ON AFFECT AND ACTIVATED SCHEMAS: EXAMINING THE CURVILINEAR RELATIONSHIP OF NEGOTIATOR SATISFACTION TO ACTIVATED SCHEMA RICHNESS IN NEGOTIATION

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ABSTRACT

Prior research provides conflicting findings, among which some support the relationship of positive affect to activated schemas, whereas the others favor the relationship of negative affect to activated schemas. Such monotonic relationships may ignore the potential curvilinear nature of the relationship of affect to activated schemas. Therefore, we seek to examine the genuine relationship of affect (negotiator satisfaction) to activated schemas (activated schema richness) in the context of an employment negotiation. This research demonstrates that negotiator satisfaction and activated schema richness have a curvilinear, and in particular, quadratic relationship. The research implications are discussed.

INTRODUCTION

Cognition has remained central to social psychological and management theories and research (Markus & Zajonc, 1985; Walsh, 1995). With the advent of social cognition as a perennially focus of management as well as psychological research, scholars have spared no effort to explore the conditions under which schemas are likely to be activated and applied in forming impressions of and making judgments about individuals. In addition to the enduring interest in cognitive elements such as beliefs and attributions, the other system, affect, has emerged (Kunda, 1999; Fiske, 1981), though this “hot” system used to be neglected for decades. The influence of affect on activated schemas is of concern in applied fields such as organizational behavior (Isen & Baron, 1991; Petty & Cacioppo, 1981), industrial psychology, and health psychology (Salovey, O’Leary, Stretton, Fishkin, & Drake, 1991).

The importance of affect has been highly touted recently (e.g., Forgas, 1998; Härtel, Zerbe, & Ashkanasy, 2005; Barry, Fulmer, & Goates, 2006; Elfenbein, in press). A growing body of evidence suggests that it is difficult to completely understand the impact of affect on activated schemas. In effect, the empirical literature on the relationship of affect to activated schemas has been decidedly equivocal, reporting significant relationships of positive affect to activated schemas in some studies and of negative affect to activated schemas in the others.

Despite the conflicting results, very few scholars have questioned the genuine relationship of affect to activated schemas. Nonetheless, academic understanding about this issue is far from complete. Since previous research results support both relationship patterns, we think that positing a monotonic relationship may ignore the possibility of a curvilinear relationship. In addition, scholars often specify schemas and ask research participants to rate them on Likert
scales. In this way, scholars gain little understanding of the quantity of schemas activated in individuals’ minds.

In this research, we seek to examine how affect, and in particular, negotiator satisfaction, which is an affective response to the perception of how the negotiated outcome compares with the prior expectations (Oliver, Balakrishnan, & Barry, 1994; Gillespie, Brett, & Weingart, 2000), influences activated schema richness with regard to Chinese and American cultures in an employment negotiation. Here we refer to activated schema richness as a total quantity of schema information units, defined as “single statement[s] or idea[s]” by Lurigio and Carroll (1985, p.1115), or schema statements conveying different and non-repetitious meanings within a certain schema description (Lurigio & Carroll, 1985) that are accessible in an individual’s mind (Kunda & Spencer, 2003) during a certain time period. Schemas about specific cultures are abstract mental models containing specific knowledge about those cultures, extracted from previous intercultural experiences (Ortner, 1990; Buchanan & Cantril, 1953). They are critical to both intra- and inter-cultural negotiations. Variations in experiences may result in differences in individuals’ activated schema richness, but scholars sometimes underestimate their impact (Lurigio & Carroll, 1985). Does negotiator satisfaction have any impact on activated schema richness? If so, what is their genuine relationship? Is it linear or curvilinear? It is these unsolved and intriguing questions that we ought to address. Therefore, this research can advance academic understanding of the relationship of affect to activated schemas, and simultaneously, initiate further discussions.

CONCEPTUAL BACKGROUND AND HYPOTHESES

Schemas and Schema Activation

Since the introduction of the concept “stereotype” and classification of “the world outside and the pictures in our heads” by Lippmann (1922) (cf. McCauley, Stitt, & Segal, 1980; Bottom, Kong, & Zhang, 2007), other terms for the organization of information in our memory have been utilized, such as “schemas” (Barlett, 1932; Neisser, 1976; Axelrod, 1973), “frames of reference” (Merton, 1945), “scripts” (Schank & Abelson, 1977), and “frames” (Minsky, 1995). Through quantitative and qualitative analyses, Bottom et al. (2007) found that in social cognition literature, “schema” and “stereotype” have virtually been used interchangeably. Though scholars’ interest in the relationship of affect to activated schemas has been anchored and strengthened, its prior research has presented discrepant results.

Schemas are self-perpetuating systems of interactions between cognition, affect, behaviors, and perceptions of the self and others. They are abstract cognitive representations of organized knowledge, extracted from previous experiences with specific instances (Fiske & Linville, 1980). Bartlett (1932) claimed that schemas are often used to reconstruct past experiences. It may be defined as “a cognitive structure that represents knowledge about a concept or type of stimulus, including its attributes and the relations among those attributes” (Fiske & Taylor, 1991, p.98), but it is situation specific. A schema is “a mundane cognitive function that provides simplification and structure to our subjective experience of the complex social milieu in which we live” (Bodenhausen, Kramer, & Süsser, 1994a, p.621). Schemas function as heuristic cues in social information processing such that they facilitate a quick response that may suffice
whenever individuals do not want to fall into a thoughtful analysis. In effect, schemas provide functional shortcut strategies for social information processing (Macrae, Milne, & Bodenhausen, 1994; Gilbert & Hixon, 1991; Allport, 1954). Schemas are crucial in that they aid in the recognition, interpretation, and labeling of stimuli; affect memory for information; supply default values for missing information; and initiate efficient processing of schema-related materials (Fiske & Taylor, 1991; Schneider, 2004; Bottom et al., 2007; Bottom & Paese, 1997). This social information processing can be conditional on affect (Bodenhausen et al., 1994a; Kunda & Spencer, 2003; Schwarz, 1990).

Schema activation refers to the extent to which schemas are accessible in individuals’ minds (Kunda & Spencer, 2003). Individuals who encounter a member of a schematized group will activate that group’s schemas if and only if they are aware of the person’s category membership and have sufficient cognitive resources to process the information (Kunda & Spencer, 2003). Classifying an individual as a social group member can activate that group’s schemas; they can be activated spontaneously upon exposure to the schematized individual (Bargh, 1999). Measures of schema activation that request individuals to make judgments on schematic dimensions (e.g., cultural similarities and differences) may suffice to activate schemas that may have otherwise remained inactive (Fiske & Neuberg, 1990; Kunda & Spencer, 2003).

Conflicting Findings Pertaining to the Relationship of Affect to Activated Schemas

Affect can activate schemas (Bless, Mackie, & Schwarz, 1992; Wheeler & Petty, 2001; Steele, 1997) and it is assumed to provide information about the nature of immediate situations (Schwarz, 1990; Schwarz & Clore, 1983), but the question whether and how positive affect versus negative affect influences activated schemas splits the pundits.

Research has given credence to the argument that negative affect such as anger, anxiety, frustration, dissatisfaction, stress, and sadness leads to activated schemas (Dollard, Miller, Doob, Mowrer, & Sears, 1939; Sherif & Sherif, 1953; Wills, 1981; Bodenhausen et al., 1994a; Stephan & Stephan, 1985; Wilder, 1993; Wilder & Shapiro, 1989; Keinan, Friedland, & Even-Haim, 2000). Wilder and Shapiro (1989) argued that feeling anxious can result in the assimilation of a target to the interpersonal context in which the target appears, and anxiety can interfere with information processing, since in comparison with non-anxious individuals, those who are anxious use less information about a target. Intergroup anxiety increases schematic processing and simplify information processing (Stephan & Stephan, 1985). If scripts for social interactions or expectations based on schemas exist, then schematic structures will be used to process others’ behaviors. In the wake of intentional and attentional search for information confirming expectations about others (Wilder & Allen, 1978), negative affect often makes expectations confirmed. In general, negative affect narrows down individual focuses of attention and cue utilization (Easterbrook, 1959), and makes social information minimally processed.

According to heuristic-systematic model (HSM) (Chaiken, 1980, 1987; Chaiken, Liberman, & Eagly, 1989) and elaboration likelihood model (ELM) (Petty & Cacioppo, 1981, 1986), systematic processing or central route persuasion entails effortful scrutiny and comparison of information whereas heuristic processing or peripheral route persuasion involves capitalizing on cues to reach judgments more readily, which requires much less effort and capacity. Negative
affect may be associated with the increased reliance on simplified cognitive processing of social information, including representative heuristic, availability heuristic (Kahneman, Slovic, & Tversky, 1982), categorical processing (including assimilation and contrast), and illusory correlation (Stephan & Stephan, 1985). Based on an array of studies examining how negative affect leads to activated schemas, negative affect is often viewed as a motivational impetus or “the fuel for the fire” (Bodenhausen et al., 1994a, p.621). Krauth-Gruber and Ric (2000) provided evidence against the general assumption that sadness increases extensive, systematic processing of incoming information. Bodenhausen, Sheppard, and Kramer (1994b) found that not only negative affect has a strong effect on schemas, but also the effects of differing states of negative affect are at variance, and in particular, anger has a stronger effect than sadness.

On the contrary, another group of scholars argue that positive affect leads individuals to engage in quick and easy heuristic processing, and accordingly, individuals are more likely to rely on their activated schemas (Bodenhausen et al., 1994a; Mackie & Worth, 1989; Park & Banaji, 2000). Bodenhausen et al.’s (1994a) research implications are provocative in the sense that they are at odds with both “conventional wisdom” vis-à-vis the relationship of negative affect to activated schemas and traditional motivational theories. Therefore, compared with negative affect, positive affect such as happiness and satisfaction makes individuals less likely to engage in systematic processing but more likely to activate schemas (Haddock, Zanna, & Esses, 1994; Bless, Boher, Schwarz, & Strack, 1990; Worth & Mackie, 1987). Though positive affect does not necessarily lead to poorer performance on all sorts of tasks, it does interfere with the execution of systematic processing (Mackie & Worth, 1989). Park and Banaji (2000) suggested that negative affect leads to stricter criteria for judgment than positive or neutral affect.

The functionalist approach suggests that affect has an important function for human organism because it informs individuals about the current environment states (Frijda, 1988). Affect arises in response to the meaning structures of the given situations, and different states and valences of affect arise in response to different meaning structures (Frijda, 1988). The “affect-as-information” hypothesis (Schwarz, 1990) suggests that negative affect informs human organism about the situations lacking positive outcomes or boding negative outcomes (Higgins, 1987; Schwarz, 1990). In order to change the situations, individuals must acquire accurate representations about them through careful and systematic processing. In contrast, positive affect tells individuals otherwise. Since positive affect signals “safe and satisfactory” situations (Schwarz, 1990, p.544), individuals do not need to take great cognitive effort in figuring out the situations, but rather, lower their psychological guards and largely depend on simple heuristic processing (Park & Banaji, 2000; Krauth-Gruber & Ric, 2000). In other words, those scholars who propose a strong effect of positive affect on activated schemas reason that negative affect increases careful, detail-oriented, and systematic information processing, whereas positive affect decreases information processing, making individuals mainly rely on heuristic processing.

Without question, controversies over the relationships of affect to activated schemas will continue. Subsequent to the above review of the existing arguments in the literature, we suggested the following extensions to the arguments formalized in the following hypotheses concerning the relationship of negotiator satisfaction to activated schema richness within the specific context of an employment negotiation. Negotiator satisfaction, as an important post-negotiation behavior (Gibson, Bottom, & Murnighan, 1999; Novemsky & Schweitzer, 2004), is
“labile and manipulable” (Novemsky & Schweitzer, 2004, p.186). It refers to an affective response to the perception of the comparison between the negotiated outcome and the prior expectation (Oliver et al., 1994; Gillespie et al., 2000). Note that lower scores on the Likert-type measure of negotiator satisfaction represent stronger negotiator dissatisfaction, whereas higher scores on the measure represent stronger negotiator satisfaction. Therefore, the construct of negotiator satisfaction does not only characterize the positive affect and its valences but also includes the negative affect and its valences. Activated schema richness represents the total quantity of activated schema information units within a certain schema description length that convey different and non-repetitious meanings.

**Hypothesis 1:** For the candidates of the employment negotiation, negotiator satisfaction bears a curvilinear relationship to activated schema richness.

**Hypothesis 2:** For the recruiters of the employment negotiation, negotiator satisfaction bears a curvilinear relationship to activated schema richness.

**METHOD**

**Participants**

Totally 107 business executives (32 females and 75 males) enrolled in a negotiation course (in three separate classes) at a major university in the United States were considered in this research because they all participated in the employment negotiation and completed all the required questionnaires. Fifty-one of them had American cultural background, 44 Greater Chinese cultural background (including mainland China, Hong Kong, Macao, Taiwan, and Singapore), and the remaining 12 other cultural backgrounds (Romania, Denmark, India, Sri Lanka, Italy, Germany, Brazil, etc.). However, due to our focus on negotiation within or across American and Chinese cultures only, we did not include the data of those 12 participants from other cultural backgrounds. We also excluded the data of those who did not reach agreements. After the content coding, another 3 observations (2 Chinese and 1 American) were excluded as outliers. Therefore, a total of 82 observations were finally included in the following analyses (37 recruiters and 45 candidates; 46 from American cultural background and 36 from Greater Chinese cultural background; 60 males and 22 females). The participants were acquainted with each other in their respective classes through numerous interactions throughout the year.

**Procedure and Material**

The participants were randomly assigned one of the two roles (i.e., either recruiter or candidate) for a multiple-issue, integrative employment negotiation simulation (described in detail below) during the class meetings. They were given different instructions in written English for their respective roles. The negotiation was conducted face to face in English. The participants were allowed 30 minutes to complete their negotiations in an unconstrained fashion in any space within the education building. All the participants completed this task within the time limit.

We used Neale’s (1997) employment negotiation simulation material called *New Recruit*, which involves eight issues on a contract between a recruiter and a candidate, including bonus, job
assignment, vacation time, starting date, moving expenses coverage, insurance coverage, salary, and location. Each participant was given a private and confidential payoff chart. Next to each option on the chart was a number that indicated its value (in points) to the participants. This task was an integrative or variable-sum negotiation. There were three types of issues in this negotiation: distributive issues, trade-off issues and compatible issues. Distributive issues are “you-win-I-lose” or fixed-pie issues (Bazerman & Neale, 1992) (e.g., in this negotiation, the total points of starting date issue for both parties to claim their own points from were fixed to be 2,400 points). Trade-off issues are those for which parties have different priorities on the relative importance of a set of issues but have opposing interests in the alternatives within each of the issues (Froman & Cohen, 1970; Thompson, Valley, & Kramer, 1995) (e.g., in this negotiation, both parties were better off agreeing to a 10% bonus and five-day vacation time). Compatible issues are those both parties have identical preferences for the alternatives (Thompson & Hastie, 1990) (e.g., in this negotiation, both parties maximize their outcomes by agreeing to the location of San Francisco). There were five options for each issue that carry different values to the negotiators. The participants were told to gain as many points as possible.

After the negotiation, each negotiation pair turned in the contract form attached to the recruiter’s material in class. We also told the participants to complete the online post-negotiation questionnaires, including the questions to activate their schemas, after the class meetings. The participants were debriefed and fully thanked.

**Dependent Variable**

*Activated schema richness.* The participants were asked three open-ended questions about American and Chinese cultures to activate their schemas (see Appendix). The first author and another coder, who is a graduate student from a different discipline and with adequate knowledge about both American and Chinese cultures, separately coded the participants’ responses and counted the total quantity of activated schema information units within their schema descriptions as the activated schema richness. The descriptions were considered as activated schema information units, if and only if they were basic level categories (Rosch, 1978) applicable to a medium-range proportion of either culture or both cultures, and were logically ordered and internally consistent (Lurigio & Carroll, 1985).

Since it was not a nominal coding of content analysis, we drew upon generalizability theory (Shavelson & Webb, 1991) to calculate the dependability index (Brennan & Kane 1977) rather than Cohen’s Kappa (Cohen, 1960). The estimates of the variance components for the 82 participants were: \( \sigma^2(\text{activated schema richness}) = 21.71, \sigma^2(\text{coder}) = .11, \) and \( \sigma^2(\text{coder} \times \text{activated schema richness}) = 2.74. \) This estimate of error variance was set to zero because it was redundant. Accordingly, the estimate of average dependability for an individual coder’s coding was .88. This estimate is identical to Winer’s (1971) estimate of the reliability of a single coder and can be compared with inter-coder reliability estimates obtained from other studies using the same coding system but different numbers of coders (Hughes & Garrett, 1990). We calculated the simple average of the coders’ coding scores for each participant as that participant’s activated schema richness.
Independent Variables

*Negotiator satisfaction.* We used a five-point Likert scale (single item, reverse scoring) to measure negotiator satisfaction, but later we reversed the original scores back into a scale of 1=very dissatisfied to 5=very satisfied to facilitate its interpretation.

*Individual negotiation outcome.* We used the respective payoff charts to calculate each participant’s individual negotiation outcome. The possible highest and lowest points for both recruiters and candidates were 13,200 points and -8,400 points respectively, which were explicitly shown in the payoff schedule to each participant.

*Schema description length.* We counted the total number of words in each participant’s response to the three open-ended schema questions as the participant’s schema description length.

*Cultural metacognition.* Cultural metacognition refers to an individual’s cultural consciousness and awareness during interactions with those from different cultures (Ang, Van Dyne, Koh, & Ng, 2004). Those with high cultural metacognition consciously question cultural assumptions, and think about cultural norms before and during social interactions. Cultural metacognition reflects the processes individuals use to acquire schemas and understand other cultures (Ang, Van Dyne, & Kohn, 2006). Therefore, those who have high cultural metacognition may update their cultural schemas, and thus, have high activated schema richness. We included cultural metacognition to control its impact on activated schema richness, and borrowed Ang et al.’s (2004) four items of metacognitive cultural intelligence to measure cultural metacognition (see Appendix). It was self-reported using a seven-point Likert scale (1=strongly disagree to 7=strongly agree). The reliability coefficients of the four items reported by Ang et al. (2004) were all above .70 for differing samples. In our entire sample of the 82 participants, the Cronbach’s alpha was .80. Note that cultural intelligence (CQ) is a theoretical extension of contemporary approaches to understanding intelligences (Earley & Ang, 2003). Earley, Ang, and Tan (2006) defined cultural intelligence as “a person’s capability for successful adaptation to new cultural settings, that is, for unfamiliar settings attributable to cultural context” (p.5). Thomas and Inkson (2004) provided a similar definition of cultural intelligence, “a multifaceted competency”, as “the capability to deal effectively with people from different cultural backgrounds” (pp.182-183). In Ang et al.’s (2004) four-dimensional concept of cultural intelligence, metacognition is one important component. We borrowed the four items for metacognitive CQ because they were fit.

*International experience and domestic intercultural experience.* Since schemas are extracted from previous experiences, and thus, differences in international experience and domestic intercultural experience may cause variations in activated schema richness (Lurigio & Carroll, 1985), their influence should be considered. Each of them was self-reported by the participants in the total number of years, ranging from 0 to 20 with an extra item “other (please specify)” (see Appendix).

*Other variables.* We coded sex as 0 = female and 1 = male, cultural background as 0 = Greater Chinese and 1 = American, and negotiation role as 0 = candidate and 1 = recruiter. If the two
negotiators in a pair had different cultural backgrounds (i.e., one American and the other Greater Chinese), then their negotiation would be coded as 1, otherwise 0.

Analysis

We conducted two separate hierarchical multiple regression analyses for the candidates and recruiters to test our hypotheses (Cohen & Cohen, 1983; Aiken & West, 1991). In both analyses, we examined the following equation in three steps in order to isolate the contributions of different terms: \( Y = \beta_1 C + \beta_2 X + \beta_3 X^2 \) where \( Y \) was activated schema richness, \( C \) was the vector of control variables (with \( \beta_1 \), a corresponding vector of beta coefficients), \( X \) was negotiator satisfaction (for the candidates or recruiters), and \( X^2 \) was negotiator satisfaction squared (for the candidates or recruiters). After control variables were entered in step 1, main effect (\( X \)) was included in step 2, and its quadratic term (\( X^2 \)) followed in step 3. Independent variables were all standardized to facilitate their interpretation.

RESULTS

Table 1, Table 2, and Table 3 present the means, standard deviations and zero-order Pearson correlations among the study variables respectively for the candidates only, the recruiters only, and the entire sample. Activated schema richness for the candidates was solely correlated with schema description length (\( r = .68, p < .001 \)), and so was it for the recruiters (\( r = .45, p < .01 \)) and for the entire sample (\( r = .62, p < .001 \)) respectively.

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<td>7. Individual negotiation outcome</td>
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<td>-.14</td>
<td>-.17</td>
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Table 4 presents the results of the two hierarchical regression analyses. They met the major regression model assumptions: no serious violations were found in the plot of standardized residuals as compared to the predicted values, in the normal probability plot of standardized residuals, and with regard to the independence of error terms (the Durbin-Watson statistics were respectively 2.32 for the candidates and 2.16 for the recruiters). Hypothesis 1 and Hypothesis 2 state that for both candidates and recruiters of the employment negotiation, negotiator satisfaction bears a curvilinear relationship to activated schema richness. As shown, for the candidates, after including the control variables (step 1), the main effect of negotiator satisfaction (step 2) was not significant (\( \Delta R^2 = .01, n.s. \)), but the quadratic effect of negotiator satisfaction
(step 3) reached significance ($\Delta R^2 = .11, p<.01$). We tested the cubic effect of negotiator satisfaction (step 4) but it did not reach significance ($\Delta R^2 = .001, B = -.12, SE_B = .48, n.s.$), and therefore, we dropped it from Table 4. For the recruiters, after including the control variables (step 1), the main effect of negotiator satisfaction (step 2) was not significant either ($\Delta R^2 = .01, n.s.$), but the quadratic effect of negotiator satisfaction (step 3) also reached significance ($\Delta R^2 = .11, p<.05$). We also tested the cubic effect of negotiator satisfaction (step 4) but it did not reach significance either ($\Delta R^2 = .003, B = .14, SE_B = .34, n.s.$), and therefore, we also dropped it from Table 4. To facilitate the interpretation of this effect, Figure 1 illustrates the curvilinear relationships of negotiator satisfaction to activated schema richness.

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Note. $n=57$. The alpha coefficient appears on the diagonal in parentheses.

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<td>.09</td>
<td>.18</td>
<td>.45***</td>
<td>(87)***</td>
</tr>
</tbody>
</table>

Note. $n=92$. The alpha coefficient appears on the diagonal in parentheses.

To ensure the curvilinear and specifically quadratic nature of the relationships in the statistic sense, we did simple slope tests to see whether the simple slopes significantly differed from zero (Aiken & West, 1991). For the candidates, at 1 standard deviation above the mean of standardized negotiator satisfaction (+1 SD), the simple slope (SS) was positive ($B= 4.51, t= 2.70, p=.01$); at +2 SD, the SS was also positive ($B= 8.05, t= 3.03, p<.01$); however, at the mean, the SS did not differ from zero ($B=.98, t=1.18, n.s.$); at 1 standard deviation below the mean of standardized negotiator satisfaction (-1 SD), the SS was negative ($B= -2.56, t= -3.05, p<.01$); and at -2 SD, the SS was also negative ($B= -6.09, t= -3.60, p=.001$). For the recruiters, at +1 SD, the SS was marginally significant and positive ($B= 2.49, t= 1.78, p=.09$); at +2 SD, the SS was
positive ($B = 4.42, t = 2.07, p = .05$); nevertheless, at the mean, the $SS$ did not differ from zero ($B = .57, t = .71, n.s.$); at $-1$ $SD$, the $SS$ was marginally significant and negative ($B = -1.36, t = -1.80, p = .08$); at $-2$ $SD$, the $SS$ was negative ($B = -3.29, t = -2.48, p < .05$). Taken together, all the results fully support Hypothesis 1 and Hypothesis 2.

### TABLE 4
Results of Hierarchical Regression Analyses

<table>
<thead>
<tr>
<th>Variables</th>
<th>Activated Schema Richness</th>
<th>Recruiter $^*$</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Recruiter $^*$</td>
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<tr>
<td></td>
<td>Model 1a</td>
<td>SE B</td>
</tr>
<tr>
<td>(Intercept)</td>
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<td>.60</td>
</tr>
<tr>
<td>Sex</td>
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<td>.63</td>
</tr>
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<td>.73</td>
</tr>
<tr>
<td>International experience</td>
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<tr>
<td>Direct intercultural experience</td>
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<td>.83</td>
</tr>
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<td>.67</td>
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<tr>
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<tr>
<td>Intercultural negotiation</td>
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<tr>
<td>Individual negotiation outcome</td>
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<td>.68</td>
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Step 2: Main effect

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<th>.40</th>
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<td>.51***</td>
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<td>$ΔR^2$</td>
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<td>.28*</td>
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</table>

Note: $^*$ $n=45$. Independent variables are standardized. The Durbin-Watson statistic = 2.32.

TABLE 4

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Step 2: Main effect

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Note: $^*$ $n=45$. Independent variables are standardized. The Durbin-Watson statistic = 2.32.

FIGURE 1
Relationship of Negotiator Satisfaction to Activated Schema Richness

![Relationship of Negotiator Satisfaction to Activated Schema Richness](image)
DISCUSSION

We have examined how negotiator satisfaction influences activated schema richness in negotiation. Prior conflicting research results with regard to the relationships of positive affect or negative affect to activated schemas have led us to identify the curvilinear relationship of affect to activated schemas. In the specific context of an employment negotiation, we have found the quadratic relationships of negotiator satisfaction to activated schema richness for both candidates and recruiters in the negotiation. The findings in this research carry important implications.

Research Implications

An urgent need: a more nuanced theory of affect and activated schemas. This research is stimulating in terms of how scholars should ponder upon the challenges and advantages of the theories on the relationship of affect to activated schema. Scholars argue about whether positive affect or negative affect has a stronger impact on schemas, but to a great extent, their experiments in which states of affect are polarized and their valences are not considered cannot detect a curvilinear relationship of affect to activated schemas. In psychological and management studies, oft-used Likert-scale ratings of the specified schemas do not assist in academic understanding about the quantity of schemas that are accessible or activated in individuals’ minds. Moreover, a slew of, if not all, states of affect have varying valences rather than bare “black versus white” contrasts; differing “gray colors” stand in between. The best example is sadness in the sense that only intense sadness such as chronic depression may interfere with reasoning and effortful processing whereas mild sadness such as sad moods may produce beneficial effects (Pham, 2007; Hartlage, Alloy, Vazquez, & Dykman, 1993). We should not always polarize states of affect with neglecting their valences, because it will preclude us from detecting the nature of the relationship of affect to other constructs. Affect is nuanced, and for that reason, a more nuanced theory is needed for its research.

An ageless issue: affect and activated schemas. Affect is a valenced reaction to outcomes, events, agents, and objects relevant to individuals’ concerns (Ortony, Clore, & Collins, 1988). Affective reactions, such as satisfaction-dissatisfaction, liking-disliking, and pleasure-displeasure, are based on individuals’ prior cognitive processes, in which a variety of content discriminations are made, and simultaneously, features are identified, examined for their values, and weighted for their contributions (Zajonc, 1980). When scholars investigate the effects of affect on activated schemas, judgments, decisions, behaviors, etc., two types of affect are often involved: incidental affect and integral affect (Bodenhausen, 1993). Incidental affect is that whose source is unrelated to or beyond the object of judgment or decision, whereas integral affect is that experienced in relation to the object of judgment or decision. More specifically, integral affective responses are emotions and feelings that are elicited by real, perceived, or imagined features of the target object (Cohen, Pham, & Andrade, 2007; Pham, 2007). Since those executives’ negotiator satisfaction was measured particularly about the New Recruit negotiation, such affect should be integral affect. According to Epstein’s (1990) theory, cognition involving integral affect requires fewer processing resources; in other words, it is less resource-demanding and faster. This might make those executives have higher activated schema richness and use more activated schemas rather than systematic, detail-focused information processing. Considerable interdisciplinary findings support the notion that integral affective
responses are often interpreted as proxies for value (e.g., things that feel good must be desirable and things that feel bad must be undesirable) and these responses are very sensitive to recent experiences (Pham, 2007). Since this negotiation was a very recent experience for those business executives, when asked about it, they presumably activated all the feelings they had during the interactions with their negotiation counterparts. Overall, our results are in line with Epstein’s (1990) theory and other relevant findings.

Positive affect has been found to lead individuals to rely on global knowledge structures and internal cues, including schemas and judgment heuristics. Some negative affect, evidently, can also result in activated schema richness. Pham (2007) underlined that not all states of negative affect trigger a vigilant form of processing; for instance, anger and disgust can decrease the depth of processing and increase the reliance on schemas and other heuristic cues because these states of affect trigger a sense of certainty. This research revealed that activated schema richness vis-à-vis American and Chinese cultures has a concave upward quadratic relationship with negotiator satisfaction; activated schema richness increases as either negotiator satisfaction or negotiator dissatisfaction increases. Hence, stronger valence of affect, whether it is positive or negative, leads individuals to activate more schemas; to put it in another way, those who have neutral affect may have the lowest activated schema richness. However, it requires caution to generalize our results to other forms of affect.

A blind spot: activated cultural schemas in recent management research. The importance of cultural studies should never be belittled (Hofstede, 1991; Triandis, 1994; Kong, 2007; Ortner, 1990), but activated cultural schemas seem to be a blind spot in recent management research. There has been merely a sprinkling of management research on activated cultural schemas, albeit its mounting importance in such fields as negotiation and conflict management (Kray, Reb, Galinsky, & Thompson, 2004; Foo, Elfenbein, Tan, & Aik, 2004; Kray, Galinsky, & Thompson, 2002; Bottom & Paese, 1997; Bazerman, Curhan, Moore, & Valley, 2000), international and cross-cultural management (Brett, Behfar, & Kern, 2006), and organizational and managerial cognition (Walsh, 1995; Harris, 1994).

Among those recent sporadic management studies on activated cultural schemas, Shaw, Adbul bin Ismail, and Fisher (1989) collected cross-cultural schema data and assessed performance schemas of Singaporean managers. Morris (2005) underlined that individuals rely on activated schemas when making judgment calls and cultural schemas accounted for the distinctive behavioral biases that are exhibited by negotiators from a particular culture. He suggested three major ways in which negotiators’ cultural schemas can be triggered for their decision making: (1) attentional pressures, (2) cognitive context, and (3) emotional stressors. Culture, as a society’s characteristic profile of values, norms, and institutions, facilitates the activation and application of schemas in negotiation (Brett & Okumura, 1998). Culture interprets incoming stimuli and channels outgoing reactions (Triandis, 1972; Brett, 2000). Individuals use schemas to interpret their situations and others’ behaviors (Rice, 1926; Fiske & Taylor, 1991; Brett & Okumura, 1998; Brett et al., 1998), as negotiators do in both intra- and inter-cultural negotiations. Negotiators can activate cultural schemas at the negotiation tables and apply them in negotiation strategy selections as well as information seeking and sharing (Brett, 2000; Brett & Okumura, 1998; Tinsley & Pillutla, 1998). To maximize their outcomes, negotiators often
employ an array of negotiation strategies conceptually consistent with their activated cultural schemas, and after negotiations, they develop their cultural schemas.

**Limitations**

Despite the valuable contributions of this paper, it is not without limitations. First, our sample size was small, but it was sufficient for us to test the hypothesized curvilinear relationships of negotiator satisfaction to activated schema richness for both recruiters and candidates in the employment negotiation.

Second, in the hierarchical regression analyses, we did not find significant and positive relationships between activated schema richness and international experience, domestic intercultural experience, or cultural metacognition, though a few scholars (e.g., Lurigio & Carroll, 1985) suggested that variations in experiences can result in some differences of activated schemas and also we presumed that there should be a positive effect of cultural metacognition on activated schema richness. There are two possible reasons for this: (1) our small sample size and consequent insufficient statistical power, or/and (2) our measures of general intercultural experiences at home and abroad rather than those specific in American and Chinese cultures. However, scholars ought not to oversimplify the relationship between intercultural experience and the “expertness” on intercultural interactions that require refined organizing processes. Since we merely used the intercultural experiences as control variables, the problem of their measures should not weaken our conclusion about the curvilinear relationship of negotiator satisfaction to activated schema richness. Nevertheless, future research should tailor the measures if specific cultures are of interest.

Third, in terms of our sample, the Chinese business executives were adequately informed about American culture since the program was in the United States, whereas their American classmates were less informed about Chinese culture. Though the American executives frequently travelled abroad as they reported, they seldom had opportunities for intercultural experiences in Greater Chinese culture. Hence, if condition permits, a replication of this study in Greater China region will be desired to verify and strengthen our conclusion.

**Conclusion**

This research furthers academic understanding of the relationship of affect (negotiator satisfaction) to activated schemas (activated schema richness) by examining its curvilinearity in the context of negotiation. The strong valence of either positive affect or negative affect results in higher activated schema richness, and accordingly, individuals with neutral affect have the lowest activated schema richness. By understanding such curvilinear (specifically, quadratic) nature of this relationship, we will be better able to develop a more nuanced theory about affect and activated schemas, and will be in a better position to apply our findings to negotiation, management, and beyond.
APPENDIX

Questions to Activate Schemas

1. List a number of characteristics that you believe represent important aspects of Chinese and American cultures respectively.
2. What do you believe are the similarities between Chinese and American cultures?
3. What do you believe are the differences between Chinese and American cultures?

Cultural Metacognition Items

1. I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.
2. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.
3. I am conscious of the cultural knowledge I apply to cross-cultural interactions.
4. I check the accuracy of my cultural knowledge as I interact with people from different cultures.

International Experience and Domestic Intercultural Experience Questions

1. Approximately, how long (in years) have your international experiences in foreign countries or regions been (e.g., overseas trips, overseas projects, international rotations, etc.)?
2. How long (in years) have your intercultural experiences in your own country, approximately?

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REFERENCES


