

## ABSTRACT

Title of Document: THE CULTURALLY INTELLIGENT  
NEGOTIATOR: THE IMPACT OF CQ ON  
INTERCULTURAL NEGOTIATION  
EFFECTIVENESS

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Although scholars have repeatedly touted the practical importance of being able to negotiate effectively across cultures, paradoxically, no study has directly addressed what predicts intercultural negotiation effectiveness. In this thesis, we examined the role of cultural intelligence (CQ) as a potential predictor of intercultural negotiation effectiveness. The negotiation transcripts of 124 American and East Asian negotiators (62 dyads) were coded for joint sequencing of integrative behaviors as well as sequencing of cooperative relationship management behaviors. CQ measured a week prior to negotiations, and aggregated to the dyad level, predicted the extent to which negotiators sequenced integrative behaviors, which in turn predicted joint profit. CQ predicted integrative sequences over and beyond international experience, openness, extraversion, empathy, cognitive ability and emotional intelligence. Exploratory analyses revealed that the motivational facet of CQ had particularly strong predictive power, and that the minimum CQ score within the dyad was enough to predict integrative sequences.

THE CULTURALLY INTELLIGENT NEGOTIATOR: THE IMPACT OF CQ ON  
INTERCULTURAL NEGOTIATION EFFECTIVENESS

By

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## Dedication

To my parents and John S. Pontius Jr. for their unwavering support.

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## Chapter 1: Introduction

In this era of globalization, it is critical that organizational researchers understand how culture influences negotiation behavior for both practice and theory. Negotiating effectively across cultures is a critical skill for businesspeople, as it is a crucial aspect of many inter-organizational relationships, including strategic alliances, joint ventures, mergers and acquisitions, licensing and distribution agreements, and sales of products and services (Adler, 2002; Cai & Drake, 1998). It is those people that understand how culture influences negotiation that will have a competitive advantage in today's global marketplace (Gelfand & Christakopoulou, 1999). In addition to this practical concern, there is a theoretical impetus for culture and negotiation research. Historically, research in negotiation has tended to be largely culture-blind; it generally did not pay attention to the cultural context in which it was rooted. Furthermore, negotiation research has tended to be culture-bound, with many theories tested and developed only in Western cultural contexts (Berry, 1978; Gelfand & Dyer, 2000; Smith & Bond, 1999). The field is increasingly recognizing that it is problematic to assume that negotiation theories and findings are universal when Western cultures only encompass approximately 30% of humankind (Triandis, 1994).

Despite the importance of such pursuits, however, there is a fundamental paradox in the culture and negotiation literature. Even though the practicality of being able to negotiate effectively with people from different cultures is used to justify the need to develop cross-cultural theory, the vast majority of research remains *comparative* (Adler & Graham, 1989; Brett & Okumura, 1998). In other words, with some exceptions (Adair, Okumura, & Brett 2001; Adler & Graham, 1989; Brett & Okumura, 1998; Cai, Drake, &

Wilson, 2000; Natlandsmyr & Rognes, 1995), research focuses on comparing different negotiation behaviors across cultures, but of behaviors *as they occur in mono-cultural* settings, instead of directly examining *intercultural* settings where cultural barriers exist across the negotiation table. Implicit to this comparative approach is the researcher's assumption that people behave similarly to other negotiators from foreign cultures as they do with those from their own culture, yet there is evidence showing this is not the case (e.g. Adair et al., 2001; Adler & Graham, 1989). If practice is to truly benefit from theory, more attention needs to be paid to *intercultural* negotiations. In reviewing the most recent and comprehensive handbook of negotiation and culture (Gelfand & Brett, 2004), Kray (2005) observes, "although researchers have identified a host of cross-cultural differences in styles and preferences, negotiation scholars might consider expanding beyond simple demonstrations of differences...and explore whether awareness of these differences makes a difference...knowledge about factors influencing the effectiveness of intercultural negotiations is sparse" (p.159). Indeed, as of yet, the culture and negotiation literature reveals little as to what characteristics negotiators can be selected and or trained upon in order to maximize the chances of reaching optimal agreements in negotiations that traverse cultural borders.

As such, the focus of this study was to take an individual differences approach to see if a newly developed construct, cultural intelligence (CQ), defined as an individual's capability to adapt effectively to situations of cultural diversity (Earley & Ang, 2003), predicts intercultural negotiation effectiveness, over and beyond other similar yet distinct interpersonal constructs including international experience (travel and living experiences), personality (openness, extraversion, empathy), and other forms of

intelligence (emotional intelligence and cognitive ability). We reasoned that because CQ is a concept that specifically deals with a person's skill level in overcoming cultural barriers, it holds promise as a useful predictor in the context of intercultural negotiations. More specifically, we examined whether intercultural dyads with higher CQ as compared with dyads with lower CQ would achieve higher negotiation outcomes, namely joint profit and relational capital (Gelfand, Major, Raver, Nishii, & O'Brien, 2006) by way of integrative sequencing of information behaviors as well as sequencing of cooperative relationship management behaviors. In addition, we explored the dyad composition of CQ, that is, whether it takes one or two high CQ negotiators to achieve such effective negotiation processes and outcomes. To the best of our knowledge, no other research has directly addressed our broader question, *what predicts intercultural negotiation effectiveness?*

By examining intercultural negotiation "effectiveness" not only in terms of negotiation outcomes but also in terms of sequencing of behaviors that lead to these outcomes, we also make a contribution to the negotiation process literature in addition to the cross-cultural literature. We move beyond the predominant paradigm of just looking at the effects of an unexamined negotiation input, CQ, on negotiation outcomes (Weingart & Olekalns, 2004), but pay much-needed attention to the dynamic negotiation *process* through which CQ exerts its effects in intercultural contexts.

In the following sections, we first review empirical findings from a handful of studies on intercultural negotiation that does exist in the literature, focusing on *how* and *why* bargaining in intercultural contexts are challenging. Second, we review the literature on negotiation processes and argue that coordinated and synchronized behavior that is

difficult to achieve but required for effective intercultural negotiation involves *strategic sequencing* of integrative information behaviors as well as cooperative relationship management behaviors. Finally, we discuss the construct of CQ, review empirical findings, and present our theory as to why CQ may improve intercultural negotiation effectiveness by way of sequencing integrative information behaviors as well as relationship management behaviors.

*Intercultural Negotiations: Why are they so Difficult?*

There are only a few studies in the culture and negotiation literature that directly examine negotiations in intercultural settings. A consistent finding from what evidence does exist, however, is that joint profit, or mutually beneficial outcomes are harder to achieve in intercultural than intracultural settings. For example, Adler & Graham (1989) found that joint profits were reduced for the Japanese when negotiating with Americans than when negotiating with other Japanese. Similarly, joint profits were lower for Anglophone Canadians when negotiating with Francophone Canadians than when negotiating within their own cultural group. Natlandsmyr & Rognes (1995) similarly found that intercultural groups of Mexicans and Norwegians achieved lower joint profit than intracultural groups of Norwegians. More recently, Brett and Okumura (1998) found that intercultural negotiations between U.S. and Japanese managers realized less joint gains than intracultural negotiations between Japanese managers or intracultural negotiations between American managers. Americans in particular had poor judgment accuracy of Japanese negotiators' priorities of issues.

Why is it that intercultural negotiators are less able to achieve mutually beneficial outcomes compared to negotiators whose counterparts are from the same culture? Several

explanations can be identified in the literature. First, from a cognitive perspective, it seems that intercultural negotiators have difficulty developing a shared understanding of the task at hand. For example, Brett and Okumura (1998) argued that U.S. and Japanese negotiators bring different culture-specific schemas to the negotiation table which creates major communication inefficiency. Indeed, they found that American negotiators who value individualism had a higher self-interest schema than the Japanese who value collectivism, and Japanese negotiators who value hierarchy had a higher power schema than American negotiators who value egalitarianism. Similarly, Gelfand and McCusker (2002) argued that different culture-specific metaphoric mappings of the negotiation create different goals, scripts, and feelings in negotiation which makes it especially difficult to organize social action (Weick, 1979). For example, Americans operating under a sports metaphor may unconsciously assume that the goal of the negotiation is to conduct a performance contest, the script to emphasize aggressive behavior in which sportsmanship is expected, and feelings such as satisfaction to result from winning. In contrast, the Japanese operating under a household gathering metaphor may assume the goal of the negotiation is to ensure continuity and harmony of the group, the script to emphasize face-saving where aggression is eschewed, and feelings such as satisfaction to result from role fulfillment. Cai (1998) found empirical support for this notion specifically in terms of goals; U.S. negotiators focused more on achieving short-term, instrumental goals, whereas Taiwanese negotiators focused on long-term, global goals. In a laboratory study, Gelfand, Nishii, Godfrey, and Raver (2003) found that metaphoric similarity in negotiation was indeed an important predictor of joint gain. In so much as intercultural negotiators' metaphors differ, there is an extra hurdle that must be overcome

which intracultural negotiators do not face; that is, intercultural negotiators first need to “*negotiate the negotiation*”, or come to a shared understanding of *what kind of task the negotiation situation is about* in terms of goals, scripts, and feelings on top of addressing the actual negotiation issues themselves.

Second, from a skill-based perspective, intercultural negotiators may lack the behavioral flexibility in overcoming their habitual, culturally normative behaviors, thus creating potential for misunderstanding. For example, from the Brett and Okumura (1998) dataset, Adair et al. (2001) found that American and Japanese negotiators use different normative types of integrative behaviors in order to create joint gain in their respective cultures. Americans, who come from a low-context culture normatively engaged in high frequencies of *direct* communication behaviors (e.g. priority information) where their intended meaning is explicitly portrayed in their messages that are spoken. The Japanese, however, who come from a high-context culture engaged in high frequencies of *indirect* communication behaviors (e.g. offers) in which the intended meaning is carried through the context of the messages given. The authors also found that in intercultural settings, the Japanese adapted their behaviors to the American direct approach, whereas Americans did not adapt and continued to use their habitual direct behaviors. Despite the Japanese negotiators’ efforts, however, Americans still had misunderstandings of their counterparts, as indicated by their use of repetitive, confirmatory, and clarifying questions. It is interesting to note looking across these two studies that even though Japanese intercultural negotiators had accurate understanding of their American counterparts’ issue priorities, as well as being able to behave the “American” way, it was not enough for intercultural negotiators to achieve the same level

of joint profit as compared with American or Japanese intracultural negotiators.

This leads to a third explanation for why intercultural negotiations are particularly difficult compared to intracultural negotiations. That is, *motivation* may be an additional factor that is necessary for integrative success. For example, it is possible that Japanese intercultural negotiators did not act on their judgment accuracy to create high joint gains because they were not as motivated as Japanese intracultural negotiators to reach integrative agreement (Adair et al. 2001). It is a well documented finding in social psychology that people are much more comfortable interacting with ingroup members (Tajfel & Turner, 1979). Furthermore, incongruent cognitive structures and normative behaviors are more likely to make intercultural negotiations more stressful than intracultural negotiations (George, Jones, & Gonzalez, 1998; Kumar, 1999), making it especially difficult for intercultural negotiators to persist seeking integrative outcomes.

Clearly, when bargaining across the cultural divide, negotiators experience considerable cognitive, motivational, and behavioral challenges which can impede the negotiation process, leading to suboptimal outcomes. Therefore, in trying to improve intercultural negotiation effectiveness, the two relevant questions are: What does an effective negotiation process look like, and what individual differences might help intercultural dyads to achieve this effective process? In the next section, we focus on the first question and review the U.S. literature on negotiation process to show that coordinated and synchronized behaviors that lead to optimal outcomes are reflected in certain types of *strategic sequencing* of negotiation behaviors. We then argue that in intercultural contexts, negotiators that are able to achieve high joint profit are those who are able to develop and maintain a stable pattern of cooperative social interaction despite

cultural differences, through the use of *integrative sequences of information behaviors* as well as *cooperative sequences of relationship management behaviors*. After the next section on negotiation process, we then explore CQ as a potential individual difference variable that may predict such sequences in intercultural negotiations.

### *Negotiation Process: Strategic Sequences*

In the U.S. literature, the *process* of negotiation, or the ways in which negotiators exchange information through communication in their search for an agreement, has received considerably less research attention than have negotiation inputs (e.g. negotiator characteristics, styles, cognitions, motives) and outcomes of negotiation (e.g. individual and joint profits) (Weingart & Olekalns, 2004). However, there is wide agreement among researchers in this burgeoning literature that stable and organized social action between two negotiators is reflected in certain types of strategic *sequencing* of behaviors. Strategic sequences alter the context of the negotiation and shape the subsequent outcomes that are obtained (Brett, Shapiro, Lytle, 1998; Kelley, 1997; Neale & Northcraft, 1991; Putnam, 1990; Roloff, Tutzauer, & Dailey, 1989). For example, *reciprocal sequences* refer to negotiators matching each other's moves exactly (e.g. priority information eliciting priority information), and is interpreted as evidence that negotiators hold a high level of shared understanding of the negotiation task (Putnam, 1990; Weingart & Olekalns, 2004). Reciprocal sequences of *integrative* behaviors in particular move the negotiation down a cooperative path increasing the likelihood of maximizing joint gain (Weingart & Olekalns, 2004). There is robust empirical evidence showing that reciprocating integrative tactics generate high joint outcomes (Adair, 2003; Olekalns & Smith, 2000; Weingart, Prietula, Hyder, & Genovese, 1999; Weingart & Olekalns, 2004; Weingart,



Thompson, Bazerman, & Carroll, 1990). Furthermore, *complementary sequences* refer to negotiators not matching each other's moves exactly, but pairing similar tactics that have the same strategic focus, that is, tactics of either integrative or distributive categories. For example, priority information followed by a multi-issue offer has the same strategic focus of being integrative, yet is not identical. Adair and Brett (2005) and Adair et al. (2001) remarked that particularly in international negotiations, complementary sequences could also signal a shared cooperative understanding of the task, if parties enact integrative intentions but with different culturally normative kinds of behaviors.

Clearly, sequencing integrative behaviors while negotiators maintain a mutually shared understanding of the negotiation as a cooperative problem-solving activity move them towards integrative agreements. However, particularly for intercultural negotiators, integrative sequences should be much more difficult to maintain, given the cognitive, behavioral, and motivational barriers discussed previously. For example, from a behavioral skill-based perspective, if a low-context American negotiator intends to be cooperative and *directly* asks his or her counterpart about issue priorities, and the high-context Japanese negotiator also intends to be cooperative but *indirectly* answers with a multi-issue offer, the American not knowing how to correctly attribute meaning to the indirect behavior may misjudge that the Japanese negotiator is being competitive by avoiding the question and in turn, break the sequence of cooperative behaviors by responding negatively. Evidence for difficulties in synchronizing behaviors in intercultural contexts was indirectly found in Adair and Brett's (2005) study where they observed that intercultural dyads took longer than intracultural dyads to reach stable interaction patterns. Furthermore, it stands to reason that divergence in the content of

cognitive structures is also an obstacle for maintaining sequences of integrative behaviors. For example, if one negotiator implicitly focuses on short-term, instrumental goals whereas the other focuses on long-term, relational goals, the misalignment of the two goals should make synchronization of behaviors more difficult than when the goals are aligned. Finally, if negotiators lack the motivation or persistence in interacting with people from different cultures in the first place or easily becomes unmotivated because of cultural barriers, the already fragile process of sequencing behaviors becomes unlikely to occur.

We argue then, that for intercultural negotiations to be effective, dyads would ideally consist of negotiators who have the capabilities in overcoming the cognitive, motivational, and behavioral hurdles mentioned above and are able to maintain sequencing of integrative behaviors. Furthermore, we argue that in addition to integrative sequences which focus on information exchange and is strictly task focused, effective intercultural negotiators would manage the relationship to maintain the fragile cooperative context and engage in sequences of cooperative relationship-focused comments throughout the negotiation (e.g. non task-focused expressions of enthusiasm for working together). Thus, in our study we focused on sequences of integrative information behaviors and sequences of cooperative relationship management behaviors, which we expected to influence both objective and subjects aspects of negotiation outcomes. For negotiation outcomes, our main focus was on joint profit but we also examined relational capital (Gelfand et al., 2006), or the quality of the on-going relationship alongside joint profit. Subjectively measured outcomes such as relational capital is increasingly recognized by scholars as an important criterion since negotiation

effectiveness is both the cause and consequence of the working relationship (e.g. Allred, Mallozzi, Matsui, & Raia, 1997; Gelfand et al., 2006; Greenhalgh & Kramer, 1990; Kramer & Messick, 1995).

Below, we argue that CQ will predict both integrative sequences of information behaviors as well as cooperative sequences of relationship management behaviors, which in turn will lead to joint profit and relational capital in intercultural negotiation (see figure 1). Before we present our theory as to why CQ is beneficial, we will first discuss the construct of cultural intelligence in detail and review empirical findings on CQ in the next section.

### *Cultural Intelligence*

#### Construct of CQ

Cultural intelligence (CQ), defined as a person's capability in successfully adapting to new cultural settings (Earley & Ang, 2003) was developed as a construct to address a question shared by many international HR managers: Why is it that some individuals who sometimes appear to be lacking social skills within their own culture adjust easily, quickly, and entirely to new cultures whereas other individuals, even those who possess high interpersonal skills within their own cultures, do not (Earley & Ang, 2003)? In response to this need of understanding individual differences in cultural adaptation, Earley and Ang (2003) conceptualized CQ as a multi-faceted characteristic consisting of meta-cognitive, cognitive, motivational and behavioral components.

The meta-cognitive facet of CQ refers to the level of cultural mindfulness during intercultural interactions (Ang, Van Dyne, & Koh, 2004). People who are high on meta-cognitive CQ engage in higher-order thinking which involves the active control over

cognitive processes engaged in learning about a new culture. In other words, individuals with high meta-cognitive CQ *plan* how to approach learning about the new culture, *monitor* their own comprehension, and *evaluate* their own progress towards comprehending the new culture. Meta-cognitive CQ is especially an important component of cultural intelligence for several reasons: 1) it promotes active thinking about people and situations in foreign cultural settings; 2) it prevents reliance on rigid, culturally bounded thinking and assumptions; and 3) it drives individuals to revise their strategies so that they are more likely to experience successful cross-cultural interactions (Ang et al., 2004).

Whereas meta-cognitive CQ involves higher-level cognitive processes, cognitive CQ refers to acquired knowledge about a particular culture. This includes declarative knowledge, which refers to knowing *about* things such as a new culture's economic, political, and legal systems, as well as procedural knowledge which refers to knowing *how to do* things within a new culture. Declarative knowledge can be acquired through observation or by directly asking host nationals, whereas procedural knowledge can be obtained through mimicry. Cognitive CQ is important for cultural intelligence because individuals can gain a better understanding of the systems that shape specific patterns of social interaction within a culture (Ang et al., 2004).

Motivational CQ emphasizes a person's values and self-efficacy in adapting to new cultures. Individuals with high motivational CQ are genuinely interested and are open to new cultural experiences. They are also highly self-efficacious about cross-cultural interactions and strongly believe in their own ability to deal with different perspectives of others, unfamiliar situations, and handle complexity and uncertainty.

When individuals with high motivational CQ face obstacles or failures, they reengage with perseverance rather than withdrawing from the task. Motivational CQ is important for cultural intelligence because it triggers effort and action as well as expanding and intensifying a person's search for the best way to adapt to new cultural environments (Earley & Ang, 2003).

Finally, behavioral CQ refers to the extent to which an individual acts appropriately, both verbally and non-verbally, in new cultural contexts (Ang et al., 2004). Individuals with high behavioral CQ are flexible and change their behaviors to meet the needs of a particular cultural situation. More specifically, they are sensitive to the range of behaviors that are enacted, the culture-specific display rules for nonverbal expressions, and the meanings that are attributed to certain non-verbal behaviors. Furthermore, knowing and wanting to elicit the right response is not enough for behavioral CQ; one must overcome already learned habits and elicit the appropriate response.

#### Empirical Findings on CQ

Given the infancy of the construct, empirical research on CQ is sparse, yet evidence for its predictive validity is growing. For example, in a series of studies, Ang, Van Dyne, Koh and Ng (2004) found that CQ significantly predicted task performance and adjustment in situations of cultural diversity among undergraduates, international executives, and foreign professionals. In one study, they gave undergraduates a cultural judgment and decision-making task where participants were required to read five cultural interaction scenarios and select the best response that explained the situation. Meta-cognitive and cognitive CQ significantly predicted cultural judgment and decision-making over and beyond demographic characteristics and cognitive ability.

In a second study, business executives of various nationalities participated in an executive development program on cultural intelligence. They were assigned to intercultural dyads and given an assignment where they were required to analyze a business scenario for developing a vacant piece of land in a culturally diverse part of Singapore. Their tasks consisted of convincing landowners that their plan had both marketing and financial viability. Each intercultural dyad wrote a business proposal and gave a presentation of their proposal at the end of the program. Peers rated each individual's task performance. It was found that meta-cognitive and behavioral CQ predicted task performance, and motivational and behavioral CQ predicted general adjustment.

In study three, foreign professionals completed an online survey on general, work, and interaction adjustment, and each professional's supervisors rated his or her work performance. Meta-cognitive CQ and behavioral CQ predicted work performance while motivational and behavioral CQ predicted all three types of adjustment, over and beyond demographic characteristics.

In another study, Templer, Tay, and Chandrasekar (2006) examined the utility of motivational CQ in predicting general and work adjustment over and beyond realistic job previews (RJP) and realistic living conditions previews (RLCP) among expatriates. As hypothesized, the authors found that motivational CQ was positively related to general and work adjustment over and beyond the two types of job previews as well as gender, age, time in host country, as well as prior international assignments.

In sum, the predictive validity of CQ has been shown in many samples, (i.e. undergraduates, expatriates, foreign professionals, international executives) using many

criteria (i.e. cultural judgment tasks, quality of business proposals developed through collaborative intercultural interaction, adjustment in foreign assignments), and over and beyond other constructs (i.e. demographics, intelligence, international experience). In the next section, we argue that CQ is also beneficial in the context of intercultural negotiations.

### *Cultural Intelligence and Intercultural Negotiation Effectiveness*

Based on the previous discussion, we postulated that intercultural dyads with high CQ will be able to organize social action and engage in more sequences of integrative information behaviors and sequences of cooperative relationship management behaviors, allowing them to achieve high negotiation outcomes compared with dyads with low CQ. Hypothesized effects are summarized in figure 1.

#### Hypotheses: CQ and Strategic Sequences

First, we expected that when dyads consist of individuals with high CQ, they will engage in more sequencing of integrative information exchange behaviors than when dyads consist of individuals with low CQ. Because high CQ individuals enjoy interacting with people from other cultures, they are more likely to adopt a cooperative approach to negotiating. In addition, high CQ individuals, with their meta-cognitive abilities are acutely aware that culture may cause potential misunderstandings in intercultural contexts. Thus, they will question their own cultural assumptions as well as draw on their existing knowledge of other cultures to try to understand their counterparts' cultural assumptions. Furthermore, high CQ individuals possess a wider range of behaviors they can accurately interpret as well as enact and are less prone to threats that throw

intercultural negotiators out of sync. For example, using the previously mentioned example of a direct question about issue priorities being followed by an indirect multi-issue offer, high CQ Americans are more likely to be able to recognize that people from high context cultures use indirect communication as a way to provide information and correctly attribute the indirect tactic as cooperative, as well as still being able to glean information that is present in the context of the messages given. Finally, high CQ individuals are more likely to persist even if the negotiation becomes stressful and difficult given their high motivation in intercultural situations.

Thus, based on the previous discussion, we predicted that CQ predicts sequences of integrative information behaviors. We examined integrative sequences in two ways: *reciprocal* integrative sequences which occur when a certain negotiation tactic is followed by an identical negotiation tactic, and *complementary* integrative sequences which occur when a negotiation tactic is followed by a different negotiation tactic, but of the same general integrative information strategy. Furthermore, borrowing from Adair's (2003) approach, we studied sequencing as they occurred at immediate and delayed time lags.

*H1. Dyads with higher CQ will engage in higher frequencies of immediate and/or delayed reciprocal sequences of integrative information behaviors than dyads with lower CQ.*

*H2. Dyads with higher CQ will engage in higher frequencies of immediate and/or delayed complementary sequences of integrative information behaviors than dyads with lower CQ.*

Second, in addition to engaging in sequences of integrative information behaviors



that are task-focused, we expected dyads with high CQ to manage the relationship itself by engaging in more sequences of cooperative comments (e.g. expressions of enthusiasm for working together, cooperative acknowledgement of another's perspective) that reinforce the cooperative context of the negotiation than dyads with low CQ. Although this type of sequencing has not been examined before in the literature, we expected it was another way in which high CQ individuals, who are conscious of potential cultural misunderstandings and stress that can arise out of intercultural interactions, to effectively buffer the negotiation.

*H3. Dyads with higher CQ will engage in higher frequencies of immediate and/or delayed cooperative sequences of relationship management behaviors than dyads with lower CQ.*

#### Hypotheses: Strategic Sequences and Negotiation Outcomes

In the negotiation process literature, it has generally been found that sequences of cooperative behaviors lead to joint profit (Adair, 2003; Olekalns & Smith, 2000; Weingart et al., 1999; Weingart & Olekalns, 2004; Weingart et al., 1990); however, most studies examining this relationship have been conducted in U.S. intracultural settings. Weingart and Olekalns (2004) argue that more research needs to examine the strategic sequence—outcome relationship as they occur in different negotiation contexts. Thus, in this study, we examine the relationship between strategic sequences and joint profit as they occur in the intercultural context. Based on the previous U.S. finding that generally, sequences of cooperative behaviors lead to joint profit, we predicted the following:

*H4. Dyads that engage in higher frequency of immediate and/or delayed reciprocal sequences of integrative information behaviors will achieve higher*

*joint profit.*

*H5. Dyads that engage in higher frequency of immediate and/or delayed complementary sequences of integrative information behaviors will achieve higher joint profit.*

*H6. Dyads that engage in higher frequency of immediate and/or delayed cooperative sequences of relationship management-focused behaviors will achieve higher joint profit.*

Furthermore, alongside joint profit, we examined dyad-level relational capital, or what Gelfand et al. (2006) define as “the relational assets that accumulate within a specific dyadic negotiation relationship” (p.11), more specifically consisting of mutual liking, knowledge, trust, and commitment to continuing the relationship. Subjective outcomes such as relational capital are increasingly recognized by scholars as an important criterion since negotiation effectiveness is both the cause and consequence of the working relationship (e.g. Allred et al., 1997; Gelfand et al., 2006; Greenhalgh & Kramer, 1990; Kramer & Messick, 1995). We generally expected that intercultural dyads that engage in sequences of both integrative information behaviors as well as relationship management behaviors would gain higher relational capital.

*H7. Dyads that engage in higher frequency of immediate and/or delayed reciprocal sequences of integrative information behaviors will achieve higher relational capital.*

*H8. Dyads that engage in higher frequency of immediate and/or delayed complementary sequences of integrative information behaviors will achieve higher relational capital.*

*H9. Dyads that engage in higher frequency of immediate and/or delayed cooperative sequences of relationship management behaviors will achieve higher relational capital.*

Control Variables: Other Individual Difference Constructs

In examining whether CQ predicts the above-mentioned sequences, we included other individual difference constructs as controls. Although there is no other empirical study linking other individual differences to strategic sequences, we felt it was important to control for them, given evidence of individual differences predicting integrative *outcomes* and that these effects may have been mediated by the sequencing of behaviors. For example, Barry and Friedman (1998) found that specifically in integrative bargaining, dyad-level cognitive ability predicted the level of joint gain. The authors also found that extraversion, agreeableness, and conscientiousness did not help joint outcomes; however in a distributive bargaining context, extraversion and agreeableness were liabilities. Furthermore, Foo, Elfenbein, Tan, & Aik (2004) found that higher average emotional intelligence predicted better joint gain. Finally, Ma & Jaeger (2005) found that among Chinese negotiators, openness to experience was positively related to self-reported integrative behaviors and extraversion was positively related to both self-reported integrative and competitive behaviors. Thus, in our study, we controlled for cognitive ability, emotional intelligence, openness to experience, extraversion, empathy, and international experience in testing whether CQ predicts sequences of integrative information behaviors and sequences of relationship management behaviors. Given that CQ specifically deals with overcoming cultural problems and is more conceptually relevant to the intercultural negotiation context than the other individual difference

constructs, we expected CQ to have predictive power over and beyond these other individual differences. In order to provide a strong test of CQ's predictive power of strategic sequences over and beyond these other constructs, we included all six controls in our analyses.

#### Exploratory Analyses

In addition to the hypothesized relationships, we examined two exploratory questions. First, although our theory was kept at the overall CQ level, we examined which of the four CQ facets influence sequences of integrative information behaviors and sequences of cooperative relationship management behaviors. We were interested in exploring what specific facet could have more predictive power over others. For example, although having the ability to think meta-cognitively about culture, having extensive knowledge about other cultures, and being able to adapt behaviorally are most likely important in maintaining strategic sequences, it could be that these factors have little effect if the negotiators' motivation to interact with people from different cultures is absent in the first place.

Second, we explored the effects of dyad composition of CQ on strategic sequences; that is, whether it takes one high CQ negotiator or two high CQ negotiators to have a positive impact on engaging in sequences of integrative information behaviors as well as relationship management behaviors. Given that strategic sequencing is a *conjunctive* task (Steiner, 1972) in which contributions from both negotiators are required for high performance, it is possible that a dyad's level of strategic sequencing depends on the lowest level of CQ within the dyad, or in other words, the "weakest link". That is, even if one negotiator possesses high CQ, as long as the other negotiator has low CQ and

does not contribute to the joint activity of reciprocating integrative as well as cooperative behaviors, the dyad may still suffer as a result. Thus, in sum, we explored the effects of specific facets of CQ, as well as the dyad composition of CQ, on sequences of integrative information behaviors and sequences of relationship management behaviors.

## Chapter 2: Method

### Participants

150 students (75 Americans and 75 East Asians) at both undergraduate and graduate levels were recruited through flyers, listservs, and newspaper advertisements at a large university in Maryland. For the American sample, the advertisement specifically targeted “American citizens of western European descent” and for the East Asian sample, those who have “lived in the U.S. for less than five years and are originally from China (including Taiwan), Japan, or Korea”. All students were given a \$20 cash card for use at the campus bookstore for participation. The American sample consisted of 29 males and 46 females, and the mean age was 26.9 years old. The East Asian sample consisted of 28 males and 47 females, and the mean age was 26 years old. American and East Asian students were first matched on sex and level of education (graduate or undergraduate), and then randomly paired to form 75 intercultural negotiation dyads. Within the dyad, participants were randomly assigned to one of two negotiator roles. 10 dyads had at least one member who did not give consent to the use of their digitally-recorded process data. Thus, 10 dyads were excluded from analyses with a final dyad-level sample size of 65, consisting of 130 individuals.

### Procedure

The study took part over two sessions, each session separated by a minimum of one week. On the first day, participants were asked to fill out an online questionnaire from home that assessed all individual difference characteristics, except for cognitive ability which involved a timed test, and could not be conducted online. On the second

day, participants were asked to come into the laboratory to role-play a negotiation simulation. Participants first read their role and task information and filled out a pre-negotiation planning sheet individually. After being reminded to take their negotiation roles seriously, participants were brought together with their partners from the other culture to role-play a 20-minute negotiation while being digitally tape-recorded. At 15 minutes into the negotiation, participants were given a reminder that there were five minutes remaining. After the negotiation session, both negotiators filled out a final agreement form that indicated the level of settlement reached for each negotiation issue. Negotiators were then separated to fill out a post-negotiation questionnaire that assessed subjective negotiation outcomes. After filling out the post-negotiation questionnaire, participants were timed for 12 minutes to complete a test of cognitive ability. Finally, participants were fully debriefed on the purpose of the study.

### Negotiation Task

The negotiation simulation was adapted from Towers Market II, used in previous research on integrative bargaining (Weingart, Olekalns, & Smith, 2004), and involved one participant playing the role of a specialty grocery shop owner, and the other participant playing the role of a specialty wine shop owner. Participants were told that a successful real estate company has proposed developing a multifunctional market that consists of a wine store and a grocery store under one roof with common décor but with separate areas for their respective top-quality products. Participants were told that they were seriously interested in the shared market but needed to negotiate five unresolved issues with the other vendor: 1) *Hours of Operation*, 2) *Renovation Costs*, 3) *Floor Space*, 4) *Temperature*, and 5) *Grand Opening Date*.

Each participant was given role instructions that included a payoff schedule that listed the five possible levels of settlement on each of the five negotiation issues and the number of points associated with each level of settlement within an issue. Points indicated the amount of worth of that level of settlement to the negotiator (see table 1). Depending on which negotiation role the participant played, different negotiation issues were most important and least important to the negotiator. For example, for the grocery shop owner, the most important issue was the Grand Opening Date (with the best settlement option September 1 worth 400 points), whereas for the wine shop owner, the most important issue was the Renovation Cost (with the best settlement option \$30,000 also worth 400 points). Thus, negotiation issues Grand Opening Date and Renovation Cost were integrative issues where negotiators could identify differences in priorities and make tradeoffs. Hours of Operation and Temperature were distributive issues in which the payoff for one negotiator was diametrically opposite of the other negotiator, and Floor Space was a compatible issue where the payoff structure was identical for both negotiators. In order to ensure that participants understood the payoff schedule, a quiz was included in the role instructions which asked participants to calculate the total number of points that would be gained given a specific settlement across the five issues. If participants got the answer incorrect, they were asked to review the task instructions again.

### *Coding of Negotiation Behaviors at the Tactical Level*

#### Coding Scheme

Process data from the digital tape-recordings of negotiation sessions were transcribed, unitized, and coded. The coding scheme was adapted from one developed by



Weingart and colleagues for their Towers Market II negotiation simulation (cf. Weingart et al., 2004; see appendix A for 37 tactic codes and definitions).

### Coding Process

After all of the process data had been transcribed, the negotiation dialogue was unitized and coded at the thought-unit level, where a thought-unit refers to one thought or idea which roughly corresponds to a sentence. Through multiple half-day practice sessions, three research assistants were trained on how to unitize the negotiation dialogue into thought units. Initial practice sessions were conducted as a group in order for research assistants to develop a collective understanding of how to deal with difficult cases such as when one thought unit was expressed repeatedly in multiple sentences, as well as when multiple thought units were expressed within one sentence. Research assistants were trained until they reached a high level of unitizing reliability then unitized their own batch of transcripts. Three full transcripts were randomly chosen for all research assistants to unitize before each unitized their own batch. Between all pairs of research assistants, Guetzkow's U (Guetzkow, 1950) was calculated, which is the difference between the number of units identified by an independent coder and the "true" number of units (i.e. the average of the two coders' estimates). The average Guetzkow's U between all pairs of research assistants, for any one of the three full transcripts was under 0.06, indicating high unitizing reliability (Guetzkow, 1950).

Once all process data had been unitized, two coders blind to all research hypotheses content-coded the negotiation transcripts at the tactical level. Again, coders were trained through multiple half-day practice sessions, this time specifically on how to apply the coding scheme. During the practice sessions, coders independently worked on

their own, and then compared their answers in order to resolve disagreements and develop a collective understanding of each tactical code. At the end of the practice sessions, the two research assistants coded three randomly drawn full transcripts. The average inter-rater reliability of the three transcripts was high, with Cohen's  $K = 0.88$ .<sup>1</sup>

*Operationalizing Frequencies of Strategic Sequences: Sequences of Integrative Information Behaviors and Sequence of Cooperative Relationship Management Behaviors*

Grouping of Negotiation Tactics into Strategic Clusters

Once all negotiation behaviors for each speaking turn within a dyad were coded at the tactical level as listed in appendix A (e.g. states preference within a single issue, states priority information across two or more issues, etc.), all 37 negotiation tactics were conceptually grouped into strategic clusters, which was the level of abstraction in which strategic sequences were defined (see below for details). First, the strategic cluster of *integrative information* included the following negotiation tactics: a) states preference within a single issue, b) states priority information across two or more issues, c) asks a question about other's issue preference, d) asks a question about other's priority across two or more issues, e) notes issue difference with sympathy, f) notes similarity in issue preference or priority, g) suggests compromise or willingness to concede, h) suggests package tradeoff of two or more issues, i) expresses positive reaction to issues, j) makes multi-issue offer, and k) suggests reciprocity. We conceptualized *integrative information* more broadly than is typically done in U.S. negotiation research which focuses primarily on direct ways of conveying information (i.e. statements and questions about issue preference and priorities, and stating issue differences and similarities), by including

integrative tactics that allowed for more indirect ways of conveying information which is more common in East Asian cultures (Adair et al., 2001; Adair, 2003; Adair & Brett, 2005). We reasoned that in intercultural contexts, it is more realistic that high CQ negotiators would use a wider repertoire of behaviors in exchanging information than solely relying on direct behaviors that are normative in the U.S. Thus, in examining integrative processes, it is important to not only include Western derived measures of integration but also Eastern derived measures of integration, lest the measure be biased. Thus, we also included the following tactics as integrative information: suggests compromise or willingness to concede; suggests package tradeoff of two or more issues; expresses positive reaction to issues; makes multi-issue offers; and suggests reciprocity, as they all convey information about one's issue preferences or priorities in an indirect, implicit way.

Second, in order to examine the negotiation process in terms of not only task-focused integrative information behaviors but of how negotiators manage their relationships with each other, we added the strategic cluster of *cooperative relationship management*, which included the following negotiation tactics: a) makes off-task comments about cooperation, b) notes mutual interdependence, and c) comments that validate other's perspective. Finally, other negotiation tactics were also grouped into strategy clusters of *distributive information* and *competitive non-information* (see appendix A); however, given that there were no significant results on these variables, they will not be discussed further.

Definition of Sequence of Integrative Information Behaviors: Reciprocal and Complementary.

Sequences of integrative information behaviors occurred when a specific

negotiation tactic falling within the strategy cluster of *integrative information* (elicited by negotiator 1), was followed by another negotiation tactic also falling within the strategy cluster of *integrative information* (elicited by negotiator 2). As previously mentioned, sequences of integrative information behaviors were examined in two ways: 1) *reciprocal sequences of integrative information behaviors* and 2) *complementary sequences of integrative information behaviors* (Weingart & Olekalns, 2004). A *reciprocal* sequence of integrative information behaviors occurred when the two negotiation tactics comprising the sequence were identical (e.g. negotiator 1 states issue preference → negotiator 2 states issue preference). For each dyad, reciprocal sequences for each negotiation tactic within the integrative information strategy were counted and summed to give an overall count of reciprocal sequences across all tactic types. A *complementary sequence of integrative information behaviors* occurred when the two negotiation tactics comprising the sequence were *not* identical (e.g. negotiator 1 asks a question about other's priority across two or more issues → negotiator 2 states priority information across two or more issues), but were of the same integrative information strategy. In sum, both reciprocal and complementary sequences involve sequences of negotiation tactics that fall under the integrative information strategy cluster. However, reciprocal sequences involve two identical negotiation tactics whereas complementary sequences involve two different negotiation tactics.

#### Definition of Sequences of Cooperative Relationship Management Behaviors

*Sequences of cooperative relationship management behaviors* occurred when any negotiation tactic falling within the strategic cluster of *cooperative relationship management* (elicited by negotiator 1) was followed by any negotiation tactic also falling

within the strategic cluster of *cooperative relationship management* (elicited by negotiator 2). An example is when negotiator 1 makes a miscellaneous cooperative comment and is followed by negotiator 2 also making a miscellaneous cooperative comment.

#### Counting Sequences at Immediate and Delayed Time Lags

In determining the frequency of each type of sequences for all dyads, reciprocal sequences of integrative information behaviors, complementary sequences of integrative information behaviors, and sequences of cooperative relationship management behaviors were all counted at immediate and delayed time lags, as done by previous research (Adair, 2003; Adair & Brett, 2004). *Immediate* time lags occurred when the tactic elicited by negotiator 1 is immediately followed in the *next speaking turn* by the tactic elicited by negotiator 2. *Delayed* time lags occurred when the tactic elicited by negotiator 1 is followed *three speaking turns afterwards* by the tactic elicited by negotiator 2.

As an illustration, suppose C represents a cooperative relationship management tactic, O represents some other tactic, and the subscripts one and two represent the negotiator within the dyad. If we are interested in counting the number of *immediate* cooperative sequences of relationship management behaviors, the negotiation pattern of  $C_1C_2O_1C_2O_1$  has *one* immediate cooperative sequence of relationship management behaviors among four total sequences at the immediate time lag (i.e.  $C_1C_2$ ,  $C_2O_1$ ,  $O_1C_2$ ,  $C_2O_1$ ). However in counting the number of *delayed* cooperative sequences of relationship management behaviors, the same negotiation pattern would also count *one* delayed cooperative sequence of relationship management behaviors, this time between two total sequences at the delayed time lag (i.e.  $C_1C_2O_1C_2$ ,  $C_2O_1C_2O_1$ ). As such, raw dyad

frequencies were counted for reciprocal sequences of integrative information behaviors, complementary sequences of integrative information behaviors, and cooperative sequences of relationship management behaviors at both immediate and delayed time lags. This was done automatically for each dyad, using Bakeman and Quera's (1995) General Sequential Quierier software program.

To control for the total number of speaking turns across dyads (i.e. the length of the negotiation), the raw frequencies for each type of strategic sequence was converted into relative frequencies (c.f. Adair, 2003; Adair & Brett, 2005). More specifically, the raw frequency of immediate strategic sequences was divided by the *dyad's total number of speaking turns – 1*, whereas the raw frequency of delayed strategic sequences was divided by the *dyad's total number of speaking turns – 3*. Because small proportions can pose statistical challenges, the relative frequencies were then logit-transformed to stretch the tails of the distribution as recommended by Cohen, Cohen, West, and Aiken (2003).

#### Examining the Latter Two-Thirds of the Negotiation Transcript

Given that it takes time for negotiators' patterned behaviors such as strategic sequences to emerge, especially in intercultural contexts (Adair & Brett, 2004; 2005), and that it also takes time for individual differences to surface and impact social integration in group contexts (Harrison, Price, Gavin, & Florey 2002), we examined whether CQ predicts integrative and relationship management sequences at the latter two-thirds of the negotiation. Borrowing Adair and Brett's (2005) approach, we divided each dyad's full transcript into thirds based on the total number of speaking turns, and counted the relative frequencies of each type of strategic sequence as they occurred in the latter two-thirds of the negotiation. Tests of our hypotheses were also conducted examining strategic

sequences that occurred in the full negotiation; however, results were stronger focusing on the latter two-thirds of the negotiation. Thus, we present the results for the full negotiation for the interested reader in appendix B; however, we focus our analyses and discussion looking at the latter two-thirds of the negotiation.

### Individual Difference Measures

#### Cultural Intelligence (CQ)

CQ was assessed using a 20-item four-factor measure developed by Ang et al. (2004, see appendix C for items), and used by others for empirical research (Ang, Van Dyne, & Koh, 2006; Templer et al., 2006). Evidence for factor equivalence in two samples (Singapore and U.S.), acceptable reliability, temporal stability, and cross-validation for the measure can be found in a series of studies conducted by the authors.

Ang et al. (2004) first generated a pool of 53 items based on the cross-cultural adjustment literature and interviews with eight executives with extensive international work experience. Three researchers and three other international executives with cross-cultural expertise then independently assessed the items for relevance, clarity, and fidelity. They also rated each item for consistency with definitions of the four factors of CQ. For each factor, 10 best items were retained, forming the initial 40-item CQ scale. Next, 576 undergraduate students in Singapore completed the 40-item CQ scale. Principle axis factor analysis with varimax rotation demonstrated factor loadings for 24 items in four primary factors with 62.9% of overall variance explained. Confirmatory factor analysis using a second sample of Singaporean undergraduate students demonstrated that the 24-item measure had moderate fit, but a 20-item measure, used in this study, had a significantly better fit. Reliabilities for this 20-item scale were

acceptable in Ang et al.'s (2004) sample:  $\alpha_{\text{Meta-cognitive}} = 0.76$  for four items,  $\alpha_{\text{Cognitive}} = 0.84$  for six items,  $\alpha_{\text{Motivational}} = 0.77$  for five items, and  $\alpha_{\text{Behavioral}} = 0.84$  for five items. In addition, the authors examined the temporal stability of the CQ scale. Participants completed the 20-item CQ scale for the second time four months after the first assessment, and results showed factor invariance across time. Finally, for cross-validation, Ang et al. had 337 American undergraduates complete the 20-item CQ measure and found strong support for invariance in factor structure, factor loadings, and factor covariances across the U.S. and Singapore. In a separate study examining the personality antecedents of CQ, Ang et al. (2006) replicated these results providing additional evidence for the four-factor model of CQ.

In the present study, overall CQ had high reliability ( $\alpha_{\text{American}} = 0.90$ ;  $\alpha_{\text{East Asian}} = 0.86$ ). Example items include “I am conscious of the cultural knowledge I apply to cross-cultural interactions” for meta-cognitive CQ (four items;  $\alpha_{\text{American}} = 0.84$ ,  $\alpha_{\text{East Asian}} = 0.83$ ), “I know the legal and economic systems of other cultures” for cognitive CQ (six items;  $\alpha_{\text{American}} = 0.80$ ,  $\alpha_{\text{East Asian}} = 0.78$ ), “I enjoy interacting with people from different cultures” for motivational CQ (five items;  $\alpha_{\text{American}} = 0.86$ ,  $\alpha_{\text{East Asian}} = 0.70$ ), and “I change my verbal behavior when a cross-cultural interaction requires it” for behavioral CQ (five items;  $\alpha_{\text{American}} = 0.87$ ,  $\alpha_{\text{East Asian}} = 0.77$ ), to which participants indicated their extent of agreement from (1) “strongly disagree” to (7) “strongly agree”.

Furthermore, confirmatory factor analysis (CFA) was used to confirm the dimensionality of the 20 CQ items from Ang et al.'s (2004) scale. Given that individual items tend to have low reliabilities and often violate assumptions of multivariate normality, we used the parceling method, where item clusters or “parcels” are used as



indicators instead of individual items (Bandalos, 2002; Nasser & Wisenbaker, 2003). In order to create parcels, for each CQ facet, exploratory factor analysis was conducted with maximum likelihood estimation specifying one factor, in order to identify items with high factor loadings and lower factor loadings. For meta-cognitive CQ with a total of four items, two parcels were created with two items each, each parcel being the average of an item with a higher factor loading and an item with a lower factor loading. Similarly for cognitive CQ with a total of six items, three parcels were created with two items each. For motivational and behavioral CQ with a total of five items respectively, three parcels were created with two items each, but the third parcel representing the one item with the median factor loading. Specifying a model where the parcels load onto relevant CQ facets, and where all CQ facets load onto overall CQ, the overall fit of the model was good ( $\chi^2 [40] = 73.46, p = 0.00; CFI = 0.95; SRMR = 0.08; RMSEA = 0.08$ ).

#### International Experience

Both international travel experiences and international living experiences were measured. Borrowing from Takeuchi, Tesluk, Yun, and Lepak (2005), participants were asked to list, in chronological order from most recent to least recent, the countries and duration of each type of international experience that they considered important. All travel and international experiences were summed respectively, and converted to weeks.

#### Openness to Experience

Openness to experience was measured with 10 items from Goldberg's short version of the International Personality Item Pool (IPIP, 2006). An example item is, "I spend time reflecting on things" ( $\alpha_{\text{American}} = 0.75, \alpha_{\text{East Asian}} = 0.82$ ), answered on a (1

“very inaccurate” to (5) “very accurate” scale.

#### Extraversion

Extraversion was also measured with 10 items from Goldberg’s short version of the International Personality Item Pool (IPIP, 2006). An example item is, “I am the life of the party” ( $\alpha_{\text{American}} = 0.88$ ,  $\alpha_{\text{East Asian}} = 0.89$ ).

#### Empathy

Empathy was measured with Davis’ Interpersonal Reactivity Index (IRI, 1983), consisting of 28 items ( $\alpha_{\text{American}} = 0.78$ ,  $\alpha_{\text{East Asian}} = 0.77$ ). Participants’ responses were made on a five-point scale ranging from (0) “does not describe me well” to (4) “describes me well”. An example item includes, “I believe that there are two sides to every question and try to look at them both.”

#### Emotional Intelligence

Emotional intelligence was measured using Schutte et al.’s (1998) 33-item scale that was developed based on Salovey and Mayer’s (1990) conceptualization of the construct ( $\alpha_{\text{American}} = 0.87$ ;  $\alpha_{\text{East Asian}} = 0.91$ ). An example item is “When I experience a positive emotion, I know how to make it last”, and was administered on scale from (1) “strongly disagree” to (5) “strongly agree”.

#### Cognitive Ability

Cognitive ability was measured using the Wonderlic Personnel Test (WPT, 2000), a 12-minute speed test consisting of 50 questions that assesses an individual’s math and verbal abilities.<sup>2</sup>

### Outcome Measures

#### Joint Profit

Joint profit was measured summing the total number of points in the payoff schedule earned by both negotiators within a dyad.

#### Relational Capital

Relational capital (Gelfand et al., 2006) was measured with 12 items written for this study, tapping negotiators' mutual liking, trust, understanding, and commitment to their future relationship (see appendix D;  $\alpha_{\text{American}} = 0.88$ ,  $\alpha_{\text{East Asian}} = 0.91$ ).

### Demographics

Five demographic variables were measured at the dyad-level: dyad sex (1=female, 2=male), dyad level of education (1=undergraduate, 2=graduate), dyad mean age (years), negotiation experience (1=no, 2=yes), and the East Asian's length of stay in the U.S. (months).

## Chapter 3: Results

### Descriptive Statistics

All individual difference scores and relational capital scores were aggregated to the dyad-level by averaging the two negotiators' scores. Means, standard deviations, and dyad-level inter-correlations for the individual difference measures, strategic sequences, outcomes, as well as demographic variables are shown in table 2. None of the demographic variables were significantly correlated with negotiation processes or outcomes, except for dyad sex and joint profit ( $r(62) = 0.35, p < 0.01$ ), where male dyads achieved higher joint profit than female dyads. In terms of individual differences and strategic sequences, there were a number of notable significant correlations: CQ and immediate complementary sequences of integrative behaviors ( $r(65) = 0.32, p < 0.05$ ), CQ and delayed complementary sequences of integrative behaviors ( $r(65) = 0.31, p < 0.05$ ), openness and immediate reciprocal sequences of integrative behaviors ( $r(65) = 0.32, p < 0.05$ ), and emotional intelligence and immediate complementary sequences of integrative behaviors ( $r(65) = 0.25, p < 0.05$ ).

### Tests of Hypotheses Using Multiple Regression

All hypotheses, each representing a path in the model in figure 1, were tested using multiple regressions. Subsequently, a post-hoc path model was fit based on significant regression paths found (see below).

#### Overall CQ and Negotiation Process

Hypothesis 1 predicted that dyads with higher overall CQ will engage in more immediate and/or delayed reciprocal (i.e. identical) sequences of integrative information

behaviors than dyads with lower overall CQ, over and beyond international experience (i.e. travel and living experiences), personality (i.e. openness, extraversion, empathy) and intelligence constructs (i.e. emotional intelligence and cognitive ability). The results in table 3 show that overall CQ did not significantly predict reciprocal sequences of integrative information behaviors at immediate ( $\beta = 0.08, p > 0.60$ ) or delayed time lags ( $\beta = 0.18, p > 0.15$ ). Thus, hypothesis 1 was not supported.

Hypothesis 2 predicted that dyads with higher overall CQ will engage in more immediate and/or delayed complementary sequences of integrative information behaviors than dyads with lower overall CQ, over and beyond international experience (i.e. travel and living experiences), personality (i.e. openness, extraversion, empathy) and intelligence constructs (i.e. emotional intelligence and cognitive ability). Table 4 shows that dyad overall CQ did predict reciprocation of complementary integrative behaviors at immediate ( $\beta = 0.32, p < 0.05$ ) and delayed ( $\beta = 0.33, p < 0.05$ ) time lags. Thus, hypothesis 2 was supported.

Hypothesis 3 predicted that dyads with higher overall CQ will engage in more immediate and/or delayed cooperative sequences of relationship management-focused behaviors than dyads with lower overall CQ, over and beyond international experience (i.e. travel and living experiences), personality (i.e. openness, extraversion, empathy) and intelligence constructs (i.e. emotional intelligence and cognitive ability). Table 5 shows that dyad overall CQ is not significantly related to the reciprocation of cooperative relationship management-focused behaviors at immediate ( $\beta = 0.22, p > 0.10$ ) or delayed ( $\beta = 0.22, p > 0.10$ ) time lags. Thus, hypothesis 3 was not supported.

## Negotiation Process and Outcomes

Hypothesis 4 predicted that immediate and/or delayed *reciprocal* sequences of integrative information behaviors would be positively related to joint profit. Having included reciprocal, complementary, and cooperative relationship management sequences in the regression equation, table 6 shows that there was no significant relationship between reciprocal sequences and joint profit at immediate ( $\beta = 0.05, p > 0.70$ ) or delayed ( $\beta = 0.14, p > 0.30$ ) time lags. Thus, Hypothesis 4 was not supported. Hypothesis 5 predicted that immediate and/or delayed *complementary* sequences of integrative information behaviors would be positively related to joint profit. There was a positive significant relationship at the immediate time lag ( $\beta = 0.30, p < 0.05$ ). Thus, hypothesis 5 was supported. Hypothesis 6 predicted a positive relationship between immediate and/or delayed cooperative sequences of relationship management behaviors and joint profit. Hypothesis 6 was not supported as there were no significant relationships at the immediate lag ( $\beta = 0.12, p > 0.30$ ) or delayed lag ( $\beta = 0.09, p > 0.40$ ).

Hypothesis 7 predicted that immediate and/or delayed reciprocal sequences of integrative information behaviors would have a positive effect on relational capital. Table 7 shows that having entered sequences of reciprocal, complementary, and cooperative relationship management behaviors together into the regression equation, reciprocal sequences did not predict relational capital at immediate ( $\beta = 0.14, p > 0.2$ ) or delayed ( $\beta = -0.07, p > 0.50$ ) time lags. Thus, hypothesis 7 was not supported. Hypothesis 8 predicted that immediate and/or delayed complementary sequences of integrative behaviors would have a positive effect on relational capital. There was no significant relationship at the immediate ( $\beta = 0.01, p > 0.9$ ) or delayed ( $\beta = 0.08, p > 0.50$ ) time lags.

Thus, hypothesis 8 was not supported. Finally, hypothesis 9 predicted that immediate and/or delayed cooperative sequences of relationship management behaviors have a positive effect on relational capital. Hypothesis 9 was supported as there were significant effects at both immediate time lags ( $\beta = 0.42, p < 0.01$ ), and delayed time lags ( $\beta = 0.33, p < 0.01$ ). In sum, the regression coefficients from the multiple regression results for the hypothesized model is shown in figure 2 (immediate time lag) and figure 3 (delayed time lag).

#### *Post-hoc Model Modification and Overall Fit*

Based on the significant regression coefficients found in figure 1, the overall fit of a simplified model (figure 4) was assessed using path modeling (cf. Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005). We used the path model approach instead of the traditional Baron and Kenny test of mediation (1986) since the initial variable CQ, and the outcome variable, joint profit, were not significantly correlated. Establishing such a bivariate relationship between the initial variable and the outcome variable is the first step in establishing mediation in Baron and Kenny's (1986) approach. However, as argued in Schneider et al. (2005), a number of scholars have questioned whether it is necessary to provide evidence for the first step to establish mediation (Collins, Graham, & Flaherty, 1998; MacKinnon, 2000; MacKinnon, Krull, & Lockwood, 2000; Shrout & Bolger, 2002), when the crucial steps are establishing the relationship between the initial variable and the mediator, and the relationship between the mediator and outcome variable (Kenny, Kashy, & Bolger, 1998). Furthermore, MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) argued that a simultaneous test of significance of the path from an initial variable to a mediator and the path from the mediator to an outcome

(i.e. path modeling), relative to other approaches (such as Baron and Kenny's test) provides the best balance of type I error rates and statistical power.

In the post-hoc path model, including all control variables would have created too large a model to test given the small sample size. Thus, it was necessary to first partial the influences of the covariates from all model variables. Recent simulation studies have demonstrated the appropriateness of this practice, as structural coefficients were found to be virtually equivalent, whether the researcher directly models the covariates, or employs SEM using partial covariances (Fletcher, Germano, & Selgrade, 2006; Kammeyer-Mueller & Wanberg, 2003; Newcomb & Bentler, 1988). Partial covariances in this study were created by regressing the model indicators (CQ, immediate complementary sequences of integrative information behaviors, and joint profit) onto all covariates (i.e. travel experience, living experience, openness, extraversion, empathy, emotional intelligence, and cognitive ability) individually and then saving the residual covariances. The simplified model fit the data well ( $\chi^2 [1] = 1.33, p = 0.25; CFI = 0.97; SRMR = 0.054; RMSEA = 0.073$ ). Estimated path coefficients are found in figure 4. Thus, results show that higher the CQ, dyads engage in more sequences of complementary integrative information behaviors, which in turn leads to high joint profits.

### Exploratory Analyses

#### CQ Facets

Do specific CQ facets predict strategic sequences? We conducted additional, multiple regression analyses to address this issue, entering all four CQ facets and all control variables into the regression equation. At immediate time lags, meta-cognitive



CQ increased reciprocal sequences of integrative information behaviors ( $\beta = 0.42, p < 0.05$ ). For complementary sequences of integrative information behaviors, motivational CQ was found to drive the significant overall CQ effect ( $\beta = 0.42, p < 0.01$ ).

Furthermore, behavioral CQ was found to increase reciprocity of cooperative relationship management-focused behaviors ( $\beta = 0.36, p < 0.05$ ). At delayed time lags, cognitive CQ had a marginally significant, positive relationship with complementary sequences of integrative information behaviors ( $\beta = 0.25, p < 0.10$ ). There were no significant effects between CQ facets and delayed reciprocal sequences of integrative information behaviors, nor delayed cooperative sequences of relationship management-focused behaviors. Figure 5 presents overall significant results for CQ facets predicting strategic sequences at the immediate time lag. Based on significant paths found in figure 5, we assessed the overall fit of a simplified SEM model including meta-cognitive CQ, motivational CQ, behavioral CQ, immediate reciprocal sequences of integrative information behaviors, immediate complementary sequences of integrative information behaviors, immediate cooperative sequences of relationship management-focused behaviors, joint profit, and relational capital. The simplified model fit the data well ( $\chi^2 [17] = 13.74, p = 0.69$ ; CFI = 1.00; SRMR = 0.08; RMSEA = 0.00). Estimated path coefficients are found in figure 6.

#### Dyad Composition

Does it take one or two negotiator(s) for CQ to be advantageous in increasing sequences of reciprocal/ complementary integrative information behaviors as well as sequences of cooperative relationship management behaviors? We first addressed this issue by examining the relationship between the dyad minimum score on overall CQ (i.e.

the lower of the two negotiators' overall CQ score) and each type of behavioral sequence at immediate and delayed time lags. For minimum overall CQ, the pattern of results was almost identical to those obtained with overall mean CQ. Minimum overall CQ did not predict reciprocal sequences of integrative information behaviors ( $\beta_{\text{immediate}} = 0.16, p > 0.20$ ;  $\beta_{\text{delayed}} = 0.20, p > 0.15$ ). However, it did have a significant positive relationship with complementary sequences of integrative information behaviors ( $\beta_{\text{immediate}} = 0.32, p < 0.05$ ;  $\beta_{\text{delayed}} = 0.39, p = 0.01$ ). Thus, this result suggests that the extent to which dyads engage in complementary sequences of integrative behaviors is only as good as its lowest CQ negotiator.

Finally, minimum overall CQ did not have a significant relationship with cooperative sequences of relationship management-focused behaviors, although the results became marginal ( $\beta_{\text{immediate}} = 0.26, p < 0.10$ ;  $\beta_{\text{delayed}} = 0.27, p < 0.10$ ). Next, we examined the relationship between dyad maximum overall CQ and each type of behavioral sequence at immediate and delayed time lags. Maximum overall CQ did not predict any of the strategic sequences at immediate ( $\beta_{\text{identical}} = -0.05, p > 0.70$ ;  $\beta_{\text{complementary}} = 0.15, p > 0.20$ ;  $\beta_{\text{cooperative}} = 0.07, p > 0.60$ ) nor delayed time lags ( $\beta_{\text{identical}} = 0.07, p > 0.50$ ;  $\beta_{\text{complementary}} = 0.10, p > 0.50$ ;  $\beta_{\text{cooperative}} = 0.05, p > 0.70$ ).

## Chapter 4: Discussion

In this paper, we argued that there is a fundamental paradox in the culture and negotiation literature, where there is a dearth of research addressing the question of *what predicts intercultural negotiation effectiveness*, despite researchers' long-time recognition of the practical importance of this question. We proposed cultural intelligence as a promising predictor of intercultural negotiation effectiveness. More specifically, we postulated that dyads high in CQ are better equipped with the cognitive, motivational, and behavioral skills necessary in overcoming cultural barriers such as clashing schemas and metaphors, reduced persistence, and the deciphering and enacting of culturally non-normative behaviors. As such, we argued that high CQ negotiators will be able to develop a shared understanding of the negotiation as a cooperative problem-solving activity, as reflected in their strategic sequencing of integrative information behaviors as well as cooperative relationship management behaviors, which in turn predict negotiation outcomes. Moreover, we expected CQ to predict strategic sequences over and beyond other related but distinct constructs including international experience, personality and intelligence.

### *Overall CQ, Complementary Sequences of Integrative Behaviors, and Joint Profit*

The results of an intercultural negotiation study between Americans and East Asians, where CQ and other individual differences were measured one week prior to the negotiation partially supported these notions. The most important finding was that consistent with our theory, dyad-level CQ predicts immediate complementary sequences of integrative behaviors, which in turn predicts joint profit. Moreover, CQ predicted

complementary sequences of integrative behaviors over and beyond international travel and living experiences, openness, extraversion, empathy, emotional intelligence, and cognitive ability.

This main finding simultaneously makes contributions to several streams in the broader literature. First, it adds to the culture and negotiation literature by showing that CQ is a key predictor of the extent to which intercultural negotiators exchange information in their search for integrative agreement. Thus, in response to Kray's (2005) earlier suggestion that "negotiation scholars might consider expanding beyond simple demonstrations of [cultural] differences...and explore whether awareness of these differences makes a difference" (p.159) in influencing the effectiveness of intercultural negotiations, we show with CQ that it does indeed make a difference. As such, our study begins to address the question of what predicts intercultural negotiation effectiveness, which so far has remained a black box in the culture and negotiation literature.

Second, this study provides additional evidence for the predictive validity of CQ, specifically in a negotiation context. The CQ literature thus far has focused mainly on the usefulness of CQ predicting outcomes such as adjustment and business performance in expatriate management contexts involving samples of expatriates, foreign professionals, and international executives. In our study, we show that CQ is also advantageous for intercultural negotiation, which involves complex decision-making between two parties who both attempt to resolve perceived incompatible goals. Furthermore, by showing that CQ predicts intercultural negotiation effectiveness over and beyond other individual difference constructs such as international experience, personality, and other types of intelligence, we add further validity to Earley and Ang's (2003) CQ construct.

Third, we also make a contribution to the negotiation literature by furthering our understanding of the negotiation process which there is little understanding of in the U.S. literature and even more so in the cross-cultural literature. By directly examining the negotiation process of strategic sequencing of integrative behaviors, we provide an in-depth, dynamic view of how such a communication pattern mediates the effect of a previously unexamined negotiation input, CQ, on joint profit, the negotiation outcome.

*Facet-level CQ, Strategic Sequences, and Outcomes*

Our exploratory analyses also revealed that a different facet of CQ predicts each of the three negotiation sequences. First, dyads high in motivational CQ engaged in more immediate complementary sequences of integrative behaviors. Although it is reasonable to expect that all of the CQ facets would predict complementary sequences based on our previous theorizing, it may be that motivational CQ has the strongest predictive power because having the underlying motivation in the first place for interacting with people from different cultures is more fundamental to cultural adjustment than the adaptive thoughts and behaviors that may consequently follow from having high motivational CQ. Interestingly, this finding parallels U.S. research on self-efficacy and negotiation, which found that having the confidence and anticipation of successful performance in integrative bargaining buffer negotiators from negative effects of impasse. For example, self-efficacious negotiators were less likely to experience negative emotions and perceptions of negotiation counterparts as not being interested in reaching mutually beneficial outcomes, which paved the way to more open information exchange (O'Connor & Arnold, 2001). Similarly, our finding illustrates that self-efficacy *specifically for cross-cultural encounters*, is key to developing and maintaining

sequences of information exchange behaviors in an intercultural context where cultural barriers most likely pose stress and frustration upon negotiators.

Second, we also found that dyads high in behavioral CQ engaged in more immediate cooperative sequences of non-task-focused relationship management behaviors, which in turn led to relational capital. This finding is comparable to recent findings on non-conscious mimicry, or the automatic matching of verbal and non-verbal behaviors between interaction partners. Research has shown that the conscious goal of getting along with another increases mimicry (Lakin & Chartrand, 2003), and that mimicry in turn acts as a “social glue” in binding people together and creating harmonious relationships (Lakin, Jefferis, Cheng, & Chartrand, 2003). Indeed, there is evidence that mimicry increases cooperative behavior (e.g. prosocial helping) and enhances liking and rapport (van Baaren, Holland, Kawakami, & van Knippenberg, 2004). Our finding on behavioral CQ can be interpreted similarly, in that in intercultural contexts, negotiators with high behavioral CQ focus their conscious efforts on adapting to the other party and can better mimic their verbal and non-verbal behaviors (e.g. use of tone, pause, silence, facial expressions, rates of speaking) because of their wider repertoire of culturally non-normative behaviors. As such, negotiators with high behavioral CQ seemed to have developed greater rapport with their counterparts as indicated by their sequencing of relationship management behaviors, which in turn, led to high relational capital.

There were also several unexpected findings in our study. First, although it is reasonable to expect motivational CQ to also predict sequences of cooperative relationship management behaviors, and behavioral CQ to also predict complementary

sequences of integrative behaviors, there were no such significant relationships. Second, motivational CQ, which had a positive relationship with *complementary* integrative sequences as mentioned above, did not have a significant relationship with *reciprocal* integrative sequences. One can only speculate as to why such is the case. It may be that because of low statistical power due to our small sample size, relationships that actually exist are not being detected. Furthermore, regarding the absence of relationship between motivational CQ and reciprocal sequences of integrative behaviors in particular, it is possible that with reciprocal sequences, the negotiation process is being represented at too fine a detail, as matching of behaviors were counted at the negotiation *tactical* level. In contrast, for complementary sequences, matching of behaviors was counted at the *strategic* level; that is, even if two different tactics occurred in sequence, they were counted as a complementary sequence as long as they belonged to the same strategic cluster of integrative information behaviors. Thus, the looser structure of complementary sequences may be representing more of a theoretically meaningful construct of integrative sequences than reciprocal sequences. Based on this interpretation, although there was an additional significant relationship between a specific CQ facet, meta-cognitive CQ, and reciprocal sequences of integrative behaviors, we remain cautious in making theoretical interpretations of this particular relationship. In order to clarify relationships among specific facets of CQ and strategic sequences, future research is needed where these relationships are tested with larger sample sizes, with strategic sequences being measured at varying levels of abstraction.

Finally, while we hypothesized that sequences of integrative behaviors would lead to both joint profit and relational capital, and that sequences of relationship management

behaviors would also lead to both joint profit and relational capital, we did not find such a pattern. We found that sequences of integrative behaviors only predicted joint profit, whereas sequences of cooperative relationship management behaviors only predicted relational capital. This finding attests to the recent arguments raised by researchers on the importance of distinguishing objective and subjective negotiation criteria. Developing and maintaining a shared understanding of the negotiation as a cooperative problem-solving activity where negotiators exchange information does not necessarily guarantee a very high quality relationship consisting of mutual liking, trust, understanding, and commitment to a future relationship in intercultural contexts. In parallel, developing and maintaining sequences of non-task-focused miscellaneous comments that maintain a cooperative relationship does not necessarily lead to obtaining high joint profit.

#### *Dyad Composition*

In terms of dyad composition, the pattern of significant results for dyad mean CQ and dyad minimum CQ (at the overall level) predicting strategic sequences at both immediate and delayed time lags looked almost identical, whereas dyad maximum CQ did not have any significant associations with any of the sequences. The results suggest that the negotiator with the lower CQ level has more of an impact on the extent to which the dyad engages in complementary sequences of integrative behaviors than the negotiator with the higher CQ level. This makes sense given the *conjunctive* nature of the task (Steiner, 1972); that is, sequencing integrative behaviors is a joint task that requires the contributions of both negotiators. Thus, the dyad-level performance can only be as good as its “weakest link”; even if one negotiator within the dyad has high CQ and tries to adopt an integrative strategy with the goal of becoming synchronized with the other, if



the other negotiator does not reciprocate integrative behaviors, overall, the dyad still suffers as a result. In sum, it is not enough to just have one high CQ negotiator, the ability level of the low CQ negotiator influences the extent to which the dyad engages in integrative sequencing.

### Practical Implications

The practical implication of our research is that CQ is a key predictor of intercultural negotiation effectiveness on which individuals can be selected and/ or trained. Given that negotiation is a ubiquitous pattern of social interaction, and that globalization is increasingly infiltrating many parts of the world, it is likely that the selection and training of CQ will be advantageous for intercultural negotiations not only organizational contexts (e.g. inter-organizational relations, manager-subordinate relations, industrial relations), but also in other areas such as international relations (Pruitt & Carnevale, 1993). For example, Triandis (1994) anecdotally argued that in the early 1990s just before the Gulf War, one of the problems in the intercultural negotiations between former secretary of state James Baker and former foreign minister of Iraq, Tariq Aziz, was that Baker's emotional style of being calm and not raising his voice was misattributed by Aziz to mean that Americans were not serious about using military force in Iraq. Thus, even in political arena among diplomats, it stands to reason that training CQ would lead to better intercultural negotiation outcomes.

Specifically in organizational contexts, managers can rely on a number of ways to assess overall CQ for selection or training, in addition to self-report measures (Earley & Ang, 2003). For example, *direct observations* of intercultural negotiators allow assessors to gather information on individuals' CQ by observing good and problematic behaviors

as they occur in real-time. Furthermore, by using *cultural assimilators*, assessors can present problematic intercultural negotiations between actors and have participants make correct attributions and interpretations of the actors' behaviors. In addition to overall CQ, managers can also train specific facets of CQ as it applies to intercultural negotiations. For example, meta-cognitive CQ can be increased through cognitive behavior modification, a technique that raises conscious awareness of one's automaticity of thoughts and behaviors (CBM; Mahoney, 1974; Meichenbaum, 1974), motivational CQ can be increased through goal-setting (Locke & Latham, 1990), cognitive CQ can be increased by reading about other cultures or talking to past negotiators with intercultural experience, and finally, behavioral CQ can be acquired through behavior change principles such as identifying antecedents and consequences of one's own culture-specific negotiation behaviors (Westmacott & Cameron, 1981).

### Limitations and Future Research

All research methods have limitations (McGrath, Martin, & Kulka, 1982), and this study is no exception. We studied one sample, students, with one methodology, lab-based negotiation simulation. Therefore, it is necessary to exercise caution in applying our results. However, we are hopeful that our findings will generalize to intercultural negotiators in organizational and even political settings for two reasons. First, the majority of our students consisted of older graduate students who most likely can relate to real-world experiences such as negotiation. Second, given that culture has been found to pervasively influence behavior in a wide variety of settings (Markus, Kitayama, & Heiman, 1997), it stands to reason that the extent to which individuals are *intelligent about culture* and its impact on behavior should also be consistent across diverse

intercultural settings. In addition, while we are optimistic about our results, we used a self-report measure of CQ given the methodological infancy of the construct. However, given the label of “cultural intelligence” and the conceptualization of the construct as an ability, we realize the necessity for future research to measure CQ with other, more objective methods to provide converging evidence for the predictive power of CQ on intercultural negotiation effectiveness. Finally, our study had low statistical power due to a small sample size. Nonetheless, we found some significant effects despite a conservative test; therefore, we expect even stronger results should future research replicate our study with larger sample sizes.

There are several fruitful avenues for future research. It would be interesting to move beyond the negotiation process of strategic sequencing which focuses on negotiators’ shared understanding of the task at a more micro level, to negotiation phases, which examines intercultural negotiators’ synchronization of behaviors at a more aggregate level. Using a technique called phase mapping (Poole, 1983; Poole & Roth, 1989), researchers can identify what kind of phases emerge specifically in intercultural contexts, and how they differ between high CQ and low CQ dyads. For example, high CQ negotiators may be able to develop and transition through clearly demarcated, functional negotiation phases at a steady pace as they become highly synchronized with each other and move towards resolution, whereas low CQ negotiators may remain disorganized and disintegrated throughout the negotiation, leading eventually to suboptimal outcomes.

Furthermore, it would be fascinating to examine the “dark side” of CQ. That is, the context of the negotiation in this study specifically focused on integrative *deal-*

*making* where negotiators cultivate relationships in order to reach agreement. In contrast, negotiations can also take place in more competitive contexts such as *disputing* in which negotiators' relationships are dissolving from rejected claims and negative emotions (Gelfand, Brett, Imai, Tsai, & Huang, 2006). Thus, it would be interesting to see how CQ manifests itself in such non-cooperative contexts. For example, do high CQ individuals take advantage of their extensive cultural knowledge and behavioral flexibility to try to deceive low CQ individuals? Or, does CQ always entail a cooperative, global-minded value system which would then suggest that CQ is a liability in competitive contexts?

Additionally, future research can integrate CQ with the negotiation literature on cognitive biases. In our study, we did not directly examine how CQ may influence negotiators' underlying psychological mechanisms. Yet, given that high CQ individuals should be able to question their own cultural assumptions, it would not be surprising if CQ buffers negotiators from culture-specific cognitive biases (e.g. fixed-pie bias, fundamental attribution error, self-serving assessments of fairness) that are prevalent in competitive, individualistic cultures such as the U.S (see Gelfand & Dyer, 2002 for review). It would be useful to examine if intercultural negotiators' mutual reduction in such culture-specific cognitive biases mediate the relationship between CQ and synchronization of behaviors.

Finally, the vast majority of intercultural negotiation studies have focused on interactions between Americans and East Asians, and this study is no exception. Future research should move beyond examining Pacific Rim cultures to see if the positive effects of CQ on intercultural negotiation effectiveness generalize to U.S. negotiations with other cultures as well. For example, despite the state of current U.S. foreign affairs,

there are virtually no negotiation studies involving Middle Eastern cultures. Given that there are large cultural differences between the U.S. and the Middle East on a wide variety of value dimensions (House, Hanges, Javidan, Dorfman & Gupta, 2004), it is likely that there are many sources of cultural barriers that must be overcome in U.S.—Middle Eastern intercultural negotiations.

### Conclusion

This research expands the dominant paradigm in the culture and negotiation literature by moving beyond cross-cultural comparisons of negotiation behaviors to directly examining negotiation behaviors as they occur in intercultural contexts. This study illustrates that CQ is a key predictor of intercultural negotiation effectiveness, as dyads high in CQ were found to engage in more strategic sequencing of integrative behaviors, which in turn led to high joint outcomes. Practically speaking, managers should select and/or train CQ in individuals to maximize the chances of optimal agreements in intercultural negotiations. Future research, such as examining the effects of CQ on broader negotiation processes such as phases, the role of CQ in competitive contexts such as disputing, and the effects of CQ on psychological mechanisms such as cognitive biases, would help build a more comprehensive theory of cultural intelligence and intercultural negotiations.

## Appendices

### Appendix A

#### *Coding Scheme of 37 Negotiation Tactics Grouped by Strategic Clusters*

Strategic Cluster	Tactic Code	Negotiation Tactic	Example
Integrative Information	IP	States preference within a single issue	"I would like to open at 6:30am."
	IR	States priority information across two or more issues	"For me, renovation cost is the big thing."
	QP	Asks a question about other's issue preference	"What is your opinion on temperature?"
	QR	Asks a question about other's priority across two or more issues	"What is your most important issue?"
	ID-C	Notes issue difference with sympathy	"I really really understand that you need a colder temperature due to your wines whereas I need a higher temperature because of my breakfast items."
	IS	Notes similarity in issue preference or priority	"Both of us want 40% for me and 60% for you."
	PC	Suggests compromise or willingness to concede	"I'll give in a little bit."
	PP	Suggests package tradeoff of two or more issues	"Let's think about these issues together."
	RP	Expresses positive reaction to issues	"Okay, great!"
	OM	Makes multi-issue offer	"What if we do 67 on temperature and 8:30 for hours of operation?"
Cooperative Relationship Mgmt	PX	Suggests reciprocity	"If I give you that for temperature, I'll need something in return."
	MI-C	Makes off-task comments about cooperation	"I'm looking forward to collaborating with you!"
	MU	Notes mutual interdependence	"If I don't have a business, you don't have a business."
	IN-C	Comments that validate other's perspective	"I can certainly see your point there."

Strategic Cluster	Tactic Code	Negotiation Tactic	Example
Distributive Information	SB-R	Makes rational substantiation	“We really need to project an image of luxury to target our upper crust customers.”
	SB-E	Makes substantiation through emotional appeals	“I really need your support and understanding on temperature.”
	SF	States fact that support substantiation but does not stand as a substantiation on its own	“I sell baked goods.”
	QS	Asks question about other’s substantiation	“People don’t buy wine in the summer?”
	IB	States bottom line	“I can’t go any lower than 71 degrees.”
	QB	Asks for other’s bottom line	“What’s the coldest temperature you can accept?”
	ID-N	Notes issue difference	“You want October; I want May.”
	RN	Expresses negative reaction	“73 degrees?!”
OS	Makes single-issue offer	“How about \$30,000 for renovation cost?”	
Competitive Non-information	MI-NEG	Makes miscellaneous negative comments	“You’re being really unreasonable.”
	TH	Makes threats	“I can go find another partner if you’re not willing to cooperate a little.”
	PW	Makes statements of power over other	“I’m selling all the food and all you’re selling are drinks.”
	RT	Makes statements of rights/fairness	“You’re being unfair.”
Other	MI-N	Makes miscellaneous comments	“Yeah, okay, we have some things to discuss.”
	QC	Asks clarification questions	“Can you say that again?”
	IN-N	Shows insight of other	“So it’s important to you to have a high temperature.”
	GD	Notes general differences	“On most issues, we have opposite preferences.”
	P1	Discusses one issue	“Let’s talk about hours of operation first.”

Strategic Cluster	Tactic Code	Negotiation Tactic	Example
	PM	Suggests to move on	“Maybe we should go on to other issues.”
	PO	Suggests other procedure	“Why don’t we each take turns.”
	PT	Makes time check	“We have five minutes left.”
	CS	Suggests creative solution that is out of bounds from role instructions	“I’ll open my part of the store at 6:30 and you can open yours at 10:30.”
	OT	Makes off-task statements	“I’m a sophomore, communications major.”



*Appendix B*

*Regression Results for Analyses Looking at Full Negotiation*

*Summary of Regression Analysis for CQ Predicting Reciprocal Sequences of Integrative Information Behaviors in Full Negotiation (N = 65)*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Travel Experience	0.01	0.01	.12	0.01	0.01	.23+
Living Experience	0.00	0.00	.12	0.00	0.00	.08
Openness	0.26	0.17	.27	0.08	0.18	.08
Extraversion	0.01	0.11	.02	-0.21	0.12	-.29+
Empathy	-0.10	0.22	-.07	-0.36	0.24	-.24
Intelligence	0.01	0.08	.02	0.03	0.08	.06
Emotional Intelligence	0.01	0.20	.01	0.20	0.21	.16
<b>CQ</b>	<b>-0.00</b>	<b>0.14</b>	<b>-.00</b>	<b>0.15</b>	<b>0.14</b>	<b>.15</b>

Note. Adjusted R<sup>2</sup><sub>Immediate</sub> = -0.01; Adjusted R<sup>2</sup><sub>Delayed</sub> = -0.01

*Summary of Regression Analysis for CQ Predicting Complementary Sequences of Integrative Information Behaviors in Full Negotiation (N = 65)*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Travel Experience	0.02	0.01	.34*	0.01	0.01	.18
Living Experience	0.00	0.00	-.01	0.00	0.00	.02
Openness	0.07	0.16	.07	0.09	0.18	.09
Extraversion	-0.19	0.11	-.27+	-0.12	0.12	-.17
Empathy	-0.30	0.22	-.21	-0.18	0.24	-.12
Intelligence	-0.06	0.07	-0.10	-0.05	0.08	-.09
Emotional Intelligence	0.33	0.19	.28+	0.12	0.21	.09
<b>CQ</b>	<b>0.15</b>	<b>0.13</b>	<b>.17</b>	<b>0.20</b>	<b>0.15</b>	<b>.20</b>

Note. Adjusted R<sup>2</sup><sub>Immediate</sub> = 0.07; Adjusted R<sup>2</sup><sub>Delayed</sub> = -0.05

+ p < .10

\* p < .05

\*\* p < .01

*Summary of Regression Analysis for CQ Predicting Cooperative Sequences of Relationship Management Behaviors in Full Negotiation (N =65)*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Travel Experience	-0.01	0.01	-.16	-0.01	0.01	-.22+
Living Experience	-0.00	0.00	-0.28*	-0.00	0.00	-.25+
Openness	-0.29	0.24	-.20	-0.48	0.23	-.35*
Extraversion	0.13	0.17	.13	0.27	0.16	.28+
Empathy	0.40	0.33	.19	0.40	0.31	.19
Intelligence	0.04	0.11	.05	0.03	0.11	.03
Emotional Intelligence	-0.45	0.29	-.26	-0.34	0.27	-.21
<b>CQ</b>	<b>0.33</b>	<b>0.20</b>	<b>.24</b>	<b>0.27</b>	<b>0.19</b>	<b>.21</b>

Note. Adjusted  $R^2_{\text{Immediate}} = 0.04$ ; Adjusted  $R^2_{\text{Delayed}} = 0.08$

*Summary of Regression Analysis for Reciprocal, Complementary, and Cooperative Sequences in Full Negotiation Predicting Joint Gain (N =65)*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Reciprocal Sequences of Integrative Information	10.86	36.60	.04	28.31	38.53	.11
<b>Complementary Sequences of Integrative Information</b>	<b>103.55</b>	<b>35.32</b>	<b>.37**</b>	54.07	42.11	.18
<b>Cooperative Sequences of Relationship Management</b>	<b>49.16</b>	<b>24.34</b>	<b>.25*</b>	41.70	26.86	.21

Note. Adjusted  $R^2_{\text{Immediate}} = 0.13$ ; Adjusted  $R^2_{\text{Delayed}} = 0.03$

+  $p < .10$

\*  $p < .05$

\*\*  $p < .01$

*Summary of Regression Analysis for Reciprocity of Identical, Complementary, and Cooperative Behaviors in Full Negotiation Predicting Relational Capital (N =65)*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Reciprocal Sequences of Integrative Information	0.23	0.25	.13	-0.15	0.24	-.09
Complementary Sequences of Integrative Information	0.23	0.24	.12	<b>0.54</b>	<b>0.23</b>	<b>.31*</b>
Cooperative Sequences of Relationship Management	0.23	0.16	.19	0.24	0.16	0.19

Note. Adjusted R<sup>2</sup><sub>Immediate</sub> = 0.01; Adjusted R<sup>2</sup><sub>Delayed</sub> = 0.06

+ p < .10

\* p < .05

\*\* p < .01

## Appendix C

### *Cultural Intelligence Scale (Ang et al., 2004)*

#### Meta-cognitive

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

#### Cognitive

5. I know the legal and economic systems of other cultures.
6. I know the religious beliefs of other cultures.
7. I know the marriage systems of other cultures.
8. I know the arts and crafts of other cultures.
9. I know the rules (e.g., grammar) of other languages.
10. I know the rules for expressing non-verbal behaviors in other cultures.

#### Motivational

11. I enjoy interacting with people from different cultures.
12. I enjoy living in cultures that are unfamiliar to me.
13. I am confident that I can socialize with locals in a culture that is unfamiliar to me.
14. I am confident that I can get accustomed to the shopping conditions in a different culture.
15. I am sure I can deal with the stresses of adjusting to a culture that is new to me.

#### Behavioral

16. I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.
17. I change my non-verbal behavior when a cross-cultural situation requires it.
18. I use pause and silence differently to suit different cross-cultural situations.
19. I vary the rate of my speaking when a cross-cultural situation requires it.
20. I alter my facial expressions when a cross-cultural interaction requires it.

## Appendix D

### *Relational Capital Scale*

1. My partner and I liked each other.
2. I felt as though my partner and I developed mutual liking for each other.
3. My partner and I did not like each other.
4. My partner and I both find each other to be pleasant individuals.
5. I felt that my negotiation partner and I had a mutual understanding of each other's needs.
6. My partner and I could accurately describe each other's preferences and priorities of the negotiation issues.
7. I felt as though my partner and I gained mutual knowledge of each other's positions during the negotiation.
8. My partner and I developed trust for each other.
9. My partner and I would not deceive each other.
10. My partner and I can rely on each other to fulfill promises.
11. I am confident that my partner and I are both committed to the relationship we developed together.
12. My partner and I are interested in continuing our relationship in the future.

## Footnotes

<sup>1</sup> Because sequences of behavior across the two negotiators were of primary interest in this study, when multiple codes at the thought-unit level occurred within a negotiator's speaking turn, it was necessary to eliminate less substantial behaviors and assign one dominant code at the speaking-turn level. In order to achieve a certain level of objectivity in deciding what code was dominant in the speaking turn, the first and second authors went through a number of transcripts to achieve collective agreement on a dominance scheme, similar to one used in previous research (Weingart, Bennett, Brett, 1993; Weingart, Prietula, & Hyder 1999). Multi-issue offers were considered more dominant than substantiations that followed, statements about issue preferences were considered more substantial than substantiations that followed, and neutral miscellaneous statements were considered less substantial than all other codes.

<sup>2</sup> For cognitive ability, preliminary analyses at the individual level indicated that East Asians scored significantly lower than Americans ( $M_{\text{East Asian}} = 24.67$ ,  $sd = 4.57$ ;  $M_{\text{American}} = 31.49$ ,  $SD = 4.75$ ;  $t(128) = -8.35$ ,  $p < 0.01$ ), most likely because the Wonderlic requires knowledge of difficult English proverbs and idioms. To deal with this issue, raw scores were standardized into *Z* scores *within each cultural group* to determine one's relative standing in cognitive ability within his or her racial group. *Z* scores were subsequently aggregated to the dyad level.

## Tables

*Table 1*

*Negotiator Payoff Schedule*

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Payoff Schedule for Grocery Shop Owner

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Hours of Operation	Renovation Costs	Floor Space	Temperature	Grand Opening Date
6:30am - 6:30pm (240)	\$10,000 (80)	60% for grocery (120)	73 degrees (200)	September 1 (400)
7:30am - 7:30pm (180)	\$15,000 (60)	70% for grocery (90)	71 degrees (150)	August 1 (300)
8:30am - 8:30pm (120)	\$20,000 (40)	50% for grocery (60)	69 degrees (100)	July 1 (200)
9:30am - 9:30pm (60)	\$25,000 (20)	40% for grocery (30)	67 degrees (50)	June 1 (100)
10:30am - 10:30pm (0)	\$30,000 (0)	30% for grocery (0)	65 degrees (0)	May 1 (0)

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Payoff Schedule for Wine Shop Owner

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Hours of Operation	Renovation Costs	Floor Space	Temperature	Grand Opening Date
10:30am - 10:30pm (240)	\$30,000 (400)	40% for wine (120)	65 degrees (200)	May 1 (80)
9:30am - 9:30pm (180)	\$25,000 (300)	30% for wine (90)	67 degrees (150)	June 1 (60)
8:30am - 8:30pm (120)	\$20,000 (200)	50% for wine (60)	69 degrees (100)	July 1 (40)
7:30am - 7:30pm (60)	\$15,000 (100)	60% for wine (30)	71 degrees (50)	August 1 (20)
6:30am - 6:30pm (0)	\$10,000 (0)	70% for wine (0)	73 degrees (0)	September 1 (0)

*Table 2*

*Descriptive Statistics and Inter-correlations for Dyad-Level Measures*

Variable	M	SD	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00
1. Sex	1.42	0.53	-																				
2. Education	1.75	0.43	.11	-																			
3. Mean Age	26.43	4.72	.23	.60**	-																		
4. Negotiation Experience	1.29	0.46	.27**	.21	.19	-																	
5. East Asian Time in U.S.	32.93	19.94	.15	-.11	-.02	-.06	-																
6. Overall CQ	5.07	0.41	-.10	.02	-.09	.07	.00	-															
7. International Travel Experience	7.14	8.54	-.17	.13	.19	.26**	-.17	.15	-														
8. International Living Experience	81.62	62.25	.01	-.05	-.05	-.11	.54**	.22	.11	-													
9. Openness	3.79	0.39	.17	.08	.18	.30**	.11	.38**	.16	.12	-												
10. Extraversion	3.24	0.55	-.11	.01	.01	-.03	.13	.41**	.21	.31**	.54**	-											
11. Empathy	2.45	0.26	-.36**	-.18	-.20	.03	.04	.34**	.14	.15	.35**	.20	-										
12. Emotional Intelligence	3.78	0.32	-.07	.04	-.11	.11	.02	.39**	-.06	.08	.51**	.44**	.46**	-									
13. Cognitive Ability	0.02	0.67	.17	.05	.04	.01	.15	.01	.07	.18	.27**	.18	-.13	-.01	-								
14. Immediate Reciprocal +	0.06	0.04	.05	.00	.08	.11	-.14	.17	.14	.06	.32**	.20	.03	.15	.11	-							
15. Delayed Reciprocal +	0.05	0.04	.12	-.02	-.02	.13	-.08	.16	.10	.07	.20	-.07	-.08	.13	.14	.61**	-						
16. Immediate Complementary +	0.14	0.08	.14	.07	-.02	.19	-.03	.32**	.18	-.14	.20	.03	.10	.25**	-.06	.25**	.40**	-					
17. Delayed Complementary +	0.13	0.08	.11	-.13	-.03	.14	-.03	.31**	.06	-.04	.18	.07	.06	.11	-.07	.45**	.30**	.71**	-				
18. Immediate Relationship +	0.02	0.03	-.11	-.04	-.09	-.24	.09	.16	-.03	-.05	-.12	.02	.06	.05	.06	-.02	-.07	.06	.20	-			
19. Delayed Relationship +	0.01	0.02	-.09	-.14	-.19	-.18	.18	.13	.02	.01	-.21	.01	.01	-.06	.02	.04	.01	.03	.12	.81**	-		
20. Joint Profit	1337.74	105.03	.35**	.10	.22	.02	.08	-.04	.19	.07	-.01	.05	-.12	-.06	.30**	.11	.16	.31**	.14	.11	.09	-	
21. Relational Capital	5.27	0.68	-.05	.13	-.02	.08	.03	.00	.07	-.21	-.01	.00	.15	.11	.03	.13	-.04	.07	.10	.42**	.34**	.16	-

Note. \* p < .05. \*\* p < .01 + Means and standard deviations of strategic sequences are presented in original proportions, whereas correlations are based on logit-transformed proportions.



*Table 3*

*Summary of Regression Analysis for CQ Predicting Reciprocal Sequences of Integrative Information Behaviors*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Travel Experience	0.01	0.01	.10	0.01	0.01	.16
Living Experience	0.00	0.00	.02	0.00	0.00	.12
Openness	0.34	0.19	.31+	0.33	0.19	.29+
Extraversion	-0.01	0.13	-.02	-0.35	0.13	-.43**
Empathy	-0.23	0.25	-.14	-0.52	0.25	-.30*
Intelligence	0.00	0.09	.00	0.05	0.09	.07
Emotional Intelligence	0.05	0.23	.04	0.32	0.22	.24
<b>CQ</b>	<b>0.08</b>	<b>0.15</b>	<b>.08</b>	<b>0.20</b>	<b>0.15</b>	<b>.18</b>

Note. Adjusted  $R^2_{\text{Immediate}} = 0.00$ ; Adjusted  $R^2_{\text{Delayed}} = 0.09$

+  $p < .10$

\*  $p < .05$

\*\*  $p < .01$

*Table 4*

*Summary of Regression Analysis for CQ Predicting Complementary Sequences of Integrative Information Behaviors*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Travel Experience	0.01	0.01	.22+	0.00	0.01	.03
Living Experience	0.00	0.00	-.16	0.00	0.00	-.07
Openness	0.13	0.17	.12	0.22	0.20	.19
Extraversion	-0.18	0.12	-.24	-0.09	0.14	-.10
Empathy	-0.22	0.23	-.141	-0.16	0.27	-.09
Intelligence	-0.03	0.08	-.05	-0.07	0.09	-.11
Emotional Intelligence	0.33	0.20	.26	-0.04	0.24	-.03
<b>CQ</b>	<b>0.31</b>	<b>0.14</b>	<b>.32*</b>	<b>0.37</b>	<b>0.16</b>	<b>.33*</b>

Note. Adjusted  $R^2_{\text{Immediate}} = 0.12$ ; Adjusted  $R^2_{\text{Delayed}} = 0.01$

+  $p < .10$

\*  $p < .05$

\*\*  $p < .01$

*Table 5*

*Summary of Regression Analysis for CQ Predicting Cooperative Sequences of Relationship Management Behaviors*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Travel Experience	0.00	0.01	-.04	0.00	0.01	.01
Living Experience	0.00	0.00	-.13	0.00	0.00	-.06
Openness	-0.42	0.21	-.34+	-0.39	0.17	-.40*
Extraversion	0.07	0.15	.08	0.09	0.12	.13
Empathy	0.20	0.28	.11	0.13	0.23	.09
Intelligence	0.12	0.10	.18	0.07	0.08	.12
Emotional Intelligence	0.10	0.25	.07	-0.04	0.20	-.03
<b>CQ</b>	<b>0.26</b>	<b>0.17</b>	<b>.22</b>	<b>0.20</b>	<b>0.14</b>	<b>.22</b>

Note. Adjusted  $R^2_{\text{Immediate}} = -0.02$ ; Adjusted  $R^2_{\text{Delayed}} = -0.01$

+  $p < .10$

\*  $p < .05$

\*\*  $p < .01$

*Table 6*

*Summary of Regression Analysis for Reciprocal, Complementary, and Cooperative Sequences Predicting Joint Profit*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Reciprocal Sequences of Integrative Information	11.76	31.07	.05	32.56	32.70	.14
<b>Complementary Sequences of Integrative Information</b>	<b>75.88</b>	<b>32.78</b>	<b>.30*</b>	24.13	33.95	.10
Cooperative Sequences of Relationship Management	26.56	28.44	.12	26.59	36.48	.09

Note. Adjusted  $R^2_{\text{Immediate}} = 0.06$ ; Adjusted  $R^2_{\text{Delayed}} = -0.01$

+  $p < .10$

\*  $p < .05$

\*\*  $p < .01$

*Table 7*

*Summary of Regression Analysis for Reciprocal, Complementary, and Cooperative Behaviors Predicting Relational Capital*

Variable	Immediate			Delayed		
	B	SE B	$\beta$	B	SE B	$\beta$
Reciprocal Sequences of Integrative Information	0.22	0.19	.14	-0.11	0.20	-.07
Complementary Sequences of Integrative Information	0.01	0.20	.01	0.12	0.19	.08
<b>Cooperative Sequences of Relationship Management</b>	<b>0.61</b>	<b>0.17</b>	<b>.42**</b>	<b>0.59</b>	<b>0.22</b>	<b>.33**</b>

Note. Adjusted  $R^2_{\text{Immediate}} = 0.15$ ; Adjusted  $R^2_{\text{Delayed}} = 0.08$

+  $p < .10$

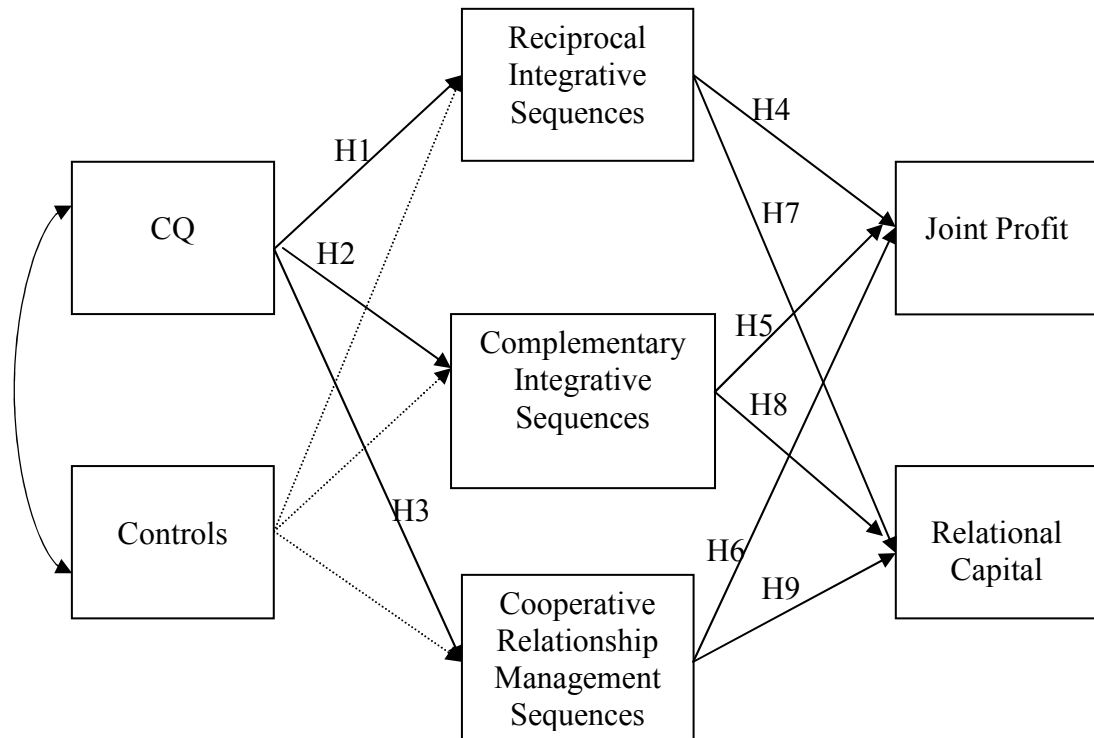
\*  $p < .05$

\*\*  $p < .01$

# Figures

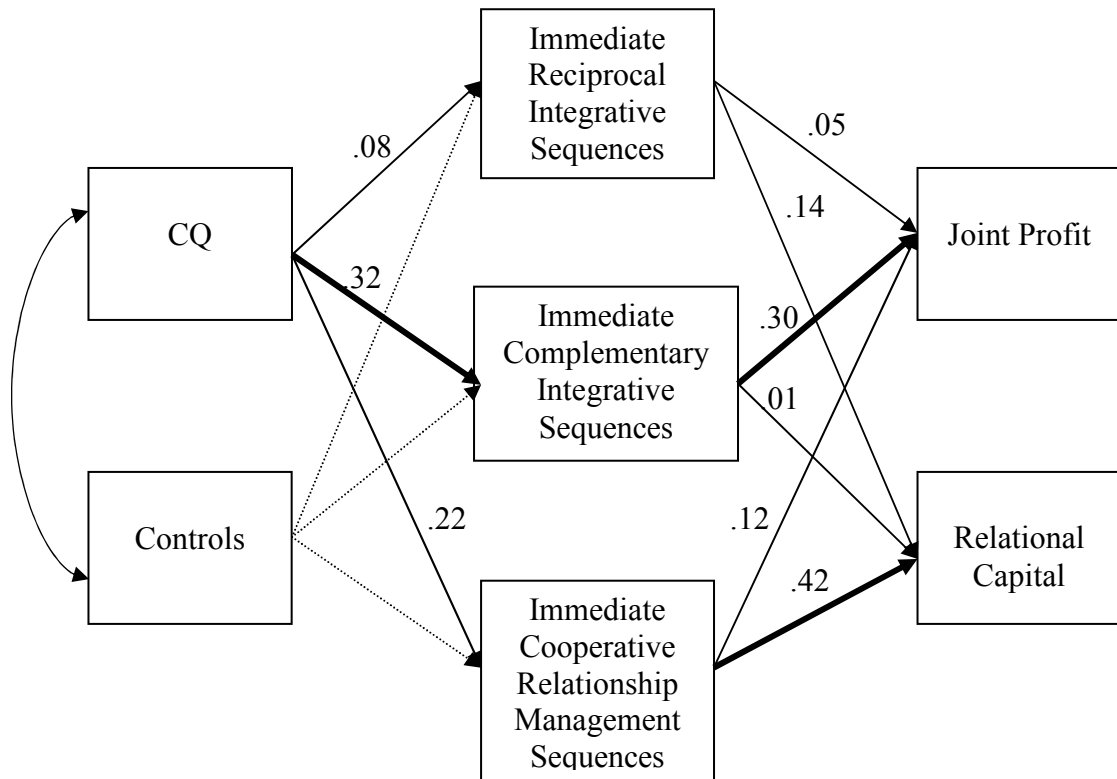
*Figure 1*

*Hypothesized Model: Relationships among CQ, Immediate or Delayed Sequences, and Outcomes.*



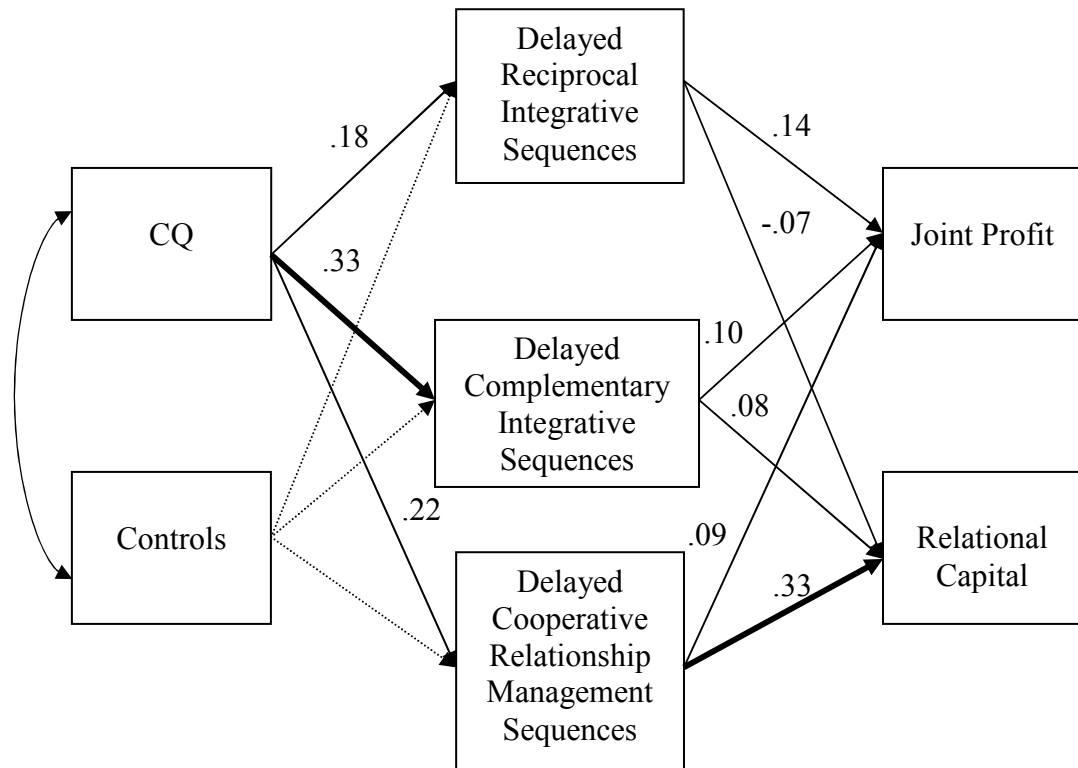
*Figure 2*

*Regression Coefficients for Hypothesized Relationships among CQ, Immediate Sequences, and Outcomes.*



*Figure 3*

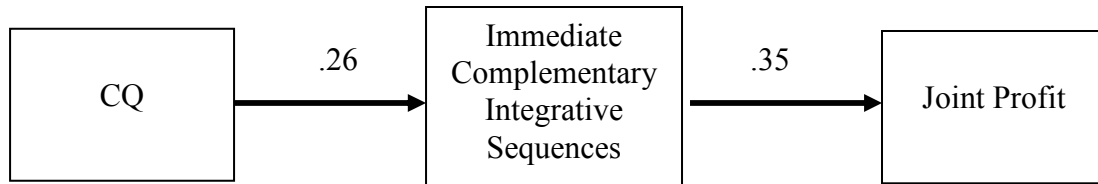
*Regression Coefficients for Hypothesized Relationships among CQ, Delayed Sequences, and Outcomes.*





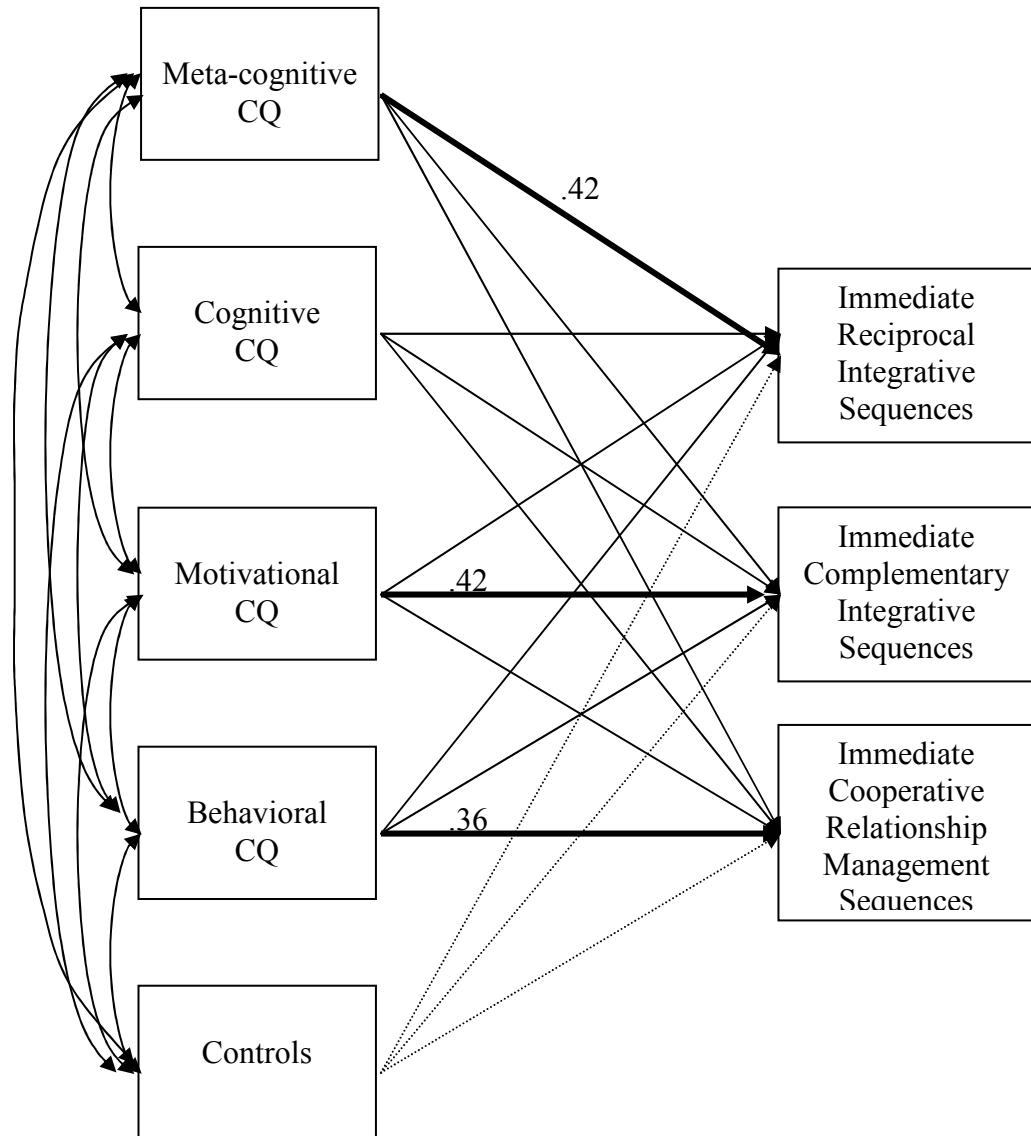
*Figure 4*

*Simplified Path Model: Relationship among CQ, Immediate Complementary Sequences of Integrative Information Behaviors, and Joint Profit.*



*Figure 5*

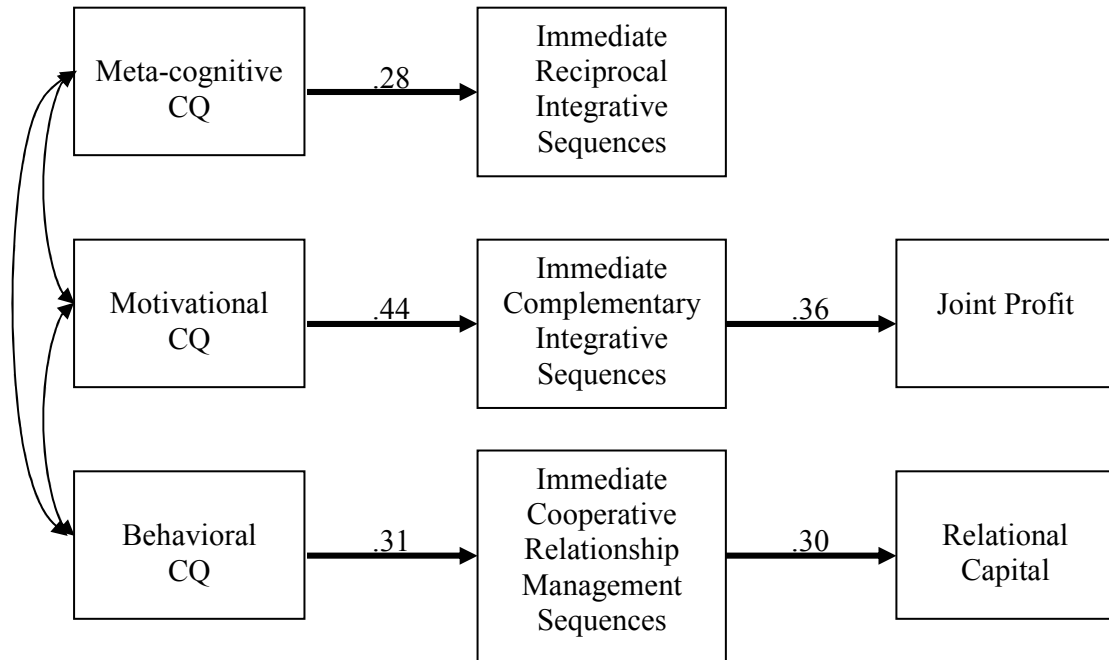
Significant Regression Coefficients among Facets of CQ and Immediate Sequences.



*Note.* Only significant regression coefficients are presented for sake of clarity.

*Figure 6*

*Simplified Path Model: Relationship among Meta-cognitive CQ, Motivational CQ, Behavioral CQ, Immediate Reciprocal Sequences of Integrative Information Behaviors, Immediate Complementary Sequences of Integrative Information Behaviors, Immediate Sequences of Cooperative Relationship Management Behaviors, Joint Profit, and Relational Capital.*



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