

# The Effects of Cognitive Appraisal and Emotion on Social Motive and Negotiation Behavior: The Critical Role of Agency of Negotiator Emotion

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This study presents an emotion-based model of the negotiation process and validates it using data from a dyadic negotiation simulation. We propose that cognitive appraisal of the situation generates one of four emotions (pride–achievement, gratitude, guilt–shame, and anger), depending on the valence and agency of the emotion. We also hypothesize that the effect of negotiator emotion on negotiation behavior is mediated by social motive. Structural equation modeling analyses of the data obtained from 322 participants supported most of the relationships hypothesized in the proposed model. Surprisingly, emotions with the same valence (positive or negative) exhibited contrasting relationships with collaborative and competitive motives, depending on their agency (caused by the self or the other). These findings highlight the importance of considering agency in any examination of the roles of distinct emotions in a negotiation setting. This study also offers a process-based account of how emotion is elicited and how it influences behavior in a negotiation situation.

Negotiation is a social process for managing the interdependent goals of negotiators (Pruitt & Carnevale, 1993). Success or failure in reaching one's goals and interpersonal dynamics often results in the arousal of emotions (Lazarus, 1991) that influence the negotiation process (Barry & Oliver, 1996). Recent theoretical (e.g., Barry & Oliver, 1996; Kumar, 1997) and empirical (e.g., Allred, Mallozi, Matsui,

& Raia, 1997; Conlon & Hunt, 2002; Thompson & Kim, 2000; Van Kleef, De Dreu, & Manstead, 2004) developments have improved our understanding of the role of emotions in negotiation settings. For example, Forgas (1995, 1998) and Carnevale and Isen (1986) showed that positive mood enhanced and negative mood reduced integrative, collaborative strategies. Studies have also shown that negotiators who felt more anger than compassion had less desire to work with a counterpart, less regard for the counterpart, and a more competitive motivational orientation (Allred et al., 1997; Friedman et al., 2004). In contrast, positive affect was associated with higher self-efficacy, more concessions, and less competitive behavior (Baron, 1990).

However, there are still important gaps, some of which are addressed in this study. First, the negotiation literature has focused on a limited set of emotions (for a review, see Conlon & Hunt, 2002). Most studies have examined only one or two emotions in isolation without taking into account a more comprehensive set of emotional states that might occur in negotiation situations. Second, there is a paucity of research on the psychological mechanisms or mediators underlying the influence of emotions on negotiation behavior. This study examines one such mediating process—that is, social motives (Carnevale & Isen, 1986). Finally, the current literature lacks comprehensive conceptual and empirical treatments of the role of emotions that address the entire process involved in the generation of emotion and its influences on negotiation behavior and outcomes.

This study contributes to the literature by focusing on the role of discrete positive and negative emotions in negotiation, and by developing a model that takes into account negotiator agency as well as the role of social motive as a mediating mechanism. It compares the effects of four discrete emotions that have been infrequently studied in the negotiation literature. These emotions were selected on the basis of salient cognitive appraisal dimensions of valence and agency (Smith & Ellsworth, 1985). The study focuses on the underlying psychological mechanisms that engender different types of emotions and on motivational processes through which emotions affect behaviors and outcomes. We begin by developing a theoretical framework, which is then empirically tested by data from a dyadic negotiation simulation.

## AN EMOTION-BASED MODEL OF NEGOTIATION PROCESS

Scholars of negotiation have focused on structural variables, such as dyad composition, negotiator power, deadlines, decision rules, and integrative potential (e.g., Pinkley, Neale, & Bennett, 1994; Thompson, 1990); negotiator cognition and biases (e.g., Bazerman & Carroll, 1987); and the role of a third party (e.g., Tetlock,

1992). In contrast, the literature provides relatively scanty documentation of the ways in which different types of emotions influence negotiation process and outcome. This gap is problematic because many authors have argued that affect provides a critical link between various stimuli and human responses to them (Lazarus, 1991; Roseman, Spindle, & Jose, 1990; Weiner, 1986). In this study, we propose a conceptual framework to explain the role of emotion in negotiation. As depicted in Figure 1, the model consists of multistep cause and effect relationships, starting with a cognitive appraisal of a given situation.

### Cognitive Appraisal as a Basis of Emotion

It is now well documented that cognitive appraisal of the situation elicits a particular emotion (e.g., Lazarus, 1991; Smith & Ellsworth, 1985). Prior studies (e.g., Roseman et al., 1990) suggest that people appraise a situation using two main criteria: valence (success or failure) and agency (self or other). Smith and Ellsworth (1985) reported that, among a host of appraisal criteria, these two criteria accounted for the largest variance in cognitive evaluation of a situation. Building on these findings, we propose that the different types of cognitive appraisal based on valence and agency elicit distinct emotional reactions, as summarized in Table 1. Cognitive appraisal of a situation engenders four types of emotion based on valence and agency: 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 (Lazarus, 1991; Roseman et al., 1990; Weiner, 1986).

- H1: Each of the four different types of cognitive appraisal based on valence and agency will be positively related to one of the four emotions (pride–achievement, gratitude, guilt–shame, and anger) that corresponds to that type of cognitive appraisal.

### Social Motive as a Mediator Between Emotion and Behavior

Recent studies have shown that when individuals are faced with complex tasks, such as selecting a partner, allocating rewards, or planning a negotiation encounter, the type of mood influences how they interpret problems (Forgas, 1995). Positive and negative moods have significant effects on individuals' thoughts and on the way negotiators perceive and interpret a bargaining problem, as well as their subsequent planning of negotiation strategies. Forgas (1998) reported that the effects of negotiators' mood states on behavior are mediated by planned negotiation strat-

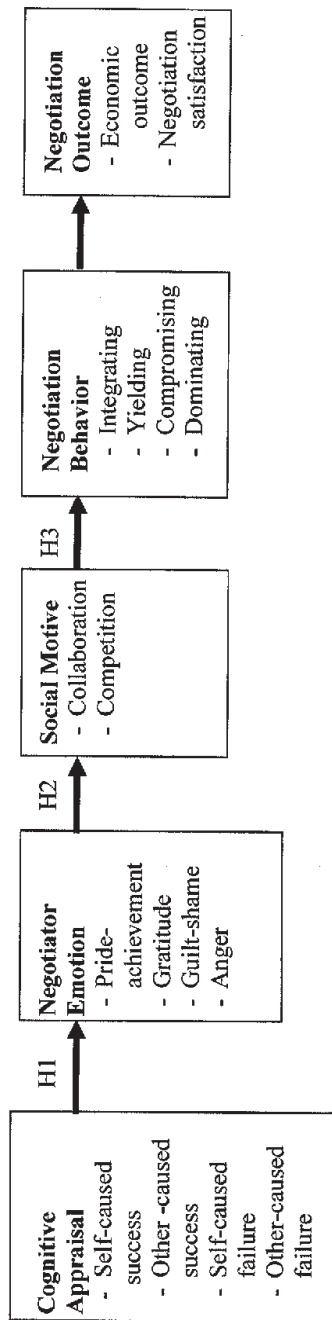


FIGURE 1 Process model of emotion-based negotiation framework.

TABLE 1  
Cognitive Appraisal and Emotional Reactions

<i>Cognitive Appraisal</i>	<i>Emotion</i>	<i>Scale Items</i>	<i>Relational Meaning</i>	<i>Action Tendency</i>
Self-caused success	Pride-achievement	Proud Confident Feeling-competent Self-admiration	Enhancing one's ego-identity by taking credit for an achievement	Expansiveness and urge to point to success publicly, increased self-confidence
Other-caused success	Pleased	Pleased Satisfied	Making reasonable progress toward a goal	Share positive outcomes with others
	Gratitude	Thankful Grateful Obliged	Generated to regulate human response to altruistic acts	Reach out and want to help, repay in kind
	Liking	Appreciative Liking	Intimacy in the absence of passion	Urge to have psychological intimacy, good relations
	Happy	Happy	Making reasonable progress toward a goal	Share positive outcomes with others
Self-caused failure	Guilt	Guilty Regretful	Generated when we believe we have done something immoral	Make reparation, atone, externalize harm
	Shame	Ashamed Embarrassed	Failure to live up to an ego-ideal	Seek social support, want to hide, redouble efforts to live up to the ideal
	Anger with other	Angry with self	Demeaning offense against me and mine	Attack and take revenge or repress to preserve self and social relationship
	Anger with other	Upset Furious		
Other-caused failure	Anger with other	Angry		
		Frustrated Outraged Hostile		

egies. Similarly, we expect that instead of emotions being the direct predictor of negotiation behavior, it is likely that emotions may shape readiness for action or social motives (action tendency; Lerner & Keltner, 2000), which in turn predict negotiation behavior. Social motive refers to the aims, preferences, or interests of individuals in regard to the distribution of benefits between themselves and others in situations of social interdependence such as negotiations (Weingart, Bennet, & Brett, 1993).

Although a wide variety of social motives may be present, negotiation researchers have focused on collaborative social motive, which is oriented toward seeking benefits for oneself as well as for the counterpart, and competitive social motive, which is focused on seeking benefits for oneself only (Pruitt & Carnevale, 1993). The negotiation literature indicates that positive emotions tend to increase integrative or collaborative negotiation tactics (Baron, 1990; Carnevale & Isen, 1986; Hollingshead & Carnevale, 1990), whereas negative emotions such as anger are negatively related to collaborative orientation (Allred et al., 1997). However, it has been shown that the influence of positive emotions in negotiation situations cannot be painted with a broad brush (Butt, Choi, & Jaeger, 2005). In fact, each emotion has a specific action tendency based on its appraisal dimension (Lazarus, 1991; also see Table 1).

We expect that the four types of emotion identified in this study have distinct relationships with social motives. Pride–achievement emotion occurs when the negotiator takes credit for his or her own success, which will in turn enhance feelings of self-esteem. The negotiator may feel compelled to protect his or her enhanced ego by achieving another winning experience regardless of the expense to the counterpart. Thus, the boosted ego of the negotiator is likely to trigger a competitive orientation that is geared toward maintaining the enhanced level of positive self regard. The gratitude emotion is elicited when the negotiator believes that his or her good performance is due to the counterpart. In this case, the negotiator will feel the need to reciprocate the altruistic acts of the other (Lazarus, 1991), which will result in a collaborative motive. The guilt–shame emotion is based on the negotiator’s perception that he or she is responsible for low performance and that he or she has not lived up to desirable standards. This mindset will lower the negotiator’s self-esteem and confidence in future success in negotiation and thus lead to a lack of motivation for negotiation in general, which may cause the negotiator to take a more passive approach and resort to quick compromises to avoid an unpleasant situation (Ketelaar & Au, 2003). Finally, the anger emotion is elicited when the negotiator blames the other for his or her negative outcome. Emotions of anger may create the desire to take revenge or repress the counterpart (Friedman et al., 2004), which is apt to increase aggressive behavior toward the counterpart. This situation is likely to generate an antagonistic action orientation or competitive motive. We thus hypothesize the following relationships between emotions and social motives:

- H2a: Negotiator pride–achievement emotion will increase competitive social motive.
- H2b: Negotiator gratitude emotion will increase collaborative social motive.
- H2c: Negotiator guilt–shame emotion will decrease both collaborative and competitive social motives.
- H2d: Negotiator anger emotion will increase competitive social motive.

### Social Motive and Negotiation Behavior

To develop hypotheses related to negotiation behavior, we adopted the dual concern model that identifies four types of negotiation behaviors: integrating, dominating, yielding, and compromising (Blake & Mouton, 1964; Pruitt & Carnevale, 1993). Integrating behavior involves high concern for the self and the counterpart, whereas dominating behavior is based on high concern for the self and low concern for the counterpart. Yielding behavior is based on high concern for the counterpart, and compromising behavior involves medium concern for both sides.

Prior research has shown that collaboratively motivated negotiators engage in open communication, exhibit concern and trust for the other party, and pursue mutually beneficial solutions (Beersma & De Dreu, 1999; Weingart et al., 1993). For this reason, collaborative social motive is hypothesized to increase integrative behavior, or, in some cases, compromising behavior when suboptimal outcomes seem to be the only realistic goal that can be achieved. In contrast, competitively motivated negotiators tend to limit information exchange, ignore the other's interests, and take rigid positions with no concessions, which characterizes dominating negotiation tactics based on intimidation and coercion (Kelley & Thibaut, 1978; O'Connor, 1997). We thus expect competitive social motive to increase dominating behavior and decrease yielding behavior.

- H3a: Collaborative social motive will increase integrating and compromising behavior.
- H3b: Competitive social motive will increase dominating behavior and decrease yielding behavior.

### Negotiation Outcomes

Negotiation outcomes are the result of interactions among negotiators. Negotiations may end in an impasse, in which the parties fail to reach a mutually acceptable agreement. In the case of a mutual agreement, the results may be measured in two dimensions: economic outcomes and social–psychological outcomes (Thompson, 1990). Economic outcomes focus on the division of the outcomes of interest between the two negotiators (Allred et al., 1997; Thompson & Hastie, 1990). Social–psychological outcomes such as satisfaction with the negotiation

and intention of future interaction with the counterpart also comprise critical outcomes of an exchange relationship (Ruekert & Churchill, 1984).

The effect of negotiation behavior and strategy on negotiation outcomes has been a major research agenda for negotiation scholars (e.g., Butt et al., 2005; Carnevale & Isen, 1986; Hollingshead & Carnevale, 1990; Thompson & Kim, 2000; Van Kleef et al., 2004). For example, negotiators may use competitive tactics such as threats and forced persuasion to increase their economic outcomes (e.g., Thompson, 1990). With respect to relative economic gains of a negotiator against the counterpart, negotiation behaviors such as dominating and yielding have substantial implications (Pruitt & Carnevale, 1993; Rahim, 1983). Negotiator satisfaction may depend on how positive he or she feels about the relationship with the other negotiator, the negotiation process, and negotiation outcomes (Kramer & Messick, 1995). Because the goal of this study was to conceptualize and empirically validate the mechanisms through which emotions are elicited and then influence the process of negotiation, we did not advance any formal hypotheses regarding the link between negotiation behavior and outcomes. However, for the sake of theoretical comprehensiveness, we did include two negotiation outcomes in our theoretical framework (see Figure 1).

## METHOD

### Participants

The study sample included 322 participants who were either MBA students ( $n = 108$ ) or attendees of executive education programs ( $n = 214$ ) at a private university in Pakistan. We used a randomized block design in which the participants were divided into gender-based blocks, because the counterpart's gender has been found to influence negotiation behavior in various situations (Rubin & Brown, 1975; Thompson, 1990). Participants in each gender-based block were randomly assigned to dyads, and were randomly given one of the two roles in the negotiation simulation. Seventeen percent of the participants were women ( $n = 56$ ), and the mean age of all participants was 32.8 years ( $SD = 8.70$ ), ranging between 21 and 63. Participants had an average of 16.1 years of education ( $SD = 1.17$ ) and 8.8 years of work experience ( $SD = 7.87$ ).

### Data Collection Procedure

To test the proposed framework, we conducted a negotiation simulation that involved negotiating the terms of an employment contract between a human resource manager and a job applicant. We developed this negotiation role play by adapting the procedures used by Allred et al. (1997). Participants were informed



that the employment contract negotiation consisted of two sequential tasks. In the first negotiation session (Task 1), they were to negotiate the vacation time by choosing one of five options. The objective in Task 1 was for each person in the dyad to obtain at least 40 points. The allocation of points was designed such that there was only one solution that gave 40 points to both parties, which was the option of "6 weeks in winter." Participants had 20 min for Task 1.

After completing Task 1, the participants were given written feedback about their performance in Task 1. The performance feedback consisted of information that was designed to elicit 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 importance of the success or the failure and the personal responsibility of the self or the counterpart were emphasized to elicit clear cognitive appraisal of the situation (the feedback statements used are available from the authors). Performance feedback for Task 1 was randomly assigned to participants, ensuring that in every 16 dyads, the four types of job candidate feedbacks were completely crossed with the four types of human resource manager feedbacks. Immediately after receiving the performance feedback for Task 1, participants were asked to complete Questionnaire 1. In this questionnaire, they were asked to report their appraisal of the situation, current emotions, and social motives for the next negotiation.

Task 2 was a mixed motive situation involving four issues: the start date of employment, salary, insurance benefit, and company transportation. Each issue had five options, each of which had different points corresponding to its level of importance for each negotiator role (the score tables used are available from the authors). The objective of each negotiator in the dyad was to maximize his or her own total number of points. Task 2 presented three types of issues: congruent, distributive, and integrative. The start date was a congruent issue as the increase in point values were equal and in the same direction for both negotiators. Salary was a purely distributive issue as the point values were equal but in opposite directions for the two negotiators. The insurance benefit and the company transportation together presented the integrative issues. The participants could optimize their points by learning about the interests of the other negotiator and exchanging information on priorities regarding these two issues. Participants were given 40 min to complete Task 2. After Task 2 was completed, participants filled out Questionnaire 2, which measured negotiation behavior and negotiation satisfaction with respect to Task 2.

## Measures

Multi-item scales with acceptable internal consistency coefficients were used to measure the study variables. Participants rated all items on 5-point Likert-type scales with anchors such as *strongly disagree* and *strongly agree*.

*Cognitive appraisal (Questionnaire 1).* The items for cognitive appraisal were adapted from Smith, Novacek, Lazarus, and Pope (1989). We used two questions for each of the four conditions (a coefficients ranging between .78 and .91): success due to self (e.g., “I was successful because of my efforts”), success due to counterpart (e.g., “The other negotiator helped me in achieving my objective”), failure due to self (e.g., “I am to blame for my bad outcome”), and failure due to counterpart (e.g., “My counterpart is to blame for my bad outcome”).

*Negotiator emotion (Questionnaire 1).* Drawing on the emotion literature (Lazarus, 1991; Smith & Ellsworth, 1985; Weiner, 1986), we included four types of emotions that could arise from cognitive appraisals of valence and agency. To measure the four emotions, we used 23 items (presented in Table 1), all of which were taken from prior studies (Richins, 1997; Roseman et al., 1990; Scherer, 1988). All four emotion scales showed high reliabilities: pride–achievement (six items,  $\alpha = .92$ ), gratitude (six items,  $\alpha = .94$ ), guilt–shame (five items,  $\alpha = .87$ ), and anger (six items,  $\alpha = .91$ ). The factor structure of these 23 items was examined by an exploratory factor analysis using principal component extraction with varimax rotation. This factor analysis produced four factors with high factor loadings on the corresponding factors (all greater than .61) and low cross-loadings (all less than .27).

*Social motive (Questionnaire 1).* Adapting items used by Beersma and De Dreu (2002), we measured participants’ collaborative and competitive motives before the second negotiation (Task 2). Collaborative motive was measured with two items ( $\alpha = .84$ ; e.g., “I will try to achieve more points for both myself and my counterpart”). Competitive motive was measured with three items ( $\alpha = .77$ ; e.g., “I will particularly try to win from my counterpart”).

*Negotiation behavior (Questionnaire 2).* The four types of negotiation behavior were measured using scales adapted from Rahim (1983) and De Dreu and Van Vianen (2001). The integrative behavior scale consisted of four items ( $\alpha = .80$ ; e.g., “I cooperated with the counterpart to better understand each other’s views and positions”). We assessed compromising behavior using three items ( $\alpha = .83$ ; e.g., “I tried to find a middle ground for resolving the conflict”). Yielding behavior was measured by a three-item scale ( $\alpha = .72$ ; e.g., “I let the other side win at my expense”). Finally, the dominating behavior scale included four items ( $\alpha = .70$ ; e.g., “I put pressure on my counterpart to accept my demands”). We tested the factor structure of the 14 items used to measure negotiation behavior 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).

*Economic outcome.* Negotiations in Task 2 resulted in four employment decisions: starting date, salary, transportation, and insurance benefit. Of these four issues, starting date was a congruent issue and did not have any effect on outcome differentiation between the two negotiators. Therefore, economic outcomes were determined by calculating the sum of each negotiator's points for the remaining three issues of the employment contract.

*Negotiation satisfaction (Questionnaire 2).* To measure negotiation satisfaction, we developed a 10-item scale ( $\alpha = .95$ ) that assessed participants' satisfaction with the relationship, negotiation process, and outcome. Sample items included the following: "In general, I am quite satisfied with my relationship with my counterpart," "The negotiation process was fair to me," and "I am satisfied with the outcome of the negotiation."

## RESULTS

We validated the theoretical framework shown in Figure 1 by creating a structural equation model (SEM) using the EQS program (Bentler, 1995). SEM is an appropriate procedure for this study because it estimates the relative impact of multiple predictors on multiple outcomes that are linked by more than two causal steps, controlling for measurement errors (Bollen, 1989).

### Measurement Model

Before we tested the relationships among variables by creating a structural model, the psychometric soundness of the study variables were tested by conducting a confirmatory factor analysis of all variables. To estimate the measurement model of the study variables, covariances between each latent factor and all other latent factors in the model were allowed. The statistical test of this measurement model is equivalent to a confirmatory factor analysis of all study variables, each indicated by two subscales. This measurement model fit the data well ( $\chi^2 [df = 375] = 603.96, p < .001$ ; comparative fit index [CFI] = .96; goodness-of-fit index [GFI] = .90; root mean square error of approximation [RMSEA] = .044), and thus it was used in the testing of all of the structural models discussed later. Table 2 presents the means, standard deviations, and correlations among the study variables.

### Structural Model

Using the measurement model described earlier, the current framework was fit to the data. As shown in Figure 1, these hypotheses collectively suggest a multistage development of negotiation behavior beginning with cognitive appraisal of the sit-

TABLE 2  
Means, Standard Deviations, and Interscale Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Self-caused success	3.18	1.20	—															
Other-caused success	2.46	1.13	.39	—														
Self-caused failure	2.23	1.10	-.28	-.25	—													
Other-caused failure	1.99	1.12	-.32	-.34	.20	—												
Pride-achievement	2.44	.79	.61	.23	-.31	-.29	—											
Gratitude	2.33	.93	.34	.61	-.19	-.36	.33	—										
Guilt-shame	1.70	.77	-.31	-.15	.46	.24	-.38	-.13	—									
Anger	1.93	.96	-.27	-.28	.16	.68	-.29	-.34	.38	—								
Collaborative motive	3.48	1.16	.11	.18	-.15	-.07	.13	.27	-.10	-.09	—							
Competitive motive	3.15	1.06	.10	-.07	.04	.22	.12	-.22	.03	.22	-.35	—						
Integrating behavior	3.88	.79	.07	.06	-.07	.08	.01	.15	-.11	-.03	.20	-.08	—					
Yielding behavior	2.27	.78	.04	.05	.06	.09	.00	.14	.11	.16	.10	-.12	.00	—				
Compromising behavior	3.77	.84	.00	.05	-.01	.04	.01	.08	-.09	-.04	.20	-.06	.49	.07	—			
Dominating behavior	2.38	.78	-.04	-.08	.11	.26	-.01	-.08	.17	.32	-.15	.38	-.21	.07	-.08	—		
Economic outcome	242.10	101.09	-.07	-.07	-.07	.18	.02	-.16	-.03	.12	-.08	.19	.00	-.13	-.05	.15	—	
Negotiation satisfaction	3.71	.73	.13	.20	-.22	-.21	.21	.25	-.21	-.25	.20	-.02	.41	-.26	.32	-.15	-.09	—

Note. N = 322.

$^*r > .11, p < .05. r > .15, p < .01. r > .19, p < .001.$

uation. The pattern of cognitive appraisal induces a specific emotion, which leads to a particular social motive that directly affects negotiation behavior. These hypotheses were tested simultaneously in a structural model that includes every path hypothesized in this study. This structural model showed an acceptable fit to these data ( $\chi^2 [df = 460] = 873.70$ ; CFI = .92; GFI = .86; RMSEA = .053).

### Alternative Models

Although the proposed model fits the data well, it does not rule out the possibility that other models may provide an equally good or better fit to the data (MacCallum, Wegener, Uchino, & Fabrigar, 1993). Accordingly, we identified and tested alternative structural models based on theoretically plausible alternative hypotheses. To compare the fit of each model to these data, we used the Aikake information criterion (AIC): for the models based on the same data, the model with a lower AIC value is to be preferred.

Table 3 compares the fit indexes of the hypothesized model with those of the four alternative models we identified. In Alternative Model 1, we tested the possibility that cognitive appraisal variables have direct effects on social motives. The overall model fit indexes and AIC associated with this first alternative model indicated that it did not provide a better explanation than the hypothesized model. The

TABLE 3  
Comparison of Model Fit of Alternative Models

<i>Model</i>	$\chi^2$	<i>df</i>	<i>CFI</i>	<i>GFI</i>	<i>RMSEA</i>	<i>AIC</i>
Hypothesized model—complete mediation by social motive between emotion and negotiator behavior	873.70	460	.92	.86	.053	-40.38
Alternative Model 1—complete mediation by social motive between emotion and negotiation behavior + direct effect of cognitive appraisal on social motive	879.87	458	.91	.85	.054	-36.11
Alternative Model 2—partial mediation by social motive between emotion and negotiator behavior	847.48	455	.92	.86	.052	-62.52
Alternative Model 3—no mediation by social motive (no paths between emotion and social motive)	961.99	461	.90	.84	.059	39.99
Alternative Model 4—partial mediation by social motive between emotion and negotiator behavior + direct effect of cognitive appraisal on social motive	843.48	451	.92	.86	.053	-58.52

*Note.* CFI = comparative fit index; GFI = goodness of fit index; RMSEA = root mean square error of approximation; AIC = Aikake information criterion.

second alternative model tested the possibility that negotiator emotions have direct effects on negotiation behavior in addition to their indirect effects via social motives. The results showed that Alternative Model 2 produced a lower AIC value than the hypothesized model and that the difference between the two models was significant ( $\Delta\chi^2 [\Delta df = 5] = 26.22, p < .001$ ). This pattern indicates that social motives may only partially mediate the relationship between negotiator emotion and negotiation behavior.

Alternative Models 3 and 4 were created by modifying Alternative Model 2. The third alternative model tested the idea that emotions have only direct effects on negotiation behavior without any mediation by social motives. The fourth model was created by adding direct paths from cognitive appraisals to social motives to Alternative Model 2. As shown in Table 3, neither of these alternative models produced better model fit than Alternative Model 2.

### Hypothesis Testing

Figure 2 displays the overall structural model and its parameter estimates based on the newly adopted model (Alternative Model 2 in Table 3) that suggests the partial mediation by social motive of the relationship between emotion and negotiation behavior. The figures along the paths represent standardized path coefficients. For the sake of simplified presentation, 14 nonsignificant paths were omitted from this structural diagram. Overall, the structural model depicted in Figure 2 supports most of the hypotheses. As expected in H1, different types of cognitive appraisals were significantly associated with corresponding emotions (e.g., the path coefficient [ $\beta$ ] between self-caused success and the pride–achievement emotion = .68,  $p < .001$ ).

To test the effects of emotion on social motives, we incorporated all possible paths from emotions to social motives. Collaborative motive was positively related to gratitude ( $\beta = .28, p < .001$ ) and negatively to guilt–shame ( $\beta = -.15, p < .05$ ), which confirms the predictions of H2b and H2c. Also, confirming H2a and H2d, competitive motive was positively related to both anger ( $\beta = .16, p < .01$ ) and pride–achievement ( $\beta = .30, p < .001$ ). Although not hypothesized, gratitude also decreased competitive motive ( $\beta = -.28, p < .001$ ). The results shown in Figure 2 clearly reveal that the two positive emotions (pride–achievement and gratitude) and the two negative emotions (guilt–shame and anger) have very different implications for social motives.

The paths that link social motives to negotiation behaviors also support H3a and H3b: (a) collaborative motive increased both integrative and compromising negotiation behavior ( $\beta = .23, p < .01$ , and  $\beta = .25, p < .001$ , respectively), and (b) competitive motive increased dominating behavior, but decreased yielding behavior ( $\beta = .35, p < .001$ , and  $\beta = -.22, p < .05$ , respectively). Of the four emotions, after controlling for indirect effects via social motives, only anger exerted a significant

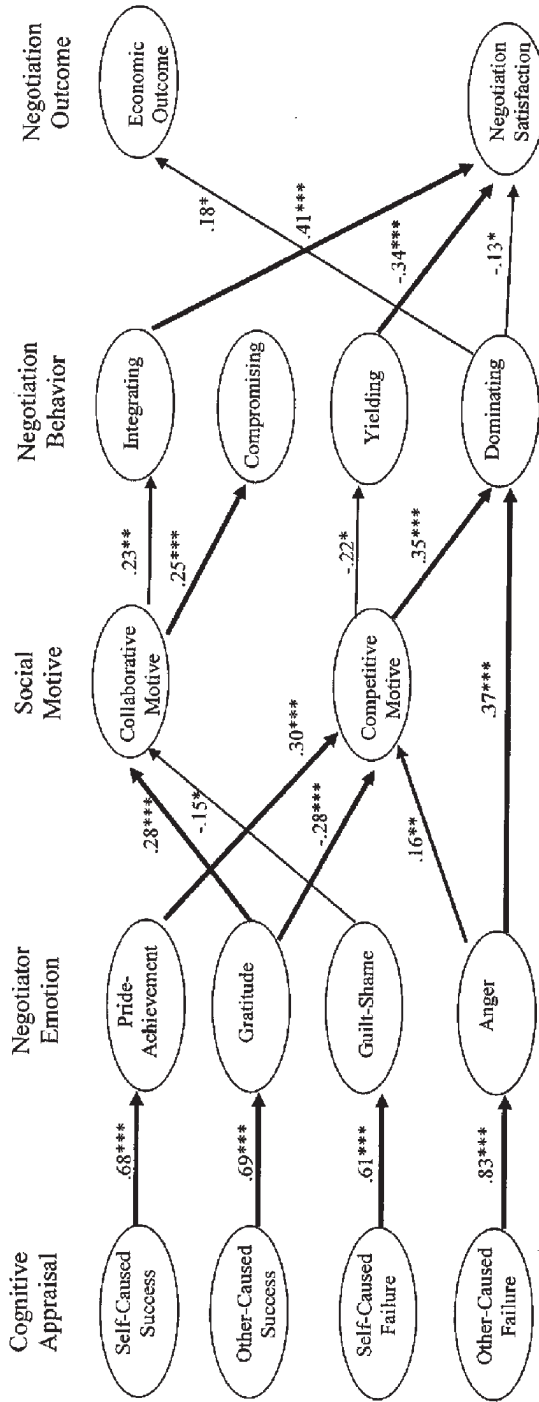


FIGURE 2 Structural model of emotions-based negotiation process model. *Note.*  $\chi^2(455, N = 322) = 847.48, p < .001$ ; CFI = .92, GFI = .86, and RMSEA = .052. Thicker lines represent statistically more significant paths. Nonsignificant paths are not included. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

direct effect on dominating behavior ( $\beta = .37, p < .001$ ). This significant direct association between anger and dominating was the main reason that these data supported the partial mediation model over the complete mediation model between emotion and negotiation behavior by social motive (see Table 3).

Consistent with prior studies (e.g., Rahim, 1983), dominating was significantly and positively related to economic outcome ( $\beta = .18, p < .05$ ). Negotiation satisfaction was positively related to integrating behavior ( $\beta = .41, p < .001$ ) but negatively to both yielding and dominating behavior ( $\beta = -.34, p < .001$ , and  $\beta = -.13, p < .01$ , respectively).

## DISCUSSION

In this study, we developed and empirically tested a process model of negotiation that conceptualizes the role of emotions in a negotiation situation. This study demonstrated that the four types of emotions had distinct relationships with social motives, which largely mediated their effects on negotiation behavior. Later we highlight significant findings and elaborate theoretical and practical implications of this study, as well as its limitations. We conclude by suggesting directions for future research.

### Theoretical Implications

The emotion literature has identified valence and agency as the most important causal appraisal dimensions in eliciting emotion in a social context (Lazarus, 1991; Roseman et al., 1990; Scherer, 1988; Smith & Ellsworth, 1985; Weiner, 1986). In the negotiation literature, however, researchers have largely concentrated on valence, thus ignoring the agency of emotions (for a review, see Kumar, 1997). These findings suggest that prior conceptual and empirical studies that have focused exclusively on valence of emotions may have limited our understanding of emotion's role in negotiation.

These results clearly show that the effects of same-valence emotions on subsequent motivation and behavior depend on their agency—either internal (self) or external (other) attribution of the cause of the emotion. For example, both pride–achievement and gratitude are positive emotions, but their effects on negotiator motives were very different depending on their action tendencies. Pride–achievement was positively related to competitive motive with no significant connection to collaborative motive. Gratitude was positively related to collaborative motive and negatively related to competitive motive. In addition, Table 2 shows that gratitude was positively correlated to integrating and yielding behavior but not to compromising and dominating behavior. This pattern could result from the grateful negotiator's motivation to fully satisfy the counterpart, either through satisfying the



counterpart's interest by making concessions (yielding) or through coming up with a creative solution that fulfills the counterpart's need as well as his or her own interest (integrating). Therefore, although gratitude led to yielding, it did not result in compromising behavior.

In the case of the two negative emotions, anger increased competitive motive, whereas guilt–shame decreased collaborative motive. Therefore, negotiators experiencing anger may take aggressive and active strategies, whereas those experiencing guilt–shame may become passive and neither collaborate nor compete. These contrasting patterns indicate that in addition to valence, the agency of emotion (self or other) must be considered to fully understand the role of emotions in negotiation settings (cf. Heider, 1958; Smith & Ellsworth, 1985; Weiner, 1986).

### Practical Implications

This study shows that cognitive appraisal of the situation shapes negotiation behavior by influencing negotiator emotions and social motives. For example, negotiators engaged in integrative behavior when their motivation was collaborative, perhaps due to the attribution of positive outcomes to others and an ensuing feeling of gratitude or felt obligation to reciprocate. In contrast, dominating behavior was related to a negotiator's external attribution of negative outcomes and the accompanying feeling of anger and competitive motivation. Accordingly, an effective way to control the counterparts' behavior during negotiation would be to control their interpretation of pertinent events before and during the negotiation, because cognitive appraisal (attribution patterns in particular) leads to the arousal of particular emotions, which result in a specific motivational orientation toward the situation (Kelly & Thibaut, 1979).

For example, negotiators who want to increase the integrative behavior of their counterparts may attempt to evoke altruistic motives in them by making them feel happy or grateful. However, this strategy needs to be exercised with caution because simply creating a positive emotion in the counterparts could actually increase their competitive motivation and dominating behavior if they believe themselves responsible for the positive events and thus experience pride–achievement emotion. It is well known that people tend to attribute positive outcomes to their own behavior (fundamental attribution error; Heider, 1958), and certain personality characteristics (e.g., high self-esteem, high internal locus of control) may increase this tendency (e.g., “Luck is not random, it is part of my ability”).

The diagram depicted in Figure 2 indicates that although most of the effects of negotiator emotions on negotiation behaviors were mediated by social motives, the anger emotion maintained a strong direct effect on dominating behavior even after controlling for its indirect effect via competitive motive. Considering the negative implications associated with dominating behavior (e.g., Ruekert & Churchill, 1984; Thompson, 1990), anger seems to be the emotion that may have the most

substantial and destructive impact on the negotiation process. Therefore, negotiators should attempt to prevent the counterpart from experiencing anger, and perhaps attempt to replace it with more desirable emotions such as gratitude. However, if a counterpart has already experienced negative outcomes, he may need to be convinced that he is not responsible for the loss or negative outcome. This tactic, if successful, could divert the negative energy of anger toward a less harmful form of negative emotion such as guilt–shame.

### Study Limitations and Future Research Directions

These findings need to be qualified with some cautionary notes due to several limitations of the research design. First, this study was based on quantitative analyses of psychometric measures assessed at different time points, which allowed an empirical test of the current process model based on statistical significance. However, qualitative analyses (e.g., video analysis, content coding of transcript) might have provided a richer understanding of the negotiation process by allowing more contextualized interpretations of interpersonal dynamics based on emotion and social motive. Future studies may expand these findings using other research designs to reveal underlying interactive dynamics of negotiation.

Second, the fact that the data came from a negotiation simulation involving MBA students and participants of executive education programs raises the issue of external validity. In the context of this study, the observed patterns may not be fully generalizable to a real-life negotiation situation, because the interpersonal relationships and the emotions experienced during the simulation were induced by role information in the form of written instructions.

Third, this negotiation simulation involved Pakistani participants who may have social values and interpersonal behavioral patterns that are different from people of other cultures (Hofstede, 1991). However, an empirical study conducted in 37 countries demonstrated that there is high convergence across geopolitical regions with respect to the way emotion is linked to cognitive appraisal, suggesting universality of the appraisal mechanism (Scherer, 1997). We thus believe that these findings, although they definitely should be replicated in other cultures, provide valuable information regarding the relationships among cognition, emotion, motivation, and behavior. Notwithstanding, future studies based on samples from different cultures would offer a more comprehensive explanation of the potential impact of culture on the negotiation process.

Fourth, although the four types of discrete emotions were theoretically identified and showed distinct effects, there are alternative ways to classify emotions. For example, there is a possibility that guilt and shame may operate in different ways and therefore might be treated as a separate emotional dimension (Tangney, Wagner, Fletcher, & Gramzow, 1992). Smith and Ellsworth (1985), in contrast, showed that six cognitive appraisals associated with shame and guilt were “virtu-

ally indistinguishable" from each other; thus, the two emotions may not be distinguishable (Lazarus, 1991). Nevertheless, it is possible that guilt and shame may involve slightly different dynamics with respect to motivation and behavior. Future studies should articulate a more comprehensive, theory-driven classification of emotions that may operate in negotiation.

Finally, we acknowledge that the interdependence of participants from the same dyad could be a potential source of bias in these results. Considering this limitation, we conducted the same structural equation modeling for two subgroups (human resource managers and job applicants). The results of these subsample analyses were almost identical to the results that were based on the entire sample, which increased our confidence in these results. In this study, we reported the results based on the entire sample rather than on subsamples because of the greater statistical power and better model fit indexes that could be obtained.

Despite these potential limitations, this study contributes to the negotiation literature by expanding our understanding of the role emotions play in negotiations and the process-mechanisms related to them. The results suggest that distinct emotions are aroused by cognitive appraisal of valence and agency in a given situation. These emotions tend to indirectly influence negotiation behavior through their effects on social motives. We believe that a better understanding of the role of social motives relative to the function of emotions will offer valuable theoretical and practical implications. An important extension of this study would be an investigation of the moderating or mediating roles of reward structure and personality variables (such as emotional intelligence) in the relationship between emotions and social motives (cf. Beersma & De Dreu, 1999). A critical finding of this study is that the motivational and behavioral implications of a particular emotion, either positive or negative, are largely determined by agency or locus of responsibility of the emotion. These patterns have crucial implications for successful problem solving and conflict resolution across many situations. It would be fruitful to replicate these findings in real-life situations with participants from different cultures, using research design features such as longitudinal data collection and qualitative evaluation of emotion, behavior, and negotiation outcomes.

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