ARTICLE IN PRESS

Organizational Behavior and Human Decision Processes xxx (2010) xxx-xxx



Contents lists available at ScienceDirect

Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdp



The culturally intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes

Lynn Imai *, Michele J. Gelfand

Department of Psychology, University of Maryland, College Park, MD 20742, United States

ARTICLE INFO

Article history: Received 1 June 2007 Accepted 12 February 2010 Available online xxxx

Accepted by William Bottom

Keywords: Cultural intelligence Intercultural negotiation Negotiation process

ABSTRACT

Although scholars and practitioners have repeatedly touted the importance of negotiating effectively across cultures, paradoxically, little research has addressed what predicts intercultural negotiation effectiveness. In this research, we examined the impact of cultural intelligence (CQ) on intercultural negotiation processes and outcomes, controlling for other types of intelligence (cognitive ability and emotional intelligence), personality (openness and extraversion), and international experience. Transcripts of 124 American and East Asian negotiators were coded for sequences of integrative information behaviors and cooperative relationship management behaviors. CQ measured a week prior to negotiations predicted the extent to which negotiators sequenced integrative information behaviors, which in turn predicted joint profit, over and beyond other individual differences. Additional analyses revealed that the level of integrative sequencing was more a function of the lower-scoring than the higher-scoring negotiator within the dyad. Other individual difference characteristics were not related to effective intercultural negotiation processes. Theoretical and practical implications are discussed.

© 2010 Elsevier Inc. All rights reserved.

Introduction

The concern for negotiating effectively across cultures is hardly a new phenomenon. Even the world's first historian, Herodotus (ca. 400BC) observed the "strangeness" of how ancient Egyptians traded with the Greeks (Herodotus, Marincola, & de Selincourt, 2003), and as early as the second century BC, trade began to flourish among people of different cultures along the Silk Road that stretched from Rome to China (Elisseeff, 2000). In the 21st century, with the advent of globalization, being able to negotiate effectively across cultures 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). The need to negotiate effectively across cultures is also painfully obvious in today's geo-political scene, where the source of conflict among humankind is thought to be increasingly cultural in nature (Huntington, 1996). Indeed, in the recent Iraq Study Group Report, the improvement of cultural training for US personnel fighting the war in Iraq was deemed one of the highest priorities by the US secretary of state, secretary of defense, and the director of national intelligence (Baker & Hamilton, 2006).

Despite the importance of being able to negotiate effectively across cultures, there is a fundamental paradox in the culture

to what characteristics negotiators can be selected and/or trained upon in order to maximize the chances of reaching optimal agreements in intercultural negotiations.

The purpose of this research is to examine cultural intelligence (CQ), defined as an individual's capability to adapt effectively to situations of cultural diversity (Earley & Ang, 2003), as a potential predictor of intercultural negotiation effectiveness. Our main proposition is that negotiators with higher CQ have more cooperative

and negotiation literature. That is, even though the practical importance of negotiating *across* cultural boundaries is often tou-

ted to justify cross-cultural theory development, the vast majority

of research on culture and negotiation remains comparative (e.g.

Gelfand & Realo, 1999; Tinsley & Pillutla, 1998). With some excep-

tions (Adair, Okumura, & Brett, 2001; Adler & Graham, 1989; Brett

& Okumura, 1998; Natlandsmyr & Rognes, 1995), most research

compares and contrasts different negotiation behaviors as they oc-

cur in mono-cultural contexts across cultures, instead of directly

examining intercultural settings where cultural barriers exist right

at the negotiation table. Indeed, in reviewing Gelfand and Brett's

(2004) Handbook of Negotiation and Culture, Kray (2005) aptly lamented that "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 differ-

ences makes a difference...knowledge about factors influencing

the effectiveness of intercultural negotiations is sparse" (p. 159).

Yet to date, the culture and negotiation literature reveals little as

0749-5978/\$ - see front matter © 2010 Elsevier Inc. All rights reserved. doi:10.1016/j.obhdp.2010.02.001

^{*} Corresponding author. Fax: +1 301 314 9566. E-mail address: limai@psyc.umd.edu (L. Imai).

motives and higher epistemic motivation in intercultural contexts (study 1), and will engage in more effective integrative negotiation processes (i.e., reciprocal and complementary sequences of integrative information behaviors and sequences of cooperative relationship management behaviors), which will allow them to achieve higher joint profits than dyads with lower CQ (study 2). We take a conservative approach and examine whether CQ predicts effective sequences of integrative negotiation behaviors over and beyond other forms of individual difference characteristics identified in the negotiation literature to have an impact on integrative negotiation. We also examine the dyad composition of CQ and propose that the level of integrative sequencing achieved among dyads will be no greater than that determined by the lower-scoring negotiator within the dyad. To the best of our knowledge, this research is of the first to directly address the question of what predicts intercultural negotiation effectiveness.

Intercultural challenges to effective integrative negotiation processes and outcomes

The culture and negotiation literature has consistently found that negotiators achieve significantly less joint profit when negotiating across the cultural divide than when negotiating within their own culture. This effect has been found among various samples (e.g., Adler & Graham, 1989; Brett & Okumura, 1998; Natlandsmyr & Rognes, 1995), and the robustness of this intercultural disadvantage is not surprising when considering the number of psychological and behavioral challenges that face negotiators in intercultural contexts (see Adair & Brett, 2004).

In terms of psychological challenges, negotiators in intercultural contexts are less likely to have cooperative motives (i.e., have equal and high concerns for both the outcomes of self and other) than negotiators in intracultural contexts. For example, the intergroup bias literature has long established that individuals are less willing to extend cooperation towards outgroup members compared to ingroup members (Hewstone, Rubin, & Willis, 2002). Indeed, an early negotiation study by Graham (1985) found that intercultural negotiators are more competitive than intracultural negotiators (see also George, Jones, & Gonzalez, 1999; Kumar, 2004). Intercultural negotiations are also more challenging in that they have the potential to promote negative intergroup dynamics that lead to the closing of the mind among negotiators. For example, negative moods such as anxiety and fear that commonly arise in intercultural situations (Stephan & Stephan, 1985) have been shown to lower cognitive flexibility (Baas, De Dreu, & Nijstad, 2008). Similarly, ethnocentrism has been found to be associated with rigidity in thinking (Cunningham, Nezlek, & Banaji, 2004). Together, these findings suggest that in intercultural contexts, negotiators may have a more difficult time sustaining epistemic motivation (i.e., the need to develop an accurate understanding of the world through deliberate and systematic information processing (De Dreu, 2004) than in intracultural contexts. The fact that both cooperative motives and epistemic motivation are difficult to maintain in intercultural contexts is problematic, as the broader literature shows that both are necessary for negotiators to engage in effective integrative behaviors that lead to joint profit (De Dreu, Beersma, Stroebe, & Euwema, 2006; see also Beersma & De Dreu, 1999; De Dreu & Van Lange, 1995; De Dreu, Weingart, & Kwon, 2000; Olekalns, Smith, & Kibby, 1996; Weingart, Bennett, & Brett, 1993).

Furthermore, behavioral challenges such as coordination problems and communication mismatches are more likely to afflict intercultural negotiators. Research suggests that negotiators from different cultures bring culture-specific schemas (Brett & Okumura, 1998; Gelfand et al., 2001) and behavioral strategies (Adair

et al., 2001) to the negotiation table. For example, Adair et al. (2001) found that while negotiators from a low context culture such as the US exchange information directly through stating issue priorities, negotiators from a high context culture such as Japan exchange information indirectly by implying their own issue priorities through the use of multi-issue offers. Such cultural differences in normative negotiation behaviors suggest that in intercultural contexts, negotiators may have a more difficult time engaging in effective, coordinated sequences of integrative negotiation behaviors than in intracultural contexts. This particular intercultural challenge is problematic given the broader negotiation literature shows that sequencing of integrative negotiation behaviors, whether it is reciprocal sequencing of integrative tactics (i.e., matching identical negotiation tactics; Adair, 2003; Olekalns & Smith, 2000; Weingart, Prietula, Hyder, & Genovese, 1999; Weingart, Thompson, Bazerman, & Carroll, 1990) or complementary sequencing of integrative tactics (i.e., pairing non-identical integrative tactics; Olekalns & Smith, 2003), is a critical predictor of high joint profit.

In summary, the lack of cooperativeness and epistemic motivation associated with interacting with culturally unfamiliar others and the coordination problems that result from clashing behavioral styles make intercultural negotiators less likely to engage in integrative negotiation processes that lead to joint profit. A natural question that arises then is: how can negotiators overcome such obstacles? What individual difference characteristic might best predict intercultural negotiation effectiveness?

Cultural intelligence (CQ)

In this research, we consider a broad range of individual difference characteristics, including cultural intelligence, cognitive ability, emotional intelligence, openness, extraversion, and international experience. Actual practices of how American firms select individuals for overseas assignments suggest that technical job-related experience and job-related skills are the two most important criteria to consider (Moran & Boyer, 1987; as discussed in Black, Mendenhall, and Oddou (1991)). Considering that cognitive ability has consistently been shown to be a valid predictor of job performance (Schmidt & Hunter, 1998), could it predict intercultural negotiation effectiveness? Or might emotional intelligence (Salovey & Mayer, 1990), a more interpersonally relevant ability of being able to accurately process others' emotions?

While we examine such possibilities, we argue that cultural intelligence (CQ), defined as a person's capability to successfully adapt to new cultural settings (Earley & Ang, 2003) is likely a more powerful predictor of intercultural negotiation effectiveness. Our reasoning (as elaborated in Earley and Ang (2003)) is that while constructs such as cognitive ability and emotional intelligence may help negotiators to process certain types of information, such advantages may not be necessarily helpful for facilitating social interaction specifically in intercultural contexts. For example, cognitive ability allows one to reason, solve problems, and think abstractly in general (Gottfredson, 1997), yet it does not necessarily entail effective processing of interpersonally relevant information. Furthermore, while emotional intelligence enables one to accurately appraise other's emotions and react appropriately, it does not guarantee that it familiarizes individuals to culture-specific systems of emotional expression. Indeed, there is empirical support in the culture and emotion literature for the dialect theory of communicating emotion (see Elfenbein & Ambady, 2002, 2003; Elfenbein, Beaupre, Levesque, & Hess, 2007), which states that while there are universal aspects to expressing emotion, there are also substantive cultural differences which pose challenges for accurate recognition of emotions across cultural boundaries. This is

consistent with anecdotes among international HR managers, who observe that the level of interpersonal skills employees possess within a culture is independent from the level of interpersonal skills those employees possess across cultures (Earley & Ang, 2003). In other words, just because an individual may possess high interpersonal skills within his or her own culture, this may not necessarily translate into being able to adjust easily and quickly to people and situations across new cultural contexts. At the same time, an individual who appears to be lacking interpersonal skills within his or her own culture may still be able to adjust easily and quickly to new cultural contexts (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 an individual's level of cultural mindfulness or awareness during intercultural interactions (Ang & Van Dyne. 2008). Individuals with high meta-cognitive CQ engage in higherorder cognitive processes when trying to adapt to new cultures, including how to plan learning about the new culture as well as evaluating and monitoring their own progress. Cognitive CQ refers to an individual's acquired knowledge of similarities and differences regarding norms, practices, and conventions of other cultures (Ang & Van Dyne, 2008). Motivational CQ refers to an individual's ability to direct attention and energy toward adapting to new cultures. More specifically, motivational CQ refers to intrinsic motivation and self-efficacy in adapting to new cultures. Thus, individuals with high motivational CQ enjoy interacting in new cultures and feel confident about their own abilities in doing so (Ang & Van Dyne, 2008). Finally, behavioral CQ refers to the extent to which individuals possess a wide repertoire of behavioral skills, and can appropriately enact verbal as well as non-verbal behaviors in new cultural settings (Ang & Van Dyne, 2008).

Empirical research has shown that CQ is an important predictor of affective as well as performance-related outcomes in culturally diverse situations, over and beyond a number of other constructs. For example, Ang et al. (2007) found that individuals with higher CO are able to make more accurate cultural judgments and report greater interactional adjustment and well-being than those with lower CQ, over and beyond cognitive ability, emotional intelligence, personality, and international experience. In organizational contexts, the same authors found that international managers with higher CQ performed better on an intercultural business task, controlling for cognitive ability and international experience. Moreover, in a sample of foreign professionals, Ang et al. (2007) found that CQ predicts higher job performance as rated by their supervisors, over and beyond international experience. In another study, Templer, Tay, and Chandrasekar (2006) found that expatriates with higher CQ experienced greater cross-cultural adjustment than those with lower CQ, taking into account the realistic previews of the job and living conditions expatriates received, time in host country, and prior international experience. More recent empirical investigations have found that CQ is negatively related to burnout among business travelers working in multinational corporations (Tay, Westman, & Chia, 2008), and positively related to how quickly employees are integrated into multicultural work teams (Flaherty, 2008).

While CQ has been studied among a wide variety of contexts, it has not been studied yet in the domain of negotiations. In the sections that follow, we argue that CQ provides negotiators with the capability to overcome the psychological and behavioral challenges that impede effective integrative negotiation processes that lead to joint profit. We do so by first proposing that CQ equips individuals in general with cooperative motives and epistemic motivation that are the psychological pre-requisites that help overcome intercultural behavioral hurdles in negotiation contexts. As such,

we test the inter-relationships between CQ and each of these constructs (study 1). We also examine whether higher CQ negotiators engage in more effective integrative negotiation processes in terms of their actual behaviors at a micro level of analysis (i.e., sequences of integrative negotiation behaviors) and thereby achieve higher joint profit than lower CQ negotiators, over and beyond other individual difference characteristics (study 2). Finally, also in study 2, we examine an issue pertaining to dyad composition; that is, whether the level of integrative sequencing between negotiators is more a function of the lower CQ or the higher CQ negotiator within the dyad.

Study 1: CQ, cooperative motives, and epistemic motivation

We reason that individuals with higher CQ have greater cooperative motives as well as higher epistemic motivation than individuals with lower CQ. By definition, individuals with higher CQ genuinely enjoy interacting with people from different cultures. As such, in culturally diverse situations, individuals with higher CQ are more likely to approach the situation with a cooperative mindset and less likely to maintain strong ingroup-outgroup distinctions than individuals with lower CQ. Thus, we argue that individuals with higher CQ will focus on building more positive cooperative relationships rather than negative competitive relationships. Indirect support for this notion is evident in several empirical studies. For example, individuals with higher CQ report greater interpersonal trust toward culturally different others compared to individuals with lower CQ (Rockstuhl & Ng, 2008). Furthermore, individuals with higher CQ also tend to be more agreeable (Ang, Van Dyne, & Koh, 2006; Kim, Kirkman, & Chen, 2008), where agreeable individuals are conceptualized to deal with conflict cooperatively, strive for common understanding, and maintain social affiliations (Digman, 1990). Nevertheless, no study has directly examined the relationship between CQ and cooperative motives.

H1. Individuals with higher CQ will have higher cooperative motives than individuals with lower CQ.

Further, given that individuals with higher CQ genuinely enjoy interacting with people from different cultures, it is likely that they are open-minded, curious, and enjoy learning new things, or in other words, have higher epistemic motivation. Individuals with higher CQ are also by definition highly confident in adapting to culturally diverse situations; thus, should communication setbacks arise due to ambiguous cultural cues, these individuals are more likely to persist and invest great effort into forming an accurate understanding of their surroundings in order to achieve their goal of adapting effectively to the intercultural situation. Research shows indirect evidence for a positive relationship between CQ and epistemic motivation. Ang et al. (2006) found that CQ is positively correlated with openness to experience, which is a conceptually similar construct to epistemic motivation (Kruglanski, 2004).

H2. Individuals with higher CQ will have higher epistemic motivation than individuals with lower CQ.

In summary, we expect individuals with higher CQ to have higher cooperative motives as well as epistemic motivation. Indeed, consistent with our predictions, researchers of group decision-making have recently argued that while cooperative motives and epistemic motivation are orthogonal constructs, certain antecedent states and/or traits should stimulate both (De Dreu, Nijstad, & van Knippenberg, 2008). As such, we expect CQ to be one such antecedent trait of both cooperative motives and epistemic motivation.

Study 1 method

Participants

In order to test our hypotheses, 236 participants were recruited through market research tools to fill out an online survey. All participants were full-time employees and consisted of 42% females and 58% males ($M_{\rm Age}$ = 42.1). Most participants were either Caucasian/White (58%) or Asian–American/Pacific Islander (31%), with the other 11% consisting of African–American/Blacks, Hispanic/Latinos, American–Indian/Alaskan Natives, and Multi-racial/Multi-ethnics.

Procedure

Through an online market research company, participants were invited to fill out an online survey examining "relationships among individual difference characteristics." Participants first completed an informed consent form, then took the survey, and were fully debriefed at the end of the survey.

Measures

Cultural intelligence

CQ was assessed with the 20-item Cultural Intelligence Scale (CQS) by Ang et al. (2007) who demonstrated the scale's four-factor structure of the construct, along with other psychometric properties such as factor equivalence, reliability, and temporal stability (see Appendix A for items). In the present study, the overall CQ scale had high reliability (α = 0.92), along with its four dimensional sub-scales: meta-cognitive CQ (α = 0.90), cognitive CQ (α = 0.91), motivational CQ (α = 0.89), and behavioral CQ (α = 0.90). All items were measured on a 1 (strongly disagree) to 7 (strongly agree) scale.

Confirmatory factor analysis (CFA) was used to confirm the dimensionality of the 20 CQ items. Specifying a model where the four meta-cognitive items, six cognitive items, five motivational items and five behavioral items load onto their corresponding CQ facets, and where all CQ facets load onto an overall CQ construct, the model had sufficient fit (χ^2 [166] = 421.82 p = .00; CFI = 0.91; SRMR = 0.06; RMSEA = 0.08), although some of the fit indices were slightly below the criteria cutoffs suggested by Hu and Bentler (1999).

Cooperative motives

Cooperative motives were measured by assessing the extent to which individuals intended to rely on cooperative heuristics in negotiation situations. Cooperative negotiation heuristics were measured with eight items taken from De Dreu and Boles (1998). Participants were asked to indicate to what extent they agreed with statements concerning negotiations such as, "share and share alike" and "lying never pays." All items were measured on a 1 (strongly disagree) to 5 (strongly agree) scale and the overall scale had good reliability (α = 0.78).

We also measured cooperative motives as prosocial value orientation with nine decomposed games (c.f. Messick & McClintock, 1968) taken from Van Lange, Otten, De Bruin, and Joireman (1997). In a decomposed game, participants are presented with three different distributions of outcomes (i.e., points) between themselves and a hypothetical "other" and are asked to choose one from competitive, individualistic, and cooperative (or prosocial) options. For example, participants could be asked to choose from option A (480 points for self and 80 points for other), option B (540 points for self and 280 points for other), and option C (480 points for self and 480 points for other). In this example, option A

would represent the competitive choice, given there is a maximum difference between one's own and other's outcome (480-80=400) compared to option B (540-280=260) or option C (480-480=0). In contrast, option C would represent the cooperative choice, given there is a minimum difference between one's own and other's outcome. Option B would represent the individualistic choice because 540 points is the greatest number of points for the self compared to option A (480) or option C (480), regardless of how many points the other received.

In this study, based on participants' responses across the 9 decomposed games, individuals were classified as competitive, individualistic, or cooperative if they had made at least six consistent choices for one of the three categories (1 = competitive; 2 = individualistic; 3 = cooperative). Fifty-four percent of participants were classified as cooperative, 23% as individualistic, and 8% as competitive. 15% were unclassifiable as they endorsed less than six consistent outcome choices. Classified participants were then further categorized dichotomously as to whether they were cooperative or not cooperative (i.e., competitive or individualistic). In terms of reliability, decomposed games have been shown in previous studies to have good internal consistency and test–retest reliability (Kuhlman, Camac, & Cunha, 1986; Van Lange & Semin-Goossens, 1998).

Epistemic motivation

As per De Dreu et al. (2006) and Kruglanski and Thompson (1999), epistemic motivation was assessed by measuring need for cognition as well as need for closure. The need for cognition scale consisted of 18 items from Cacioppo, Petty, and Kao (1984). Participants were asked to answer items such as, "I prefer my life to be filled with puzzles that I must solve" and "I really enjoy a task that involves coming up with new solutions to problems." The need for cognition scale had high reliability (α = 0.88). All items were rated on a 1 (strongly disagree) to 6 (strongly agree) scale.

Epistemic motivation was also measured with Roets and van Hiel's (2007) adapted version of Kruglanski, Webster and Klem's (1993) 42-item need for closure scale (NFCS), where high need for closure indicates low epistemic motivation. Given recent criticisms against the validity of the decisiveness sub-scale of the NFCS, Roets and Van Hiel's (2007) version substitutes the seven original decisiveness items of the NFCS with six new items, forming a 41-item scale overall. This scale had high reliability (α = 0.88). All items were rated on a 1 (strongly disagree) to 6 (strongly agree) scale.

Demographic variables

A number of demographic variables were measured: sex (0 = female; 1 = male), age (years), Non-US citizen status (0 = no; 1 = yes), and race (1 = Caucasian; 2 = African–American/Black; 3 = American–Indian/Alaskan Native; 4 = Asian–American/Pacific Islander; 5 = Hispanic/Latino; 6 = Multi-racial/Multi-ethnic; 7 = Other). Given low frequencies for some categories of race, race was recoded into a trichotomy (1 = Caucasian; 2 = Asian–American/Pacific Islander; 3 = Other).

Study 1 results and discussion

Table 1 presents the descriptive statistics of CQ (at the overall and facet levels), cooperative motives, and epistemic motivation, along with the partial correlations conducted among the measures of these constructs in order to test both hypotheses. Demographic variables including age, sex, US citizen status, and two dummy codes representing the three most frequent categories of race (Caucasian, Asian–American, Other) were controlled for in the analyses, resulting in a sample size of 195 for all partial correlations. Overall,

Table 1Descriptive statistics and partial correlations of individual difference measures (study 1).

Variable	М	SD	1	2	3	4	5	6	7	8	9
1. Overall CQ	4.66	0.88	-	.72**	.75**	.79**	.75**	.04	.19**	12	.19**
2. Meta-cognitive CQ	5.39	1.06		-	.35**	.47**	.54**	.07	.23**	01	.17*
3. Cognitive CQ	3.85	1.23			-	.42**	.30**	.01	.00	10	.09
4. Motivational CQ	4.97	1.18				_	.49**	.14*	.27**	21 ^{**}	.24**
5. Behavioral CQ	4.74	1.15					-	08	.14	01	.11
6. Prosocial value orientation	0.64	0.48						-	.22**	11	.10
7. Cooperative heuristics	4.01	0.56							-	.12	.03
8. Need for closure	3.80	0.53								_	31 ^{**}
9. Need for cognition	4.04	0.70									-

Note. Descriptive statistics based on N = 236 except for social value orientation (N = 200). Partial correlations based on N = 195, controlling for age, sex, US citizen status, and two dummy codes representing race.

the correlational analysis shows that while cooperative motives and epistemic motivation are unrelated, CQ has significant relationships with both cooperative motives and epistemic motivation, respectively.

As predicted, in Hypothesis 1 overall CQ had a positive correlation with cooperative motives as measured by negotiation heuristics (r(188) = .19, p < .01). Individuals who have greater ability in adapting to situations of cultural diversity also tend to want to behave more cooperatively in negotiations, compared to individuals who have lower ability in adapting to situations of cultural diversity. Notably, at the facet level, motivational CQ had the strongest positive correlation with cooperative negotiation heuristics (r(188) = .27, p < .01). Overall CQ was not significantly correlated with prosocial value orientation (r(188) = .04, p > .50), but the motivational facet of CQ was significantly and positively correlated (r(188) = .14, p < .05).

As predicted, in Hypothesis 2 overall CQ had a positive correlation with epistemic motivation as measured by need for cognition (r(188) = .19, p < .01). In other words, individuals who have greater ability in adapting to situations of cultural diversity also tend to like investing a lot of cognitive effort in general (i.e., developing an accurate understanding of their surroundings), compared to individuals who have lower ability in adapting to situations of cultural diversity. At the facet level, motivational CQ had the strongest positive correlation with need for cognition (r(188) = .24, p < .01). Overall CQ did not have a significant relationship with need for closure (r(188) = -.12, p = .10), but further analysis revealed that motivational CQ had an expected negative correlation (r(188) = -.21, p < .01).

In summary, study 1 shows that individuals with higher CQ are also more cooperative in general, and possess a greater desire to develop an accurate understanding of their surroundings compared to individuals with lower CQ. Thus, our preliminary findings show evidence that CQ provides negotiators with psychological characteristics that are beneficial for engaging in effective integrative negotiation processes that lead to joint profit at the intercultural negotiation table. However, it remains to be seen if negotiators with higher CQ actually engage in effective integrative negotiation processes at the micro level in terms of their behaviors. That is, do dyads that consist of higher CQ negotiators engage in sequencing of integrative negotiation behaviors over and beyond other individual difference characteristics and thereby achieve higher joint profit than dyads that consist of lower CQ negotiators?

Study 2: CQ and intercultural negotiation effectiveness

We reason that dyads consisting of negotiators with higher CQ will engage in more effective sequences of integrative information behaviors than dyads consisting of negotiators with lower CQ. Being more cooperative, we argue that higher CQ negotiators will generally adopt more integrative negotiation strategies. Furthermore, we argue that having greater desire and efficacy to adapt to the culturally diverse negotiation situation, higher CQ negotiators should invest more cognitive effort into accurately understanding their counterparts' behaviors for their communicative intentions. In all, we argue that the use of more integrative strategies and the greater investment of cognitive effort of higher CQ negotiators will translate into more coordinated exchange of information regarding the counterparts' interests and priorities, resulting in stable sequencing of integrative information behaviors.

H3. Dyads with higher CQ will engage in more sequences of integrative information behaviors (reciprocal or complementary) than dyads with lower CQ.

In addition to task-focused integrative information sequences, we also expect higher CQ dyads will manage the working relationship itself by engaging in more sequences of cooperative comments (e.g. expressions of enthusiasm for working together) that would reinforce the cooperative context of the negotiation, compared to lower CQ dyads. Focusing on the relational aspect of integrative negotiations is just as important as focusing on the task-related aspect, given relational processes and outcomes determine the likelihood of future relationships between negotiators.

H4. Dyads with higher CQ will engage in more sequences of cooperative relationship management behaviors than dyads with lower CQ.

While we have formally hypothesized whether CQ as an overall construct influences sequences of integrative information behaviors and sequences of cooperative relationship management behaviors, we explore the relative predictive power of the four facets of CQ. Given that in study 1, motivational CQ was most consistently and strongly correlated with the psychological advantages of cooperative motives as well as epistemic motivation, it may be that motivational CQ will also exert the strongest effect in terms of predicting behavioral sequences of integrative negotiation behaviors.

Furthermore, with respect to the influence of negotiation processes on outcomes, the broader negotiation literature has found that sequencing integrative negotiation behaviors move negotiators down a cooperative path, and leads to high joint profit (Adair, 2003; Olekalns & Smith, 2000, 2003; Weingart et al., 1990, 1999). For example, Olekalns and Smith (2000) found that dyads that engage in frequent reciprocal sequencing of priority information are more likely to reach optimal joint outcomes. However, given that

^{*} p < .05.

p < .01.

¹ We also measured cooperative motives by simply counting the number of cooperative choices made across the nine decomposed games. Correlation analysis using this measure produced nearly identical results as that reported in Table 1. Further correlational analyses revealed that there is no significant relationship between (a) CQ and competitive motives and (b) CQ and individualistic motives.

6

this literature on communication processes in negotiation has focused mostly on intracultural negotiation contexts, it is important to replicate these findings in intercultural negotiation contexts.

H5. Dyads that engage in more sequences of integrative information behaviors (reciprocal or complementary) will achieve higher joint profit.

H6. Dyads that engage in more sequences of cooperative relationship management behaviors will achieve higher joint profit.

Finally, we examine the effects of dyad composition of CQ on sequences, that is, whether the level of sequencing of integrative information behaviors and cooperative relationship management behaviors is more a function of the high CQ negotiator or the low CQ negotiator within the dyad. Given that sequencing is a *conjunctive* task (Steiner, 1972) in which contributions from both negotiators are required for high performance, we expect that a dyad's level of sequencing depends on the lowest level of CQ within the dyad, or in other words, the "weakest link." Put simply, 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.

H7. The level of sequencing of integrative information behaviors and sequencing of cooperative relationship management behaviors will be no greater than that determined by the minimum level of CO in the dyad.

Other individual difference constructs

Along with our analysis of CQ, we simultaneously examine if other individual difference characteristics also predict the abovementioned sequences of integrative negotiation behaviors. One theoretical limitation of the current individual differences and negotiation literature is that research has focused exclusively on intracultural negotiation contexts, and little is known regarding the potential moderating effects of other types of negotiation contexts on the relationship between negotiator disposition and negotiation processes and outcomes. Furthermore, such a theoretical limitation is an obvious practical limitation as well, since negotiators need to be selected not only on their dispositional characteristics, but dispositional characteristics that fit the right type of negotiation. Thus, in our research, we include individual difference characteristics that have been found or argued to be advantageous for integrative negotiation in intracultural contexts, and examine if they predict intercultural negotiation effectiveness.

More specifically, we examine other forms of intelligence including cognitive ability (Barry & Friedman, 1998; Fulmer & Barry, 2004; Kurtzberg, 1998) and emotional intelligence (Elfenbein, Foo, White, Tan, & Aik, 2007; Foo, Elfenbein, Tan, & Aik, 2004; Fulmer & Barry, 2004), as well as personality traits including openness (Ma & Jaeger, 2005) and extraversion (Barry & Friedman, 1998). Finally, another purpose for including these other individual difference characteristics is to provide a conservative test to see if CQ predicts sequences of integrative negotiation behaviors over and beyond the other individual difference characteristics. Thus, we also include international experience given it is conceptualized to be highly associated with CQ (see Ang & Van Dyne, 2008).

Study 2 method

Participants

150 students (75 Americans and 75 East Asians) at both undergraduate and graduate levels were recruited through adver-

tisements at a large public university. The advertisement specifically targeted either "American citizens of Western European descent," or "East Asians who have lived in the US for less than five years and are originally from China, Japan, or Korea." The American sample consisted of 75 individuals (28 males and 47 females; $M_{\rm Age}$ = 26.9), and the East Asian sample also consisted of 75 individuals (28 males and 47 females; $M_{\rm Age}$ = 26.4). Participants were first matched on sex and level of education (undergraduate or graduate), and then randomly paired to form 75 intercultural dyads. Within the dyad, participants were randomly assigned to one of two negotiator roles. Ten dyads had at least one negotiator who did not give consent to being audio-taped; thus, these dyads were excluded from analyses with a final sample size of 130. All students were given \$20 cash cards for participation.

Procedure

The study took part over two sessions, separated by a minimum of one week. On the first session, participants were asked to fill out an online questionnaire that assessed all individual difference characteristics (i.e. cultural intelligence, emotional intelligence, openness, extraversion, and international experience), except for cognitive ability which was assessed with a timed-test at the end of the second session. On the second session, participants were asked to come into the laboratory to engage in a negotiation simulation. Participants first read their role information individually, then were brought together with their partners from the other culture to engage in a negotiation simulation while being tape-recorded. They were given 20 min to negotiate. After the negotiation session, both negotiators filled out a final agreement form that indicated their levels of settlement. Finally, participants completed a timed-test of cognitive ability, and then were fully debriefed.

Negotiation task

The negotiation simulation was adapted from Towers Market II which has been used in previous research on integrative bargaining (e.g. Weingart, Olekalns, & Smith, 2004). This simulation involved a mixed-motive negotiation between a specialty grocery shop owner and a 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.

Participants were given a payoff schedule that listed the possible levels of settlement on each of the five negotiation issues, and the number of points associated with each level of settlement that indicated the amount of worth of that level of settlement to the negotiator. The structure of the payoff schedule left room for integrative potential: Grand Opening Date and Renovation Costs were integrative issues, Hours of Operation and Temperature were distributive issues, and Floor Space was a compatible issue.

Individual difference measures

Cultural intelligence (CQ)

CQ was assessed with the same 20-item scale from study 1. In the present study, overall CQ had high reliability ($\alpha_{American}$ = 0.90; α_{East} Asian = 0.86), as well as each of its facets, including

meta-cognitive CQ ($\alpha_{American} = 0.84$, $\alpha_{East\ Asian} = 0.83$), cognitive CQ ($\alpha_{American} = 0.80$, $\alpha_{East\ Asian} = 0.78$), motivational CQ ($\alpha_{American} = 0.86$, $\alpha_{East\ Asian} = 0.70$), and behavioral CQ ($\alpha_{American} = 0.87$, $\alpha_{East\ Asian} = 0.77$). All items were measured on a scale from 1 (strongly disagree) to 7 (strongly agree).

Cognitive ability

Cognitive ability was measured using the Wonderlic Personnel Test (WPT; Wonderlic & Associates, 2000), a 12-min speed test consisting of 50 questions that assesses an individual's math and verbal abilities. Preliminary analyses at the individual level indicated that East Asians scored significantly lower than Americans ($M_{\rm East}$ Asian = 24.66, SD = 4.57; $M_{\rm American}$ = 31.49, SD = 4.75; t(128) = -8.35, p < .01), most likely because the Wonderlic requires knowledge of difficult English proverbs. Accordingly, raw scores were standardized into Z scores within each cultural group for analyses.

Emotional intelligence

Emotional intelligence was measured using Schutte et al.'s (1998) 33-item scale that has been validated and was developed based on Salovey and Mayer's (1990) conceptualization of the construct ($\alpha_{American} = 0.87$; α_{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 a scale from 1 (strongly disagree) to 5 (strongly agree).

Openness to experience and extraversion

Openness to experience and extraversion were measured with 10 items each from Goldberg et al.'s (2006) short version of the International Personality Item Pool (IPIP, 2006). An example item for openness is, "I have excellent ideas" ($\alpha_{American}=0.78$, α_{East} $\alpha_{Asian}=0.82$), and for extraversion, "I am the life of the party" ($\alpha_{American}=0.90$, α_{East} $\alpha_{Asian}=0.89$). Both were answered on a 1 (very inaccurate) to 5 (very accurate) scale.

International experience

International experience was measured as the total length of time participants have spent living abroad, which has been validated by 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 experiences of living abroad. All living experiences were summed and converted to weeks.

Demographics

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

Joint profit

Joint profit was measured as the sum of the points earned by both negotiators across all five issues.

Coding of negotiation tactics and sequences

After all the process data had been transcribed for each dyad, three overall steps were taken to ensure consistency in coding of negotiation tactics (elaborated below). First, the transcripts were unitized by three research assistants, that is, parsed into units that would eventually be coded for negotiation tactics. Second, the unitized transcripts were content-coded for negotiation tactics by two coders. Because reproducibility of coding requires reliability in both steps (Folger, Hewes, & Poole, 1984), reliability

estimates for both the unitizing process (i.e., unitizing reliability) as well as the coding process (i.e., interpretive reliability) were calculated. Third, sequences of negotiation tactics of theoretical interest were counted automatically through a computer program.

Unitizing of transcripts

The unitizing step involved parsing the negotiation dialogue in each transcript into "thought units", where a thought unit consists of one idea or thought, which roughly corresponds to a sentence. Three research assistants were each given a manual of unitizing rules, and were trained on how to unitize the transcripts through multiple practice sessions. In each practice session, the first author and the three research assistants unitized a practice transcript individually, and then went over the unitizing together, discussing in detail any challenging cases. For example, research assistants were reminded that in some cases, multiple thought units need to be parsed within one sentence (e.g., "/ I want 60% of the floor space" / "because my products take up more space than yours do /"). Furthermore, they were also reminded that immediately repeated thoughts or ideas that were identical should be counted as one thought unit (e.g., "/ I'd like to close later. I prefer later / "). The research assistants continued practice sessions until they reached a high level of agreement, or unitizing reliability, based on three randomly drawn full transcripts. For each of the three transcripts, unitizing reliability was calculated with Guetzkow's U (Guetzkow, 1950) for all pairs of research assistants. Guetzkow's U refers to "the difference between the number of units identified by an independent coder and the "true" number of units (the average of two coders' estimates; Weingart et al., 2004, p. 448)." For any one transcript, the average Guetzkow's U across all pairs of research assistants was under 0.06, indicating high unitizing reliability. The three research assistants then unitized their own set of transcripts.

Content-coding of negotiation tactics

Once the unitizing was complete for all transcripts, two coders, blind to the research hypotheses, were given coding manuals adapted from one used by Weingart et al. (2004) for their Towers Market II negotiation simulation, and were trained to content code the unitized transcripts (see Appendix B for definition, examples, and strategic grouping of codes of negotiation tactics). As shown in Appendix B, we coded for a number of negotiation tactics that conceptually fall under two broad types of strategies: integrative information and cooperative relationship management. Consistent with previous cross-cultural research (Adair, 2003; Adair & Brett, 2005; Adair et al., 2001), we coded for direct and indirect ways of conveying/eliciting integrative information. More specifically, we coded for direct integrative information behaviors such as making issue priority statements across two or more issues (IR) and questioning other's priorities across two or more issues (QR). We also coded for more indirect ways of conveying integrative information; that is, making multi-issue offers (OM). Cooperative relationship management involved making miscellaneous relationship-focused cooperative comments

Again, coders were given a coding manual and trained through multiple practice sessions. In each practice session, the first author and the two coders coded a practice transcript individually, and then went over them together, discussing in detail what differentiates each code from other codes. If any disagreement emerged or if coders pointed out any particularly challenging cases, the first author further explained the nuanced differences among the codes. For example, coders were reminded to only code a given tactic as an issue priority statement if the negotiator reveals priority differences across negotiation issues

and not within negotiation issues. Also, coders were reminded that multi-issue offers must be offers that specify alternatives within two or more negotiation issues, and mere general suggestions to combine two or more negotiation issues should not be counted as multi-issue offers. With such reminders from the first author throughout the practice sessions, the two coders gradually developed strong agreement regarding the application of codes. Coders were trained until they reached high inter-rater reliability, based on three randomly drawn full transcripts. The average inter-rater reliability between the two coders across the three transcripts was high (Cohen's K = 0.88). Once the coders reached this high inter-rater reliability, they content-coded their own set of transcripts.

Calculating sequences of negotiation tactics

Once all transcripts were content-coded for negotiation tactics, the entire sequence of codes for each dyad transcript was entered into a computer software program (GSQ; General Sequential Querier, Bakeman & Quera, 1995; see also Bakeman & Gottman, 1986) so that sequences of integrative information behaviors and sequences of cooperative relationship management behaviors could be counted automatically for each dyad.

Calculating sequences at the immediate time lag

In counting the frequency of sequences of integrative information behaviors and sequences of cooperative relationship management behaviors, sequences were counted at the immediate time lag (c.f. Adair, 2003). Immediate time lags occur when the behavior elicited by negotiator 1 is immediately followed in the next speaking turn by the behavior elicited by negotiator 2. Appendix C illustrates a sample coded transcript where there are a total of six speaking turns between negotiator 1 and negotiator 2. Because there are six total speaking turns, there are five possible lag sequences ($N_{\text{speaking turn}} - 1$) in which sequences of theoretical interest can occur (i.e., speaking turn 1 (multi-issue offer) → speaking turn 2 (issue priority statement); speaking turn 2 (issue priority statement) → speaking turn 3 (issue priority statement); speaking turn 3 (issue priority statement) → speaking turn 4 (issue priority statement); speaking turn 4 (issue priority statement) → speaking turn 5 (issue priority statement); speaking turn 5 (issue priority statement) → speaking turn 6 (multi-issue offer)—in this example, all five lag sequences are sequences of integrative information behaviors).

Sequences of integrative information behaviors: Reciprocal and complementary

Sequences of integrative information behaviors were examined in two ways: (1) reciprocal sequences and (2) complementary sequences (Weingart & Olekalns, 2004). A reciprocal sequence of integrative information behaviors occurs when the two negotiation tactics comprising the sequence are identical (e.g. Appendix C, speaking turn 2 (issue priority statement) \rightarrow speaking turn 3 (issue priority statement)). 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 occurs when the two negotiation tactics comprising the sequence are not identical in terms of tactical codes, but are of the same integrative information strategy (e.g. Appendix C, speaking turn 5 (issue priority statement) \rightarrow speaking turn 6 (multi-issue offer)).

Sequences of cooperative relationship management behaviors

Sequences of cooperative relationship management behaviors occurred when a cooperative, non task-focused comment on the negotiators' relationship was followed by another such cooperative comment.

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 were converted into relative frequencies (Adair, 2003). More specifically, each raw frequency was divided by the dyad's total number of speaking turns – 1. Because the dependent variable was a proportion bounded by 0 and 1, it was then logit-transformed to stretch the tails of the distribution as recommended by Cohen, Cohen, West, and Aiken (2003).

Study 2 results

Descriptive statistics

Individual-level inter-correlations among all demographic variables and individual difference measures are found in Table 2. Table 3 presents the means and standard deviations of these measures by each cultural group, as well as comparisons of means between the two cultural groups. East Asians and Americans did not significantly differ on mean levels of CQ, although East Asians had greater international experience ($M_{\rm East~Asian}=138.27$, $SD_{\rm East~Asian}=95.87$; $M_{\rm American}=28.06$, $SD_{\rm American}=96.93$; t(122)=6.37, p<0.1, lower openness ($M_{\rm East~Asian}=3.40$, $SD_{\rm East~Asian}=0.60$; $M_{\rm American}=4.18$, $SD_{\rm American}=0.46$; t(122)=-8.13, p<0.1), and lower extraversion ($M_{\rm East~Asian}=3.09$, $SD_{\rm East~Asian}=0.73$; $M_{\rm American}=3.37$, $SD_{\rm American}=0.79$; t(122)=-2.04, p<0.5) than Americans.

Prior to testing our hypotheses, all individual difference scores were aggregated to the dyad-level by averaging the two negotiators' scores. Dyad means and standard deviations, and dyad-level inter-correlations among individual difference measures, sequences, outcomes, as well as demographic variables are shown in Table 4. Three dyads did not reach agreement; therefore, these cases were excluded from analyses with a final dyad sample size of 62.²

Tests of hypotheses

Overall CQ and negotiation process

Hypothesis 3 predicted that dyads with higher overall CQ would engage in more sequences of integrative information behaviors (reciprocal and complementary) than dyads with lower overall CQ over and beyond international experience, openness, extraversion, cognitive ability, and emotional intelligence. Analyses were conducted separately for complementary and reciprocal sequences using hierarchical regression. For both analyses, to provide a conservative test, international experience, openness, extraversion, cognitive ability, and emotional intelligence were entered in the first step, while overall CQ was entered in the second step. Because reciprocal sequences were significantly correlated with the demographic variable of mean age (r(60) = .38, p < .01), mean age was also included as a control variable in the first step in analyzing reciprocal sequences.

In terms of complementary sequences of integrative information behaviors, Table 5 shows that none of the other individual differences entered in step 1 (i.e., international experience, openness, extraversion, cognitive ability, emotional intelligence) significantly improved sequences of integrative information behaviors. As

² Including the three impasse dyads did not change results pertaining to the effects of CQ on sequences of integrative information behaviors, nor the effects of CQ on sequences of cooperative relationship management behaviors. This was true whether CQ was analyzed at the overall or facet level, and whether it was analyzed as the dyad mean or dyad minimum.

 Table 2

 Inter-correlations of individual-level measures (study 2).

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Race	_	.16	.11	.00	.02	.00	14	12	14	08	08	50 ^{**}	.59**	.18*	02	.06
2	Role		-	.10	.00	.02	.00	02	08	.07	.01	11	17	.11	09	.06	.05
3	Negotiation experience			-	.20*	.06	.19*	.12	.16	.15	.02	.03	12	.27**	.01	07	.07
4	Sex				-	.21*	.18*	04	03	.07	05	12	02	.08	05	.12	06
5	Age					-	.53**	07	03	14	05	.04	.00	.10	.00	.08	.03
6	Education						-	.02	.05	01	02	.06	02	.05	.00	.03	.05
7	Overall CQ							-	.74**	.77**	.72**	.75**	.18*	.30**	.39**	07	.45**
8	Meta-cognitive CQ								-	.42**	.35**	.57**	.13	.30**	.38**	.01	.40**
9	Cognitive CQ									-	.39**	.33**	.14	.17	.11	08	.20*
10	Motivational CQ										-	.37**	.02	.21*	.41**	09	.42**
11	Behavioral CQ											-	.25**	.24**	.34**	03	.38**
12	International experience												-	18	.09	.14	.08
13	Openness													-	.47**	.11	.44**
14	Extraversion														_	.04	.48**
15	Cognitive ability															-	01
16	Emotional intelligence																-

Note. N = 124 for all correlations except for negotiation experience (N = 123).

Table 3

Descriptive statistics and comparisons of means on individual-level measures by cultural group (study 2).

Variable	M E. Asian	SD E. Asian	M American	SD American	t	df
4.8						
1. Race	1.00	0.00	2.00	0.00		-
2. Role	0.42	0.50	0.58	0.50	-1.81	122
3. Negotiation experience	1.15	0.36	1.23	0.42	-1.20	121
4. Sex	1.40	0.49	1.40	0.49	0.00	122
5. Age	26.05	4.16	26.29	6.13	-0.26	122
6. Education	1.74	0.44	1.74	0.44	0.00	122
7. Overall CQ	5.17	0.60	4.99	0.71	1.58	122
8. Meta-cognitive CQ	5.61	0.82	5.42	0.79	1.31	122
9. Cognitive CQ	4.53	0.86	4.28	0.95	1.58	122
10. Motivational CQ	5.53	0.69	5.39	1.06	0.86	122
11. Behavioral CQ	5.23	0.80	5.08	1.01	0.92	122
12. International experience	138.27	95.87	28.06	96.93	6.37**	122
13. Openness	3.40	0.60	4.18	0.46	-8.13**	122
14. Extraversion	3.09	0.73	3.37	0.79	-2.04^{*}	122
15. Cognitive Ability	0.03	0.97	0.00	0.98	0.18	122
16. Emotional Intelligence	3.77	0.43	3.81	0.40	-0.63	122

Note. $N_{\text{East Asian}} = 62$, $N_{\text{American}} = 62$.

hypothesized however, overall CQ at the dyad-level entered in step 2 significantly predicted complementary sequences of integrative information behaviors (β = 0.31, p < .05; ΔR^2 = .07, p < .05). Dyads with higher CQ engaged in more sequences consisting of various types of integrative information behaviors. In terms of reciprocal sequences of integrative information behaviors, Table 5 also shows that none of the other individual differences entered in step 1 (i.e., international experience, openness, extraversion, cognitive ability, emotional intelligence) nor overall CQ entered in step 2 significantly increased reciprocal sequences of integrative information behaviors (β = 0.13, p > .30; ΔR^2 = .01, p = .37). Thus, CQ appears to have its effects on complementary sequences.

In order to explore which of the four CQ facets was driving the overall CQ effect on complementary sequences of integrative information behaviors, we conducted additional regression analyses entering the other individual differences into the regression equation in step 1 and all four facets of CQ in step 2. Table 6 shows that motivational CQ largely drove the effect overall CQ had on complementary sequences of integrative information behaviors (β = 0.45, p < .01; ΔR^2 = .19, p < .05).

Hypothesis 4 predicted that dyads with higher overall CQ would engage in more sequences of cooperative relationship management behaviors than dyads with lower overall CQ, over and beyond international experience, openness, extraversion, cognitive ability, and emotional intelligence. Table 7 shows that none of the other individual differences entered in step 1 (i.e., international experience, openness, extraversion, cognitive ability, emotional intelligence), nor dyad overall CQ entered in step 2 significantly increased sequences of cooperative relationship management behaviors (β = 0.15, p > .30; ΔR^2 = .02, p = .31). Analyses at the facet level, however, revealed that when all four facets of CQ were entered into the regression equation in step 2 after controlling for the other individual differences in step 1, behavioral CQ increased sequences of cooperative relationship management behaviors (β = 0.41, p < .05; ΔR^2 = .12, p = .11; Table 7). Dyads with higher behavioral CQ, or verbal and non-verbal behavioral flexibility, were able to reciprocate non-task-related cooperative comments.³

^{*} p < .05.

^{**} p < .01.

^{*} p < .05.

^{**} p < .01 (two-tailed).

³ We also explored whether dyad-level CQ has any influence on the sequencing of distributive negotiation behaviors (i.e., making single issue offers, stating one's preferences within a single issue, asking questions about the other's preferences within a single issue, offering substantiations, and asking questions regarding other's substantiations). Using multiple regression and controlling for openness, international experience, extraversion, emotional intelligence and cognitive ability, we found no significant effects of dyad CQ (overall or facet-level) on sequences of distributive negotiation behaviors.

Descriptive statistics and inter-correlations of dyad-level measures (study 2).

	Variable	M	SD	1	2	3	4	2	9	7	8	6	10	11	12	13	14	15	16	17	18	19	
1	Sex	1.40	0.49	1	.18	.25	.24	60	07	05	.11	08	17	03	.14	07	.18	09	.25	.15	.05	.33**	
7	Education	1.74	0.44		1	.63	.23	10	04	80.	02	02	80:	04	60.	.01	.05	90.	.24	08	.17	.10	
3	Mean age	26.17	4.40			1	.25	10	10	02	18	07	.01	09	.18	.04	90.	02	.38**	07	11.	.22	
4	Negotiation experience	1.31	0.46				1	08	90	.19	60.	05	03	13	.30*	03	.02	.10	.13	09	22	.02	
2	East Asian Time in US	33.35	19.63						04	09	21	.03	14	.52**	80.	.16	.19	80.	80.	01	15	.08	
9	Overall CQ	5.08	0.41							.65**	**89·	.73**	72**	.20	37**	.41	.02	.50	.16	.23	.04	04	
7	Meta-cognitive CQ	5.52	0.51								.25	.26*	.51**	60.	.53**	.46**	.12	.48	.17	08	04	12	
∞	Cognitive CQ	4.41	0.56								1	.35**	.18	.07	60.	04	90.	.21	.07	.22	07	05	
6	Motivational CQ	5.46	0.63									1	.34**	80.	27*	.43**	16	.40**	.17	.35**	.01	.07	
10	Behavioral CQ	5.15	0.64										ı	.30*	.26*	39**	.07	.36**	.07	90.	.20	04	
11	International experience	83.17	62.46											1	.10	.34**	.21	.12	.24	.07	26*	.07	
12	Openness	3.79	0.40												ı	.55**	.28*	.58	.25*	03	18	01	
13	Extraversion	3.23	0.55													1	.17	.52**	.21	02	11	.05	
14	Cognitive ability	0.01	0.68														1	00.	.24	01	07	.30**	
15	Emotional intelligence	3.79	0.31															1	.13	.01	03	90	
16	Reciprocal Sequences ⁺	0.02	0.03																1	.48	27*	.46**	•
17	Complementary sequences ⁺	0.02	0.02																	1	03	.55	
18	Cooperative sequences ⁺	0.04	0.04																		1	.19	
19	Joint profit	1337.74	105.03																			ı	•
Note: †1	Note: *Means and standard deviations of strategic sequences are presented in original proportions, whereas correlations are based on logit-transformed proportions	of strategic s	equences a	ire pres	sented	in origina	l propo	rtions, w	nereas co	orrelation	ıs are ba	ol uo bəs	git-trans	formed p	roportio	JS.							

Negotiation process and negotiation outcomes

Hypotheses 5 and 6 predicted that sequences of integrative information behaviors (reciprocal and complementary) and sequences of cooperative relationship management behaviors would predict joint profit, respectivey. Reciprocal, complementary, and cooperative sequences were included simultaneously in the regression equation to see if each had a unique effect on joint profit. Results showed that there were significant relationships between reciprocal sequences and joint profit (β = 0.35, p < .01), complementary sequences and joint profit (β = 0.39, p < .01), and cooperative relationship management sequences and joint profit (β = 0.29, p < .01), supporting both hypotheses. Thus, dyads that engaged in more sequences consisting of identical integrative behaviors, more sequences of non-identical integrative behaviors, as well as more sequences of cooperative non-task-related comments were much better able to create value at the negotiation table in an intercultural context.4

Dyad composition

Hypothesis 7 predicted that the level of sequencing of integrative information behaviors and sequencing of cooperative relationship management behaviors would be no greater than what is determined by the minimum level of CQ in the dyad. We addressed this issue by substituting the dyad mean CQ score by either the dvad minimum CO score (i.e. the lower CO negotiator's score) or the dyad maximum CQ score (i.e. the higher CQ negotiator's score) to see which had more of an effect on negotiation sequences (c.f. Barry & Friedman, 1998). The results illustrated that it is the minimum CQ that elicit a pattern of significant results very similar to those obtained from using the dyad mean CQ scores. More specifically, minimum overall CQ and minimum motivational CQ had a significant effect on complementary sequences of integrative information behaviors ($\beta_{\text{Min Overall CO}} = 0.30$, p = .05; $\beta_{\text{Min Motivational}}$ $_{CO}$ = 0.47, p < .01). By contrast, maximum overall CQ and maximum motivational CQ did not have any influence on complementary sequences of integrative information behaviors ($\beta_{\text{Max Overall CQ}} = 0.13$, p > .30; $\beta_{\text{Max Motivational CQ}} = 0.27$, p = .09). For sequences of cooperative relationship management behaviors, minimum behavioral CQ had a significant effect (β = 0.47, p < .01), whereas maximum behavioral CQ did not (β = 0.25, p > .10). In all, this pattern of results suggests that it is the negotiators with the lower CQ that influence the extent to which dyads engage in advantageous sequences.

Discussion

Despite the obvious importance of being able to negotiate effectively across cultures in today's world of increasing global interdependence, little understanding exists on what predicts intercultural negotiation effectiveness. We set out in this paper to investigate whether cultural intelligence (CQ) among other individual difference characteristics predict intercultural negotiation effectiveness. In study 1, we argued that CQ equips individuals with psychological characteristics advantageous for intercultural negotiation, and indeed, we found that individuals with higher CQ tend to have higher cooperative motives and epistemic motivation than individuals with lower CQ. In study 2, we argued that such psychological characteristics enable higher CQ negotiators to overcome hurdles endemic to intercultural negotiation contexts by adopting more integrative negotiation strategies and investing more cognitive effort into accurately

⁴ We also conducted additional analyses where we examined whether individuallevel CQ had an effect on *individual profit* (using HLM), controlling for openness, international experience, extraversion, emotional intelligence and cognitive ability. There were no significant effects of CQ (overall or facet-level) on individual profit.

Table 5 Summary of regression analysis for CQ predicting complementary and reciprocal sequences of integrative information behaviors (N = 62).

Variable	Complemen	ntary sequences	
	В	SE B	β
Step 1			
International experience	0.00	0.00	.09
Openness	-0.04	0.23	03
Extraversion	-0.05	0.16	06
Cognitive ability	-0.01	0.10	01
Emotional intelligence	0.08	0.28	.05
Step 2			
-	0.27	0.18	.31*
CO	0137		
CQ R^2 (sten 1) = 0.01: R^2 (sten 2) =	0.37 = $0.8 \cdot \Lambda R^2 = 0.7 (r$.51
CQ R^2 (step 1) = 0.01; R^2 (step 2) =			.51
		<.05)	.51
	= .08; ΔR^2 = .07 (p	<.05)	.51
R^2 (step 1) = 0.01; R^2 (step 2) =	= .08; ΔR^2 = .07 (p	<.05)	.38**
R^2 (step 1) = 0.01; R^2 (step 2) = Step 1	= .08; ΔR^2 = .07 (p	o < .05) sequences	
R^2 (step 1) = 0.01; R^2 (step 2) = Step 1 Mean age	= .08; ΔR^2 = .07 (p Reciprocal s	sequences 0.01	.38**
R^2 (step 1) = 0.01; R^2 (step 2) = Step 1 Mean age International experience	= .08; ΔR^2 = .07 (p Reciprocal : 0.04 0.00	0 < .05) sequences 0.01 0.00	.38** .22
R ² (step 1) = 0.01; R ² (step 2) = Step 1 Mean age International experience Openness Extraversion	= .08; ΔR^2 = .07 (p Reciprocal : 0.04 0.00 0.09	0 < .05) sequences 0.01 0.00 0.20	.38** .22 .07
R^2 (step 1) = 0.01; R^2 (step 2) = Step 1 Mean age International experience Openness	= .08; ΔR ² = .07 (μ Reciprocal : 0.04 0.00 0.09 0.02	0 < .05) sequences 0.01 0.00 0.20 0.14	.38** .22 .07 .02
R ² (step 1) = 0.01; R ² (step 2) = Step 1 Mean age International experience Openness Extraversion Cognitive ability Emotional intelligence	= .08; ΔR ² = .07 (μ Reciprocal : 0.04 0.00 0.09 0.02 0.10	0 < .05) sequences 0.01 0.00 0.20 0.14 0.09	.38** .22 .07 .02
R ² (step 1) = 0.01; R ² (step 2) = Step 1 Mean age International experience Openness Extraversion Cognitive ability	= .08; ΔR ² = .07 (μ Reciprocal : 0.04 0.00 0.09 0.02 0.10	0 < .05) sequences 0.01 0.00 0.20 0.14 0.09	.38** .22 .07 .02

Note. *p < .10.

Table 6 Summary of regression analysis for facet-level CQ predicting complementary sequences of integrative information behaviors (N = 62).

Variable	В	SE B	β
Step 1			
International experience	0.00	0.00	.09
Openness	-0.04	0.23	03
Extraversion	-0.05	0.16	06
Cognitive ability	-0.01	0.10	01
Emotional intelligence	0.08	0.28	.05
Step 2			
Meta-cognitive CQ	-0.13	0.17	14
Cognitive CQ	0.08	0.13	.09
Motivational CQ	0.35	0.13	.45**
Behavioral CQ	0.01	0.12	.01
R^2 (step 1) = 0.01; R^2 (step 2) =	$ 0.20; \Delta R^2 = 0.19 $	(p < .05)	

Note. $^+p < .10$.

understanding their culturally unfamiliar counterparts. Thus, we expected dyads consisting of higher CQ to maintain more stable sequences of integrative negotiation behaviors, ultimately achieving more optimal outcomes than dyads consisting of lower CQ. Consistent with this prediction, we found that overall dyad CQ, measured a week prior to negotiations predicts the extent to which negotiators engage in complementary sequences of integrative information behaviors, which in turn predicts joint profit. Notably, this effect was present even when controlling for cognitive ability, emotional intelligence, openness, extraversion, and international experience. Moreover, none of these other individual difference characteristics increased sequences of integrative information behaviors.

Theoretical contributions

This research makes a number of contributions to different bodies of literature. First, our research expands the culture and

Table 7Summary of regression analysis for overall and facet-level CQ predicting sequences of cooperative relationship management behaviors (*N* = 62).

Variable	Overall CQ		
	В	SE B	β
Step 1			
International experience	0.00	0.00	28^{*}
Openness	-0.36	0.24	27
Extraversion	0.05	0.16	.05
Cognitive ability	0.04	0.11	.05
Emotional intelligence	0.23	0.29	.13
Step 2			
CO	0.20	0.20	.15
R^2 (step 1) = .11; R^2 (step 2) = .13			
n (step 1) 111, n (step 2) 113	, an 102 (p	.51)	
	Facet CQ		
Step 1			
International experience	0.00	0.00	28^{*}
Openness	-0.36	0.24	27
Extraversion	0.05	0.16	.05
Cognitive ability	0.04	0.11	.05
Emotional intelligence	0.23	0.29	.13
Step 2			
Meta-cognitive CQ	-0.11	0.18	10
Cognitive CQ	-0.10	0.14	11
Motivational CQ	0.02	0.14	.03
Behavioral CQ	0.34	0.13	.41*
R^2 (step 1) = .11; R^2 (step 2) = .23	$; \Delta R^2 = .12 (p)$	= .11)	

Note. $^{+}p < .10$.

negotiation literature by moving beyond cross-cultural comparisons of negotiation, and being one of the first to directly ask what predicts intercultural negotiation effectiveness. As such, we identified CQ as one capability that improves intercultural negotiation processes, and thereby outcomes. Second, we also contribute to the individual differences and negotiation literature by showing that some individual difference characteristics, argued or found to be advantageous for integrative negotiation in intracultural contexts, may not be so in intercultural contexts. For example, our analysis revealed that none of the other individual difference characteristics examined, including cognitive ability (Barry & Friedman, 1998; Kurtzberg, 1998), emotional intelligence (Elfenbein, Foo, et al., 2007; Elfenbein, Foo, et al., 2007), openness (Ma & Jaeger, 2005), nor extraversion (Barry & Friedman, 1998) significantly improved integrative negotiation processes. Therefore, researchers should not assume that individual difference characteristics have all-encompassing influences on negotiation processes across all situations, but instead consider the fit between the particular individual difference characteristic and the specific negotiation context (e.g., intracultural vs. intercultural) in influencing negotiation processes.5

This research also expands the nascent CQ literature in a number of ways. By studying in depth the relationship between CQ and micro-level behavioral processes in a negotiation context, we show that CQ can improve objective performance in addition to the self-

^{*} p < .05.

^{**} p < .01.

[°]p < .05.

^{**} p < .01.

^{*} p < .05.

^{**} p < .01.

⁵ Notably, however, close examination of our correlation analysis in Table 1 shows that dyad cognitive ability was not related to sequencing of integrative negotiations behavior, yet did have a positive correlation with joint profit (replicating past research; e.g., Barry & Friedman, 1998). Thus, it could be that negotiators with high cognitive ability, unlike negotiators with high cultural intelligence, arrive at mutually beneficial outcomes via alternative routes other than the motivated cooperative sequencing of integrative information behaviors. For example, it could be speculated that negotiators with high cognitive ability can better analyze the complexity of the negotiation task and glean information from processes such as trial and error.

reported affective outcomes (e.g., cross-cultural adjustment) that has been the larger focus in this literature. Furthermore, by showing the positive relationship between CQ and cooperative motives, as well as CQ and epistemic motivation in study 1, we expand the nomological network of the CQ construct. By doing so, we also expand upon the group decision-making literature, or more specifically on De Dreu et al. (2008)'s Motivated Information Processing in Groups (MIP-G) model. The MIP-G model states that in mixed motive group tasks like negotiation, cooperative motives and epistemic motivation both influence the quality of problem solving, dissemination of information, and the negotiation of joint decisions. Recently, the authors have argued that while cooperative motives and epistemic motivation are orthogonal constructs, certain states and/or traits should stimulate both cooperative motives and epistemic motivation among individuals. As such, we provide first time support for the notion that certain psychological states, in this case CO, can stimulate both constructs.

While our main finding was that overall CQ predicts sequences of integrative information behaviors, analyses at the facet level revealed that motivational CQ strongly drove this effect. This finding is perhaps not surprising, considering our theory is that CQ provides negotiators with cooperative motives and epistemic motivation, and motivational CQ seems to have the most obvious conceptual ties to both these constructs compared to the other facets. For example, individuals with higher motivational CQ enjoy interacting with people from different cultures; thus, are less likely to make ingroup-outgroup distinctions and are more likely to have cooperative motives than individuals with lower CQ. Furthermore, individuals with higher motivational CQ enjoy unfamiliar cultures and are self-efficacious in adapting to situations of cultural diversity; therefore, when faced with intercultural communication ambiguities, they should persist and invest great effort into forming an accurate understanding of their culturally unfamiliar counterparts and surroundings-in other words, have high epistemic motivation. Thus, motivational CQ seems to be most strongly related to both cooperative motives and epistemic motivation at the same time, relative to meta-cognitive CQ (i.e., mindfulness and adjustment of one's own cultural knowledge), cognitive CQ (i.e., cross-cultural knowledge), and behavioral CQ (i.e., behavioral flexibility). Furthermore, the fact that high motivational CQ predicts sequences of integrative information behaviors parallels US intracultural negotiation research, which has found that highly efficacious negotiators engage in more open information exchange (O'Connor & Arnold, 2001). We expand this literature by showing that self-efficacy specifically for cross-cultural encounters is key to developing and maintaining sequences of information exchange behaviors.

This research also illustrates that different facets of CQ relate to different behavioral processes. For example, we found that behavioral CQ predicts sequences of cooperative relationship management behaviors. In the broader social psychological literature, the sequencing or reciprocation of cooperative behaviors in itself is a widespread phenomenon (Braver, 1975; Cialdini, Green, & Rusch, 1992; Rosenbaum, 1980) based on the norm of reciprocity (Gouldner, 1960). In our research, we found that the reciprocation of non task-related cooperative comments in particular, occurs more frequently among negotiators with higher behavioral CQ-the ability to respond appropriately both verbally and non-verbally to culturally different others. Notably, however, motivational CQ did not relate to this type of reciprocation. It could be speculated that the reciprocation of non task-related comments such as pleasantries and expressing enthusiasm for working together, as an interpersonal skill, is more strongly influenced by negotiators' ability to adjust their tone, accent, and facial expressions (i.e., behavioral CQ) while having intrinsic motivation and efficacy in adjusting to new cultures (i.e., motivational CQ) has greater relevance for the ability to identify mutually beneficial agreements.

Finally, in terms of dyad composition, we found that the negotiator with the lower level of CQ rather than the negotiator with the higher level of CQ had more of an impact on the extent to which the dyad engaged in effective sequences. If one considers the conjunctive nature (Steiner, 1972) of the task of sequencing, this dyad composition effect makes sense. 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 lower CQ negotiator does not reciprocate the integrative behaviors, overall, the dyad still suffers as a result. For example, the higher CQ negotiator's requests at exchanging integrative information may be ignored by the lower CO negotiator. Alternatively, the higher CO negotiator may have to ask multiple times for integrative information, or even explain the advantage of using integrative strategies before the lower CQ negotiator reciprocates. In either case, it would be the lower CQ negotiator rather than the higher CQ negotiator who would prevent the continuous, immediate exchange of integrative behaviors necessary to achieve high joint gains.

Practical implications

Global interdependence requires that people negotiate on a daily basis across cultural boundaries. We now have initial evidence that this process is facilitated particularly by cultural intelligence. As such, managers, diplomats, military personnel, among many others, who are in such situations should be selected for their level of cultural intelligence. While it is widespread practice for American firms to select individuals for overseas assignments primarily based on technical experience and competence (Black et al., 1991; Moran et al., 1987), managers should also consider in conjunction with these factors, their employees' CQ in negotiation contexts. Of course, organizations cannot control the CQ level of their employees' negotiation counterparts; yet they can be sure that their own employees who are negotiating interculturally do not have low levels of CO which will hamper agreements as this research has shown. Furthermore, in addition to selection, managers should also develop training programs for negotiators to increase their CQ. For example, given the central role of the motivational facet of CQ in predicting intercultural negotiation effectiveness, employees might be trained to increase their self-efficacy, particularly in terms of adapting to new cultures. Indeed, the goal-setting literature in the US has shown that setting challenging and specific goals increases the resiliency of individuals' self-efficacy beliefs (e.g., Gist, 1987). Accordingly, managers might implement programs to increase motivational CQ through training that focuses on setting challenging and specific goals pertaining to cross-cultural adaptation.

Limitations and future research

All research methods have limitations (McGrath, Martin, & Kulka, 1982), and this study is no exception. Given that this research was conducted in the laboratory which maximizes internal control, future research should examine the impact of CQ on negotiations within real world settings. In addition, we used a self-report measure of CQ, where although it has been validated, nevertheless has limitations associated with self-reports. Future research should use more objective methods (e.g., peer assessments, direct observations) to provide converging evidence for our findings. Our research suggests that relying on more objective assessments is particularly important for the cognitive facets of CQ. Surprisingly, neither meta-cognitive CQ nor cognitive CQ was correlated with need for cognition, and this may suggest that measuring the cognitive dimensions of CQ with self-report is particularly not

optimal. In addition to the self-report measure of CQ, we also used a self-report measure of emotional intelligence. However, although existing performance-based tests of emotional intelligence (e.g., MSCEIT; Mayer, Salovey, Caruso, & Sitarenios, 2003) would alleviate disadvantages associated with self-report methods, the validity of such tests for different cultural samples is unclear. For example, some questions present participants with a hypothetical social situation and ask them to identify emotions that would be helpful to have in those contexts (e.g., "What mood might be helpful to feel when meeting in-laws for the very first time?"). Given the different meanings and norms associated with such situations, it is unlikely that there is one "objective" emotionally intelligent answer that generalizes across cultural contexts. The self-report measure of emotional intelligence on the other hand asks participants to rate their emotional intelligence in general, without asking them to think about culture-specific situations. 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 negotiations between other cultures (e.g., the Middle East) as well.

There are a number of research questions that arise from our investigation that currently await future research. For example, while our study focused on the role of CQ in an intercultural context, it remains to be seen whether CQ can also benefit intracultural negotiation. On one hand, given that CQ provides negotiators with cooperative motives, it is reasonable to suspect that it can also be advantageous in intracultural contexts. On the other hand, high CQ negotiators might not have their prosocial and epistemic motivation activated as much in intracultural situations. Future studies examining the effects of CQ on negotiation among mono-cultural dyads of East Asians as well as Americans would help delineate this issue. Furthermore, future research should examine in further detail whether high CQ negotiators rely on sequencing culturally normative behaviors, culturally non-normative behaviors, or both, on their path to optimal negotiation outcomes.⁶ Future research should also apply the fine-grained analysis of the sequencing of verbal negotiation behaviors as studied in this research to the sequencing of non-verbal behaviors which has not received much attention in the intercultural negotiation literature. In addition, it would be worthwhile to explore

whether there is a "dark side" to CQ. Our research on integrative negotiation focused on a relatively cooperative context where negotiators cultivated relationships; however, there are competitive contexts such as disputing where negotiators focus on dissolving relationships amidst strong negative emotions. Possibly, these competitive negotiation contexts may moderate the prosocial influences of CQ found in our research, such that high CQ negotiators take advantage of their extensive cultural knowledge and behavioral flexibility in order to deceive their lower CO counterparts. In other words, in accordance with what the military strategist Sun Tzu would prescribe, high CQ negotiators may be better able to keep their friends close but to keep their enemies closer (Sun Tzu & Giles, 2005) in hyper-competitive intercultural contexts. Finally, given that the dyadic composition of CQ is an important predictor of effective negotiation sequences, future research should continue to explore issues of 'fit.' For example, it would be interesting to use polynomial regressions to examine how negotiators' CO levels fit to influence negotiation processes and outcomes.

Conclusion

This research moved beyond cross-cultural comparisons of negotiation behaviors to directly examine negotiation behaviors as they occur in intercultural contexts. This study illustrates that CQ is a key predictor of intercultural negotiation effectiveness. Practically speaking, employees should be selected on CQ to maximize the chances of optimal agreements in intercultural negotiations. In a world where there is increasing opportunities for cooperation as well as threats of conflict at the global level for managers and political leaders alike, CQ holds the promise for helping us manage our global interdependence.

Acknowledgments

We would like to thank William Bottom, Deborah Cai, Ray Friedman, Lisa Leslie, David Mayer, Debra Shapiro, and three anonymous reviewers for their invaluable comments and suggestions on earlier versions of this manuscript. We would also like to thank Esther Fingerhut and Pooja Varma for their help with coding. This research is based upon work supported by the US Army Research Laboratory and the US Army Research Office under Grant Number W911NF-08-1-0144.

Appendix A. Ang et al.'s (2007) Cultural Intelligence Scale (CQS)

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.

(continued on next page)

⁶ We thank an anonymous reviewer for raising these points.

Appendix A (continued)

- 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.

Note. Use of this scale granted to academic researchers for research purposes only.

For information on using the scale for purposes other than academic research (e.g., consultants and non-academic organizations), please send an email to cquery@culturalq.com.

Appendix B. Coding scheme of negotiation tactics grouped by strategic clusters

Strategy		Tactic code	Negotiation tactic	Example
Integrative information	Direct	IR	States priority information across two or more issues	"Okay, one of the most important things for me is getting the renovation done as nicely as possible."
				"Um, the next most important thing for me is the hours of operation."
		QR	Asks a question about other's priority across two or more issues	"Okay, what is your most important issue?"
			F	"Is the opening date most important to you?"
	Indirect	OM	Makes multi-issue offer	"Okay, if that's important to you, then I'd be willing to go for the 30 thousand if we have a September 1st opening."
				"I would be willing to go for the $8:30-8:30$ and 69° ."
Cooperative relationship management	-	R-C	Makes miscellaneous relationship-focused cooperative comments	"So I figure that way we can kind of minimize, you know, hard feelings and try to get to something that works for the both of us."
management			Comments	"I'd like to cooperate with you about the new grocery store."

Appendix C. Sample coded transcript

Speakir turn	ng Negotiator role	Transcript	Code	Strategy	Sequence count	Reciprocal vs. complementary
1	Negotiator 1: Grocery	If I offered you 20,000 for renovationIf I was willing to do 8:30 but floor space you offered me 70%, and temperature, if you offered me 71 degrees, but grand opening date maybe be July 1st?	Multi-issue offer (OM)	Integrative information	0	
2	Negotiator 2: Wine	Well I mean, for me though, renovation and temperature is sort of more important I mean	Priority information (IR)	Integrative information	1	Complementary
3	Negotiator 1: Grocery	For me, the two most important issues are hours of operation and grand opening date	Priority Information (IR)	Integrative Information	1	Reciprocal
4	Negotiator 2: Wine	Well okay, what's most important for me is the renovation and hours of operation	Priority information (IR)	Integrative information	1	Reciprocal
5	Negotiator 1: Grocery	Well, hours of operation is the second most important issue to me	Priority information (IR)	Integrative information	1	Reciprocal
6	Negotiator 2: Wine	I would be willing to do September the 1st if you're willing to do 9:30–9:30	Multi-issue offer (OM)	Integrative information	1	Complementary

14

^a© Cultural Intelligence Center 2005. Used by permission of Cultural Intelligence Center.

References

- Adair, W. L. (2003). Integrative sequences and negotiation outcome in same- and mixed-culture negotiations. *International Journal of Conflict Management*, 14, 273–296.
- Adair, W. L., & Brett, J. M. (2004). Culture and negotiation processes. In M. J. Gelfand & J. M. Brett (Eds.), *Handbook of negotiation and culture* (pp. 158–176). Palo Alto: Stanford University Press.
- Adair, W. L., & Brett, J. M. (2005). The negotiation dance: Time, culture, and sequences in negotiation. *Organization Science*, 16, 33–51.
- Adair, W. L., Okumura, T., & Brett, J. M. (2001). Negotiation behavior when culture collides: The United States and Japan. *Journal of Applied Psychology*, 86, 371–385.
- Adler, N. J. (2002). International dimensions of organizational behavior (fourth ed.). Cincinnati: South-western.
- Adler, N. J., & Graham, J. L. (1989). Cross-cultured interaction: The international comparison fallacy? *Journal of International Business Studies*, 20, 515–537.
- Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In S. Ang & L. Van Dyne (Eds.), Handbook of cultural intelligence: Theory, measurement, and applications (pp. 3–15). Armonk, NY: M.E. Sharpe.
- Ang, S., Van Dyne, L., & Koh, C. K. S. (2006). Personality correlates of the four factor model of cultural intelligence. Group and Organization Management, 31, 100–123
- Ang, S., Van Dyne, L., Koh, C. K. S., Ng, K. Y., Templer, K. J., Tay, C., et al. (2007). The measurement of cultural intelligence: Effects on cultural judgment and decision-making, cultural adaptation, and task performance. *Management and Organization Review*, 3, 335–371.
- Baas, M., De Dreu, C. K. W., & Nijstad, B. A. (2008). A meta-analysis of 25 years of mood-creativity research: Hedonic tone, activation, or regulatory focus? *Psychological Bulletin*, 134, 779–806.
- Bakeman, R., & Gottman, J. M. (1986). Observing interaction: An introduction to sequential analysis. Cambridge: Cambridge University Press.
- Bakeman, R., & Quera, V. (1995). Analyzing interaction: Sequential analysis with SDIS and GSEQ. New York: Cambridge University Press.
- Baker, J. A., & Hamilton, L. H. (2006). The Iraq study group report: The way forward A new approach. US Institute of Peace. New York, NY: Vintage Books.
- Barry, B., & Friedman, R. (1998). Bargainer characteristics in distributive and integrative negotiation. *Journal of Personality and Social Psychology*, 74, 345–359.
- Beersma, B., & De Dreu, C. K. W. (1999). Negotiation processes and outcomes in prosocially and egoistically motivated groups. *International Journal of Conflict Management*, 10, 385–402.
- Black, J. S., Mendenhall, M., & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *Academy of Management Review*, 16, 291–317.
- Braver, S. L. (1975). Reciprocity, cohesiveness, and cooperation in two-person games. *Psychological Reports*, 36, 371–378.
- Brett, J. M., & Okumura, T. (1998). Inter- and intracultural negotiation: US and Japanese negotiators. Academy of Management Journal, 41, 495–510.
- Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The efficient assessment of need for cognition. *Journal of Personality Assessment*, 48, 306–307.
- Cialdini, R. B., Green, B. L., & Rusch, A. J. (1992). When tactical pronouncements of change become real change: The case of reciprocal persuasion. *Journal of Personality and Social Psychology*, 63, 30–40.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/ correlation analysis for the behavioral sciences (third ed.). Mahwah, NJ: Lawrence Erlbaum.
- Cunningham, W. A., Nezlek, J. B., & Banaji, M. R. (2004). Implicit and explicit ethnocentrism: Revisiting the ideologies of prejudice. *Personality & Social Psychology Bulletin*, 30, 1332–1346.
- De Dreu, C. K. W. (2004). Motivation in negotiation: A social psychological analysis. In M. J. Gelfand & J. M. Brett (Eds.), The handbook of negotiation and culture (pp. 114–135). Stanford, CA: Stanford University Press.
- De Dreu, C. K. W., Beersma, B., Stroebe, K., & Euwema, M. (2006). Motivated information processing, strategic choice, and the quality of negotiated agreement. Journal of Personality and Social Psychology, 90, 927–943.
- De Dreu, C. K. W., & Boles, T. (1998). Share and share alike or winner take all? Impact of social value orientation on the choice and recall of decision heuristics in negotiation. Organizational Behavior and Human Decision Processes, 76, 253–267.
- De Dreu, C. K. W., Nijstad, B. A., & van Knippenberg, D. (2008). Motivated information processing in group judgment and decision making. Personality and Social Psychology Review, 12, 22–49.
- De Dreu, C. K. W., & Van Lange, P. A. M. (1995). Impact of social value orientation on negotiator cognition and behavior. Personality and Social Psychology Bulletin, 21, 1178–1188.
- De Dreu, C. K. W., Weingart, L. R., & Kwon, S. (2000). Influence of social motives on integrative negotiation: A meta-analytical review and test of two theories. *Journal of Personality and Social Psychology*, 78, 889–905.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model.
 Annual Review of Psychology, 41, 417-440.
 Earley, P. C., & Ang, S. (2003). Cultural intelligence: Individual interactions across
- Earley, P. C., & Ang, S. (2003). Cultural intelligence: Individual interactions across cultures. Palo Alto, CA: Stanford University Press.
- Elfenbein, H. A., & Ambady, N. (2002). On the universality and cultural specificity of emotion recognition: A meta-analysis. *Psychological Bulletin*, 128, 243–249.

- Elfenbein, H. A., & Ambady, N. (2003). When familiarity breeds accuracy: Cultural exposure and facial emotion recognition. *Journal of Personality and Social Psychology*, 85, 276–290.
- Elfenbein, H. A., Beaupre, M., Levesque, M., & Hess, U. (2007). Toward a dialect theory: Cultural differences in the expression and recognition of posed facial expressions. *Emotion*, 131–146.
- Elfenbein, H. A., Foo, M. D., White, J., Tan, H. H., & Aik, V. C. (2007). Reading your counterpart: The benefit of emotion recognition accuracy for effectiveness in negotiation. *Journal of Nonverbal Behavior*, 31, 205–223.
- Elisseeff, V. (2000). The silk roads: Highways of culture and commerce. Oxford/New York: UNESCO Publishing/Berghahn Books.
- Flaherty, J. E. (2008). The effects of cultural intelligence on team member acceptance and integration in multinational teams. In S. Ang & L. Van Dyne (Eds.), Handbook of cultural intelligence: Theory, measurement, and applications (pp. 192–205). Armonk, NY: M.E. Sharpe.
- Folger, J. P., Hewes, D. E., & Poole, M. S. (1984). Coding social interaction. In B. Dervin & M. J. Voight (Eds.). Progress in communication science (Vol. 4, pp. 115–161). Norwood, NJ: Ablex.
- Foo, M., Elfenbein, H. A., Tan, H., & Aik, V. (2004). Emotional intelligence and negotiation: The tension between creating and claiming value. *International Journal of Conflict Management*, 15, 411–429.
- Fulmer, I. S., & Barry, B. (2004). The smart negotiator: Cognitive ability and emotional intelligence in negotiation. *International Journal of Conflict Management*, 15, 245–272.
- Gelfand, M. J., & Brett, J. M. (2004). Handbook of negotiation and culture. Palo Alto: Stanford University Press.
- Gelfand, M. J., Nishii, L. H., Holcombe, K. M., Dyer, N., Ohbuchi, K., & Fukuno, M. (2001). Cultural influences on cognitive representations of conflict: Interpretations of conflict episodes in the United States and Japan. Journal of Applied Psychology, 86, 1059–1074.
- Gelfand, M. J., & Realo, A. (1999). Individualism-collectivism and accountability in intergroup negotiations. *Journal of Applied Psychology*, 84, 721–736.
- George, J. M., Jones, G. R., & Gonzalez, J. A. (1999). The role of affect in cross-cultural negotiations. *Journal of International Business Studies*, 29, 749–772.
- Gist, M. E. (1987). Self-efficacy: Implications for organizational behavior and human resource management. *Academy of Management Review*, 12, 472–485.
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., et al. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality*, 40, 84–96.
- Gottfredson, L. (1997). Mainstream science on intelligence: An editorial with 52 signatories, history, and bibliography. *Intelligence*, 24, 13–23.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25, 161–178.
- Graham, J. L. (1985). Cross-cultural marketing negotiations: A laboratory experiment. *Marketing Science*, 4, 130–146.
- Guetzkow, H. (1950). Unitizing and categorizing problems in coding qualitative data. *Journal of Clinical Psychology*, 6, 47–58.
- Herodotus Marincola, J. M., & de Selincourt, A. (2003). *The histories*. London: Penguin.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Levels of consensus and majority and minority influence. *European Journal of Social Psychology*, 32, 645–665.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: A conventional criteria versus new alternatives. Structural Equation Modeling, 6, 1–55.
- Huntington, S. P. (1996). The clash of civilizations and the remaking of world order. New York, NY: Simon & Schuster.
- Kim, K., Kirkman, B. L., & Chen, G. (2008). Cultural intelligence and international assignment effectiveness: A conceptual model and preliminary findings. In S. Ang & L. Van Dyne (Eds.), Handbook of cultural intelligence: Theory, measurement, and applications (pp. 71–90). Armonk, NY: M.E. Sharpe.
- Kray, L. J. (2005). The handbook of negotiation and culture. Administrative Science Quarterly, 50, 157–159.
- Kruglanski, A. W. (2004). The psychology of close-mindedness. New York, NY: Psychology Press.
- Kruglanski, A. W., & Thompson, E. P. (1999). Persuasion by a single route: A view from the unimodel. *Psychological Inquiry*, *10*, 83–110.
- Kruglanski, A. W., Webster, D. M., & Klem, A. (1993). Motivated resistance and openness to persuasion in the presence or absence of prior information. *Journal* of Personality and Social Psychology, 65, 861–876.
- Kuhlman, D. M., Camac, C. R., & Cunha, D. A. (1986). Individual differences in social orientation. In H. Wilke, D. Messick, & C. Rutte (Eds.), Experimental social dilemmas (pp. 151-176). New York, NY: Verlag.
- Kumar, R. (2004). Culture and emotions in intercultural negotiations: An overview. In M. J. Gelfand & J. M. Brett (Eds.), Handbook of negotiation and culture (pp. 95–113). Stanford, CA: Stanford University Press.
- Kurtzberg, T. R. (1998). Creative thinking, cognitive aptitude, and integrative joint gain: A study of negotiator creativity. Creativity Research Journal, 11, 283–293.
 Ma, Z., & Jaeger, A. (2005). Getting to yes in China: Exploring personality effects in
- Chinese negotiating styles. *Group Decision and Negotiation*, 14, 415–437.

 Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional
- intelligence with the MSCEIT V2.0. Emotion, 3, 97–105.
- McGrath, J. E., Martin, J., & Kulka, R. A. (1982). Judgment calls in research. Beverly Hills: Sage.
- Messick, D. M., & McClintock, C. G. (1968). Motivational basis of choice in experimental games. *Journal of Experimental Social Psychology*, 4, 1–25.

- Moran, Stahl, & Boyer, Inc. (1987). *International human resource management*. Boulder, CO: Moran, Stahl, & Boyer, Inc.
- Natlandsmyr, J. H., & Rognes, J. (1995). Culture, behavior, and negotiation outcomes: A comparison and cross-cultural study of Mexican and Norwegian negotiators. International Journal of Conflict Management, 6, 5–29.
- O'Connor, K. M., & Arnold, J. A. (2001). Distributive spirals: Negotiation impasses and the moderating role of disputant self-efficacy. *Organizational Behavior and Human Decision Processes*, 84, 148–176.
- Olekalns, M., & Smith, P. L. (2000). Negotiating optimal outcomes: The role of sequences in competitive negotiations. *Human Communication Research*, 24, 528–560.
- Olekalns, M., & Smith, P. L. (2003). Testing the relationships among negotiators' motivational orientations, strategy choices, and outcomes. *Journal of Experimental Social Psychology*, 39, 101–117.
- Olekalns, M., Smith, P. L., & Kibby, R. (1996). Social value orientations and negotiator outcomes. *European Journal of Social Psychology*, 26, 299–313.
- Rockstuhl, T., & Ng, K. (2008). The effects of cultural intelligence on interpersonal trust in multicultural teams. In S. Ang & L. Van Dyne (Eds.), Handbook of cultural intelligence: Theory, measurement, and applications (pp. 206–220). Armonk, NY: M.E. Sharpe.
- Roets, A., & Van Hiel, A. (2007). Separating ability from need: Clarifying the dimensional structure of the Need for Closure Scale. Personality and Social Psychology Bulletin, 33, 266–280.
- Rosenbaum, M. E. (1980). Cooperation and competition. In P. B. Paulus (Ed.), *The psychology of group influence* (pp. 23–41). Hillsdale, NJ: Erlbaum.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. Imagination, Cognition, and Personality, 9, 185–211.
- Schmidt, F., & Hunter, J. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, 124, 262–274.
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., et al. (1998). Development and validation of a measure of emotional intelligence. Personality and Individual Differences, 25, 167–177.
- Steiner, I. D. (1972). *Group processes and productivity*. New York: Academic Press. Stephan, W. G., & Stephan, C. (1985). Intergroup anxiety. *Journal of Social Issues*, 41, 157–176

- Sun Tzu, & Giles, L. (2005). The art of war by Sun Tzu Special ed. El Paso, TX: El Paso Norte Press.
- Takeuchi, R., Tesluk, P. E., Yun, S., & Lepak, D. P. (2005). An integrative view of international experience. *Academy of Management Journal*, 48, 85–100.
- Tay, C., Westman, M., & Chia, A. (2008). Antecedents and consequences of cultural intelligence among short-term business travelers. In S. Ang & L. Van Dyne (Eds.), Handbook of cultural intelligence: Theory, measurement, and applications (pp. 126–144). Armonk, NY: M.E. Sharpe.
- Templer, K. J., Tay, C., & Chandrasekar, N. A. (2006). Motivational cultural intelligence, realistic job preview, realistic living conditions preview, and cross-cultural adjustment. *Group & Organization Management*, 31, 154–173.
- Tinsley, C. H., & Pillutla, M. M. (1998). Negotiating in the United States and Hong Kong. *Journal of International Business Studies*, 29, 711–727.
- Van Lange, P. A. M., Otten, W., De Bruin, E. M. N., & Joireman, J. A. (1997). Development of prosocial, individualistic, and competitive orientations: Theory and preliminary evidence. *Journal of Personality and Social Psychology*, 73, 733–746.
- Van Lange, P. A. M., & Semin-Goossens, A. (1998). The boundaries of reciprocal cooperation. European Journal of Social Psychology, 28, 847–854.
- Weingart, L. R., Bennett, R. J., & Brett, J. M. (1993). The impact of consideration of issues and motivational orientation on group negotiation process and outcome. *Journal of Applied Psychology*, 78, 504–517.
- Weingart, L. R., & Olekalns, M. (2004). Communication process in negotiation: Frequencies, sequences, and phases. In M. J. Gelfand & J. M. Brett (Eds.), Handbook of negotiation and culture (pp. 143–157). Palo Alto, CA: Stanford University Press.
- Weingart, L. R., Olekalns, M., & Smith, P. L. (2004). Quantitative coding of negotiation behavior. *International Negotiation*, 9, 441–455.
- Weingart, L. R., Prietula, M. J., Hyder, E., & Genovese, C. (1999). Knowledge and the sequential processes of negotiation: A markov chain analysis of response-inkind. *Journal of Experimental Social psychology*, 35, 366–393.
- Weingart, L. R., Thompson, L. L., Bazerman, M. H., & Carroll, J. S. (1990). Tactical behavior and negotiation outcomes. *International Journal of Conflict Management*, 1, 7–31.
- Wonderlic, E. F., & Associates (2000). Wonderlic personnel test and scholastic level exam. Libertyville, IL: Author.