

# The effects of self-emotion, counterpart emotion, and counterpart behavior on negotiator behavior: a comparison of individual-level and dyad-level dynamics

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## Summary

This study expands the negotiation literature by examining how negotiator behavior is predicted by various emotions felt by the negotiators and their counterparts and by counterpart negotiation behavior. Using hierarchical linear modeling, we also compare individual- and dyad-level processes that lead to negotiator behavior and outcomes. The results from a dyadic negotiation simulation showed that both the valence and agency of negotiator and counterpart emotions need to be considered to understand the roles of emotion in negotiator behavior. Negotiators tend to reciprocate counterparts' integrating, compromising, and dominating behaviors, but they also offer complementary (or matching) responses to the counterparts' dominating and yielding behaviors. Integrating behavior was more dependent on dyad-level interpersonal dynamics than were the other behaviors. The comparison of negotiator-level and dyad-level results suggests that negotiation needs to be understood in the context of collective exchanges as well as individual-level cognitive processes. Copyright © 2005 John Wiley & Sons, Ltd.

## Introduction

Emotions play a major role in influencing behavior in general (Kelley, 1980; Lazarus, 1991; Weiner, 1986, 1992) and negotiation behavior in particular (Clark & Isen, 1982; Barry & Oliver, 1996). Emotions may influence the conflict resolution process in two primary ways. First, research on moods has shown that positive mood influences negotiation behavior and outcomes (Baron, 1990; Carnevale & Isen, 1986). Because emotion is a more focused and intense form of affect than mood (Ekman, 1984), it may have an even greater effect on the negotiation process (Allred, Mallozi, Matsui, & Raia, 1997). Second, the emotion literature demonstrates that emotions are a key predictor of various perceptual, cognitive, and behavioral processes including social perceptions (Lerner & Keltner, 2000), judgments

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and choice (Clore, Schwarz, & Conway, 1994; Forgas, 1995), and communication and information processing (Clore et al., 1994). Given that these processes are critical determinants of negotiation behavior (Neale & Bazerman, 1991), we believe that emotions will have significant implications for the negotiation process.

Although recent theoretical (e.g., Barry & Oliver, 1996; Kumar, 1997) and empirical developments (e.g., Allred et al., 1997; Conlon & Hunt, 2002; Thompson & Kim, 2000; Van Kleef, De Dreu, & Manstead, 2004a) have improved our understanding of the role of emotions in negotiation settings, gaps still exist in the negotiation literature. One such gap stems from the fact that most studies have focused on a limited set of emotions (e.g., happiness versus anger), rather than including a comprehensive set of theoretically relevant emotions in a negotiation situation (for a review, see Conlon & Hunt, 2002). The present study aims to identify a theoretically relevant set of emotions that will provide a more realistic picture of negotiator emotions. Specifically, we propose that emotions in negotiation situations are induced by two situational factors: valence of the outcome (success or failure) and causal attribution (self-caused or other-caused), which have been found to be the two most important appraisal dimensions (e.g., Roseman, Spindle, & Jose, 1990; Smith and Ellsworth, 1985). These situational factors lead to four different types of negotiator emotions, which will be examined in this study.

Another gap in the literature lies in the fact that only a few studies (e.g., Van Kleef, De Dreu, & Manstead, 2004a, 2004b) have examined the influence of the counterpart in explaining the effect of emotion on the negotiation process. Prior studies have concentrated on the question of how a negotiator's own emotions predict his/her negotiation behavior or choice of negotiation strategy (e.g., Allred et al., 1997; Barry & Oliver, 1996). Given that negotiation involves the interaction of two or more parties, however, this focus on within-individual process is limiting (cf. Neale & Northcraft, 1991; Kelley & Thibaut, 1978; Wiggins, 1979). It would thus be meaningful to examine the ways in which the counterpart's emotions and behaviors influence the focal negotiator's behavior.

One critical limitation of the existing negotiation literature is its single-level orientation, devoted to either individual-level or group-level dynamics (e.g., Allred et al., 1997), which ignores potential multilevel dynamics that may better capture the interpersonal processes between two negotiators. Conceptually, these single-level studies are based on the independence model, in which individual negotiators' perceptions or behavior are assumed to be free of any effects emanating from membership in a dyad (Klein, Dansereau, & Hall, 1994). Given that the level of interdependence between negotiators is often characterized as high (Neale & Northcraft, 1991) and that the importance of this interdependence has been highlighted by negotiation researchers (Beersma & De Dreu, 1999; O'Connor & Arnold, 2001), the independence assumption may not hold in most negotiation situations. Moreover, many multilevel theorists have pointed out that patterns observed at one level of analysis cannot be generalized to another level without empirical validation because the same variable may have structurally different characteristics at different levels (Morgeson & Hofmann, 1999). For this reason, the relationships among variables (e.g., emotion and negotiation behavior) might turn out to be different at the individual and dyadic levels of analysis. Addressing this problem, we expand the negotiation literature by simultaneously examining the individual- and dyad-level relationships among negotiator emotion, counterpart emotion, counterpart behavior, negotiator behavior, and negotiation outcomes.

The present study contributes to the literature by revealing the role of a theoretically meaningful set of emotions in negotiation behavior and outcomes. Specifically, it explores the ways in which negotiation behavior and outcomes are related to negotiators' emotions and their counterparts' emotions and behavior at both the individual and dyadic levels of analysis. We will begin by developing a theoretical framework for the study, which will then be empirically tested by data obtained from a dyadic negotiation simulation conducted in Pakistan. Although the present data were collected from Pakistan, the relationships that are proposed and tested in this study are based on culture-free arguments, and the constructs used in the model are universal (Russell, Lewicka, & Niit, 1989). Although there is a

possibility that people from different cultures may experience different levels of emotion (Markus & Kitayama, 1991) and may differ in the degree to which they reveal them to others (Trompenaars & Hampden-Turner, 1998), the actual emotions measured in this study are basic emotions that are expected to be present in all cultures (Izard, 1991), and they have been found to have relatively consistent antecedents and consequences across various cultures (Scherer, 1997). Therefore, we believe that the model proposed and tested in this study will hold in different cultures, although the strengths of some of the relationships may vary by culture.

## Predictors of Negotiator Behavior and Outcome

We investigated three sets of variables that predict negotiator behavior: self-emotion, counterpart emotion, and counterpart negotiation behavior. We further propose that negotiation outcomes are predicted by the behaviors of the two negotiating parties. Figure 1 depicts the overall theoretical model based on the relationships among these variables. To explain negotiator and counterpart behavior, we adopted a widely accepted classification scheme for conflict resolution behaviors that includes integrating, compromising, dominating, yielding, and avoiding behaviors (De Dreu et al., 2001; Rahim, 1983; Thomas, 1992).

Integrating behavior involves a problem-solving orientation, in which the focus is on seeking an integrative solution that is achieved with open and accurate information exchange and mutual respect for each other's interests and goals. In the case of compromising behavior, the objective is to achieve the middle ground so that both parties are equally but only partially satisfied. Dominating or competitive behavior involves the use of distributive tactics such as threats, promises, and persuasive arguments. In adopting yielding behavior, negotiators sacrifice their own interests and concerns and enable their counterparts to achieve their goals. The fifth type of behavior, avoiding behavior, is not included in this study because the nature of the simulation used in this study was such that avoidance was not a possible option.

### *Valence and agency of emotion*

Prior studies have often bifurcated affect into two types: positive and negative (Allred et al., 1997; Carnevale & Isen, 1986). However, this schema focuses only on the valence aspect of affect, effectively disregarding other potentially meaningful dimensions that may characterize emotions in a negotiation setting, such as agency or locus of responsibility for the aroused emotion. A given emotion can be aroused by and attributed to either the self or the counterpart in an interpersonal situation (Weiner, 1986). Emotion researchers have identified valence and agency as the two most significant dimensions that characterize emotions (e.g., Roseman et al., 1990; Weiner, 1986). Valence refers to the level of success or failure in regard to the goal, and agency refers to whether the cause is internal (self) or external (the other or the environment). Smith and Ellsworth (1985) reported that these two criteria accounted for the largest variance in cognitive evaluation of the situation among a host of appraisal criteria.

In this study, we propose that negotiators evaluate the situation using these two criteria, which engender four types of emotions: self-caused positive emotions, other-caused positive emotions, self-caused negative emotions, and other-caused negative emotions. The specific emotions corresponding to these four types are pride–achievement, gratitude, guilt–shame, and anger, respectively

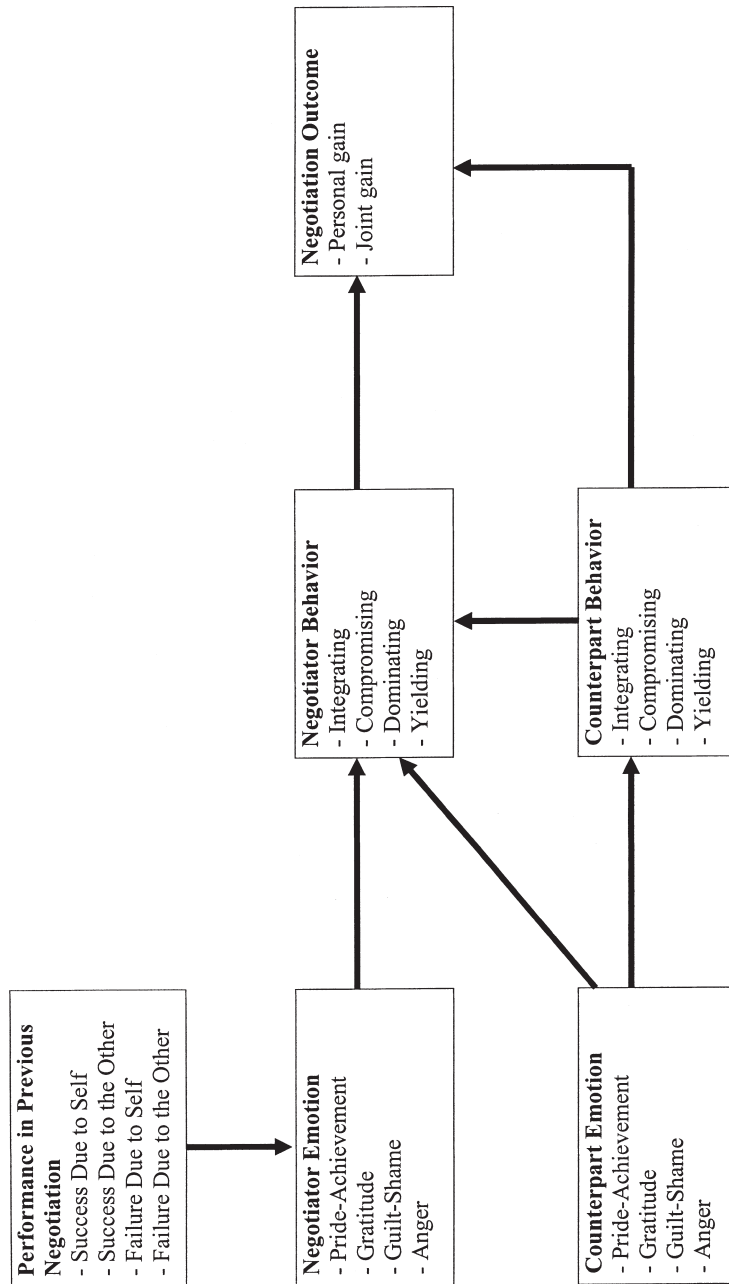


Figure 1. Theoretical framework of negotiation behavior and outcome

Table 1. Emotional reactions

Emotion	Scale items	Relational meaning	Implications for reciprocal action	Concern for self or counterpart
Pride–achievement	Proud Confident Feeling competent Self-admiration Pleased Satisfied	Enhancing one's ego-identity by taking credit for an achievement	Expansiveness and urge to point to success publicly, increased self-confidence	High concern for self-image, low or medium concern for the counterpart
Gratitude	Thankful Grateful Obliged Appreciative Liking Happy	Intimacy in the absence of passion  Making reasonable progress towards a goal	Reach out and want to help, repay in kind  Share positive outcomes with others	Low concern for self, high concern for the counterpart
Guilt–Shame	Guilty Regretful Ashamed Embarrassed Angry with self	Failure to live up to an ego ideal  Sense of inadequacy	Seek social support  Want to hide, avoid the situation	Low to medium concern for self and the counterpart
Anger with other	Angry Upset Furious Frustrated Outraged Hostile	Demeaning offence against me and mine	Attack and take revenge or repress to preserve self and social relationship	High concern for self, low concern for the counterpart

(Lazarus, 1991; Smith & Ellsworth, 1985; Roseman et al., 1990; Weiner, 1986). For example, negotiators who perceive the other party to be responsible for their failure will be angry, frustrated, and hostile toward the counterpart. As summarized in Table 1, each emotion generates a specific relational meaning and behavioral orientation (Lazarus, 1991) that may lead to a particular negotiation behavior. For example, Shapiro and Bies (1994) reported that when people believe that their partners send false information and are responsible for deceptive communication, they feel angry and exhibit negative behavior toward them.

In addition to the effect of negotiator emotion, negotiation behavior is also influenced by the emotions and behavior of the counterpart (Carson, 1969; Wiggins, 1979). Below we develop hypotheses linking these variables. Given the lack of multilevel investigations, both conceptual and empirical, on the issue of negotiation, it is difficult to develop discrete sets of hypotheses for the negotiator level and the dyad level. Instead, as a preliminary step toward an understanding of negotiation as a multilevel phenomenon, we test the same set of hypotheses at both the negotiator and dyad levels of analysis and compare how the same variables operate differently at both levels of analysis.

### *Negotiator emotion and negotiator behavior*

Our literature review indicates that there is a consensus among researchers (e.g., Allred et al., 1997; Frijda, 1987; Lazarus, 1991; Roseman et al., 1990) that specific emotions lead to specific behavioral

orientations, which is summarized in Table 1 along with the implications of emotions regarding the dual concern model (Pruitt & Rubin, 1986). Negotiator pride–achievement emotion increases his/her self-confidence and he/she is motivated to preserve and project a high self-image by exhibiting his/her own achievements (Lazarus, 1991). Due to this high level of concern for self, the negotiator is likely to be rigid about his/her negotiation position (Pruitt & Rubin, 1986), which lowers the probability of the negotiator yielding to the demands of the counterpart. We therefore hypothesize that the negotiator's pride–achievement emotion will lower negotiator yielding behavior.

As shown in Table 1, feelings of gratitude lead to a positive view of the counterpart, creating high concern for the counterpart, and relatively low concern for the self. Therefore, according to the dual concern model (Pruitt & Rubin, 1986), gratitude emotion may engender altruistic acts (Thomas, 1992) and lead to yielding behavior that benefits the counterpart. When negotiators feel guilty or ashamed due to their low negotiation performance, they may feel less confident about future negotiation outcomes. For this reason, they may want to avoid negotiation or complete the negotiation session as quickly as possible in order to reduce their exposure to the negative event. We thus expect that guilt–shame emotion promotes avoiding reactions or, at best, compromising behavior intended to reach an agreement quickly by taking a middle ground, resulting in at least partially satisfactory outcomes.

Finally, emotions of anger may create the desire to take revenge or repress the counterpart because the negotiator attributes failure to the counterpart's manipulative behavior rather than to him/herself (see Table 1). This situation results in low concern for the counterpart and high concern for the self, which, according to the dual concern model, in turn elevates the level of dominating behavior, resulting in more aggressive and competitive strategies (De Dreu et al., 2001). In summary, we hypothesize the following relationships between negotiator emotion and negotiation behavior:

*Hypothesis 1a:* Pride–achievement emotion is negatively related to yielding behavior.

*Hypothesis 1b:* Gratitude emotion is positively related to yielding behavior.

*Hypothesis 1c:* Guilt–shame emotion is positively related to compromising behavior.

*Hypothesis 1d:* Anger emotion is positively related to dominating behavior.

### *Interpersonal influence on negotiator behavior*

Our social behavior is constantly guided by our interpretations of the emotions and behavior of the people we interact with, which often reveal their intentions in a given situation. In a negotiation context, negotiators interpret the counterpart's emotions and behavior and respond according to this interpretation (Van Kleef et al., 2004a). For example, Ekman (1984) pointed out that the counterparts' emotional reactions convey rich information about them, such as their views of the relationship and the situation, the importance of the issue, and their attitudes and aspiration levels. This information profoundly influences the negotiators' interpretation of the situation and consequently their behavior (Van Kleef et al., 2004b). Moreover, as shown by Barsade (2002), emotions have a ripple effect on others in interpersonal situations.

The research on interpersonal interaction shows that individuals respond to their counterparts' emotions and behavior in two ways. The first response pattern is the mimetic or reciprocal response (Hatfield, Cacioppo, & Rapson, 1992), in which individuals respond to the other party by demonstrating similar emotions and behavior. In the mimetic mode of response, positive action is met with

positive action and negative behavior with negative behavior. The second type of interpersonal response is the complementary response. According to the interpersonal theory of personality (Carson, 1969; Wiggins, 1979), complementarity is the extent to which the behavior of one participant elicits specific behavior from the other participant that is viewed as necessary to maintain interaction. Anti-complementary interactions are associated with higher relationship stress and are detrimental to the continuation of the relationship. For example, according to the complementarity principle, dominating behavior is expected to be met with yielding behavior in order to maintain a future relationship. If the response from the counterpart is also dominating (as prescribed by the reciprocal response), then the relationship is most likely to fall apart. Drawing on these two alternative response patterns in interpersonal situations, we develop hypotheses that connect counterpart emotion and behavior to the focal negotiator's behavior.

### *Counterpart emotion and negotiator behavior*

In this study, we identify two forms of positive emotion: pride–achievement and gratitude. We expect that the negotiator will exhibit quite different reactions when the counterpart exhibits one or other of these positive emotions (Kumar, 1997). According to the action tendencies associated with specific emotions presented in Table 1, the counterpart's pride–achievement emotion may convey one of two different messages to the negotiator. On the one hand, the counterpart's pride–achievement emotion communicates his/her confidence and problem-solving orientation, and the negotiator may reciprocate these positive cues with integrating behavior (e.g., Carnevale & Isen, 1986). On the other hand, the counterpart's pride–achievement emotion may convey the image of overconfidence or strong ego. In this case, we expect that, rather than being defensive, negotiators will confront the counterpart with the same morale by exhibiting integrating behavior. In contrast, when the counterpart's positive emotion is directed toward the negotiator in the form of gratitude, the negotiator may perceive his/her counterpart as an individual who can easily be taken advantage of (Kumar, 1997) and may adopt a dominating strategy as a consequence.

We also identify two forms of negative emotion in this study: guilt–shame and anger. Based on the action tendencies associated with the guilt–shame emotion (see Table 1), a negotiator is likely to reciprocate the counterpart's guilt–shame emotion by pursuing mutual concessions rather than attempting to reach an integrative solution or to compete. In contrast, anger is expected to engender either dominating or yielding behavior from the other party. An immediate reaction for a negotiator facing counterpart anger is to reciprocate with anger (Friedman et al., 2004). Brett, Shapiro, and Lytle (1998) reported that reciprocation of contentious communication is common in negotiations and deliberate effort is required on the part of the negotiator to break out of this distributive spiral. However, recipients of anger will respond in a conciliatory manner when they have more to lose by engaging in dominating behavior (Van Kleef et al., 2004a, 2004b). Specifically, Van Kleef and colleagues (2004a) found that participants conceded more to angry counterparts than to happy ones, particularly when they had high epistemic motivation—that is, motivation to mobilize resources to process information provided by the counterpart's emotions (Van Kleef et al., 2004b). Therefore, counterparts' anger can produce both reciprocal (dominating behavior) and complementary (yielding behavior) reactions from negotiators.

*Hypothesis 2a:* Counterpart pride–achievement emotion is positively related to negotiator integrating behavior.

*Hypothesis 2b:* Counterpart gratitude emotion is positively related to negotiator dominating behavior.

*Hypothesis 2c:* Counterpart guilt–shame emotion is positively related to negotiator compromising behavior.

*Hypothesis 2d:* Counterpart anger emotion is positively related to negotiator dominating behavior.

*Hypothesis 2e:* Counterpart anger emotion is positively related to negotiator yielding behavior.

### *Counterpart behavior and negotiator behavior*

Because reciprocity is the norm in negotiations, the negotiator is expected to reciprocate counterpart behavior; that is, cooperative behavior will be met with cooperativeness and competitive behavior will be met with competitiveness (Hatfield et al., 1992; Weingart, Bennett, & Brett, 1993). Thus, we hypothesize that for integrating, compromising, and dominating behaviors, reciprocal responses are a natural behavioral response. Pruitt and Kimmel (1977) concluded in their review article that if negotiators provided more information about their needs and preferences, their counterparts were likely to behave in a similar way. In a study of labor/management negotiation (Putnam & Jones, 1982), successful dyads were characterized by reciprocated integrative communication, and impasse dyads by reciprocated offensive and defensive tactics. People generally reciprocate the behaviors of their counterparts, especially when they are unable or unwilling to process information; for example, under stressful conditions (Putnam & Jones, 1982).

A competing hypothesis to reciprocal response is based on complementary behavior or mismatching phenomenon (Pruitt & Carnevale, 1993; Tracey, 1994), which involves making high demands when the counterpart appears conciliatory and low demands when the opponent appears tough (Pruitt, 1981). Mismatching occurs when negotiators strategically utilize the information conveyed by the counterpart's behavior to better serve their own interests. For example, dominating behavior when reciprocated leads to a distributive spiral; thus it is better to yield in order to stop the spiral and create a constructive atmosphere. Similarly, a yielding counterpart may be taken advantage of through aggressiveness in claiming resources (Bateman, 1980). De Dreu and Carnevale's (2003) review of the literature suggests that negotiators are more likely to mismatch when a task is perceived as attractive or personally involving, when they are held accountable for their judgments, and when outcomes are framed as losses.

While it is possible that counterpart yielding behavior can generate the same generosity, it is more likely that counterpart yielding will induce dominating behavior, because the negotiator will perceive an opportunity to easily increase his/her distributive gains. In addition to its potential to generate a reciprocal response, counterpart dominating behavior may also increase yielding on the part of the negotiator (Kelley & Thibaut, 1978). The negotiator may find it more appropriate to yield and not create further confrontation, particularly when facing a fiercely competitive negotiator. Thus, we hypothesize the following relationships:

*Hypothesis 3a:* Counterpart integrating behavior is positively related to negotiator integrating behavior.

*Hypothesis 3b:* Counterpart compromising behavior is positively related to negotiator compromising behavior.

*Hypothesis 3c:* Counterpart yielding behavior is positively related to negotiator dominating behavior.

*Hypothesis 3d:* Counterpart dominating behavior is positively related to negotiator dominating behavior.



*Hypothesis 3e:* Counterpart dominating behavior is positively related to negotiator yielding behavior.

### *Negotiation behavior as a mediator between emotion and negotiation outcome*

There is empirical evidence that emotions significantly predict negotiation outcomes. For instance, Allred et al. (1997) found that negotiators who felt high anger and low compassion obtained less accurate judgment of counterparts' interests, which often led to lower joint gains. In a recent study, Friedman et al. (2004) also showed that anger lowered the rate of conflict resolution partly because expression of anger generated angry responses from the counterpart. Although emotions may have direct implications for negotiation outcomes, we believe that emotions realize their influences on the outcome by shaping the negotiation process or behavior. In this study, as depicted in Figure 1, we propose that potential effects of negotiator and counterpart emotions on the negotiation outcome are mediated by negotiator and counterpart behavior. Scholars have maintained that emotion is a predictor of behavioral responses to the situation, which in turn produce consequences of some kind, either positive or negative (Kumar, 1997). However, this potential mediation of the relationship between emotion and outcome by negotiation behavior has not been empirically examined. In this study, we put this mediation process to an empirical test.

*Hypothesis 4:* Negotiator and counterpart behavior mediates the relationships between negotiator and counterpart emotions and negotiation outcome.

Personal gain refers to the division of the outcome between two negotiators (Lax & Sebenius, 1986). The distributive component reflects the primary motivation of negotiators to maximize their own gains. Negotiators use competitive tactics such as threats and forced persuasion to increase their personal gains (De Dreu et al., 2001; Rahim, 1983). Negotiator competitive behavior results in high personal gains to the extent that the counterpart yields his/her own interests. However, if the counterpart reciprocates by adopting competitive tactics, negotiator dominating behavior may not increase his/her own personal gain (in some cases, it might reduce the outcome). Therefore, we hypothesize that dominating and yielding behaviors of both negotiators have significant effects on the negotiator's personal gain.

*Hypothesis 5a:* Negotiator dominating behavior is positively related to negotiator personal gain.

*Hypothesis 5b:* Negotiator yielding behavior is negatively related to negotiator personal gain.

*Hypothesis 5c:* Counterpart dominating behavior is negatively related to negotiator personal gain.

*Hypothesis 5d:* Counterpart yielding behavior is positively related to negotiator personal gain.

Joint gain refers to the total sum of personal gains of the two negotiating parties. The dual concern model suggests that negotiators will achieve a high level of joint gain when both parties show high concern for each other (Rahim, 1983; Thomas, 1992). Research shows that the use of collaborative tactics such as creative problem solving (Isen, Daubman, & Nowicki, 1987), concession making (Baron, 1990), and constructive communication tend to increase joint gain. However, a high joint gain is achievable only when both negotiators join hands and try to understand each other's interests and share information such as priorities or decision criteria. This means that the hypothesis for the joint gain requires integrating behavior on the part of both negotiators comprising the dyad:

*Hypothesis 6:* Dyad-level negotiator and counterpart integrating behavior are positively related to the joint gain of the dyad.

## Organizational Context

The participants of this study were 108 MBA students and 214 participants in executive education programs at a private university in Pakistan. This university is one of the most prestigious educational institutions in Pakistan. The overall atmosphere of the institution is quite westernized due to the educational background of students and most faculty members. At the time of the study (2001), the economic situation of the country was favorable and the employment prospects for managers were high. The domestic political situation was stable in spite of the prevailing political turmoil at the international level.

All participants in both samples were Pakistanis. All MBA students were enrolled in a full-time, 2-year MBA program. They had excellent academic credentials, having 14–16 years of English-medium instruction prior to their admission, and an average GMAT score of 580. The MBA sample (19 per cent female) had a mean age of 26.30 years ( $SD = 3.62$ ), a mean education of 16.08 years ( $SD = 1.11$ ), and an average work experience of 2.10 years ( $SD = 3.30$ ). All participants were enrolled in an MBA-level Organizational Behavior course that was mandatory for all first-year MBA students. The data were collected from two sections with an average class size of 54 students.

The executive course participant sample was composed of middle- and upper-level managers in large local and multinational companies representing various industries including the manufacturing, finance, and service sectors. Most of the participants were self-supported and belonged to the middle and upper income segments of their society. Although the executive sample was older (mean age = 36.10 years) and had more work experience (average work experience = 11.68 years) than the MBA sample, the gender composition (17 per cent female) and prior education of this sample (mean education = 16.14 years) were comparable to the MBA sample. The executive participants were enrolled in a series of nine 4-day programs in the areas of Human Resource Management, Managerial Negotiation, and Performance Management.

## Method

### *Participants*

The sample of 322 participants was composed of 108 MBA students and 214 participants in executive education programs at a private university in Pakistan. All dyads consisted of members of the same gender because the counterpart's gender was expected to affect negotiation behavior (Rubin & Brown, 1975). Participants were randomly assigned to dyads (within gender groups), and to one of the two roles for the present negotiation simulation. The sample was 17 per cent female ( $n = 56$ ) with a mean age of 32.8 years ( $SD = 8.70$ ), ranging from 21 to 63. The average number of years of education was 16.1 ( $SD = 1.17$ ), and participants had an average work experience of 8.8 years ( $SD = 7.87$ ).

### *Data collection procedure*

A negotiation simulation was developed for this study based on the procedures used by Allred and his colleagues (1997). This simulation involved negotiations between a human resource manager and a job

applicant regarding the terms of an employment contract. Special care was taken to replicate real-life conditions in the locale in which this simulation was conducted. Critical issues in job interview situations were identified, and points were assigned according to the priorities of the two roles (HR manager and job candidate).

The participants completed two negotiation sessions. In the first session (Task 1), they were to negotiate the vacation time provided by the company and agree on one of five options. The objective of this negotiation was for each person in the dyad to obtain at least 40 points, which could be achieved by agreeing on only one of the five options. After completing Task 1, the participants were given written feedback about their performance. This feedback was designed to create one of the four experimental conditions: success due to self, success due to counterpart, failure due to self, and failure due to counterpart. In all four performance feedback conditions, the extent of the success or the failure and the personal responsibility of the self or the counterpart were emphasized in order to elicit a clear interpretation of the situation by the participants. Task 1 performance feedback was randomly assigned to each participant and thus the two parties within each dyad were likely to be exposed to different types of feedback. Immediately after receiving the performance feedback for Task 1, participants were asked to complete Questionnaire 1, which assessed their current emotions. Upon completion of Questionnaire 1, participants were asked to read the instructions for Task 2 and prepare for the next negotiation.

Task 2 was a mixed motive situation involving four issues: salary, insurance company, company transportation, and the start date of employment. Each issue had five possible outcomes, each of which was assigned a number of points corresponding to its level of importance for each negotiator role. The objective of each negotiator was to maximize his/her own total number of points. Task 2 presented three types of issues: integrative, distributive, and congruent. Insurance benefits and company transportation were the integrative issues. Salary was a purely distributive issue because the point values were equal and in opposite directions for the two negotiators. The start date was a congruent issue because the point values were equal and in the same direction for both negotiators. Participants were given 40 minutes to complete Task 2. After Task 2 was completed, participants filled out Questionnaire 2, which measured their own negotiation behavior and perceptions of counterparts' emotions and behavior.

### *Measures*

Multi-item scales with acceptable reliability coefficients were used to measure the present study variables. Subjects rated all items using 5-point Likert-type scales with anchors ranging from *strongly disagree* to *strongly agree*.

#### **Control variables**

Existing studies have shown that various demographic factors influence negotiation process and outcome (e.g., Rubin & Brown, 1975; Thompson, 1990). In the present study, we included five variables to control for their effects at the individual level: negotiator role, age, education, work experience, and partner familiarity or prior social interaction with the counterpart. In addition, two variables were controlled at the dyad level: sample category (0 = MBA, 1 = Executive) and gender (0 = male, 1 = female).

#### **Emotion**

To measure the four types of emotions, we used 23 items (see Table 1) taken from prior studies (Richins, 1997; Roseman et al., 1990). The factor structure of these 23 items was examined by an

exploratory factor analysis using principal component extraction with varimax rotation. This factor analysis confirmed the hypothesized four-factor structure with high factor loadings on the corresponding factors (all greater than 0.61) and low cross-loadings (all less than 0.27). The four emotion scales showed high internal consistencies: pride–achievement (six items,  $\alpha = 0.92$ ), gratitude (six items,  $\alpha = 0.94$ ), guilt–shame (five items,  $\alpha = 0.87$ ), and anger (six items,  $\alpha = 0.91$ ). Counterpart emotion was measured with the same set of items, which also produced an expected factor solution with high reliability coefficients ranging from 0.87 to 0.89.

### Negotiation behavior

The four types of negotiation behavior of both the negotiator and the counterpart were measured using 14 items adapted from existing measures (De Dreu et al., 2001; Rahim, 1983). We tested the factor structure of the 14 items using principal component extraction with varimax rotation. This factor analysis generated four factors that confirm the hypothesized factor structure with high factor loadings on the corresponding factors (all greater than 0.64) and low cross-loadings (all less than 0.36). The integrating behavior scale consisted of four items ( $\alpha = 0.80$ ; e.g., ‘I cooperated with the counterpart to better understand each other’s views and positions’). Yielding behavior was measured by a three-item scale ( $\alpha = 0.72$ ; e.g., ‘I let the other side win at my expense’). We assessed compromising behavior using three items ( $\alpha = 0.83$ ; e.g., ‘I tried to find a middle ground for resolving the conflict’). Finally, the dominating behavior scale included four items ( $\alpha = 0.70$ ; e.g., ‘I put pressure on my counterpart to accept my demands’). The counterpart’s behavior was measured with the same set of items that were referenced to the counterpart (e.g., ‘My counterpart put pressure on me to accept his/her demands’). The four scales of counterpart behavior also showed acceptable reliabilities (between 0.68 and 0.87).

### Negotiation outcomes

The distributive and joint gains were calculated from Task 2 agreement forms that were filled out and signed by both negotiators. Personal gain was the total points obtained by each negotiator. Joint gain was the sum of points obtained by the two negotiators in the dyad.

### Manipulation check

To increase variations in participants’ emotional experiences after Task 1 negotiation, each participant was administered a particular type of performance feedback that was designed to increase a specific emotion. Table 2 presents the results of a series of one-way ANOVA using feedback type as the grouping variable and the four types of emotions as dependent variables. In all four conditions, the

Table 2. Comparison of means of negotiator emotions for different performance feedback conditions

Negotiator emotion	Task 1 performance feedback				<i>F</i> statistic (3, 318)
	Self-caused success ( <i>n</i> = 74)	Other-caused success ( <i>n</i> = 83)	Self-caused failure ( <i>n</i> = 76)	Other-caused failure ( <i>n</i> = 89)	
Pride–achievement	<b>3.03 (0.76)</b>	2.51 (0.68)	2.16 (0.71)	2.14 (0.69)	26.90***
Gratitude	2.30 (0.80)	<b>2.95 (0.87)</b>	2.11 (0.86)	1.98 (0.87)	21.60***
Guilt–shame	1.39 (0.55)	1.41 (0.52)	<b>2.14 (0.87)</b>	1.84 (0.80)	20.45***
Anger	1.61 (0.72)	1.63 (0.74)	1.87 (0.89)	<b>2.52 (1.11)</b>	19.34***

Note: The highest mean for a particular emotion is shown in **bold**.

\*\*\* $p < 0.001$ .

overall  $F$ -values were significant (all  $p < 0.001$ ), indicating that participants reported different levels of emotion depending on the performance feedback they received. Subsequent post hoc  $t$ -tests confirmed that performance feedback was capable of inducing emotions as intended. For example, pride-achievement emotion was higher under the self-caused success feedback condition than under any other condition ( $p < 0.001$ ). Similarly, the other three emotions were found to be highest under their corresponding feedback conditions (all  $p < 0.05$ ).

### *Analytic strategy*

It is critical to adopt an appropriate analytic approach that suits the structure of a given data set (Choi, Price, & Vinokur, 2003; Little, Schnabel, & Baumert, 2000). When the data have a hierarchically nested structure, as in the case of individuals within a work group or in a negotiation dyad, multilevel analysis is an appropriate strategy that provides statistically more reliable tests than single-level, ordinary least-squares regression analysis (Bryk & Raudenbush, 1992). OLS regressions deal with multilevel data either by analyzing the data at the individual level (thus ignoring each individual's group or dyad membership) or by aggregating the data to a collective level of analysis such as the dyad or group (thus ignoring individual variations), both of which are limiting and fail to properly reveal the complex empirical patterns that characterize multilevel data (Little et al., 2000). In the negotiation literature, unfortunately, researchers have generally analyzed the data from dyads at the individual level when the responses from the members of the dyads are relatively independent (e.g., O'Connor & Arnold, 2001), or aggregated to the dyad or group level when responses of members of the dyads are significantly interdependent (e.g., Beersma & De Dreu, 1999). Although both approaches are conducted with valid empirical and conceptual justifications, it would nevertheless be more desirable to examine negotiation dynamics as a multilevel phenomenon that simultaneously takes into account individual and collective processes.

The treatment of multilevel data as single-level data also incurs conceptual problems because this practice can erroneously reduce a multilevel or cross-level phenomenon to a single-level phenomenon (see Rousseau, 1985). This issue is particularly relevant in the present study, which focuses on interpersonal influences between the two negotiators that may be shaped by negotiators' cognitive processes but also by interactive dynamics (Barsade, 2002; Choi et al., 2003). Therefore, for both empirical and conceptual reasons, we adopted hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) as the analytic strategy for the present data.

## **Results**

Table 3 presents descriptive statistics and intercorrelations among the study variables at the individual and dyad levels of analysis. To examine negotiator-level and dyad-level processes, we tested three models for each dependent variable: null, negotiator-level, and dyad-level models. The null model contains no predictors. This model decomposes the total variance of the dependent variable into two sources: negotiator and dyad. Because dyad-level equations require the presence of systematic between-dyad variation in the outcome, dyad-level models were tested only when the dyad-level variance ( $\tau$ ) was significant. Tables 4 and 5 present results of HLM analyses that predict the four negotiator behaviors and three negotiation outcomes, respectively. Below we briefly explain the results.

Table 3. Means, standard deviations, and inter-scale correlations<sup>a,b</sup>

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Pride-achievement (self)	2.44	0.79	—	0.35	-0.28	-0.23	0.24	0.31	-0.01	-0.05	-0.01	0.01	0.00	0.11	-0.05	-0.07	0.04	0.09	-0.11
2. Gratitude (self)	2.33	0.93	0.33	—	-0.10	-0.28	0.33	0.53	-0.12	-0.13	0.26	0.19	-0.18	0.18	0.20	0.13	-0.13	0.13	0.13
3. Guilt-shame (self)	1.60	0.77	-0.38	-0.13	—	0.35	0.08	-0.05	0.28	0.25	-0.13	-0.13	0.25	0.05	-0.10	-0.09	0.14	0.06	0.14
4. Anger (self)	1.93	0.96	-0.29	-0.34	0.38	—	0.11	0.03	0.31	0.46	-0.13	-0.04	0.37	0.15	-0.04	0.04	0.32	0.22	0.04
5. Pride-achievement (counterpart)	3.19	0.74	0.24	0.23	0.07	0.05	—	0.56	-0.07	-0.01	0.26	0.20	-0.08	0.14	0.23	0.23	-0.05	0.13	0.19
6. Gratitude (counterpart)	2.86	0.79	0.23	0.39	0.04	0.06	0.52	—	-0.08	-0.21	0.32	0.27	-0.22	0.30	0.30	0.12	0.00	0.18	0.04
7. Guilt-shame (counterpart)	1.50	0.66	-0.05	-0.02	0.30	0.29	-0.09	-0.04	—	0.63	-0.44	-0.35	0.40	0.06	-0.27	-0.26	0.31	0.23	-0.03
8. Anger (counterpart)	1.58	0.72	-0.01	0.00	0.25	0.32	0.04	-0.12	0.59	—	-0.48	-0.32	0.61	0.04	-0.30	-0.07	0.40	0.27	-0.07
9. Integrating (counterpart)	3.39	0.90	0.01	0.19	-0.12	-0.08	0.21	0.30	-0.30	-0.38	—	0.65	-0.46	0.18	0.66	0.44	-0.28	-0.15	0.06
10. Compromising (counterpart)	3.44	0.86	0.03	0.18	-0.14	-0.08	0.17	0.21	-0.23	-0.25	0.62	—	-0.34	0.22	0.51	0.65	-0.13	-0.12	0.18
11. Dominating (counterpart)	2.35	0.82	-0.01	-0.14	0.21	0.28	-0.04	-0.14	0.31	0.51	-0.36	-0.27	—	0.03	-0.30	-0.06	0.66	0.30	-0.10
12. Yielding (counterpart)	2.29	0.76	0.03	0.15	0.07	0.18	0.07	0.26	0.11	0.06	0.20	0.19	0.04	—	0.07	0.08	0.29	0.14	0.18
13. Integrating (self)	3.88	0.79	0.01	0.15	-0.11	-0.03	0.23	0.28	-0.18	-0.23	0.59	0.44	-0.20	0.03	—	0.51	-0.24	0.02	-0.01
14. Compromising (self)	3.77	0.84	0.01	0.08	-0.09	-0.04	0.29	0.10	-0.20	-0.09	0.37	0.58	-0.06	-0.01	0.49	—	-0.06	0.06	0.16
15. Dominating (self)	2.38	0.78	-0.01	-0.08	0.17	0.32	-0.10	-0.01	0.29	0.30	-0.19	-0.08	0.52	0.29	-0.21	-0.08	—	0.12	-0.08
16. Yielding (self)	2.27	0.78	0.00	0.14	0.11	0.16	0.17	0.16	0.21	0.25	-0.11	-0.12	0.28	0.14	-0.01	0.07	0.07	—	-0.03
17. Economic outcome <sup>c</sup>	872.15	156.35	0.00	-0.12	-0.01	0.11	-0.02	-0.01	-0.04	-0.14	0.12	0.09	-0.13	0.21	0.01	0.04	0.14	-0.23	—

<sup>a</sup>Correlation coefficients presented in the lower diagonal are based on individual-level data (N = 322). Correlation coefficients presented in the upper diagonal are based on dyad-level data (N = 161).

<sup>b</sup>r > 0.11, p < 0.05; r > 0.14, p < 0.01; r > 0.19, p < 0.001.

<sup>c</sup>Economic outcome at the individual level is the score achieved by an individual negotiator (personal gain); economic outcome at the dyad level is the sum of scores gained by the two negotiators within a dyad (joint gain).

Table 4. Results of hierarchical linear models predicting negotiator behavior

Dependent variable model	Integrating			Compromising			Dominating			Yielding	
	Null	Negotiator	Dyad	Null	Negotiator	Dyad	Null	Negotiator	Dyad	Null	Negotiator
Recruiter role											
Age		-0.04	0.00		0.01	-0.01		-0.14	-0.01		0.04
Female dyad		0.01	0.24*		0.01	0.14		-0.01	0.00		-0.01
Executive sample			0.09			-0.14			0.15		
Education		0.05	-0.01		0.05	-0.04		0.01	-0.03		-0.02
Work experience		-0.02	0.00		-0.02	0.01		0.01	0.01		0.02
Partner familiarity		0.29	0.07		-0.08	-0.15		-0.18	0.08		-0.11
Pride-achievement (self)		-0.02	-0.08		0.00	-0.08		0.07	-0.01		-0.23*
Gratitude (self)		-0.01	0.03		-0.05	0.08		0.09	-0.08		0.19*
Guilt-shame (self)		-0.09	-0.04		0.02	-0.09		0.08	-0.07		0.06
Anger (self)		-0.02	0.06		-0.07	-0.04		0.20**	0.03		0.06
Pride-achievement (counterpart)		0.17*	0.01		0.44***	0.26**		-0.14	0.10		0.26*
Gratitude (counterpart)		0.10	0.16		-0.18	-0.11		-0.05	0.13		0.05
Guilt-shame (counterpart)		0.13	0.09		0.09	-0.11		0.12	0.07		0.12
Anger (counterpart)		-0.09	-0.03		-0.19	0.14		-0.09	0.00		0.07
Integrating (counterpart)		0.36***	0.46***		0.03	0.06		-0.05	-0.10		-0.04
Compromising (counterpart)		0.03	0.18*		0.44***	0.52***		0.12	0.11		-0.16
Dominating (counterpart)		0.05	0.03		0.04	0.19*		0.28***	0.61***		0.20*
Yielding (counterpart)		-0.11	-0.08		-0.12	-0.06		0.17*	0.24**		0.11
Negotiator-level variance ( $\sigma^2$ )	0.43	0.32	0.32	0.60	0.41	0.40	0.53	0.41	0.37	0.61	0.57
Change in variance ( $\Delta\sigma^2$ )		0.11		0.19	0.19			0.12	0.40		
Proportion of explained variance		24.4%		32.4%				22.0%			6.7%
Dyad-level variance ( $\tau$ )	0.17	0.22	0.06	0.06	0.15	0.01	0.08	0.14	0.01	0.01	
Change in variance ( $\Delta\tau$ )			0.16			0.14			0.13		
Proportion of explained variance			71.7%			97.7%			99.6%		

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

Table 5. Results of hierarchical linear models predicting negotiation outcomes

Dependent variable model	Personal gain		Joint gain	
	Null	Negotiator	Null	Dyad
Pride–achievement (self)	24.41	11.36	– 24.17*	– 25.17*
Gratitude (self)	– 31.09*	– 35.68**	27.58**	27.78**
Guilt–shame (self)	– 2.70	3.22	16.76	19.01
Anger (self)	13.06	1.49	0.55	3.91
Pride–achievement (counterpart)	– 17.08	– 0.19	45.01***	45.55
Gratitude (counterpart)	14.37	9.78	– 23.88*	– 24.26
Guilt–shame (counterpart)	15.14	3.91	7.97	15.00
Anger (counterpart)	– 69.26**	– 25.72	– 30.28*	– 37.28*
Integrating (self)		– 18.97		– 23.36*
Compromising (self)		32.94*		19.10
Dominating (self)		51.12**		– 7.64
Yielding (self)		– 79.22***		– 7.72
Integrating (counterpart)		26.27		– 17.94
Compromising (counterpart)		– 15.67		13.91
Dominating (counterpart)		– 41.07**		– 10.17
Yielding (counterpart)		63.28***		33.71*
Negotiator-level variance ( $\sigma^2$ )	24451.07	18578.10	14886.25	
Change in variance ( $\Delta\sigma^2$ )		5872.97	3691.85	
Proportion of explained variance		24.0%	15.1%	
Dyad-level variance ( $\tau$ )			8722.08	7584.79
Change in variance ( $\Delta\tau$ )				1137.29
Proportion of explained variance				13.0%
				7195.86
				388.93
				4.5%

Note: For a simple presentation of results, seven control variables (Negotiator role, Age, Female dyad, Executive sample, Education, Work experience, Partner familiarity) that were controlled for in each HLM equation were not reported in this table. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

## Negotiator behavior

### Integrating behavior

As shown in the first set of HLM models in Table 4, variance partitioning results indicate that 28.7 per cent ( $0.17/[0.43 + 0.17]$ ) of the total variance in integrating behavior can be attributed to between-dyad differences, which was statistically significant ( $\tau = 0.17$ ,  $\chi^2(158) = 285.2$ ,  $p < 0.001$ ). This substantial dyad-level variation suggests that integrating behavior needs to be understood as a collective phenomenon emanating from distinct dyadic interaction patterns. We then entered negotiator-level predictors along with demographic controls, which explained 24.4 per cent of the negotiator-level variance. A negotiator's perception of counterpart pride–achievement emotion and counterpart integrating behavior significantly increased his/her integrating behavior ( $\beta = 0.17$ ,  $p < 0.05$  and  $\beta = 0.36$ ,  $p < 0.001$ , respectively), supporting Hypotheses 2a and 3a, respectively.

It should be noted that, with the inclusion of the negotiator-level predictors, between-dyad variance became larger (from 0.17 to 0.22). This pattern suggests that the values of the negotiator-level predictors were not evenly distributed across dyads. To create the dyad-level predictors, we aggregated emotion and behavior variables using the mean of each dyad. The dyad-level equation revealed that female dyads tended to demonstrate more integrating behavior ( $\gamma = 0.24$ ,  $p < 0.05$ ). In addition, at the dyad level, high levels of counterpart integrating and compromising behaviors were positively related to



negotiator integrating behavior ( $\gamma = 0.46$ ,  $p < 0.001$  and  $\gamma = 0.18$ ,  $p < 0.05$ , respectively). Thus, Hypothesis 3a was supported at the dyad level, confirming the notion of reciprocity of negotiation behavior.

### Compromising behavior

According to the null model for compromising behavior, 8.4 per cent of the total variance was due to dyadic variation ( $0.05/[0.60 + 0.06]$ ), which was marginally significant ( $\tau = 0.06$ ,  $\chi^2(158) = 187.0$ ,  $p < 0.06$ ). Neither negotiator's nor the counterpart's guilt–shame predicted compromising behavior (Hypotheses 1c and 2c not supported). Instead, interestingly, the counterpart's pride–achievement emotion was significantly and positively related to negotiator compromising behavior (at the negotiator level,  $\beta = 0.44$ ,  $p < 0.001$ ; at the dyad level,  $\gamma = 0.26$ ,  $p < 0.01$ ). At both levels of analysis, counterpart compromising behavior significantly predicted negotiator compromising behavior, indicating the operation of the reciprocity principle (at the negotiator level,  $\beta = 0.44$ ,  $p < 0.001$ ; at the dyad level,  $\gamma = 0.52$ ,  $p < 0.001$ ), supporting Hypothesis 3b.

### Dominating behavior

The third null model in Table 4 shows that 13.3 per cent of the total variation in dominating behavior could be attributed to negotiators' membership in a particular dyad, which was statistically significant ( $\tau = 0.08$ ,  $\chi^2(158) = 206.5$ ,  $p < 0.01$ ). As hypothesized in Hypothesis 1d, the negotiator-level equation reveals that a negotiator's anger emotion increased his/her dominating behavior ( $\beta = 0.20$ ,  $p < 0.01$ ). However, counterpart anger did not increase negotiator dominating behavior. The counterpart's dominating and yielding behaviors were positively related to negotiator dominating behavior ( $\beta = 0.28$ ,  $p < 0.001$  and  $\beta = 0.17$ ,  $p < 0.05$ , respectively), supporting Hypotheses 3c and 3d. At the dyad level, these effects became more pronounced ( $\gamma = 0.61$ ,  $p < 0.001$  and  $\gamma = 0.24$ ,  $p < 0.01$ , respectively). With respect to dominating behavior, as we expected, both reciprocity and complementarity were operating.

### Yielding behavior

As reported in Table 4, the null model for yielding behavior shows that less than 1 per cent of the total variance in yielding behavior could be attributed to the dyad ( $\tau = 0.01$ ,  $\chi^2(158) = 160.2$ ,  $p > 0.40$ ), which suggests that yielding behavior was an individual choice, rather than a collective phenomenon based on interactive patterns between the two negotiators. Because of this lack of systematic between-dyad variation of yielding behavior, a dyad-level equation was not tested. Confirming Hypotheses 1a, 1b, and 3e, the negotiator-level model reveals that negotiator pride–achievement emotion was negatively related to negotiator yielding behavior ( $\beta = -0.23$ ,  $p < 0.05$ ), whereas negotiator gratitude emotion and counterpart dominating behavior were positively related to the same behavior ( $\beta = 0.19$ ,  $p < 0.05$  and  $\beta = 0.20$ ,  $p < 0.05$ , respectively).

### Negotiation outcomes

Table 5 presents the results of two sets of HLM equations that predict distributive and joint gains. Personal gain was decreased by negotiator gratitude and counterpart anger ( $\beta = -31.09$ ,  $p < 0.05$  and  $\beta = -69.26$ ,  $p < 0.01$ , respectively). With the inclusion of negotiation behavior, however, the negative effect of counterpart anger became insignificant, partially supporting Hypothesis 4. As expected (Hypotheses 4a to 4d), negotiator dominating behavior and counterpart yielding behavior increased the negotiator's personal gain, whereas negotiator yielding and counterpart dominating behavior decreased the economic outcome of the negotiator.

The joint gain of the dyad was related negatively to the aggregated levels of negotiator pride–achievement and counterpart gratitude and anger, and positively to negotiator gratitude and counterpart pride–achievement emotion. Two of these effects (counterpart pride–achievement and gratitude) became insignificant when negotiation behaviors were entered into the equation, again only partially supporting the mediational hypothesis (Hypothesis 4). Surprisingly, however, negotiator integrating behavior aggregated at the dyad level was negatively related to joint gain ( $\gamma = -23.36$ ,  $p < 0.05$ ), whereas dyad-level counterpart yielding behavior increased joint gain ( $\gamma = 33.71$ ,  $p < 0.05$ ). This unexpected pattern will be further discussed later.

## Discussion

The current study addressed the observation of many scholars that the important topic of emotions in negotiation was under-researched (Allred et al., 1997; Barry & Oliver, 1996; Neale & Bazerman, 1991; Neale & Northcraft, 1991; Thompson & Kim, 2000). The data presented in this study clearly support our overall theoretical framework (see Figure 1), which posits that specific negotiator behaviors are predicted by distinct sets of negotiator emotion, counterpart emotion, and counterpart behavior. In addition, the results indicate that negotiator and counterpart emotions exert direct effects on negotiation outcome, after controlling for their indirect effect via negotiator and counterpart behaviors. This study further contributes to the negotiation literature by showing that individual-level negotiation process and outcome are characterized by different dynamics from those of dyad-level process and outcome. Below we highlight some of the significant findings of this study, as well as their theoretical and practical implications.

### *Theoretical implications*

The current findings have several theoretical implications. First, the present study expands the literature by adding another critical dimension of emotion—that is, locus of responsibility or agency of emotion (Lazarus, 1991; Roseman et al., 1990). The present results indicate that an exclusive focus on valence may limit our understanding of the relationship between emotion and negotiator behavior. For example, both pride–achievement and gratitude are positive emotions, but the present results show that they have opposite effects on yielding behavior. As hypothesized, gratitude increased yielding behavior, presumably because gratitude increases one's tendency to reciprocate. On the other hand, pride–achievement decreased negotiator yielding behavior, perhaps because pride–achievement may lead to higher expectations about the final outcome (Kumar, 1997), which may in turn lead to a more unyielding stance during negotiation. These two positive emotions also had opposite effects on negotiation outcome, particularly for joint gain: negotiator pride–achievement decreased, but gratitude increased the joint gain of the dyad.

Of the two negative emotions, only anger, but not guilt–shame, predicted negotiator dominating behavior and negotiation outcomes. This pattern indicates that the negative implications associated with negative emotions may occur only when negotiators believe that the counterpart is responsible for his/her negative emotion. This pattern is consistent with previous findings (Shapiro & Bies, 1994) that negative emotion and behavior are exhibited based on the attribution that the other party made an intentional miscommunication and is responsible for incorrect information. These contrasting patterns

indicate that, in addition to valence, the agency or locus of responsibility of emotion (self or other) needs to be considered in order to fully understand the effects of emotional states on negotiation behavior (Weiner, 1986).

Second, the results of this study increase our understanding of reciprocal versus complementary responses of negotiators. According to the present analyses, negotiators tend to respond reciprocally to most of the counterpart's behaviors by adopting a negotiation strategy similar to the one they observe in their counterparts. As hypothesized, counterpart integrating, compromising, and dominating behaviors were significant predictors of the same behaviors in the negotiator. However, in the case of counterpart dominating and yielding behaviors, non-reciprocal responses were also present: counterpart dominating behavior was positively related to negotiator yielding behavior, and vice versa. As shown in the equation predicting personal gain (see Table 5), dominating negotiators obtained significant concessions from their counterparts, which may be explained by the motivated information-processing model (Van Kleef et al., 2004b). On the other hand, yielding negotiators encountered dominating counterparts, which in turn reduced their personal gain.

Third, a comparison of the negotiator-level and dyad-level results also provides meaningful theoretical implications. More than 28 per cent of the variation in integrating behavior resided at the dyad level, clearly indicating that integrating behavior depends substantially on interpersonal dynamics among negotiators. Dominating and compromising behavior also significantly depended on the dyad-level processes. Yielding, in contrast, was purely an individual choice (more than 99 per cent of the variance resided at the negotiator level), rather than a behavior derived from interpersonal processes. Apparently, different types of negotiation behavior are subject to interpersonal influences in varying degrees. Moreover, both parties' emotion and behavior seemed to have quite distinct implications for distributive and joint gains. For example, negotiator gratitude decreased individual-level personal gain, but it increased dyad-level joint gain. These patterns suggest that negotiation process and outcome need to be understood in the context of collective exchanges in addition to individual-level cognitive processes.

The results presented in Table 4 indicate that most of the negotiator emotions predicted negotiator behavior only at the individual level, without any dyad-level effects after controlling for individual-level effects. This pattern suggests that a negotiator's own emotions affect his/her behavior, without much ripple effect on the counterpart. However, counterpart pride-achievement emotion had significant effects on integrating and compromising behavior both at the negotiator and dyad levels of analysis. Perhaps the interpersonal influence of emotion occurs only when the counterpart perceives it. Like many other social perceptions, emotion seems to influence interpersonal dynamics once it is recognized and interpreted. If this is the case, then the process of emotional contagion and interpersonal influence based on emotion could be easily manipulated by the dissimulation of real emotions and the display of emotions that could advance one's own interest (Barsade, 2002), which would render emotional labor a core task in negotiation.

Interestingly, our hypothesis regarding the positive effect of integrating behavior on joint gain was not supported. In fact, the empirical pattern was the opposite of what we expected: dyad-level aggregated integrating behavior actually reduced joint gain. It is possible that negotiators' integrative tactics such as active information-sharing and problem-solving orientation might have been perceived as manipulative or threatening, in which case the counterpart became defensive. Yielding behavior of the counterpart had a positive effect on joint gain, perhaps due to increased flexibility or openness on the part of negotiators when they observed that the other party was willing to make concessions. Similar to the presence of different types of dominating behavior (power-oriented versus interest-oriented; Brett et al., 1998), we may have different types of integrating and yielding behavior, depending on how it is perceived by the counterpart and subsequently influences the interpersonal process.

### *Practical implications*

This study demonstrates that an understanding of the valence and agency of emotions and their implications is critical for successful negotiations. An effective negotiator would want to control the type of emotions felt and displayed by him/herself as well as by the counterpart in order to elicit desirable behaviors during negotiation. One way to achieve this aim would be to manage the events preceding the negotiation, because interpretations of these events lead to the arousal of emotions, which ultimately result in specific behaviors (Kelley & Thibaut, 1978; Roseman et al., 1990). For example, negotiators might want to create feelings of altruism in their counterparts by making them happy and grateful. They might also want to convince their counterparts that they are not responsible for a negative event that has already affected them.

An important consideration from a practitioner's viewpoint, therefore, is to identify those negotiator emotions that would benefit the negotiator if exhibited. In fact, the negotiator may be trained to exhibit these emotions during negotiation. The present results suggest that it would be beneficial for both the negotiator and the counterpart if the negotiator demonstrated pride-achievement emotion. A more adept negotiator might also want to influence the counterpart's emotions in order to produce advantageous counterpart behaviors. The current analysis reveals that counterpart gratitude or pride-achievement emotions would be beneficial for the negotiator because these emotions cause the counterpart to become yielding or integrating.

The findings also offer behavioral prescriptions. If negotiators want their counterparts to be integrating, then they should lead the counterparts to perceive them as having pride-achievement emotions, and exhibit integrating or compromising behavior themselves. If negotiators wish the other party to compromise, they should exhibit pride-achievement emotion and compromising behavior. Negotiators may encounter dominating counterparts if the counterparts are angry, or if the negotiator exhibits dominating or yielding behavior. Finally, the counterpart will be more yielding if encouraged to have less pride-achievement emotion and more gratitude emotion, or if the negotiator exhibits dominating behavior.

### *Study limitations and directions for future research*

This study has certain limitations that present a need for caution in its interpretation. The observed patterns may not be fully generalizable to real-life negotiation situations because the interpersonal relationships and emotions in the negotiation simulations were based on written role information and performance feedback. In addition, the present data were collected from Pakistani participants who may have social values and interpersonal behavioral patterns that are different from people in other cultures (Hofstede, 1991). However, the participants of this study belong to a global business culture that is based on similar education (in English) and training. They are highly educated, have attended Anglophone schools where the curriculum is very similar to schools in the United States, and are heavily influenced by the Western culture. Furthermore, the strong empirical support for the factor structure of emotion and negotiation behavior items suggests that the current sample distinguished the underlying conceptual dimensions in the same way as Western participants did. Nevertheless, it would be very useful to replicate the present findings in real-life negotiation situations with negotiators from a variety of different cultures and in situations where they accrue actual gains or losses from the negotiation.

Another potential limitation of this research lies in the data collection procedure. Self-report data, particularly when collected in a cross-sectional manner, boost same-method variance among variables and create uncertainty regarding the causality among variables (Podsakoff, MacKenzie, Lee, &

Podsakoff, 2003). Further studies with research designs which are less cross-sectional, such as longitudinal data collection from multiple sources, are clearly needed.

Finally, in examining negotiation behavior, we assumed that each negotiator would exhibit the four conflict management styles to different degrees, and did not measure finer-grained behavioral tactics such as a combination of various conflict management styles. Researchers have found that negotiators may exhibit a combination of conflict management styles instead of using a single style (e.g., van de Vliert, Euwena, & Huismans, 1995). For example, Brett and colleagues (1998) found that a combination of dominating communication with non-contentious or integrative communication is an effective strategy for breaking a distributive negative spiral, in which dominating behavior is reciprocated and escalated over time. Looking at emotion as an antecedent of various combinations of conflict style (e.g., contentious dominating versus non-contentious dominating strategies, proactive yielding versus forced/involuntary yielding behaviors) in future studies will constitute a significant next step in the line of investigation begun in this study.

The present study has extended our understanding of the role of emotions with respect to negotiation process and outcome. Specifically, this study highlights the importance of considering the agency of emotion in addition to its valence in predicting its effect on subsequent negotiation behavior and outcome. In future studies, it would be fruitful to consider other appraisal or causal criteria (e.g., activation versus deactivation or stability) that might help in conceptualizing other emotions pertinent to negotiation, such as anxiety, excitement, fear, and helplessness. The results show clearly that counterpart emotions and behavior influence negotiator behavior through both reciprocal and complementary processes. We believe that a better understanding of the role of interpersonal influence would provide valuable insight from both theoretical and practical standpoints. For example, it would be useful to further explore the processes underlying reciprocal and complimentary responses, as well as potential moderators (both situational characteristics and negotiator dispositions) that make one type of response more salient and plausible than the other. In addition, further conceptual and empirical development of level-dependent effects of emotion and behavior on negotiation processes and outcomes would provide crucial implications for successful problem solving and conflict resolution across many situations.

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