International Journal of Conflict Management

The role of affects in conflict frames and conflict management

Mei-Yu Yang Fei-Chun Cheng Aichia Chuang

The role of affects in conflict frames and conflict management

Mei-Yu Yang
Department of Business Administration, Chihlee Institute of Technology, New Taipei City, Taiwan

Fei-Chun Cheng
Department of Business Administration, Yuanpei University, Hsinchu, Taiwan, and

Aichia Chuang
Department of Business Administration, National Taiwan University, Taipei, Taiwan

Received 15 September 2013
Revised 31 December 2013
27 March 2014
27 May 2014
Accepted 28 May 2014

Abstract

Purpose – The purpose of this paper is to identify the roles of trait affectivity and momentary moods in conflict frames and conflict management. This paper goes beyond affect induction and focuses on the affective – rather than rational – antecedents of the choice of conflict management strategy.

Design/methodology/approach – This paper adopts a within- and between-person approach and uses hierarchical linear modeling to test the hypotheses with group-mean centering. Over the course of 12 days within a three-week period, the authors collected participants' momentary moods and how they thought about and would respond to conflict scenarios. Data were gathered from 1,545 observations, involving 180 individuals.

Findings – After controlling for anger raised from the conflict scenario, both positive trait affectivity and positive momentary moods were found to be positively related to a compromise frame. Surprisingly, neither negative trait affectivity nor momentary mood was related to the win frame. A compromise frame predicted a cooperative strategy, and a win frame predicted a competitive strategy. The relationships between trait and momentary affects and conflict management strategy were partially mediated by conflict frame, but only for positive affects.

Practical implications – If seeking a constructive resolution, choose the right person (i.e. an individual with positive trait affectivity) and the right moment (i.e. the individual is in a positive mood state) to communicate disagreements.

Originality/value – This paper sheds light on the prediction of conflict frame and conflict management behavior by testing trait affectivity and momentary mood simultaneously.

Keywords Conflict frames, Momentary mood, Conflict management strategies, Trait affectivity

Paper type Research paper

This research was partially supported by a grant from the Ministry of Science and Technology of the Republic of China [NSC: 99-2410-H-263-006] to Mei-Yu Yang. An early version of this article was presented at the Annual Meeting of the Academy of Management, Boston, in August 2012. The authors would like to thank the Editor and the reviewers for their helpful comments on an earlier version of the paper.

International Journal of Conflict Management
Vol. 26 No. 4, 2015
pp. 427-449

1044-4068
DOI 10.1108/IJCMA-09-2013-0077

Introduction

If the members of your work group are often late with their share of the work, how do you interpret the situation and how do you react? Would your interpretations and reactions differ, depending on your trait affectivity or your momentary mood? When employees think about and manage conflicts cooperatively, they are able to see different perspectives of the problem, dig into the issue in depth and even discover potential problems in advance, all of which strengthen the group's relationship. Many researchers have suggested that an organization's effectiveness depends on how the employees in the organization manage their conflicts (Sheppard *et al.*, 1989; Tjosvold, 2006). The purpose of this paper is to identify the factors that lead to a person's conflict management strategy, with a specific focus on affects and conflict frames.

Most conflict management research has focused on the rational decision-making process to identify why and how people choose specific strategies (Callanan *et al.*, 2006; Friedman *et al.*, 2006; Rahim, 2002), and, for a long time, has ignored affect-relevant variables (Bazerman *et al.*, 2000; Neale and Northcraft, 1991). This paper joins the line of research that argues that affect is not only a significant component inherent in conflict and during the conflict management process (Barsade and Gibson, 2007), but also a critical element in directing people's thoughts and behaviors toward conflict resolution (Forgas, 1998).

The line of research that studies affect and conflict resolution was initiated by Carnevale and Isen (1986) and has continued to grow (Allred *et al.*, 1997; Forgas, 1998; Isen *et al.*, 1987; Pillutla and Murnighan, 1996). Still, most conflict management studies have focused on only one or two categories of affect, despite the fact that affect includes trait affectivity, moods and emotions (Barsade and Gibson, 2007). For instance, some researchers have examined the effect of emotions, especially anger (Allred *et al.*, 1997; Pillutla and Murnighan, 1996; Van Kleef *et al.*, 2008; Lelieveld *et al.*, 2012), while some have investigated the impact of moods (Carnevale and Isen, 1986; Forgas, 1998) and still others have targeted the influence of traits on conflict management (Antonioni, 1998; Park and Antortioni, 2007). Examining only one or two types of affect may inflate the relationship between affect and conflict management. In this study, however, we examine the impact of trait affectivity and momentary mood on conflict management simultaneously, controlling for anger raised from the conflict scenario to gain a more complete understanding of the role of affect in conflict management.

When examining the influence of moods and emotions on conflict management, nearly all prior studies have used experimental research designs to manipulate those affects (the exceptions being Desivilya and Yagil, 2005; Montes *et al.*, 2012; and Rhoades *et al.*, 2001). Studying in a laboratory has the advantage of isolating the causality between variables, but it also carries the dual weaknesses of inaccurate portrayal of reality and limited generalizability. We adopt an experience sampling approach to collect "real" moods and avoid some of the laboratory's drawbacks.

In addition, the current study integrates two lines of conflict management research. One line of study adopts the ordered response hierarchy perspective to examine how one's personality relates to one's conflict management style (Blake *et al.*, 1964; Renwick, 1975). Renwick (1975) found that people tend to use their dominant strategies to handle disagreements in a variety of topics, and several researchers have suggested that people's ways of managing conflicts are related to their own personality (Antonioni, 1998; Moberg, 2001). This line of research treats conflict management strategy as a

"trait-like" behavior that is relatively stable from one conflict to the next. Another major line of research in conflict management studies adopts the contingency perspective to investigate how situational factors influence people to use different conflict management strategies, treating conflict strategy as a "state-like" behavior that is relatively fluid (Callanan *et al.*, 2006; Thomas and Pondy, 1977). For instance, Callanan *et al.* (2006) found that an individual's conflict management strategy shifted depending on the urgency of the issue, the power difference between disputants and the attribution of other party's intention. In this study, we use trait affectivity and momentary mood to explain both trait and state variances regarding conflict management.

We also incorporate social psychological literature into this study. Conflict management researchers have suggested that conflict interpretation is the critical process preceding people's efforts to deal with conflict, as how people perceive a conflict is vital to how they react to that conflict (Gelfand *et al.*, 2001; Pinkley, 1990; Pruitt, 1981; Thomas, 1976, 1992; Tjosvold, 2006). Social psychologists have found that an individual's affect influences his or her perception and cognition (Graziano and Eisenberg, 1997; Graziano *et al.*, 1996; Trapnell and Wiggins, 1990). Thus, by integrating the social psychology and conflict management studies, we can investigate the mediation effect of conflict frame on the relationship between conflict management and affects.

Taken all together, the contribution of the current study is fourfold. First, although affect is a critical part of conflict, little is known about how different types of affects are related to conflict interpretation and conflict management, after controlling for each other (Forgas, 2000). This study includes all categories, incorporating trait affectivity, mood states and anger in one model to examine the independent effects of each on conflict management. Second, whereas the findings of prior studies were subject to laboratory manipulation, this study samples moods in a natural setting, before participants read the conflict scenarios. Studying the moods in a real-world experience extends the theory from a laboratory exercise into an authentic, existential perspective (McGrath, 1982). Third, by adopting cross-level statistical analysis, this study integrates both trait-like and momentary state-like conflict management research lines. Fourth, this study bridges two major streams of literature that have, thus far, mostly ignored each other: the social psychological literature on affects and the conflict management literature on conflict frames. Affects influence people's perception and cognition, and conflict frames influence both conflict behavior and negotiated outcomes in important and systematic ways; yet, surprisingly little is known about how affects relate to conflict frame adoption (Schweitzer and DeChurch, 2001). In the following sections, we first introduce the role of affect in conflict frame, followed by the role of conflict frame in conflict management, then the mediation effect of conflict frame in the relationship between affect and conflict management. Figure 1 depicts the framework we propose for this study.

The role of affect on conflict frame

A "conflict frame" refers to the cognitive structure or interpretation of a conflict (Fiske and Taylor, 1991). Pinkley (1990) studied the types of conflict frames that individuals access, using an inductive multi-dimensional scaling to analyze a broad set of conflict descriptions. Pinkley suggested three dimensions of disputants' cognitive orientations. For each dimension, a disputant tended to land on one end of the spectrum or the other.

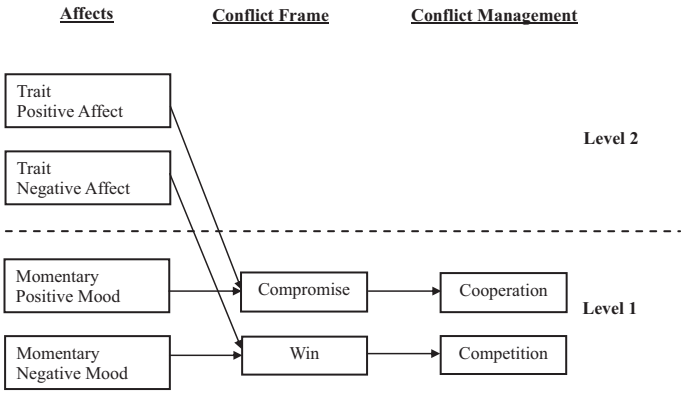

Figure 1.
The research framework of the role of affects in conflict frame and conflict management

A disputant might attribute a particular conflict to friction in the relationship or to a problem in the task (i.e. relationship vs task dimension). For the same conflict, the disputant might focus on either his feelings or the rational aspect of the conflict (i.e. emotional vs intellectual). Finally, a disputant might attribute blame to either one party or both parties (i.e. win vs compromise frame).

As further research has shown, people in every culture do not necessarily react to conflicts with exactly the same cognitive orientations. Using Pinkley's dimensions, Gelfand *et al.* (2001) replicated the analysis of how people frame conflict scenarios with American and Japanese samples. They found that each culture had its own culture-specific representations, but one of Pinkley's three dimensions, the compromise-versus-win orientation, consistently appeared in both cultures. Therefore, in this study, we adopt Gelfand *et al.*'s suggestion of using the culturally free dimension: the compromise-versus-win conflict frame. A "compromise frame" refers to the extent to which disputants perceive that all parties in the conflict are blameworthy and recognize that all parties must compromise to obtain a mutual resolution. In contrast, a "win frame" refers to the degree to which disputants perceive that only some parties should be blamed in the conflict, view the conflict as a zero-sum game and expect the other parties to concede.

"Affect" can refer to a broad range of feelings. Affect includes fleeting "feeling states" and more enduring "feeling traits" (Barsade and Gibson, 2007; Watson and Clark, 1984). Feeling states are momentarily experienced feelings and can be divided into two categories: moods and emotions. Moods are general feelings in the moment or during a period of time; they are usually not induced by any specific reason (Tellegen, 1985), and they may vary distinctly from day-to-day (Ilies and Judge, 2002; Ilies *et al.*, 2006). In contrast, emotions are caused by a particular event (Lazarus, 1991), such as encountering a conflict. Feeling traits, however, refer to an individual's stable tendency to experience positive and negative moods and emotions across situations (Watson and Clark, 1984). In Watson and Clark's (1984) study, they found that trait negative affectivity has a strong relationship with the state of negative affect, even when the trait is measured several years prior to the state. In this study, we use the term "momentary moods" to describe the feeling state fluctuations that an individual may generally

experience (within-person), and we measure these fluctuations repeatedly. We also use "trait affectivity" to represent the different affects one person may feel in a conflict, in comparison to those of the person with whom he is in conflict (between-person). To more clearly identify the effects of within-person momentary moods and between-person trait affectivity on conflict frame and conflict management, we controlled for anger in this study not only because conflict scenarios tend to produce anger (Bell and Song, 2005; Van Kleef *et al.*, 2008), but also because we intend to distinguish the effects of these three approaches to measuring affect.

At the mood state level, there are at least two ways in which moods may influence people's thoughts. The first is mood-as-information, in which moods serve directly as a part of the information people use to evaluate others (Schwarz, 1990; Schwarz *et al.*, 1991). Essentially, people in a positive mood will judge the situation favorably, while people in a negative mood will judge the situation unfavorably. The second way in which moods influence people's thoughts is the mood-priming effect or mood-congruent effect, in which moods prime mood-congruent material, leading indirectly to a significant mood-congruent effect on people's thoughts and plans (Forgas, 1995; Mayer *et al.*, 1992). When people experience positive affects, they are more likely to recall, perceive and interpret the information favorably. In contrast, when people experience negative affects, they are more likely to receive and understand the information unfavorably (Bower, 1981). Applying how moods states influence people's thoughts, we expect mood states to influence how people interpret conflict situations. Disputants in a positive mood may think more positively, and the positive affect may manifest itself in the disputants being more willing to shoulder responsibility for the conflict. Disputants with negative moods, in contrast, may place more blame on the others, which may lead them to believe that there is no integrationist approach to the conflict.

At the trait level, individuals have their own habitual patterns of affect that may automatically distort their assessment of certain available cues, biasing their perceptions and judgments (Emmons, 1989). Trait affects act as lenses through which people view the world. These affect lenses operate like sets of schemas that an individual uses when interpreting one's social world (Bargh, 1982). Furthermore, according to self-view confirmation (Swann and Read, 1981; Swann *et al.*, 1992), people have a basic need to achieve a consistent perception of themselves. Based on how trait affectivity influences people's thoughts and how it associates with conflict frame, we expect trait affectivity and mood to have a similar parallelism (Barry and Oliver, 1996; Weiss and Cropanzano, 1996), as trait affectivity can be conceptualized as the sum total of one's mood states (Watson and Tellegen, 1985). Therefore, emphasizing both affect's cognition-focus effects and the mood-congruent effect, we propose the following hypotheses:

H1. After controlling for anger raised from the conflict scenario, an individual's positive affects (positive trait affectivity and positive momentary mood) are positively related to adopting the "compromise" conflict frame.

H2. After controlling for anger raised from the conflict scenario, an individual's negative affects (negative trait affectivity and negative momentary mood) are positively related to adopting the "win" conflict frame.

The role of conflict frame in conflict management

In terms of conflict management, there are several approaches to classifying the actions people take when they confront conflicts. For example, Deutsch (1973) suggested that competition- and cooperation-related conflict-handling intentions rest on the disputant's belief in whether the goal can be reached. Blake *et al.* (1964) created a conflict management grid system to identify how people try to effectively handle conflict. Using a similar conception, Thomas (1976) and Rahim (1983) differentiated five conflict-handling styles, along with the two basic dimensions of concern-for-self and concern-for-others. The first dimension represents the extent to which the disputants' attentions are directed inward, and the second dimension represents the extent to which the disputants' attentions are directed toward their counterparts. Researchers have suggested other conflict-behavior categories (Ohbuchi and Suzuki, 2003; Pruitt and Carnevale, 1993), but the present study is based on the dual-concern theory, and we selected two strategies with corresponding conflict frames. A cooperative strategy reflects a high concern for both parties and corresponds to a compromise frame. A competitive strategy reflects a high concern for self but a low concern for the other and corresponds to a win frame. According to Gelfand *et al.* (2001), an individual may frame his or her conflict as compromise or win. Based on the theory of reasoned action, an individual's attitude is a major determinant of his or her intention to perform a certain type of behavior (Fishbein and Ajzen, 1975). If conflict frames represent an individual's interpretation of a conflict, when disputants believe that all parties in the conflict must cooperate to obtain a mutual resolution, they will tend to adopt a cooperative strategy. In contrast, when disputants believe that the conflict is a zero-sum game and expects the other parties to concede, they will tend to adopt a competitive strategy.

Empirically, prior literature has found that conflict frames are related to specific tactics in negotiation (Schweitzer *et al.*, 2005), so that conflict frames influence both the bargaining process and negotiated outcomes (Pinkley and Northcraft, 1994). In Schweitzer *et al.*'s (2005) study, they examined the influence of a negotiator's conflict frame on his or her use of negotiation tactics and found that negotiators with a competitive orientation adopted a more competitive strategy. They set up a bargaining exercise between two tour companies and told the participants that if both tour companies increased the number of their tours to the same location, then it would result in poorer outcomes for both companies. The more the participants framed the situation as competitive, the more aggressively the participants behaved, including choosing to run a high number of tours and misrepresenting the number of tours the other company offered, all in order to win. Participants' conflict frames also influence the outcomes of negotiations. Pinkley and Northcraft's (1994) study set up a negotiation exercise involving the distribution of sales territories, and the participants who adopted a compromise frame achieved the settlements of greatest monetary value, compared to those participants who adopted a win frame.

In a conflict situation, it is conceivable that individuals with compromise frames perceive that all parties in the conflict have to compromise to obtain a mutual resolution, whereas individuals with win frames view the conflict as a win–lose game and have to compete to win. Thus, we propose the following hypotheses:

H3. After controlling for anger raised from the conflict scenario, a compromise conflict frame is positively related to an individual's intention to adopt a "cooperative" conflict strategy.

H4. After controlling for anger raised from the conflict scenario, a win conflict frame is positively related to an individual's intention to adopt a "competitive" conflict strategy.

The role of conflict frame in the relationship between affects and conflict management

As illustrated in the introduction section, researchers have treated conflict management either as state-like managing strategies (Callanan *et al.*, 2006; Thomas and Pondy, 1977) or trait-like behaviors (Antonioni, 1998; Moberg, 2001). Thus, we surmise that both state-like and trait-like antecedents influence conflict management. When presenting the first set of hypotheses, we used social psychological literature to discuss how affects directly influence which conflict frame an individual adopts. For this set of hypotheses, we examine the ways in which conflict management is influenced by within-person mood states and between-person trait affectivity, with conflict frame as the mediator. In this section, we provide a deeper look at the social psychological literature that demonstrates how affect influences both people's interpretation of a situation and their intention to act on that situation to support our assertion that conflict frame mediates the relationship between affects and conflict management.

Affects, at both the state and the trait level, are related to the choice of conflict management strategies. At the state level, social psychologists have discovered the relationship between mood states and cognition (Isen, 1987, 1999, 2000; Forgas, 1995, 2000, 2006). From the cognition-processing perspective, positive affect states can broaden the scope of cognition (Isen, 1987; Isen *et al.*, 1985), while negative affect states may narrow people's cognition focus (Derryberry and Tucker, 1994; Easterbrook, 1959). Several decades ago, Easterbrook (1959) suggested that negative affect states narrow people's cognition focus, and his idea has been proven in empirical studies (for a review, see Derryberry and Tucker, 1994). Following this line of research, Isen and colleagues (Isen, 1987; Isen *et al.*, 1985) found that an individual in a good mood can provide a broader range of associations to a common word, recall more words that are related to one another and solve problems more creatively.

In addition, Forgas (2001) suggested that when people are in a positive mood, they access positive materials in their cognitive system and further shape their decision toward better results. When people are in a negative mood, though, they may narrow their own thoughts and blame their counterparts, so that they tend to not reach cooperative solutions. Several studies have also discovered that positive affects increase the use of cooperative negotiation strategies (Forgas, 1998), induce creative problem-solving (Isen *et al.*, 1987) and help to resolve conflict (Lyubomirsky *et al.*, 2005). Negative affects, however, increase the use of competitive strategies (Forgas, 1998), encourage ultimate offers (Pillutla and Murnighan, 1996) and achieve fewer joint gains in negotiations (Allred *et al.*, 1997). Therefore, positive affect states encourage people to understand their own and others' situations, whereas negative affect states encourage people to avoid any harm that might arise from a conflict. Hence, we suggest that when dealing with conflict, individuals in a positive mood will choose a cooperative strategy, whereas individuals in a negative mood will adopt a competitive strategy.

At the trait level, individuals with a high degree of positive affectivity are characterized as excited, joyful, enthusiastic and cheerful. They are energetic and enjoyable, which might lead them to think about alternative options during a conflict. In

contrast, individuals with a high degree of negative affectivity are likely to be anxious, afraid and angry. They often seem tense and nervous (Watson and Tellegen, 1985; George, 1992). Based on Watson and Clark's review (1984), individuals with high negative affectivity are more likely to experience distress and focus on the negative side of the world. People with a high degree of negative affectivity with a negative cognitive set tend to view things through a negative lens (Clark and Watson, 1991). They might pay less attention to others' interests and focus only on their own, which may result in a competitive conflict management strategy. In a meta-analytic study of work behavior, positive affectivity predicts extra role behavior, while negative affectivity is associated with withdrawal and counterproductive work behaviors.

We expect that, similar to the prediction of moods, when dealing with conflict, individuals with a positive trait affect will choose a cooperative strategy, whereas individuals with a negative trait affect will adopt a competitive strategy. However, we suspect that trait affectivities may explain some variations of conflict management strategy when controlling mood states. Cohen *et al.* (1995) suggested that an individual's negative trait affectivity occurs separately from his negative mood state. They examined individuals who suffered illnesses and found that disease-specific health complaints were associated with stable negative mood states, while negative trait affectivity was associated with complaints but not with the severity of the disease. If negative moods and negative traits occur separately, then mood states and trait affectivity may separately influence which conflict management strategy a person adopts.

Our prior hypotheses reason that a person's mood and trait affectivity influence his or her interpretation of the conflict, as well as how that person's conflict frames associate with his or her conflict management strategy. For this set of hypotheses, we propose that conflict frame will mediate the relationship between affects and conflict management strategies as follows:

H5. After controlling for anger raised from the conflict scenario, a compromise frame will mediate the relationship between an individual's positive affects (positive trait affect and positive momentary mood) and his or her intention to adopt a "cooperative" conflict strategy.

H6. After controlling for anger raised from the conflict scenario, a win frame will mediate the relationship between an individual's negative affects (negative trait affect and negative momentary mood) and his or her intention to adopt a "competitive" conflict strategy.

Method

Scenarios and scales development

To measure the within-person variance, we developed conflict scenarios and conflict frame scales. The conflict scenarios were generated through several steps. First, we asked 70 undergraduate management students, who had experience in class-related teamwork, to write down their recent conflicts with group members. This was to ensure that the conflict events were truly experienced and realistic. On the basis of these descriptions, we developed 34 scenarios. Second, to ensure that the scenarios were equivalent in terms of the degree of task conflict, the degree of relational conflict and the degree of anger (Jehn, 1995), we invited 11 experts (mostly PhD holders and a few PhD

candidates, all experts in OB&HR) to evaluate those attributes for each scenario. After this step, 15 scenarios were retained. Third, as we do not want the differences among the 15 scenarios to influence the participants' conflict frames or conflict management strategies, we surveyed an independent sample ($N = 331$) with questions about the equivalence of the scenarios, based on conflict attributes, such as the degree of anger, importance, resolution potential and frequency. Based on the results of analysis of variance (ANOVA), ten scenarios (see Appendix 1) were retained for our study (the degree of anger: $F = 1.471$, $p = 0.160$; importance: $F = 0.586$, $p = 0.808$; resolution potential: $F = 0.366$, $p = 0.950$; and frequency: $F = 0.804$, $p = 0.613$).

For the development of conflict-frame scales, we used the conflict-frame definition and the scale-development literature to generate 12 items and to measure the compromise-versus-win frame. Following the scale-development process (Hinkin, 1998), we used a sample, the same as the previous scenario-attributes survey, to test the reliability and validity of this measure. We ran an exploratory factor analysis, using principal axis factoring with an oblique rotation. Two factors were obtained, as well as three items for the compromise frame and three items for the win frame (Appendix 2). Next, we used another sample, the formal study sample, to conduct a confirmatory factor analysis. Results revealed that the two-factor model fits significantly better than the one-factor model (chi-square difference = 690.34, $p < 0.01$).

Participants

A total of 224 undergraduate management students were approached. Participation was completely voluntary and those who participated earned extra credit for the course. The students ranged from freshmen to juniors and were enrolled in at least one of the three courses offered by the first two authors. We were able to discover how they reacted to the conflict scenarios in their teams. Of the respondents, 76.7 per cent were female and the average age was 19.36 years; the youngest respondent was 18 years old and the oldest was 25 years old.

Procedures

For a total of 12 days, we visited participants in the classroom around noon to collect data at the end of class. On each of the 12 days, participants were first asked to report their moods at the initial moment of the survey. Next, they were asked to read a scenario and to imagine that the conflict happened in their team and they were a character in it. Then, they responded to scales of emotional anger, conflict frame and conflict management strategy. We removed 44 participants because they either created a response set or missed a large portion of the survey. The final sample consisted of 1,545 observations from 180 acceptable survey responses.

Measures

Momentary mood. To measure momentary moods, we adopted the positive affect and negative affect scale (PANAS) developed by Watson *et al.* (1988). The PANAS includes 20 adjectives, 10 of which indicate positive affect and the other 10 of which indicate negative affect. Participants identified the degree to which every adjective described their respective feelings at the moment of the daily survey. The ratings ranged from 1 ("No feeling at all") to 5 ("Strongly felt"). Cronbach's alpha was 0.94 for the positive affect measures and 0.90 for the negative affect measures.

Trait affectivity. Based on Fleeson (2001); Fleeson and Gallagher (2009) and his colleagues' studies, individual differences can best be described as density distributions, and individual differences in distribution parameters are highly stable, so that trait affects can be conceptualized as mood densities aggregated over time. Watson and Tellegen (1985) also argued that we could conceptualize one's affective disposition as the sum total of one's mood states. In fact, instead of asking how people feel in general at one point in time, personality psychologists have aggregated momentary moods to represent affective dispositions, while eliminating situational variance and measuring affect-related traits (Diener and Larsen, 1984; Epstein, 1983; Schimmack and Diener, 1997). Therefore, we aggregated each participant's momentary moods, which were collected by asking "how do you feel at this moment" over 12 days to represent trait affectivity.

Conflict frame. As described above, we developed six items to measure the conflict frame; three items reflected the compromise frame and another three concerned the win frame (six items are listed in the Appendix 2). Each item used a seven-point Likert scale, ranging from 1 ("Strongly disagree") to 7 ("Strongly agree"). Cronbach's alphas were 0.80 for the compromise frame and 0.65 for the win frame.

Conflict management strategies. We used Rahim's (1983) sub-scales[1] of integrating and dominating to represent cooperative and competitive strategies, respectively. Each item used a five-point Likert scale, ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Cronbach's alphas were 0.81 for dominating conflict strategies and 0.89 for integrating conflict strategies, separately.

Control variable. Conflict is often associated with stress and threat, both of which increase an individual's emotional response, especially anger (Bell and Song, 2005; Jehn, 1997). To clarify the effect of momentary mood states, emotion and trait affectivity on our outcome variables (i.e. conflict frame and conflict management), we controlled the anger emotion, which might be produced by the conflict scenarios. We used two self-developed items to measure the anger emotion. These two items were as follows: "To what extent do you feel angry about this conflict?" and "To what extent are you upset about this conflict?" Each item used a seven-point Likert scale, ranging from 1 to 7. Cronbach's alpha was 0.95.

Other measures. To ensure that the participants read the scenarios and the scales carefully, we included two detailed questions about the scenario, asking participants to respond with their degree of agreement (from 1 = "Strongly disagree" to 5 = "Strongly agree"). The purpose was to confirm that participants grasped the scenario accurately that day.

Data structure and analytical approach

Our data were nested in nature because we repeatedly measured at 12 different times for each individual. For data with a nested nature, using traditional ordinary least squares (OLS) regressions would generate biased estimates of the standard errors and invalidate test statistics (Liao *et al.*, 2004) because the OLS does not account for the interdependence of the observations. Hierarchical linear modeling (HLM) explicitly takes into consideration the nested nature of the data and can estimate the coefficients for predictors at different levels. In this study, we tested the effects of participants' positive and negative traits at Level 2 and the effects of participants' positive and negative momentary moods at Level 1.

Researchers should take into account centering decisions. Following the recommendation of Hofmann and Gavin (1998), group centering and reintroducing the group mean into the higher level is appropriate for testing incremental research questions. To understand how much variance was explained by each new added predictor, we calculated the R^2 between models, and we provided the deviance to assess model fit.

While testing the mediation, we followed the procedure proposed by Zhang *et al.* (2009, p. 700). Some researchers have labeled the 1-1-1 model to indicate that all the predictor, mediator and outcome variables are at Level 1 and the 2-1-1 model to indicate that the predictor is at Level 2, while the mediator and outcome variables are at Level 1 (Bauer *et al.*, 2006; Krull and MacKinnon, 2001). In this study, our predictors are at Level 1 and Level 2. Momentary mood is at the intra-individual level (i.e. Level 1), and trait affectivity is at the individual level (i.e. Level 2). Mediators and outcomes are all within-persons (i.e. Level 1). Therefore, we used the 1-1-1 and 2-1-1 models to examine the mediation effects.

Results

Table I presents the means, standard deviations and inter-correlations of all variables in this study.

To ensure that HLM would be appropriate, we first ran null models, with no predictors, to partition the variance of outcome variables among levels (Raudenbush *et al.*, 2002; Wen and Chiou, 2009). We calculated the within-individual and between-individual variances to measure the proportion of the variance in these dependent variables. The results of a null model revealed that the intra-class correlation (ICC1) was 0.44 for compromise frame (indicating 44 per cent of the variance residing in inter-individuals), 0.28 for win frame (indicating 28 per cent of the variance residing in inter-individuals), 0.68 for cooperative strategy (indicating 68 per cent of the variance residing in inter-individuals) and 0.68 for competitive strategy (indicating 68 per cent of the variance residing in inter-individuals). All of the values of ICC1 were larger than the 0.12 threshold suggested by James (1982), indicating that we had sufficient

Variable	Means	SD	1	2	3	4	5	6	7
Level 1: intra-individual level									
Momentary PA	2.44	0.94	(0.94)						
Momentary NA	1.54	0.65	0.06*	(0.90)					
Compromise frame	5.13	0.96	0.21**	−0.06*	(0.80)				
Win frame	3.96	1.36	−0.11**	−0.05	−0.06*	(0.65)			
Cooperative strategy	4.03	0.51	0.18**	−0.15**	0.38**	0.02	(0.89)		
Competitive strategy	2.66	0.71	0.11**	0.01	0.00	0.08**	0.15**	(0.81)	
Anger	4.89	1.48	−0.06*	−0.03	−0.05*	0.39**	−0.05*	−0.04	(0.95)
Level 2: individual level									
Trait positive affect	2.40	0.71	–						
Trait negative affect	1.56	0.51	0.21**	–					

Table I.
Means, standard deviations and correlations[a]

Notes: [a]Intra-individual $n = 1545$; individual $n = 180$. Internal consistency reliabilities appear in parentheses along the diagonal. $*p < 0.05$; $**p < 0.01$

between-individual variance for these dependent variables. In addition, the reliability of the individual mean (ICC2) was 0.85 for the compromise frame, 0.75 for the win frame, 0.94 for cooperative strategy and 0.94 for competitive strategy, all of which exceeded the minimum requirement of 0.6 suggested by James (1982). The above results substantiated that HLM would be an appropriate method to test our multi-level hypotheses.

H1 and *H2* propose that after controlling for anger emotions raised from the conflict scenario, individuals' positive affects and negative affects will be positively related to their compromise and win frame, respectively. In Table II, Model 1a to Model 2c, we show the differences of the effects of trait affectivity and momentary mood on conflict frame. Model 1a included trait affectivity and anger, Model 1b included momentary mood and anger and Model 1c included trait affectivity, momentary mood and anger. According to Model 1a and Model 1b, positive trait affectivity ($\gamma = 0.32$, $p < 0.01$) and positive momentary mood ($\gamma = 0.11$, $p < 0.01$) are significantly related to compromise frame. Jointly, in Model 1c, positive trait affectivity and positive momentary mood are significantly related to compromise frame (for positive trait affectivity, $\gamma = 0.30$, $p < 0.01$; for positive momentary mood, $\gamma = 0.11$, $p < 0.01$). The results indicate that the manner in which the conflict is recognized and framed depends on the individual and his or her momentary mood. People's mood states – specifically their positive momentary mood – predict how they recognize conflicts. Also, the differences in how individuals perceive conflict can be predicted by trait-level affect. The percentages of variance explained are shown by R^2 in Table II. *H1a* and *H1b* were supported.

In Table II, Model 2a-Model 2c illustrate the results of the same procedures used with Model 1a-Model 1c. After controlling for anger emotions, the models show that none of the effects of negative affects (neither trait affectivity nor negative momentary mood) on win frame were significant. According to Model 2c, negative trait affect was not related to win frame ($\gamma = -0.08$, $p > 0.1$), and momentary mood was negatively related to win frame, which contradicted our expectation ($\gamma = -0.05$, $p > 0.1$). Therefore, *H2a* and *H2b* were not supported.

H3 proposes that after controlling for anger emotions raised by the conflict scenario, the compromise frame will be positively related to the intention to adopt a cooperative conflict strategy. *H4* proposes that after controlling for anger emotions raised by the conflict scenario, the win frame will be positively related to the intention to adopt a competitive conflict strategy. As shown in Table II, comparing Model 3a-Model 4c, we provided models to test the hypotheses. Model 3a and Model 4a included compromise frame, win frame and anger. Model 3b and Model 4b included trait affectivity, momentary mood and anger. Model 3c and Model 4c included all the predictors and anger. The results, shown in Table II, Models 3c and 4c, revealed that the compromise frame significantly and positively predicted the intention to adopt a cooperative conflict strategy ($\gamma = 0.08$, $p < 0.01$) and that the win frame also significantly and positively predicted the intention to adopt a competitive conflict strategy ($\gamma = 0.02$, $p < 0.05$). Therefore, *H3* and *H4* were supported.

To test the mediation effect, we applied an HLM-based multi-level mediation model, Model 1-1-1 and 2-1-1, as suggested by Zhang *et al.* (2009). *H5* proposes that after controlling for anger emotions raised by the conflict scenario, the compromise frame will mediate the relationship between an individual's positive affects and the intention to adopt a cooperative conflict strategy. The results showed that the compromise frame

Table II.
Results of HLM analysis of conflict frame and conflict management

Variables	Compromise frame			Win frame			Cooperative strategy			Competitive strategy		
Dependent variable	Model 1a	Model 1b	Model 1c	Model 2a	Model 2b	Model 2c	Model 3a	Model 3b	Model 3c	Model 4a	Model 4b	Model 4c
Control												
Anger	−0.06**	−0.06**	−0.06**	0.36**	0.35**	0.35**	0.01	0.00	0.01	−0.02*	−0.01	−0.02*
Independent												
Trait PA	0.32**		**0.30****	−0.06		−0.06		0.14**	0.07		0.13**	0.15**
Trait NA	−0.20*		−0.21*	−0.07		**−0.08**		−0.22*	−0.18*		−0.07	−0.06
Momentary PA		0.11**	**0.11****		−0.22**	−0.22**		0.04*	0.03†		0.01	0.02
Momentary NA		−0.07†	−0.08†		−0.05	**−0.05**		−0.01	−0.00		0.02	0.02
Compromise frame							0.08**		**0.08****	−0.02		−0.02
Win frame							−0.00		−0.00	0.02†		**0.02***
R^2	0.15	0.05	0.09	−0.01	0.04	0.03	0.08	0.08	0.17	0.04	0.02	0.06
Model deviance	3,664.13	3,651.71	3,631.78	4,808.73	4,777.27	4,776.03	943.57	1,021.16	923.72	1,982.83	2,016.47	1,975.13

Notes: $n = 1545$ at Level 1; $n = 180$ at Level 2; Entries are estimates of fixed effect with robust standard errors. $^{\dagger}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$. Predictors at Level 1 are group-mean centered; control variables are uncentered. Deviance is a measure of model fit; the smaller the deviance, the better the model fits. R^2 is the proportion of variation in the outcome variable explained by the independent variables, after control variables are inserted. For Models 3a, 3b, 4a and 4b, R^2 is the proportion of variation in the outcome variable explained by the independent variables, after control variables are inserted. For Model 3c/4c, R^2 is the proportion of variation in the outcome variable explained by the additional independent variables from Model 3b/4b; bold significance to hypotheses. Therefore, some of them might be in-significant

did, indeed, mediate the effects of both positive trait affectivity and positive momentary mood on the intention to adopt a cooperative conflict strategy (Sobel $z = 3.43$, $p < 0.001$; $z = 2.86$, $p < 0.01$, respectively). Thus, *H5a* and *H5b* were supported. *H6* proposes that after controlling for anger emotions raised by the conflict scenario, the win frame will mediate the relationship between an individual's negative affects and the intention to adopt a competitive conflict strategy. The results showed that the win frame actually did not mediate the relationship between negative affects and competitive conflict strategy. Therefore, *H6a* and *H6b* were not supported.

Discussion

Conflict is an inevitable feature of social life, but people constantly struggle to discover the best ways to manage conflict situations. Unlike research that assumes purely rational decision-making, recent cognitive approaches suggest that biased cognition and assumptions are the primary causes of suboptimal bargaining strategies and outcomes (Carnevale, 2008; Neale and Bazerman, 1991; Thompson, 2005). Several researchers have argued that affect is one critical piece that has been missing from conflict management research (Barsade and Gibson, 2007). Our study addresses this issue by contributing to the understanding of how affects influence conflict-related cognitive representations (i.e. conflict frames) and how the conflict frames influence people's intentions to adopt a particular conflict management strategy.

Consistent with the findings of previous studies that positive affect leads to positive thoughts and cooperative behavior (Carlson *et al.*, 1988; Forgas, 1995; Isen, 1987), after controlling for anger emotions, this study found that both an individual's positive trait affect and momentary mood lead to adopting a compromise frame and cooperative conflict behavior. This study extends previous theory by examining affect in more detailed and natural ways, at least more natural than a laboratory. We discuss our study contributions and theoretical implications below.

First, this study extends the theory of mood-congruent cognition and the tendency for positive moods to broaden cognition and negative moods to narrow cognition in a conflict (Forgas, 1995; Isen, 1987) and also explains how one's affects predict one's interpretation of a conflict and also predict intended conflict behavior, without manipulating any person's affects. Although mood-influenced cognition has been confirmed in experimental research, where researchers manipulate the participant's affect (Forgas, 1998), in the present study, we measured respondents' actual experienced momentary moods. Despite the lower arousal situation, our study still found evidences of the effects, which indicates that the influence of mood on cognition is robust, especially the influence of the positive mood.

Second, this study extends previous findings by examining trait affects and momentary moods, with emotion controlled, so that the effects could be distinguished. At the state level, by controlling for emotion (i.e. anger, in our study), we found that positive momentary moods have their own distinct and additive validity in predicting conflict frame and intended conflict behavior. At the trait level, we found that positive trait affectivity has its own effect on predicting conflict frame and intended conflict behavior.

Third, this study also demonstrated that conflict frame and conflict management, concurrently, have trait-like and state-like properties. Our results indicate that when

people interpret and handle conflicts, they have stable preferences while also being influenced by their momentary mood and any conflict-induced emotions.

Fourth, this study also contributes to the conflict management research from a methodological perspective. Following the scale development process recommended in Hinkin (1998), we developed a compromise-versus-win conflict frame scale. We found that the compromise frame and the win frame were distinguishable constructs, which differs from previous findings that conceptualized these two frames as bi-polar constructs. This finding may contribute to the conflict-frame field both theoretically and empirically. To our knowledge, there has been no scale measuring the dimension of compromise-versus-win since Pinkley (1990) developed the construct. Devising questionnaires to measure a conceptualized construct may not only validate the construct but also provide future research with a useful instrument.

Finally, an unexpected finding of our study is that neither negative trait affectivity nor negative momentary mood predicts conflict frame and conflict behavior. From a methodological perspective, this non-significant finding might be because the variations of negative affects were low, which might have limited the variable's potential for prediction. From a theoretical perspective, Barsade and Gibson (2007, p. 52) argued that "the meaning and influence of negative affect on organizational life are far more complex". Therefore, how negative affects are related to conflict management may be more complicated than our model could predict. In fact, studies have shown that negative affects can lead people to think in a very detailed and analytic way (Schwarz *et al.*, 1991). Similarly, the mood-as-input model (Martin *et al.*, 1993) suggests that negative moods may serve as a "watch out" signal that induces people to put more effort into thinking. Thus, we call for future research to better model the effects of negative affects in conflict situations.

Limitations and future research directions

Like all research, our study has its limitations. First, the vignette method has been challenged because it could create a social desirability bias, wherein people may fake their responses in the direction of what is generally considered desirable (Jensen-Campbell and Graziano, 2005). However, despite its drawbacks, the vignette method has an advantage over field studies because it is able to control for situational effects that may stem from different conflict episodes. For instance, the vignette method features a consistent situation for all participants and enables us to control for some of the situational effects; it would have been impossible for all participants to experience an identical conflict in a real-life case. In addition, researchers who use the vignette method can more clearly measure disputants' interpretations of a conflict than can researchers conducting a field study, as in a field study, it may be difficult to identify how exactly participants frame their conflicts and evaluate their strategies in a real conflict episode.

Second, common method variance (CMV) may be a concern for this study because all the variables in this study were collected from a single source. Podsakoff *et al.* (2003) suggest that to account for the problem of CMV, researchers should collect data from different sources. However, for the variables in the current study, it would have been less than ideal to ask other raters to assess participants' affect, personality and conflict frames. As the ratings were from the same source, we centered all within-person (Level 1) predictors at the individuals' means to alleviate the CMV concern; centering the

scores relative to the individuals' means eliminates the response tendencies that result from personal characteristics and experiences (Ilies *et al.*, 2006).

Third, one of the coefficients is significant but with a small magnitude. The beta weight of win frame to predict competitive strategy is 0.02, which may be because the reliability of the win frame is not high (0.65). Although the coefficient is significant and our findings are valid, based on the reasoned action theory (Fishbein and Ajzen, 1975) that underlies our model, still we caution our readers to be mindful of the limitations of small beta weights.

Implications for conflict management

This study has several implications for conflict management. Individual negotiators should note that people who exhibit high levels of positive trait affect may communicate better, in the context of a conflict, than people who exhibit low levels of positive trait affect because the former type of person has a positive mindset that encourages seeking conflict resolution and problem-solving. Anyone who targets several individuals for the purpose of negotiation should target individuals who exhibit the greatest positive trait affect. However, if target selection is impossible, then timing is another critical issue. Our study results suggest that negotiators who exhibit high levels of momentary positive mood may also think positively and intend to adopt cooperative conflict behavior. Therefore, negotiators should set up discussions in a polite and friendly way to induce a positive affect in their counterparts or they should choose an opportune time, such as a moment when their counterparts are already in a positive mood, to discuss the conflict.

Team leaders and managers should create a supportive and positive work atmosphere, which would likely strengthen members' positive affects and, thus, facilitate conflict management. Nevertheless, as conflict itself is a trigger for negative emotions (Weiss and Cropanzano, 1996), managers may train their staff to see the bright side of conflict, which would strengthen their positive mindset and help them manage their emotions. Moreover, setting conflict management rules for employees to follow could be another way to buffer against negative emotions. Examples of such rules might include the following: "There shall be no discussion when discussants are in a really bad mood"; "All discussions involving disagreement shall proceed in a peaceful tone"; or "Please bring snacks or sweets to share with discussants during negotiations". Even though such rules may not induce any positive affect, they may compensate for some degree of bad mood.

Conclusion

In sum, affect is an important factor in conflict management. This study shows that the affects participants present in a natural setting influence their conflict frames and conflict strategies. In addition, this study distinguishes the effects of trait affectivity and momentary mood states on participants' cognitive frames and conflict management. To achieve a constructive resolution, people should choose the right person (i.e. an individual with positive trait affectivity) and the right moment (i.e. the individual is in a positive mood state) when communicating disagreements.

Note

1. *Rahim Organizational Conflict Inventory-II, Form C*: Used with permission from the © Center for Advanced Studies in Management. Further use or reproduction of the instrument without written permission is prohibited.

References

Allred, K.G., Mallozzi, J.S., Matsui, F. and Raia, C.P. (1997), "The influence of anger and compassion on negotiation performance", *Organizational Behavior and Human Decision Processes*, Vol. 70 No. 3, pp. 175-187.

Antonioni, D. (1998), "Relationship between the big five personality factors and conflict management styles", *International Journal of Conflict Management*, Vol. 9 No. 4, pp. 336-355.

Bargh, J.A. (1982), "Attention and automaticity in the processing of self-relevant information", *Journal of Personality and Social Psychology*, Vol. 43 No. 3, pp. 425-436.

Barry, B. and Oliver, R.L. (1996), "Affect in dyadic negotiation: a model and propositions", *Organizational Behavior and Human Decision Processes*, Vol. 67 No. 2, pp. 127-143.

Barsade, S.G. and Gibson, D.E. (2007), "Why does affect matter in organizations?", *The Academy of Management Perspectives*, Vol. 21 No. 1, pp. 36-59.

Bauer, D.J., Preacher, K.J. and Karen, M.G. (2006), "Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: new procedures and recommendations", *Psychological Methods*, Vol. 11 No. 2, pp. 142-163.

Bazerman, M.H., Curhan, J.R., Moore, D.A. and Valley, K.L. (2000), "Negotiation", *Annual Review of Psychology*, Vol. 51 No. 1, pp. 279-314.

Bell, C. and Song, F. (2005), "Emotions in the conflict process: an application of the cognitive appraisal model of emotions to conflict management", *The International Journal of Conflict Management*, Vol. 16 No. 1, pp. 30-54.

Blake, R.R., Mouton, J.S., Barnes, L.B. and Greiner, L.E. (1964), "Breakthrough in organization development", *Harvard Business Review*, Vol. 42 No. 6, pp. 133-155.

Bower, G.H. (1981), "Mood and memory", *American Psychologist*, Vol. 36 No. 2, pp. 129-148.

Bryk, A.S. and Raudenbush, S.W. (1992), *Hierarchical Linear Models*, Sage, Newbury Park, CA.

Callanan, G.A., Benzing, C.D. and Perri, D.F. (2006), "Choice of conflict-handling strategy: a matter of context", *The Journal of Psychology*, Vol. 140 No. 3, pp. 269-288.

Carlson, M., Charlin, V. and Miller, N. (1988), "Positive mood and helping behavior: a test of six hypotheses", *Journal of Personality and Social Psychology*, Vol. 55 No. 2, pp. 211-229.

Carnevale, P.J. (2008), "Positive affect and decision frame in negotiation", *Group Decision and Negotiation*, Vol. 17 No. 1, pp. 51-63.

Carnevale, P.J.D. and Isen, A.M. (1986), "The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation", *Organizational Behavior and Human Decision Processes*, Vol. 37 No. 1, pp. 1-13.

Clark, L.A. and Watson, D. (1991), "Tripartite model of anxiety and depression: psychometric evidence and taxonomic implication", *Journal of Abnormal Psychology*, Vol. 100 No. 3, pp. 316-336.

Cohen, S., Doyle, W.J., Skoner, D.P., Fireman, P., Gwaltney, J.M., Jr and Newsom, J.T. (1995), "State and trait negative affect as predictors of objective and subjective symptoms of respiratory viral infections", *Journal of Personality and Social Psychology*, Vol. 68 No. 1, pp. 159-169.

Derryberry, D. and Tucker, D.M. (1994), "Motivating the focus of attention", in Niedenthal, P.M. and Kitayama, S. (Eds), *The Heart's Eye: Emotional Influences in Perception and Attention*, Academic Press, San Diego, CA, pp. 167-196.

Desivilya, H.S. and Yagil, D. (2005), "The role of emotions in conflict management: the case of work teams", *International Journal of Conflict Management*, Vol. 16 No. 1, pp. 55-69.

Deutsch, M. (1973), *The Resolution of Conflict: Constructive and Destructive Processes*, Yale University Press, New Haven, CT.

Diener, E. and Larsen, R.J. (1984), "Temporal stability and cross-situational consistency of affective, behavioral, and cognitive responses", *Journal of Personality and Social Psychology*, Vol. 47 No. 4, pp. 871-883.

Easterbrook, J.A. (1959), "The effect of emotion on cue utilization and the organization of behavior", *Psychological Review*, Vol. 66 No. 3, pp. 183-201.

Emmons, R.A. (1989), "The personal striving approach to personality", in Pervin, L.A. (Ed.), *Goal Concepts in Personality and Social Psychology*, Erlbaum, Hillsdale, NJ, pp. 87-126.

Epstein, S. (1983), "Aggregation and beyond: some basic issues on the prediction of behavior", *Journal of Personality*, Vol. 51 No. 3, pp. 360-392.

Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.

Fiske, S.T. and Taylor, S.E. (1991), *Social Cognition*, Mcgraw-Hill Book Company, New York, NY.

Fleeson, W. (2001), "Toward a structure- and process- integrated view of personality: traits as density distributions of states", *Journal of Personality and Social Psychology*, Vol. 80 No. 6, pp. 1011-1027.

Fleeson, W. and Gallagher, P. (2009), "The implications of big five standing for the distribution of trait manifestation in behavior: fifteen experience-sampling studies and a meta-analysis", *Journal of Personality and Social Psychology*, Vol. 97 No. 6, pp. 1097-1114.

Forgas, J.P. (1995), "Mood and judgment: the affect infusion model (AIM)", *Psychological Bulletin*, Vol. 117 No. 1, pp. 39-66.

Forgas, J.P. (1998), "On feeling good and getting your way: mood effects on negotiator cognition and bargaining strategies", *Journal of Personality and Social Psychology*, Vol. 74 No. 3, pp. 565-577.

Forgas, J.P. (2000), *Feeling and Thinking: The Role of Affect in Social Cognition*, Cambridge University Press, New York, NY.

Forgas, J.P. (2001), *Handbook of Affect and Social Cognition*, Lawrence Erlbaum, Mahwah, NJ.

Forgas, J.P. (2006), *Affect in Social Thinking and Behavior*, Psychology Press, New York, NY.

Friedman, R., Chi, S.C. and Liu, L.A. (2006), "An expectancy model of Chinese–American differences in conflict-avoiding", *Journal of International Business Studies*, Vol. 37 No. 1, pp. 76-91.

Gelfand, M.J., Nishii, L.H., Holcombe, K.M., Dyer, N., Ohbuchi, K.I. and Fukuno, M. (2001), "Cultural influences on cognitive representations of conflict: interpretations of conflict episodes in the United States and Japan", *Journal of Applied Psychology*, Vol. 86 No. 6, pp. 1059-1074.

George, J.M. (1992), "The role of personality in organizational life: issues and evidence", *Journal of Management*, Vol. 18 No. 2, pp. 185-213.

Graziano, W.G. and Eisenberg, N.H. (1997), "Agreeableness: a dimension of personality", in Hogan, R., Johnston, J. and Briggs, S. (Eds), *Handbook of Personality Psychology*, Academic Press, San Diego, CA, pp. 795-824.

Graziano, W.G., Jensen-Campbell, L.A. and Hair, E.C. (1996), "Perceiving interpersonal conflict and reacting to it: the case for agreeableness", *Journal of Personality and Social Psychology*, Vol. 70 No. 4, pp. 820-835.

Hofmann, D.A. and Gavin, M.B. (1998), "Centering decisions in hierarchical linear models: implications for research in organizations", *Journal of Management*, Vol. 24 No. 5, pp. 623-641.

Hinkin, T.R. (1998), "A brief tutorial on the development of measures for use in survey questionnaires", *Organizational Research Methods*, Vol. 1 No. 1, pp. 104-121.

Ilies, R. and Judge, T.A. (2002), "Understanding the dynamic relationships among personality, mood, and job satisfaction: a field experience sampling study", *Organizational Behavior and Human Decision Processes*, Vol. 89 No. 2, pp. 1119-1139.

Ilies, R., Scott, B.A. and Judge, T.A. (2006), "The interactive effects of personal traits and experienced states on intraindividual patterns of citizenship behavior", *Academy of Management Journal*, Vol. 49 No. 3, pp. 561-575.

Isen, A. (1987), "Positive affect, cognitive processes and social behavior", in Berkowitz, L. (Ed.), *Advances in Experimental Social Psychology*, Academic Press, San Diego, CA, pp. 203-253.

Isen, A.M. (1999), "Positive affect", *Handbook of Cognition and Emotion*, Wiley, New York, NY.

Isen, A.M. (2000), "Positive affect and decision making", in Lewis, M. and Haviland-Jones, J.M. (Eds), *Handbook of Emotions*, 2nd ed., Guilford Press, New York, NY, pp. 417-435.

Isen, A.M., Daubman, K.A. and Nowicki, G.P. (1987), "Positive affect facilitates creative problem solving", *Journal of Personality and Social Psychology*, Vol. 52 No. 6, pp. 1122-1131.

Isen, A.M. and Geva, N. (1987), "The influence of positive affect on acceptable level of risk: the person with a large canoe has a large worry", *Organizational Behavior and Human Decision Processes*, Vol. 39 No. 2, pp. 145-154.

Isen, A.M., Johnson, M.M., Mertz, E. and Robinson, G.F. (1985), "The influence of positive affect on the unusualness of word associations", *Journal of Personality and Social Psychology*, Vol. 48 No. 6, pp. 1413-1426.

James, L.R. (1982), "Aggregation bias in estimates of perceptual agreement", *Journal of Applied Psychology*, Vol. 67 No. 2, pp. 219-229.

Jehn, K.A. (1995), "A multimethod examination of the benefits and detriments of intragroup conflict", *Administrative Science Quarterly*, Vol. 40 No. 2, pp. 256-282.

Jehn, K.A. (1997), "A qualitative analysis of conflict types and dimensions in organizational groups", *Administrative Science Quarterly*, Vol. 42 No. 3, pp. 530-557.

Jensen-Campbell, L.A. and Graziano, W.G. (2005), "Methodologies for studying personality processes in interpersonal conflict", *International Negotiation*, Vol. 10 No. 1, pp. 165-182.

Krull, J.L. and MacKinnon, D.P. (2001), "Multilevel modeling of individual and group level mediated effects", *Multivariate Behavioral Research*, Vol. 36 No. 2, pp. 249-277.

Lazarus, R.S. (1991), *Emotion and Adaptation*, Oxford University Press, New York, NY.

Lelieveld, G.J., Van Dijk, E., Van Beest, I. and Van Kleef, G.A. (2012), "Why anger and disappointment affect other's bargaining behavior differently: the moderating role of power and the mediating role of reciprocal and complementary emotions", *Personality and Social Psychology Bulletin*, Vol. 38 No. 9, pp. 1209-1221.

Liao, H., Joshi, A. and Chuang, A. (2004), "Sticking out like a sore thumb: employee dissimilarity and deviance at work", *Personnel Psychology*, Vol. 57 No. 4, pp. 969-1000.

Lyubomirsky, S., King, L. and Diener, E. (2005), "The benefits of frequent positive affect: does happiness lead to success?", *Psychological Bulletin*, Vol. 131 No. 6, pp. 803-855.

McGrath, J. (1982), "Evidence for more than one type of post-junctional alpha-adrenoceptor", *Biochemical Pharmacology*, Vol. 31 No. 4, pp. 467-484.

Martin, L.L., Ward, D.W., Achee, J.W. and Wyer, R.S. (1993), "Mood as input: people have to interpret the motivational implications of their moods", *Journal of Personality and Social Psychology*, Vol. 64 No. 3, pp. 317-326.

Mayer, J.D., Gaschke, Y.N., Braverman, D.L. and Evans, T.W. (1992), "Mood-congruent judgment is a general effect", *Journal of Personality and Social Psychology*, Vol. 63 No. 1, pp. 119-132.

Moberg, P.J. (2001), "Linking conflict strategy to the five-factor model: theoretical and empirical foundations", *International Journal of Conflict Management*, Vol. 12 No. 1, pp. 47-68.

Montes, C., Rodriguez, D. and Serrano, G. (2012), "Affective choice of conflict management styles", *International Journal of Conflict Management*, Vol. 23 No. 1, pp. 6-18.

Neale, M.A. and Bazerman, M.H. (1991), *Cognition and Rationality in Negotiation*, Free Press, New York, NY.

Neale, M. and Northcraft, G. (1991), "Factors influencing organizational commitment", in Steers, R.M. and Porter, L.W. (Eds), *Motivation and Work Behavior*, 5th ed., McGraw-Hill, New York, NY, pp. 290-297.

Ohbuchi, K. and Suzuki, M. (2003), "Three dimensions of conflict issues and their effects on resolution strategies in organizational settings", *International Journal of Conflict Management*, Vol. 14 No. 1, pp. 61-73.

Park, H. and Antortioni, D. (2007), "Personality, reciprocity, and strength of conflict resolution strategy", *Journal of Research in Personality*, Vol. 41 No. 1, pp. 110-125.

Pillutla, M.M. and Murnighan, J.K. (1996), "Unfairness, anger, and spite: emotional rejections of ultimatum offers", *Organizational Behavior and Human Decision Processes*, Vol. 68 No. 3, pp. 208-224.

Pinkley, R.L. (1990), "Dimensions of conflict frame: disputant interpretations of conflict", *Journal of Applied Psychology*, Vol. 75 No. 2, pp. 117-126.

Pinkley, R.L. and Northcraft, G.B. (1994), "Conflict frames of reference: implications for dispute processes and outcomes", *Academy of Management Journal*, Vol. 37 No. 1, pp. 193-205.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

Pruitt, D.G. (1981), *Negotiation Behavior*, Academic Press, New York, NY.

Pruitt, D.G. and Carnevale, P.J. (1993), *Negotiation in Social Conflict*, Thomson Brooks, Cole Publishing, CA.

Rahim, M.A. (1983), "A measure of styles of handling interpersonal conflict", *Academy of Management Journal*, Vol. 26 No. 2, pp. 368-376.

Rahim, M.A. (2002), "Toward a theory of managing organizational conflict", *International Journal of Conflict Management*, Vol. 13 No. 3, pp. 206-235.

Raudenbush, S.W., Bryk, A.S. and Congdon, R. (2002), *Hierarchical Linear Modeling: Application and Data Analysis Methods*, Sage Publications, Thousand Oaks, CA.

Renwick, P.A. (1975), "Perception and management of superior-subordinate conflict", *Organizational Behavior and Human Performance*, Vol. 13 No. 3, pp. 444-456.

Rhoades, J.A., Arnold, J. and Jay, C. (2001), "The role of affective traits and affective states in disputants' motivation and behavior during episodes of organizational conflict", *Journal of Organizational Behavior*, Vol. 22 No. 3, pp. 329-345.

Schimmack, U. and Diener, E. (1997), "Affect intensity: separating intensity and frequency in repeatedly measured affect", *Journal of Personality and Social Psychology*, Vol. 73 No. 6, pp. 1313-1329.

Schwarz, N. (1990), "Feelings as information: informational and motivational functions of affective states", in Higgins, E.T. and Sorrento, R. (Eds), *Handbook of Motivation and Cognition*, Guilford Press, New York, NY, pp. 527-561.

Schwarz, N., Bless, H. and Bohner, G. (1991), "Mood and persuasion: affective states influence the processing of persuasive communications", *Journal of Advances in Experimental Social Psychology*, Vol. 24, pp. 161-199.

Schweitzer, M.E. and DeChurch, L.A. (2001), "Linking frames in negotiations: gains, losses and conflict frame adoption", *International Journal of Conflict Management*, Vol. 12 No. 2, pp. 100-113.

Schweitzer, M.E., DeChurch, L.A. and Gibson, D.E. (2005), "Conflict frames and the use of deception: are competitive negotiators less ethical?", *Journal of Applied Social Psychology*, Vol. 35 No. 10, pp. 2123-2149.

Sheppard, B., Blumenfeld-Jones, K. and Roth, J. (1989), "Informal third partyship: studies of everyday conflict intervention", in Kressel, K., Pruitt, D.G. (Eds), *Mediation Research: The Process and Effectiveness of Third-Party Intervention*, Jossey-Bass, San Francisco, CA, pp. 166-189.

Swann, W.B. and Read, S.J. (1981), "Self-verification processes: how we sustain our self-conceptions", *Journal of Experimental Social Psychology*, Vol. 17 No. 4, pp. 351-372.

Swann, W.B., Stein-Seroussi, A. and Giesler, R.B. (1992), "Why people self-verify", *Journal of Personality and Social Psychology*, Vol. 62 No. 3, pp. 392-401.

Tellegen, A. (1985), "Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report", in Tuma, A.H. and Maser, J.D. (Eds), *Anxiety and the Anxiety Disorders*, Lawrence Erlbaum, Hillsdale, NJ.

Thomas, K.W. (1976), "Conflict and conflict management", in Dunnette, M.D. (Ed.), *Handbook of Industrial and Organizational Psychology*, Consulting Psychologists Press, Palo Alto, CA, pp. 889-935.

Thomas, K.W. (1992), "Conflict and conflict-management: reflections and update", *Journal of Organizational Behavior*, Vol. 13 No. 3, pp. 265-274.

Thomas, K.W. and Pondy, L.R. (1977), "Toward an 'intent' model of conflict management among principal parties", *Human Relations*, Vol. 30 No. 12, pp. 1089-1102.

Thomas, K.W. and Schmidt, W.H. (1976), "A survey of managerial interests with respect to conflict", *Academy of Management Journal*, Vol. 19 No. 2, pp. 315-318.

Thompson, L. (2005), *The Mind and Heart of the Negotiator*, Prentice Hall, Upper Saddle River, NJ.

Tjosvold, D. (2006), "Defining conflict and making choices about its management: lighting the dark side of organizational life", *International Journal of Conflict Management*, Vol. 17 No. 2, pp. 87-95.

Trapnell, P.D. and Wiggins, J.S. (1990), "Extension of the interpersonal adjective scales to include the big five dimensions of personality", *Journal of Personality and Social Psychology*, Vol. 59 No. 4, pp. 781-790.

Van Kleef, G.A., Van Dijk, E., Steinel, W., Harinck, F. and Van Beest, I. (2008), "Anger in social conflict: cross-situational comparisons and suggestions for the future", *Group Decision and Negotiation*, Vol. 17 No. 1, pp. 13-30.

Watson, D. and Clark, L.A. (1984), "Negative affectivity: the disposition to experience aversive emotional states", *Psychological Bulletin*, Vol. 96 No. 3, pp. 465-490.

Watson, D., Clark, L.A. and Tellegen, A. (1988), "Development and validation of brief measures of positive and negative affect: the PANAS scales", *Journal of Personality and Social Psychology*, Vol. 54 No. 6, pp. 1063-1070.

Watson, D. and Tellegen, A. (1985), "Toward a consensual structure of mood" *Psychological Bulletin*, Vol. 98 No. 2, pp. 219-235.

Weiss, H.M. and Cropanzano, R. (1996), "Affective events theory: a theoretical discussion of the structure, causes and consequences of affective experiences at work", in Staw, B.M. and Cummings, L.L. (Eds), *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Reviews*, JAI Press, Greenwich, CT, pp. 1-74.

Wen, F.H. and Chiou, H.J. (2009), "Methodology of multilevel modeling: the key issues and their solutions of hierarchical linear modeling", *NTU Management Review*, Vol. 19 No. 2, pp. 263-293.

Zhang, Z., Zyphur, M.J. and Preacher, K.J. (2009), "Testing multilevel mediation using hierarchical linear models problems and solutions", *Organizational Research Methods*, Vol. 12 No. 4, pp. 695-719.

Further reading:

Barki, H. and Hartwick, J. (2004), "Conceptualizing the construct of interpersonal conflict", *International Journal of Conflict Management*, Vol. 15 No. 3, pp. 216-244.

Grawitch, M.J. and Munz, D.C. (2005), "Individual and group affect in problem-solving workgroups", in Hartel, C.E.J., Zerbe, W.J. and Ashkanasy, N.M. (Eds), *Emotions in Organizational Behavior*, Lawrence Erlbaum, Mahwah, NJ, pp. 119-142.

Hofmann, D.A. (1997), "An overview of the logic and rationale of hierarchical linear models", *Journal of Management*, Vol. 23 No. 6, pp. 723-744.

Hofmann, D.A., Griffin, M.A. and Gavin, M.B. (2000), "The application of hierarchical linear modeling to organizational research", in Klein, K.J. and Kozlowski, S.W. (Eds), *Multilevel Theory, Research, and Methods in Organizations*, Jossey-Bass, San Francisco, CA, pp. 467-511.

Hogan, R., Johnson, J. and Briggs, S. (1997), *Handbook of Personality Psychology*, Academic Press, London.

March, J.G. and Simon, H.A. (1958), *Organizations*, Wiley, New York, NY.

Pinkley, R.L. (1992), "Dimensions of conflict frame: relation to disputant perceptions and expectations", *International Journal of Conflict Management*, Vol. 3 No. 2, pp. 95-113.

Tversky, A. and Kahneman, D. (1981), "The framing of decisions and the psychology of choice", *Science*, Vol. 211 No. 4481, pp. 453-458.

Appendix 1

Scenarios in the present study

(1) In my team, there is seldom a group-meeting time for group assignments. People always have to attend to private matters, such as part-time jobs and appointments. (Day 1)

(2) In my team, some people do not know about the group work because they seldom come to class or do not actively pose questions about group work. (Day 2, Day 11)

(3) In my team, some members are absent from class. Their assignments are often incomplete or late. (Day 3)

(4) In my team, some members spend little time on the group assignments. (Day 4)

(5) In my team, some members may have an opposing opinion that they keep to themselves during the discussion time. Only when the group meeting has finished do they present their opinion. (Day 5, Day 12)

(6) In my team, some members do not want to do their fair share of the work, forcing extra work on other members. Thus, members start feeling ill at ease. (Day 6)

(7) In my team, some members often forget to do group work. Thus, almost all the group work has to be done by one or two group members. (Day 7)

(8) In my team, some members think that other members will do all the group work. Thus, this behavior causes work to be submitted at the last minute prior to the deadline. (Day 8)

(9) In my team, members do not tolerate different opinions. Consequently, no one wants to finish the team assignment. (Day 9)

(10) In my group, some members avoid doing group work by, for example, complaining that the group work, as assigned, cannot possibly be done. (Day 10)

Appendix 2

Measurement of conflict frame

How do you interpret this conflict? I think this is a conflict in which […]:

(1) Win frame:
- One party is right but the other party is wrong.
- One party should be blamed.
- One party is the victim.

(2) Compromise frame:
- Mutual agreement is needed to solve the problem.
- The ending will be a satisfactory solution coming from both parties.
- Mutual compromise is needed to solve the issue.

About the authors

Mei-Yu Yang is an Assistant Professor in the Department of Business Administration, Chihlee Institute of Technology in Taiwan. Her research interests mainly focus on workplace conflict management, leadership and affectivity in group dynamics. She received her PhD from National Taiwan University. Mei-Yu Yang is the corresponding author and can be contacted at: caty@mail.chihlee.edu.tw

Fei-Chun Cheng is an Assistant Professor in the Department of Business Administration at the Yuanpei University, Taiwan. She received her PhD from the National Chiao Tung University. Her research interests focus on leadership, communication and service management.

Aichia Chuang is Outstanding Research/Teaching Scholar at the National Taiwan University in Taiwan, where she is a Professor of Organizational Behavior and Human Resource Management in the Department of Business Administration. She received her PhD from the University of Minnesota. Her research interests focus on inclusion (person–environment fit and diversity), leadership, multi-level theories and methods, cross-cultural management and service climate and service performance.