# Assessing the Relationship Between Conflict-Type and Emotions in Top Management Teams: An Attributions Perspective Within the Context of Strategic Decision-Making

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This study identifies why conflict reactions vary, focusing on the role attributions play on the relationship between conflict and anger within executive teams. Two attributions were examined: intentionality and controllability. Intentionality was a significant moderator between cognitive conflict and anger, whereas controllability marginally moderated the relationship between affective conflict and anger. These findings provide further evidence that attributions about the actions or comments of an individual can contribute to subsequent conflict. They also help understand prior mixed results about conflict effects. Cognitive conflict had a favorable outcome when it was attributed as being constructive and dysfunctional when attributed as destructive.

#### INTRODUCTION

Conflict is considered a multi-dimensional and highly emotional construct conveying both constructive and destructive overtones (Allred, 1999; Amason, 1996; Baron, 1991). Many academicians and practicing managers encourage conflict within a decision-making context because of the belief that conflict will lead to higher quality decisions (Amason, 1996; Eisenhardt, 1989; Foxworthy, 2011; Jehn & Mannix, 2001; Pondy, 1992). However, these higher quality decisions may come at the expense of member commitment as a direct result of the conflict, which may also foster acrimonious relationships among team members (Amason, 1996; Amason & Schweiger, 1994). These paradoxical effects can occur among teams at any level of the organization; however, it is extremely important to consider these effects at an organization's highest level of decision-making authority, i.e. the top management team, because the strategic decisions made by a top management team will have significant influence on an organization's performance and long-term value (Mankins & Steele, 2006; Simons, Pelled, & Smith, 1999). If the top management team is incapable of working together, e.g. if emotions impede team cohesiveness causing members to get derailed with dysfunctional forms of conflict, the strategic success of the organization may be jeopardized (Eisenhardt, Kahwajy, & Bourgeois III, 1997; Hambrick, 1987).

While numerous forms of conflict have been identified by researchers (e.g. goal, interest, value, process, affective, cognitive, intrapersonal, intragroup, intergroup) (Jehn & Mannix, 2001; Rahim, 1986; Weider-Hatfield & Hatfield, 1995), conflict has essentially been abridged into two primary types: a) cognitive (i.e. task-focused), and b) affective (i.e. relationship-focused) based on its perceived utility to an organization (Amason, Thompson, Hochwarter, & Harrison, 1995; Jehn, 1997). Cognitive conflict is considered functional to an organization because it inspires creativity and innovation, allows multiple viewpoints to be openly discussed, and prevents negative behaviors such as groupthink (Amason, 1996;

Jehn, 1997; Peterson & Behfar, 2003). However, a threshold beyond which cognitive conflict ceases to have functional effects appears to exist, i.e. higher levels of cognitive conflict may yield negative consequences (Jehn, 1995). Affective conflict is considered dysfunctional and detrimental because it is extremely emotional and personalized, promoting distrust, dislike, and lack of receptiveness to other's ideas (Amason et al., 1995; Jehn, 1995; Jehn & Mannix, 2001; Mooney, Holahan, & Amason, 2007). Within teams, dysfunctional conflict is likely to arise when one member attributes another's actions or comments as personal criticism, or simply when interpersonal compatibilities exist among members (Amason, 1996; Jehn, 1995).

Top management teams are, by composition, demographically and technically diverse (e.g. member functional backgrounds, experience, age, tenure, cognitions) (Knight et al., 1999; Yukl, 2006). If top management teams hope to gain from the benefits of this diversity, e.g. increased innovation and decision comprehensiveness (Bantel & Jackson, 1989; Simons et al., 1999), then team members must embrace conflict by becoming behaviorally engaged in debate over task-related differences and supporting conflicting approaches during decision-making processes (Simons et al., 1999). However, conflict episodes are complex and require an understanding of emotions and subsequent individual attributions. particularly within a strategic decision-making context (Eisenhardt & Zbaracki, 1992). The key to effective decision-making is not as simple as instigating conflict within the team as conflict's effects can be inconsistent in that they may simultaneously lead to both functional and dysfunctional consequences, dependent upon numerous factors such as conflict-type, emotions, and issue interpretation (Amason & Schweiger, 1994; De Dreu & Weingart, 2003; Jehn & Mannix, 2001) (Shook, Payne, & Voges, 2005).

People's reactions to conflict can vary significantly, from increased creativity and improved decision quality, to increased impediments to rational thinking during a decision-making process and other acts that are generally hurtful to others (Baron, 1991; Estrada, Isen, & Young, 1994; Kopelman, Rosette, & Thompson, 2006; Muchinsky, 2000; Thomas, 1992). These reactions can be exacerbated if an individual misattributes cognitive conflict as a form of affective conflict (Pelled, 1996). The idea that cognitive conflict should be encouraged while avoiding affective conflict (Amason & Schweiger, 1994) is certainly logical; however, that may be harder to achieve in practice because cognitive conflict may lead to affective conflict (Mooney et al., 2007). Conflict, by its very nature, is among the most emotionally arousing phenomena and it is the felt emotions, e.g. anger, that make conflict particularly uncomfortable (Baron, 1991; Bodtker & Jameson, 2001; Thomas, 1992). It is the anger emotion which researchers underscore as a primary contributor to the dysfuctional effects associated with conflict (Amason et al., 1995; Desivilya & Yagil, 2005; Jehn, 1997). However, every emotion has the potential to be positive, negative, or both, depending on the context since each emotion has idiosyncratic meaning, varying sources of causality and subjective experiences attributed to it, which lead to varying inclinations to act (Lazarus, 2003). Thus, it is apparent that there is a need to understand the role attributions play on the relationship between conflict-type and emotions. This study addresses that need by focusing on these relationships within the context of an actual conflict episode experienced by top management team members during their most recent strategic decision-making processes.

In order to understand the effects of cognitive- and affective-conflict and the subsequent emotional effects within a top management team, it is important to ascertain what the individuals involved in the conflict believed to be its cause (Keaveney, 2008). Emotions experienced during episodes of conflict are often negative though they may at times be positive or neutral (Jackson, 1992). Thus, a person's experienced emotion often depends upon the explanation that has been attributed to it (Kelley & Michela, 1980). Thus, the primary question addressed in this study asks: How do individual attributions moderate the relationship between conflict-type and emotions? In particular, this study focuses on the emotion of anger since this emotion occurs most frequently during a conflict episode (Allred, 1999). Furthermore, it is within the sphere of discrete emotions where emotional work experiences can best be understood, predicted, and have a vital influence on organizational behavior (Ashkanasy, Hartel, & Daus, 2002; Forgas, 2002).

## THEORY AND HYPOTHESES

## **Emotions Within the Context of Conflict**

Kleinginna and Kleinginna (1981, p. 355) define emotions as a "complex set of interactions among subjective and objective factors, mediated by neural-hormonal systems which can (a) give rise to affective experiences such as feelings of arousal, pleasure/displeasure; (b) generate cognitive processes such as emotionally relevant perceptual effects, appraisals, labeling processes; (c) activate widespread physiological adjustments to the arousing conditions; and (d) lead to behavior that is often, but not always, expressive, goal-directed, and adaptive." In short, emotions are intense feelings brought about by some contextual stimulus and typically directed at someone or something (Frijda, 1993; Kopelman et al., 2006).

Three components of emotional experience include: 1) behavioral/communicative component, which consists of the way emotional experiences get expressed through verbal and nonverbal cues, 2) physiological component, comprised of the way emotion makes an individual feel, and 3) cognitive component, which stresses the role of the mind in appraising a situation in a explicit manner which in turn makes a person feel a particular emotional state (Bodtker & Jameson, 2001). Perhaps the most dominant emotion experienced during a conflict episode is that of anger (Allred, 1999; Fitness, 2000). A review of research on the role of anger in conflict reveals mixed findings, i.e. anger may elicit positive (increased cooperation), negative (increased competition), or no (neutral) effects (Friedman et al., 2004; Geddes & Callister, 2007; van Kleef, van Dijk, Steinel, Harinck, & van Beest, 2008). However, anger towards others has generally been associated with negative outcomes (Allred, 1999; Fitness, 2000; van Kleef et al., 2008).

#### Attribution Inferences

Attribution theory addresses the domains of both perception and motivation and these domains need not be mutually exclusive (Martinko, 1995). An individual's behavior and emotions can be attributionally dependent and may vary based upon whether self or other is to blame (Howard, 1993; Martinko, Gundlach, & Douglas, 2002; Ployhart, Ehrhart, & Hayes, 2005; Thoits, 1989). Therefore, the consequences of attributional inferences can affect both an individual's emotions and behavior (Weiner, 1985).

Attribution theory is an appropriate theoretical lens by which to scrutinize cognitive- and affective-conflict and emotions in teams and is based on the premise of perceived causation, i.e. people attempt to understand behavior in terms of its causes, which begets subsequent emotional reactions of the observer (Betancourt & Blair, 1992; Kelley & Michela, 1980; Martinko, 1995). Two widely accepted causal dimensions include: a) intentionality (i.e. the extent to which another individual intended to engage in a particular behavior), and b) controllability (i.e. extent to which the cause of behavior is within an individual's control) (Kent & Martinko, 1995b). "Intentionality is most relevant to attributions for the actions of others" (Martinko, 1995, p. 10).

Interpreting another individual's behavior involves the cognitive assessment of three factors: 1) distinctiveness, i.e. the degree to which behavior varies or is the same across situations, 2) consensus, i.e. the degree to which others would behave as the observed individual in like circumstances, and 3) consistency, i.e. the degree to which the individual responds in the same way over time (Kelley, 1972). Although causal inferences can be made in response to both positive and negative events, attributions are most likely to occur with negative events or when outcomes are disappointing, unexpected, or important (Martinko, Harvey, & Douglas, 2007; Weiner, 1985; Wong & Weiner, 1981). While the outcome of conflict is typically considered important, individuals are more likely to consider increased levels of conflict as a negative event, and it is the negative events that are most associated with attributional analysis (Taylor, 1991). Mooney et al., (2007) suggest that higher levels of cognitive conflict are bad because individuals attribute this as a form of personal criticism or political maneuvering, thereby confusing cognitive conflict as affective conflict.

Attribution Consequences: Anger

The anger emotion is closely related to the causal dimensions of intentionality and controllability (Betancourt & Blair, 1992; Weiner, 1985; Weiner, Graham, & Chandler, 1982). When conflicting behavior between individuals becomes relational and emotionally charged, it can have negative effects on the parties involved, particularly for the one who has taken the conflict as a personal criticism as is a common occurrence during episodes of affective or high levels of cognitive conflict (Jehn, 1995; Parayitam & Dooley, 2009). The characteristics of these forms of conflict can thus be considered negative, disappointing, and perhaps even unexpected and important, causing the recipient of this conflict type to engage in attributional analysis, particularly if the person with whom an individual is in conflict with is considered close (Fincham & Bradbury, 1987). In the case of both cognitive- and affectiveconflict, behaviors that are different or unusual, in discord relative to how others would behave in similar situations, or inconsistent relative to an individual's own behavior in similar historical situations should increase the extent to which an individual will increase their attempt to assess whether another's actions were intentional and within their control (Kelley & Michela, 1980).

Assessing the intention of another person's behavior is one way that people make sense of another's actions and it is particularly relevant during conflict episodes (Dasborough & Ashkanasy, 2002; Martinko, 1995; Thomas, 1992). Actions seen as intentional by a person are judged differently from actions that were deemed unintentional, i.e., more outward blame will be assigned to actions considerd as negative and intentional (Gibson & Schroeder, 2003; Kelley & Michela, 1980). Attributing a person's negative actions to harmful intention (e.g. purposeful thwarting of another's goals or undermining of another's viewpoints) heightens an individual's emotional sensitivity producing feelings of anger and resentment towards others (Crossley, 2006; Harvey & Dasborough, 2006; Kelley & Michela, 1980). However, if an individual concludes that another's actions were unintentional, this would reduce the likelihood of responding aggressively toward the other individual (Allred, 1999; Betancourt & Blair, 1992; De Castro, Veerman, Koops, Bosch, & Monshouwer, 2002; Isen, 2001; Matthews & Norris, 2002). Thus, the following hypotheses are put forth:

H1: The influence of conflict-type on emotions amon top management team members is moderated by an individual's attributional inferences such that:

H1a: Destructive intent positively moderates the relationship between cognitive conflict and anger towards others, whereas constructive intent negatively moderates the relationship between cognitive conflict and anger towards others.

H1b: Destructive intent positively moderates the relationship between affective conflict and anger towards others, whereas constructive intent negatively moderates the relationship between affective conflict and anger towards others.

It is anger that is derived from interpersonal attributions that many conflict researchers refer to when they surmise that affective conflict leads to dysfunctional organizational consequences (Amason, 1996; Mooney & Sonnenfeld, 2001; Shook et al., 2005). Since the effects of affective conflict are generally regarded as negative and often seen as hostile personal criticism within a top management team (Amason, 1996; Jehn, 1995), and because higher levels of cognitive conflict can lead to affective conflict (Mooney et al., 2007), these types of conflict can also trigger an individual's tendency to engage in attributional analysis, i.e. individuals will have an innate desire to establish responsibility by making attributions of control (Kelley & Michela, 1980).

Ascription of responsibility assigned to someone else for acts that were within their control often equate to ascriptions of blame and this too can lead to intense anger, particularly when the consequences of someone else's actions have hindered or thwarted the goal attainment of another (Gibson & Schroeder, 2003; Weiner, 1985, 1995). In these circumstances, anger is directed at the other (offending) person, i.e. it is an interpersonal response, which can elicit anti-social responses (Weiner, 2000). Thus, one experiences greater outwardly directed anger to the extent that one attributes another's behavior as being negative, hostile, and within that person's control (Allred, 1995). It follows then, that one would expect less outwardly directed anger if one attributes another's comments/actions as being beyond their control, such as when another is put in a position to have to voice their opinion at a given moment rather than hold their comments for a one-to-one discussion (Baron, 1988). This would be particularly so if one was to acknowledge that there was some semblance of truth in the other person's comments, causing one to reflect internally (Weiner, 2000). Thus, the following hypotheses are put forth:

H2: The influence of conflict-type on emotions among top management team members is moderated by an individual's attributional inferences such that:

H2a: Control-Within positively moderates the relationship between cognitive conflict, and other-directed anger; whereas Control-Beyond negatively moderates the relationship between cognitive conflict and anger towards others.

H2b: Control-Within positively moderates the relationship between affective conflict, and other-directed anger; whereas Control-Beyond negatively moderates the relationship between affective conflict and anger towards others.

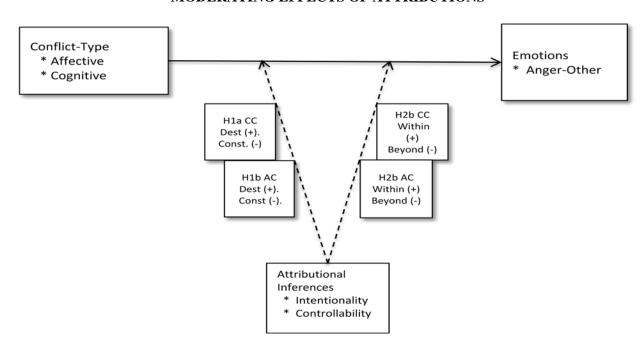


FIGURE 1
MODERATING EFFECTS OF ATTRIBUTIONS

#### **METHODOLOGY**

#### **Participants and Research Design**

One hundred fifty strategic decision-making teams of mid- to large-sized firms operating in the United States in both public and private sector organizations were targeted for participation in the study. Top management team members from eighty four of those firms were willing to take part in the study. However, twenty of those firms were eliminated from the study due to an insufficient number of responses received. Useable survey questionnaires were received from 64 teams, comprising a total of 264 individual responses. The rationale for including top management teams from mid-sized firms is provided by Amason and Mooney (1999) who state that accessibility to top management teams is greater

for mid-sized firms. Since mid-sized firms comprise a majority of organizations in the United States (Hufft, 2008) the probability of obtaining a sample size sufficient for this study was increased.

## **Sampling Procedures**

This study combined probability (e.g. simple random sampling) and nonprobability (e.g. snowball) sampling techniques in order to develop a sample frame. Prospective target firms were identified through local economic development association membership directories, local and state trade associations, local chamber of commerce organizations, and through referral from industry executives. Membership directories that were available online, or made available after discussing the study with association directors and chamber presidents, were screened to exclude family-owned businesses and soleproprietorships. Once target firms were identified, participants were selected using a simple random number generator in Microsoft Excel.

#### **Survey Procedures**

Data collection occurred in phases as outlined by numerous researchers (Amason & Mooney, 1999; Olson & Parayitam, 2007; Parayitam & Dooley, 2009). During the first phase of data collection, phone calls were placed to the chief executive officer (CEO, or equivalent title), who received a brief description of the research. After discussing the study with the CEO, a request for their participation in the research was made. Additionally, CEO's were asked if they could refer any other executives or organizations whom they perceived might also be willing to participate in the study. The process of obtaining sample subjects by referral is known as snowballing and it is a particularly useful technique for populations that are difficult to reach (Black, 2012; Faugier & Sargeant, 2008).

Participating CEO's were asked to identify and describe the organization's most recent key strategic decision for purpose of the study. The identification of the most recent strategic decision minimizes bias in decision selection (Amason & Mooney, 1999). Given the proprietary and sensitive nature of strategic decisions, the CEO was informed that decision details were not needed by the researcher. Rather, the CEO was asked to assure that each of the team members answering the survey understood that the questionnaire was to be completed with the specific strategic decision, identified by the CEO, as the point of reference. Critical to the research design was the need for each member to recall the same decision scenario and this aspect of the study was stressed to the CEO's.

During the next phase of data collection, the CEO and the TMT members he or she identified, were asked to complete the survey questionnaire. The surveys were distributed to each participating organization in a sealed envelope containing the following: a) a cover letter written by the researcher explaining the study and its social and practical usefulness, along with why the respondent's participation is important, b) the survey questionnaire, along with instructions on how to complete it, and c) instructions to place the completed survey in a prepaid postage envelope and mail it back to the researcher upon completion of the questionnaire.

In sum, survey questionnaires which were focused on an actual and specific strategic decision identified and described by the CEO, were completed by the CEO and his or her top management team. These data collection procedures were consistent with past studies of conflict within top management teams, which have yielded response rates ranging from a low of 15% to a high of 73% (Amason & Mooney, 1999; Olson & Parayitam, 2007; Parayitam & Dooley, 2009; Pelled, Eisenhardt, & Xin, 1999). Response rates in this study were 43% (overall response rate) and 68% (within team response rate).

## Measures: Validity and Reliability Assessment

Since the validity and reliability of constructs is of critical importance when conducting research (Pedhazur & Schmelkin, 1991), the hypotheses were tested using a survey questionnaire comprised of measures which have been found to be reliable and valid instruments of the constructs they represent. Unless otherwise noted, all constructs were measured using multiple-item scales. Given the complexity of most of the constructs in the study, multiple-item scales were expected to outperform single-item measures in terms of greater reliability, precision, and scope (Diamantopoulos, Sarstedt, Fuchs,

Wilczynski, & Kaiser, 2012; Singleton & Straits, 2005; Spector, 1992). However, the use of a single-item measure is considered acceptable when assertions are made that "what is being measured is so specific that the construct and the operationalization are virtually identical" (Sackett & Larson Jr., 1990, p. 468). Evidence exists that single-item measures perform equally as well as multi-item scales in terms of predictive validity when the item being measured is concrete (Bergkvist & Rossiter, 2007). In this study, one construct was measured using a single-item scale (see Table 1).

TABLE 1
RELIABILITY ESTIMATES

Multiple-Item Constructs	Items	Cronbach Alpha
Affective Conflict	AC1-AC4	0.903
Cognitive Conflict	CC1-CC4	0.867
Anger	ANG1-ANG4	0.849
Intent	INTNT1-INTNT2	0.882
Single -Item Measure		
Control	Cntrl1	n/a

Each of the scales used in this study is identified below, including the reliability coefficients from prior studies using existing multiple-item measurements. In some cases, the wording of an item was slightly modified to fit the current context. The responses were measured on a 5-point Likert scale with anchors ranging from 1-"Very Small Extent" to 5-"Very Large Extent." The attribution items were measured on a 7-point semantic differential scale ranging from 1 to 7, which is consistent with other literature measuring these constructs (Henry & Campbell, 1995; Kent & Martinko, 1995a).

Affective Conflict was measured with four items, originally developed and validated by Jehn (1995), to measure the degree of relationship/emotional conflict present in work units. The four-item scale yielded a .92 reliability estimate in her study. For purposes of this study, the items were modified to reflect the specific conflict context as depicted by the CEO. For example, one question in Jehn's study asked "How much tension is there among members in your work unit?" (p.268). For the present study, this question was modified as, "To what extent was there tension among members when making this decision?"

Cognitive Conflict was measured with four items, originally developed and validated by Jehn (1995), to measure the degree of task-focused conflict existing in work units. The scale yielded a .87 reliability estimate in her study. Some of the cognitive conflict items were modified to reflect the specific conflict context as depicted by the CEO. For example, one question in Jehn's study, which asked "How frequently are there conflicts about ideas in your work unit?" (p. 268) was rendered as, "To what extent did conflict about ideas among team members frequently occur during the decision-making process?"

Anger was measured using the four-item scale adopted by O'Neill, Vandenberg, DeJoy, and Wilson (2009). The four-item scale yielded a reliability coefficient of .88. Since anger in the present study was measured as a directional measure, i.e. determination of whether anger was expressly directed at others was assessed, the wording of the items was modified accordingly. For example, one of O'Neill et al's items asked subjects to report how often they felt annoyed or irritated over the past month. This item was rendered as, "To what extent did you feel irritated with the other team member(s) because of their actions/comments?"

Attributions were measured with items from the Organizational Attributional Style Ouestionnaire developed by Kent and Martinko (1995a). The organizational attributional style questionnaire was developed to measure general attributional styles (Kent & Martinko, 1995a). and has demonstrated a high degree of validity and consistency (Henry & Campbell, 1995). The reliability of the intent and control dimensions from the organizational attributional style questionnaire were reported as .80 and .70, respectively (Kent & Martinko, 1995a). The items from the organizational attributional style were modified in order to measure a specific situation. For example, rather than using a hypothetical situation to ask "To what extent is this cause under your control?" the same question was asked in relation to the specific decision context identified by the CEO. Two items of the organizational attributional style survey were used to measure intent. For example, one question asked: Were the other members' comments/actions in the interaction aimed at being Constructive (1)...or Destructive (7). Control was measured with a single-item measure that asked: Is the cause of the conflict something that is: Not at all under other's control (1)...Completely under other's control (7).

Control Variables were also included in the study, including: gender, age, educational level, organization size, and team size. Following the example of Parayitam and Dooley (2009), team size was measured as the number of team members identified by the CEO as participants in the decision-making process.

Table 1 presents the list of constructs and their corresponding Cronbach alpha scores produced in this study. All of the multiple-item measures in this study had realiability estimates above Nunnaly's (1978) recommended threshold of .70. The correlation of constructs is presented in Table 2.

TABLE 2 CORRELATION OF CONSTRUCTS

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
Cognitive Conflict	1.538	0.3047	1									
Affective Conflict	1.537	0.3262	.798**	1								
Anger	2.189	0.8671	.450**	.545**	1							
Intent	0	0.6172	.369**	.394**	.226**	1						
Control	0	2.0463	.155*	.135*	0.081	.259**	1					
Gender	0.37	0.484	-0.063	-0.024	-0.023	-0.039	0.093	1				
Age	2.54	1.035	-0.048	-0.015	.125*	129*	-0.046	-0.107	1			
Education	2.45	0.93	-0.112	-0.099	186**	-0.057	0.028	0.004	0.111	1		
Team Size	5.27	1.586	.145*	.159**	0.047	0.049	-0.016	0.068	131*	0.064	1	
Firm Size	3.39	2.096	0.052	0.076	-0.066	-0.007	0.013	0.016	0.003	.333**	.353**	1

Note:  $\dagger p < .10$ ; \* p < .05; \*\* p < .01; \*\*\* p < .001

### RESULTS

### **Tests of Hypotheses**

Data were collected with a survey questionnaire mailed to respondents. A hierarchical regression technique was used to analyze 264 individual responses. Prior to running the main hypothesis tests, a standard regression analysis was performed using SPSS Regression and SPSS Explore for evaluation of assumptions.

Results of evaluations of assumptions led to transformation of some variables to reduce skewness and improve normality, linearity, and homoscedasticity of residuals. A square root transformation was used on the measures of affective- and cognitive-conflict. A logarithmic transformation was used on the measure of intent. These transformations resulted in improved skewness scores. The remainder of the independent variables were either normal or had very slight skewness. Transforming the variables with minimal skew resulted in a change of the direction of skew, e.g. from positive to negative or vice-versa. Therefore, these variables were not transformed.

All variables were analyzed for the presence of outliers. Given that the scales were bound by one and five, or one and seven, descriptive statistics were generated to assess whether any data entry errors were made. No values exceeded the range, i.e. the maximum or minimum, of the scales. Finally, since demographic variables have the ability to influence outcomes (Pelled, 1996), and because the interest of this study was on the moderating effect of attributions on the relationship between conflict-type on anger, the respondents demographic information was controlled for in the study.

## Moderating Effects of Attributions On the Relationship Between Conflict-Type and Anger

Hypothesis 1 predicted that an individual's intent attributions would moderate the relationship between conflict-type and anger towards others. Specifically, H1a predicted that destructive intent would positively moderate the relationship between cognitive conflict and anger towards others, whereas constructive intent would negatively moderate the relationship between cognitive conflict and anger towards others. Similarly, H1b predicted that destructive intent would positively moderate the relationship between affective conflict and anger towards others, whereas constructive intent would negatively moderate the relationship between affective conflict and anger towards others.

The regression results demonstrated that the relationship between the independent variable Cognitive Conflict and the dependent variable Anger-Other was significantly moderated by attributions of Intent ( $\beta$  = .310, p = .000) at the .001 level (see Table 3). This model accounted for 18% ( $R^2$  = .180;  $AdjR^2$  = .147) of the variance in Anger-Other. Furthermore, the interaction term accounted for a significant incremental increase in the coefficient of determination ( $\Delta R^2$  = .057) at the .01 level.

The interaction effect of intent, which was calculated using the method identified by Aiken & West (1991), is portrayed graphically in Figure 2. As evidenced in the figure, increasing cognitive conflict levels led to increased anger towards others when attributions of destructive intent were made. On the other hand, increasing cognitive conflict levels led to decreased anger towards others when attributions of constructive intent were made. Given the significant findings in Table 3, and the interactions as portrayed in Figure 2, hypothesis H1a was supported. The regression results did not reveal a significant moderation effect of Intent between Affective Conflict and Anger-Other ( $\beta$  = -.156, p = .590). Thus, hypothesis H1b was not supported.

Hypothesis 2 predicted that an individual's control attributions would moderate the relationship between conflict-type and anger towards other individuals. Specifically, H2a predicted a positive relationship between cognitive conflict and anger towards others when individuals attributed the opposing parties comments/actions as being within their control, whereas a negative relationship between cognitive conflict and anger towards others was predicted when individuals attributed the opposing parties comments/actions as being beyond their control. The results did not reveal a significant moderation effect of Control between Cognitive Conflict and Anger-Other ( $\beta$  = -.366, p = .453). Thus, hypothesis H2a was not supported.

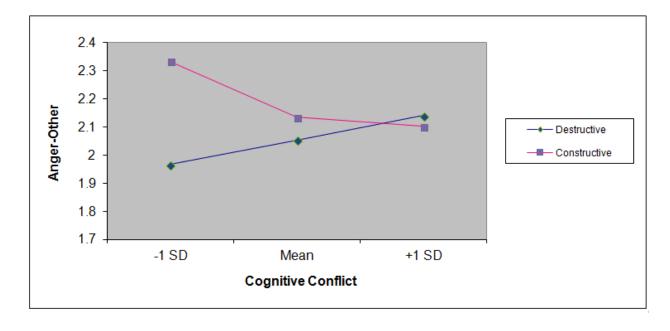
Hypothesis H2b predicted a positive relationship between affective conflict and anger towards others when individuals attributed the opposing parties comments/actions as being within their control, whereas a negative relationship between affective conflict and anger towards others was predicted when individuals attributed the opposing parties comments/actions as being beyond their control. The regression results demonstrated that the relationship between the independent variable Affective Conflict and the dependent variable Anger-Other was marginally moderated by attributions of Control ( $\beta$  = -.443, p = .100) at the .10 level. (see Table 4). This model accounted for 34.8% ( $R^2$  = .348;  $AdjR^2$  = .327) of the variance in Anger-Other.

TABLE 3 MODERATING EFFECT OF INTENT ON THE RELATIONSHIP BETWEEN COGNITIVE CONFLICT AND ANGER

	Model 1	Model 2	Model 3
Cognitive Conflict	β	β	β
(Constant)	7.373	7.731	7.749
Gender	001	.015	.019
Age	0.172**	0.169**	0.173**
Education	-0.162*	-0.163*	-0.172**
Team Size	0.150*	.095	.096
Firm Size	095	091	065
Intent		.091	063
Cognitive Conflict		0.174*	.091
Intent x Cognitive Conflict			0.310**
F-Model	3.399**	4.034**	5.504**
$R^2$	0.077	0.123	0.180
$AdjR^2$		0.092	0.147
R <sup>2</sup> Change		0.046**	0.057**

Note:  $\dagger p < .10$ ; \* p < .05; \*\* p < .01; \*\*\* p < .001

FIGURE 2 INTERACTION EFFECTS OF INTENT ATTRIBUTIONS ON THE RELATIONSHIP **BETWEEN COGNITIVE CONFLICT & ANGER** 



The interaction effects of control, which were calculated using the methods identified by Aiken & West (1991), are portrayed graphically in Figure 3. As evidenced, when another's actions/comments were attributed as being within their control, anger levels increased with greater amounts of affective conflict, as expected. However, unexpectedly, this same pattern was observed when another's actions/comments were attributed as being beyond their control. Given the marginally significant findings presented in Table 4, and given that only half of the interaction effect was as predicted (see Figure 3), H2b received partial support.

TABLE 4
MODERATING EFFECT OF CONTROL ON THE RELATIONSHIP
BETWEEN AFFECTIVE CONFLICT AND ANGER

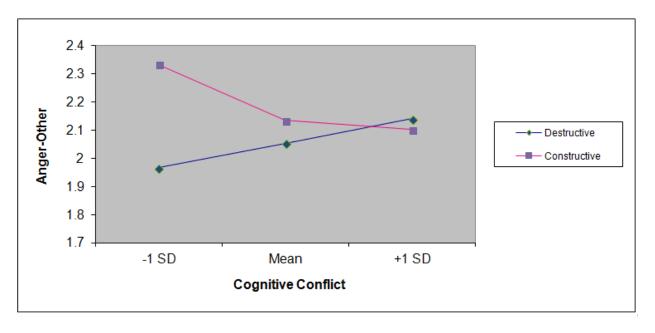
	Model 1	Model 2	Model 3
Affective Conflict	β	β	β
(Constant)	7.901	-0.003	-1.255
Gender	011	.005	.014
Age	0.158**	0.150**	0.151**
Education	-0.199**	-0.128*	-0.131*
Team Size	.093	.014	.013
Organization Size	033	070	064
Affective Conflict		0.535**	0.684**
Control		.020	$0.408^{\dagger}$
Affective Conflict x Control			443
F-Model	3.492**	18.923**	16.986**
$R^2$	0.063	0.341	0.348
$AdjR^2$		0.323	0.327
R <sup>2</sup> Change		.278**	.10 <sup>†</sup>

Note:  $\dagger p < .10$ ; \* p < .05; \*\* p < .01; p < .001

## **DISCUSSION**

The primary objective of this study was to establish the moderating effect of intent and control attributions on the relationship between conflict-type and anger. The attribution of intentionality was found to be a significant moderator between cognitive conflict and anger. There was no significant moderating effect of intentionality on the relationship between affective conflict and anger. Destructive intent positively moderated the relationship between cognitive conflict and anger; whereas constructive intent negatively moderated this same relationship.





The significant findings of intent were as expected since destructive intent has been found to influence agressiveness toward the offending party, i.e. attributions of harmful intent have been linked with aggressive responses toward the actor (Holm, 1982; Joseph, Kane, Gaes, & Tedeschi, 1976), particularly when the actor's actions were deemed aggressive and hostile (De Castro et al., 2002; Nickel, 1974). The findings, as they pertain to constructive intent, were also as expected given that sincerity of an individual's actions/comments have been associated with lower intensity anger levels (Baron, 1988). The interaction in Figure 2 did reveal one unexpected observation, i.e., at lower cognitive conflict levels, anger towards others was higher under constructive intent. The hypotheses presented here were concerned with the direction of anger levels after an intent attribution was made and not necessarily the comparative amount of anger between constructive and destructive intent. However, one might have assumed overall higher levels of anger in a destructive intent context. One possible explanation for the initial imbalance in anger levels may be that conflict triggers a preliminary anger emotion, which is a subjective experience (Lazarus, 2003), and it is not until an intent attribution has been made that anger levels begin to rise or fall. However, once a constructive intent attribution is made anger levels decrease with increasing amounts of cognitive conflict. Furthermore, at the highest level of cognitive conflict, anger is in fact lower in a constructive intent context as compared to destructive intent, and this emotional pattern would coincide with normal expectations.

The attribution of controllability was found to be a marginally significant moderator between affective conflict and anger, but no moderating effect was found between cognitive conflict and anger. When respondents attributed another's comments/actions as being within their control, anger levels were intensified as affective conflict increased. This finding was as expected given that controllable causes have been associated with increased anger levels when ascription of responsibility for the conflict is placed on an external party, particularly when these same causes have thwarted another individual's goals (Gibson & Schroeder, 2003; Schmidt & Weiner, 1988; Weiner, 2000).

A surprise finding in this study was associated with the attribution of controllability that was beyond control of the individual whose comments/actions were perceived to have initiated the conflict and thus, an individual's attributional inferences. It was expected that noncontrollable actions/comments, i.e. those

that are beyond another's control, would lead to less anger towards the other party since noncontrollable causes often illicit pro-social behaviors or at a minimum, are not typically associated with ascriptions of responsibility (Weiner, 2000). In this study, however, both controllable and noncontrollable attributions positively moderated the relationship between affective conflict and anger. One explanation for this finding may be the type of conflict in which the respondents were engaged. Affective conflict is highly emotional and since this type of conflict is often associated with personal criticism (Jehn, 1997), it may be that respondents simply marginalized whether the offending party's actions/comments were beyond their control. Once team members engaged in relational conflict, they were destined to experience increased anger levels as affective conflict intensified.

#### Limitations

There are several limitations to this study. First, the study relied on team members recollection of historical events, which is susceptible to recollection bias (Viscusi & Zeckhauser, 2005). To prevent errors associated with the process of recalling events that occurred in the past, CEO's were asked to identify the most recent strategic decision made by the team and complete the surveys with that decision as the frame of reference. In some instances, the CEO's noted that the timing of the surveys coincided with the time that a strategic decision was being, or about to be, made. Thus, some responses were completed immediately after a strategic decision was agreed upon by an organization's top managers. Second, survey questionnaires were given to team members by the CEO. While voluntary participation, unconditional to an individual's employment, was stressed to the CEO and written in the instruction letter received by the participants, team members may have felt compelled to answer the survey, which may have biased their responses. To minimize this possibility, written instructions to the team members stressed that no personal or other identifying information (e.g. job titles, name of organization) would be collected in the study. Nevertheless, some members voluntarily provided these specifics. To assure respondent anonymity, each survey included a self-addressed, stamped envelope so that respondents could mail the surveys from a non-work location. Finally, the attribution of controllability was captured with a single-item instrument since it was deemed that the measure and the operationalization of the construct were indistinguishable. However, a multi-item scale to capture this construct may have provided greater reliability and precision.

### **Theoretical Implications**

These findings are important because they provide further evidence that attributions about the actions or comments of an individual can contribute to subsequent conflict since perceived intentionality often impacts an individuals' interpretations and subsequent emotional and behavioral reactions (Dasborough & Ashkanasy, 2002; Kelley & Michela, 1980). Perhaps more importantly, these findings may help understand prior mixed results about the effects of conflict within an organization. Conflict researchers have long touted the benefits of cognitive conflict, while warning against the pitfalls associated with affective conflict (Amason et al., 1995; Baron, 1990). At the same time, strategic researchers have claimed that high levels of cognitive conflict are necessary for effective decisions, suggesting that low levels are detrimental to decision outcomes (Eisenhardt et al., 1997). Yet, there is evidence that cognitive conflict has a threshold beyond which it ceases to have functional effects (Jehn, 1997; Mooney et al., 2007) and now recent evidence suggests that affective conflict may have unintended positive consequences (Khanin & Turel, 2009). To complicate matters, one meta-analysis suggests that both forms of conflict may be detrimental (De Dreu & Weingart, 2003). Since it is well established that conflict is highly emotional (Thomas, 1992) and because emotions are known to influence behavior in the workplace (Weiss & Cropanzano, 1996), it is important to understand how attributions affect the conflictemotion relationship during a strategic decision-making scenario. This study focused on an organization's upper echelon executives within a strategic decision-making context and revealed how two attributions, i.e. intentionality and controllability, impact the relationship between conflict-type and anger. Neither cognitive, nor affective, conflict had consistent effects on anger. Cognitive conflict had a favorable outcome only when it was attributed as being constructive. When cognitive conflict was attributed to destructive intent, its effects were dysfunctional.

Controllability had an effect on affective conflict, but not cognitive conflict. The findings for controllable causes were as predicted, whereas non-controllable causes had the opposite effect of what was expected. These findings provide further support for the avoidance of affective conflict ascribed by conflict researchers (Amason & Schweiger, 1994; Jehn, 1997; Mooney et al., 2007).

## **Practical Implications & Future Research**

Conflict in a strategic decision-making context is a necessary condition of organizational success and considered central to team effectiveness because it keeps members self-critical and innovative (Lewicki, Weiss, & Lewin, 1992; Pondy, 1992; Shook et al., 2005). Since the effects of cognitive conflict can be positive and negative (De Dreu & Weingart, 2003; Jehn, 1997; Mooney et al., 2007), executives must understand how to gain the benefits of cognitive conflict without incurring its dysfunctional effects. Since conflict is highly emotional (Thomas, 1992) and generally associated with anger (Allred, 1999), CEO's may be able to offset the effects of anger in a strategic decision-making conflict scenario by encouraging team members to preface their comments as constructive intent before randomly making comments that have the potential of being misattributed to destructive intent. Although affective conflict may possess a silver lining (Khanin & Turel, 2009), it appears that this type of conflict will result in anger. Thus, heeding Amason's (1994) advice to avoid this conflict-type may still be warranted.

This study focused on an organization's executive team within a strategic decision context. While top management teams possess many similarities to teams in general, they do differ in their composition in that they are generally more permanent, and comprised of high-powerful, high-ranking, influential individuals prone to self-absorbed behavior and interests (Hambrick, 1995; Hambrick & Mason, 1984). Researchers may want to consider whether these effects are consistent in teams comprised of individuals with less power and status, as well as those teams that are to be disbanded upon completion of their objectives.

Finally, researchers may want to consider the effects of another widely accepted attribution, i.e. the attribution of stability (variation over time), which is also related to the anger emotion (Betancourt & Blair, 1992; Weiner et al., 1982). The attribution of stability suggests that it is the consistency (i.e. stability) of a particular action, moreso than its cause, that influences an individual's behavior (Weiner, 1985). The stability of an attributed cause may contribute more to the magnitude of emotions than to the direction (Weiner et al., 1982). Thus, it is logical to expect stable attributions of another's negative behavior/comments to elicit a greater level of anger.

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