Acad. Manag. Rev.* 27(1):41–57
- Walters AE, Stuhlmacher AF, Meyer LL. 1998. Gender and negotiator competitiveness: a meta-analysis. *Organ. Behav. Hum. Decis. Process.* 76(1):1–29
- Walton RE, McKersie RB. 1965. *A Behavioral Theory of Labor Negotiations: An Analysis of a Social Interaction System*. New York: McGraw-Hill

- Watson C. 1994. Gender versus power as a predictor of negotiation behavior and outcomes. *Negotiation J.* 10(2):117–27
- Weingart LR, Bennet RJ, Brett JM. 1993. The impact of consideration of issues and motivational orientation on group negotiation process and outcome. *J. Appl. Psychol.* 78:504–17
- Yamagishi T, Yamagishi M. 1994. Trust and commitment in the United States and Japan. *Motiv. Emot.* 18(2):129–66



# Contents

## Prefatory

Love in the Fourth Dimension  
*Ellen Berscheid* ..... 1

## Brain Mechanisms and Behavior

The Role of the Hippocampus in Prediction and Imagination  
*Randy L. Buckner* ..... 27

## Learning and Memory Plasticity; Neuroscience of Learning

Hippocampal-Neocortical Interactions in Memory Formation,  
Consolidation, and Reconsolidation  
*Szu-Han Wang and Richard G.M. Morris* ..... 49

## Stress and Neuroendocrinology

Stress Hormone Regulation: Biological Role  
and Translation Into Therapy  
*Florian Holsboer and Marcus Ising* ..... 81

## Developmental Psychobiology

Structural Plasticity and Hippocampal Function  
*Benedetta Leuner and Elizabeth Gould* ..... 111

## Cognitive Neuroscience

A Bridge Over Troubled Water: Reconsolidation as a Link Between  
Cognitive and Neuroscientific Memory Research Traditions  
*Oliver Hardt, Einar Örn Einarsson, and Karim Nader* ..... 141

## Cognitive Neural Prosthetics

*Richard A. Andersen, Eun Jung Hwang, and Grant H. Mulliken* ..... 169

## Speech Perception

Speech Perception and Language Acquisition in the First Year of Life  
*Judit Gervain and Jacques Mehler* ..... 191

Annu. Rev. Psychol. 2010.61:491-515. Downloaded from arjournals.annualreviews.org by NORTHWESTERN UNIVERSITY - Evanston Campus on 12/03/09. For personal use only.

## **Chemical Senses (Taste and Smell)**

- An Odor Is Not Worth a Thousand Words: From Multidimensional  
Odors to Unidimensional Odor Objects  
*Yaara Yeshurun and Noam Sobel* ..... 219

## **Somesthetic and Vestibular Senses**

- Somesthetic Senses  
*Mark Hollins* ..... 243

## **Basic Learning and Conditioning**

- Learning: From Association to Cognition  
*David R. Shanks* ..... 273

## **Comparative Psychology**

- Evolving the Capacity to Understand Actions, Intentions, and Goals  
*Marc Hauser and Justin Wood* ..... 303

## **Human Development: Processes**

- Child Maltreatment and Memory  
*Gail S. Goodman, Jodi A. Quas, and Christin M. Ogle* ..... 325

## **Emotional, Social, and Personality Development**

- Patterns of Gender Development  
*Carol Lynn Martin and Diane N. Ruble* ..... 353

## **Adulthood and Aging**

- Social and Emotional Aging  
*Susan T. Charles and Laura L. Carstensen* ..... 383

## **Development in Societal Context**

- Human Development in Societal Context  
*Aletha C. Huston and Alison C. Bentley* ..... 411

## **Genetics and Psychopathology**

- Epigenetics and the Environmental Regulation  
of the Genome and Its Function  
*Tie-Yuan Zhang and Michael J. Meaney* ..... 439

## **Social Psychology of Attention, Control, and Automaticity**

- Goals, Attention, and (Un)Consciousness  
*Ap Dijksterhuis and Henk Aarts* ..... 467

## **Bargaining, Negotiation, Conflict, Social Justice**

### Negotiation

*Leigh L. Thompson, Jiunwen Wang, and Brian C. Gunia* ..... 491

## **Personality Development: Stability and Change**

### Personality Development: Continuity and Change Over the Life Course

*Dan P. McAdams and Bradley D. Olson* ..... 517

## **Work Motivation**

### Self-Regulation at Work

*Robert G. Lord, James M. Diefendorff, Aaron C. Schmidt, and Rosalie J. Hall* ..... 543

## **Cognition in Organizations**

### Creativity

*Beth A. Hennessey and Teresa M. Amabile* ..... 569

## **Work Attitudes (Job Satisfaction, Commitment, Identification)**

### The Intersection of Work and Family Life: The Role of Affect

*Lillian T. Eby, Charleen P. Maher, and Marcus M. Butts* ..... 599

## **Human Factors (Machine Information, Person Machine Information, Workplace Conditions)**

### Cumulative Knowledge and Progress in Human Factors

*Robert W. Proctor and Kim-Phuong L. Vu* ..... 623

## **Learning and Performance in Educational Settings**

### The Psychology of Academic Achievement

*Philip H. Winne and John C. Nesbit* ..... 653

## **Personality and Coping Styles**

### Personality and Coping

*Charles S. Carver and Jennifer Connor-Smith* ..... 679

## **Indexes**

Cumulative Index of Contributing Authors, Volumes 51–61 ..... 705

Cumulative Index of Chapter Titles, Volumes 51–61 ..... 710

## **Errata**

An online log of corrections to *Annual Review of Psychology* articles may be found at <http://psych.annualreviews.org/errata.shtml>