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Cultural intelligence (CQ) is an important construct attracting growing attention in academic literature and describing cross-cultural competencies. To date, researchers have only partially tested the relationship between CQ and its dependent variables, such as performance. In this study, the relationship between CQ and communication effectiveness and job satisfaction is measured in a sample of 225 Chinese managers working for foreign multinational enterprises in China. The results show that CQ plays an important role in reducing anxiety and influencing both communication effectiveness and job satisfaction positively. Another outcome is the unexpected influence of anxiety on job satisfaction but not on communication effectiveness. These findings contribute to the development of theory with regard to the CQ construct.

Keywords: anxiety; China; communication effectiveness; cultural intelligence; job satisfaction; performance

Introduction

Globalization of business is a reality that is redefining how people work together (Gabel and Brunner 2003). More contact between cultures is one of the consequences of globalization. People interact across cultures, for example, as expatriates, inpatriates, global managers, global leaders, sojourners, business travelers, as well as host country managers in foreign multinational enterprises (MNEs). In this article, we focus on this last category because research on this group remains scarce while this group is becoming more important for MNEs' international growth strategies (Collings, Scullion and Morley 2007).

There is an increasing consensus about the complexity of managing cross-cultural interactions effectively (Ang and Inkpen 2008). Cultural adaptation is an important dimension of this complexity and requires appropriate communication skills (Yamazaki and Kayes 2004). Communication is essential to create mutual understandings and to reduce distance between people from different cultures and reduce uncertainty during the interaction. This is because, cross-cultural interactions might threaten people as they realize that the previously taken-for-granted assumptions they had are no longer relevant or appropriate when communicating with people from a different culture (Kim 2001). The feeling of 'losing ground' often leads to anxiety. On the other hand, successfully managing anxiety is likely to enhance cross-cultural communication effectiveness. Managing anxiety helps individuals to develop trust and feeling of controlling the situation. Studies have shown that cultural intelligence (CQ), which is a person's ability to adapt effectively to new cultural contexts (Earley and Ang 2003), can help to reduce anxiety during

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intercultural interactions (MacNab, Brislin and Worthley 2012), as it helps individuals to interpret unfamiliar cultural cues (Brislin, Worthley and Macnab 2006).

Recently, a small number of studies started to investigate the relationships between CQ and several individual-level performance measures, such as achievement (Vedadi, Kheiri and Abbasalizadeh 2010), cross-cultural adjustment (Templer, Tay and Chandrasekar 2006; Ramalu, Rose, Kumar and Uli 2010), expatriate performance (Lee and Sukoco 2010), negotiation outcomes (Imai and Gelfand 2010) and leadership effectiveness (Rockstuhl, Seiler, Ang, Van Dyne and Annen 2011). However, these studies investigated only the direct relationships between CQ and employee performance, neglecting the potential critical mediating role of employee outcomes such as communication effectiveness and job satisfaction. The role of anxiety is also largely neglected. Working in a global environment often leads to increasing levels of stress (Mendenhall and Oddou 1985; Thomas and Inkson 2003) due to confrontation with unfamiliar cultures (Ang et al. 2007). This confrontation brings with it a lack of control and feelings of alienation and apathy causing anxiety (Herman and Schield 1961; Rhinesmith 1992; Srinivas 1995; Kedia and Mukherjia 1999). Therefore, taking into account anxiety is likely to be critical in the relationship between CQ and outcomes.

Thus, in this article, we contribute to the literature by studying the relationship between CQ and two dimensions of employee outcomes: communication effectiveness and job satisfaction and the mediating role of anxiety. Communication effectiveness is an important variable in explaining cultural effectiveness (Hammer, Gudykunst and Wiseman 1978), and job satisfaction is a relevant outcome measure that improves job performance (Judge and Bono 2001), as it is directly related to the intention to stay in an organization (Tett and Meyer 1993). In addition, anxiety is also critical because it is likely to mediate the relationship between CQ and communication effectiveness and job satisfaction.

This article is structured as follows: In the section 'Literature review', we discuss CQ-related theories and develop hypotheses about CQ and communication effectiveness, job satisfaction and the role of anxiety. Second, we describe the methodology we used to test our hypotheses. Next, we explain our data analysis strategy and present the results of our empirical study. Finally, we discuss the implications of the findings and the theoretical and managerial contributions of our study for the field of CQ and its outcomes.

Literature review

CQ builds further on Sternberg and Detterman's (1986) idea of a multidimensional perspective on intelligence. Whereas traditional concepts of intelligence, such as rational and social intelligence, assume familiarity with a specific (often Western) cultural context and lose their relevance when people interact across cultures (Brislin et al. 2006), CQ is a system of knowledge and skills, linked by cultural meta-cognition that allows people to adapt to, select and shape the cultural aspects of their environment (Thomas et al. 2008). According to Thomas (2006), CQ is composed of three dimensions: mindfulness (later changed into meta-cognition), knowledge and behavior. Other conceptualizations have been proposed among which the one by Earley and Ang (2003) that add a fourth 'motivational' dimension. According to these authors, as cross-cultural interactions are embedded in ambiguity due to cultural differences, making sense of such an environment require extra effort and energy to structure; extra efforts which requires a certain level of motivation. Earley and Ang (2003) argue that motivational CQ reflects the capability to make a concerted effort in learning about and functioning in situations characterized by

cultural differences. The other three CQ dimensions are defined as follows: Meta-cognitive CQ refers to an individual's ability to think carefully and deeply about cultural assumptions during cross-cultural interactions; cognitive CQ concerns knowledge of norms, practices and conventions in different cultures that has been acquired from educational and personal experiences; and behavioral CQ reflects the capability to produce effective verbal and non-verbal behavior when interacting with people from other cultures (Ang and Van Dyne 2008).

CQ helps people to understand other cultures. Cognitive CQ stimulates thinking about other cultures and searching for explanatory models that bring a certain order in cultural differences. Meta-cognitive CQ makes people more alert looking for explanations of unexpected reactions or behaviors of the person they are interacting with. Motivational CQ helps people to develop self-efficacy; it gives them energy to put effort in a cross-cultural situation and develop the trust needed to enable control of the unfamiliar situation. Behavioral CQ supports individuals to use certain verbal and non-verbal behavioral repertoires which enable them to take initiative and act in an interaction. These four dimensions together prepare individuals to take the initiative to start to express themselves to other individuals in an interaction but also the courage to listen and react during the interaction. These skills enable individuals to communicate in a more appropriate and effective way with other individuals in cross-cultural interactions.

Although a growing number of studies on CQ has been conducted since the publication of the Cultural Intelligence Scale (CQS) in 2007 (Ang et al. 2007), not all of these studies were successful. Ward, Fischer, Lam and Hall (2009) fail to demonstrate the incremental validity of CQ beyond personality and cognitive ability in the prediction of adaptation outcomes. Ward and Fischer (2008) do not find convincing support of the mediating role of motivational CQ between personality and general adjustment. Ward, Wilson and Fischer (2011) find inconsistent evidence of the relationship between motivational CQ and adaptation measures, such as the presence of psychological and socio-cultural adaptation problems. Lee and Sukoco (2010) conclude that there is no direct effect of CQ on performance; they find only an indirect effect of CQ through adjustment.

Conceptual model and hypothesis development

Figure 1 presents the conceptual model and the hypotheses. The model shows CQ directly influencing two employee outcome variables, communication effectiveness and job satisfaction. Next, a mediated relationship is shown between CQ and its outcomes, through anxiety.

Although some research tests the relationship between CQ and its outcomes, no research has related CQ with communication effectiveness and job satisfaction. Testing these two relationships is new within CQ research. Other relationships in the model have been indirectly examined in the literature. However, previous studies measured stress instead of anxiety in relation to intercultural communication (Ulrey and Amason 2001) and job satisfaction (Burke 1988; Young and Cooper 1995; Leong, Furnham, Cary and Cooper 1996; Downes, Thomas and McLarney 2000; Fairbrother and Warn 2003). Testing the relationship between CQ and anxiety is new.

CQ and communication effectiveness

In cross-cultural interactions, communication is the foundation process of reciprocal understanding (Tung 1993). As the main goal of interactions in business across cultures is
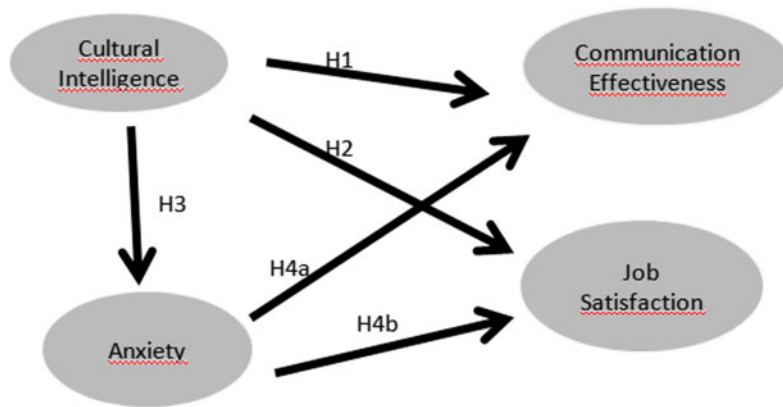
Figure 1. Conceptual model showing relationships between an independent variable CQ, a mediating variable anxiety and the two dependent variables job satisfaction and communication effectiveness.

to share thoughts, ideas and emotions to enable successful business, the ability to communicate is a key process. Ulijn and Strother (1995) claim that communication is an important aspect of the behavior of business managers whose success depends on effective communication skills, the more so as the international business world becomes increasingly complicated. Thus, communication is a critical activity and even more in international business. Indeed, the ability to communicate effectively is a precondition to successful management, especially between partners from different cultures (Limaye and Victor 1991).

CQ is important for communication effectiveness because this construct is meant to reflect an ability to deal effectively with people from different cultural backgrounds. Knowledge of cultural differences prepares individuals for proper verbal and non-verbal communication in international interactions. CQ motivates individuals to interact with foreigners and to choose proper behavioral repertoires; to take the initiative to start to express themselves to individuals from other cultures, but also the courage to listen, to interpret the cultural differences in communication, make proper inferences and to react accordingly with the right communication. The more involvement of an expatriate in communication the better the person can understand the host country culture and nationals (Holopainen and Björkman 2005). To increase mutual understanding also local host country managers, the local managers, need to enhance their communication ability. This brings us to the first hypothesis.

Hypothesis 1:   The level of CQ among local host country managers in foreign multinationals is positively associated with communication effectiveness.

CQ and job satisfaction

As individuals tend to spend a large part of their life in their jobs, it is important that these jobs deliver job satisfaction. This makes job satisfaction an important personal outcome. Despite conflicting findings, the interest to better understand and explain job satisfaction in international business remains important (Downes et al. 2000; Judge and Bono 2001; Bonache 2005; Westhofer and Taylor 2010). Weiss, Dawis, England and Lofquist (1967) claimed already in 1967 that 'most of the organizational behavior and careers literature on

job transitions suggests that positive general job satisfaction is an important indicator of adjustment to new job environments' (Weiss et al. 1967), including international jobs (Bonache 2005). The importance to investigate job satisfaction is also illustrated by several research outcomes: Job satisfaction and turnover are negatively related, not only for domestic employees (Tett and Meyer 1993; Trevor 2001) but also for expatriates (Testa 2001) and for repatriates (Suutari and Brewster 2003; Bossard and Peterson 2005; Vidal, Valle and Aragon 2007). To overcome negative outcomes, it is important to consider job satisfaction of employees who work internationally. Host local managers in foreign multinationals may experience negative outcomes in their work and experience uncertainty as a result of an unfamiliar (corporate) foreign culture, making job satisfaction as a compensating factor important to be researched. Research on the relationship between intelligence and job satisfaction show mixed results, largely because the third variable of job complexity is not taken into account (Ganzach 1998). Job satisfaction theory suggests that job complexity is directly associated with job satisfaction (Hackman and Oldham 1976). The reasoning from this perspective is that the tendency exists that intelligent people find complex jobs and consequently have higher job satisfaction. In other words, job complexity may mediate or moderate the relationship between intelligence and job satisfaction (Ganzach 1998, p. 527). Since we have a sample of host country managers in foreign multinationals, we may assume that they have highly complex jobs, also from a cross-cultural perspective. Therefore, we can expect a positive association between CQ and job satisfaction. Moreover, CQ helps people to get grip on a complex intercultural situation. It stimulates understanding of the cognitive differences in culture; besides it stimulates self-efficacy, and it helps people find repertoires of appropriate behavior in cross-cultural interactions. This increase in the level of control on cross-cultural interaction in international business is expected to increase job satisfaction. This brings us to the following hypothesis:

Hypothesis 2:	The level of CQ among local host managers in foreign MNEs is positively associated with the level of job satisfaction.

CQ and anxiety

Despite an increasing body of empirical research with regard to CQ and some research on mediating mechanisms, research on more proximal outcomes of CQ, such as emotional states, is relatively scarce (Ng, Van Dyne and Ang 2011). To this end, the role of CQ with regard to anxiety is barely researched. Further insight in anxiety coping mechanisms in cross-cultural interactions is welcome. Anxiety-coping behavior may help people communicate effectively during these interactions and support commitment, job satisfaction and tenure intention (Louis, Posner and Powell 1983). Working in a global environment often leads to increasing levels of stress (Mendenhall and Oddou 1985; Thomas and Inkson 2003) due to confrontation with unfamiliar cultures (Ang et al. 2007). This confrontation brings with it a lack of control and feelings of alienation and apathy causing anxiety (Herman and Schield 1961; Rhinesmith 1992; Srinivas 1995; Kedia and Mukherjia 1999). Dealing with ambiguity in these new situations requires uncertainty reduction and reduction of anxiety (Ball-Rokeach 1973). Anxiety is the affective component of uncertainty (Gudykunst 2005). Feelings of anxiety are universal (Walbott and Scherer 1986); people in any culture experience it. In communicating, people always experience some degree of anxiety. Individuals experience more anxiety in intergroup interactions than in interpersonal interactions (Ickes 1984; Gudykunst and Shapiro 1996) due to unfamiliarity with rules of proper communication of other groups. This is

especially true for cross-cultural groups. CQ makes people more alert in cross-cultural interactions. It increases awareness of the differences with the other culture and enables the person to make use of appropriate behavioral repertoires and relevant cultural knowledge. This awareness, together with the cognitive and behavioral resources available for offering appropriate answers in a cross-cultural interaction, have a decreasing influence on the level of anxiety in intercultural interactions (Gudykunst 2004). Thus, we propose the following hypothesis:

Hypothesis 3: The level of CQ among host country managers in foreign MNEs is negatively associated with the level of anxiety experienced in cross-cultural interactions.

Anxiety and communication effectiveness

We experience some degree of anxiety any time we communicate with others who are unfamiliar to us. Anxiety has a disturbing effect on communication; it may block communication effectiveness. When crossing cultural boundaries, people move out of their 'comfort zone', leaving behind the familiar domestic environment, which offers predictability, protection and safety. People may experience anxiety and feelings of distress – together referred to as 'psychological toll' (Molinsky 2007) – which can inhibit communication effectiveness. CQ helps to understand the different cultures, and supports the use of appropriate behavioral repertoires needed for effective behavior. It reduces anxiety and so contributes to the effectiveness of cross-cultural communication (Lee and Sukoco 2010). This leads us to Hypothesis 4a:

Hypothesis 4a: The level of anxiety among host country managers in foreign MNEs is negatively associated with the level of communication effectiveness.

Anxiety and job satisfaction

Living and working in other cultures often brings a certain degree of stress or anxiety (Walton 1990). When crossing cultural boundaries, people move out of their 'comfort zone', leaving behind the familiar domestic environment. This transition process is stress enhancing (Mendenhall and Oddou 1985), and may lead to role stress (Babin and Boles 1996), to culture shock (Chen, Lin and Sawangpattanakul 2011) and to anxiety and fear (Stephan and Stephan 1985). Anxiety is a sense of imbalance, stemming from 'feeling uneasy, tense, worried, or apprehensive about what might happen' (Gudykunst 2005, 287). Incumbents of jobs that contain these effects experience lower job satisfaction. Thus, we hypothesize a negative relationship between anxiety and job satisfaction (Newbury-Birch and Kamali 2001).

Hypothesis 4b: The level of anxiety among host country managers in foreign MNEs is negatively associated with the level of job satisfaction.

Methodology

Procedure

We collected data in China from Chinese respondents working for international companies. Testing CQ's relationships with communication effectiveness and job

satisfaction in a non-Western, mono-cultural Chinese population adds to further comprehension of the effects of CQ. We collected online and paper-and-pencil surveys. We collected the first online survey subsample of 91 respondents from foreign MNEs active in the service sector in China; its headquarters are in Shanghai and a few foreign firms are in the Yunnan province. The respondents had managerial and professional functions (e.g. logistic manager or marketing manager). We collected a second subsample of 134 respondents from among managers studying in executive MBA programs in Beijing (from the Beijing Institute of Technology and Renmin University) and in Wuhan (Hubei University).

Respondents from the MNE were invited by a letter from the chief executive officer of the MNE's Chinese subsidiary and a message from one of the researchers to explain the purpose of the study. From the online survey process statistics, we learned that the average time to fill in the questionnaire was 17.5 min, which means that respondents seek to answer the questions as carefully as possible, increasing the reliability of the data

The paper-and-pencil surveys were distributed at the MBA programs. At the beginning of the lecture, and after a short presentation of the author, respondents filled in the questionnaire. Those that were completed (after $\sim 20-30$ min) were collected. In other lectures, the teaching staff offered time to MBA students to fill in the survey during an extensive break.

We do not expect online surveying to lead to less reliable outcomes (Gosling 2004) than paper-and-pencil surveys. We expect and test equivalence of online and paper-and-pencil surveys (De Beuckelaer and Lievens 2009) and found no significant differences for the main variables in the equation.

Translation procedures

The CQS and the Social Desirability Scale were already available in the Chinese language. All the other scales and extra items were translated from English into Chinese. Of the three assessment methods to evaluate translations that Sinaiko and Brislin (1973) suggest, we opted to use the translation–back-translation method (for a further description of this method, see Brislin (1970) and Beaton, Bombardier, Guillemin and Ferraz (2000)). Different independent native Chinese master's degree students, fluent in English, performed the translation and back-translation.

Measures

CQ

The CQS, developed by Ang et al. (2007), is a 20-item measure with a seven-point Likert scale divided over four dimensions. We pre-tested the CQS in preliminary research with 63 international students at the authors' university. This research indicates that the meta-cognitive dimension had weak items. Therefore, we decided to add several meta-cognitive items, adapted from Phakiti's (2003) meta-cognitive questionnaire, of which four new items proved to be strong enough (e.g. 'If I meet with a business partner in another culture, I always try to include the person's background and environment to find out about his/her motives'), for a total of 24 items for this measure. We named this 24-item CQS, the CQSplus. In earlier research by the authors on CQ among Chinese students living abroad (AoM 2011), we discovered that the discriminant validity of the CQ scale was limited. In other publications (Groves and Feyerherm 2011), not all four CQ dimensions were used, suggesting that discriminant validity of the four CQ dimensions was not high enough.

Because there is no consensus about the strength and importance of each CQ dimension separately (Groves and Feyerherm 2011), we measure CQ as an integrated construct.

Anxiety

Gudykunst and Nishida (2001) measure anxiety using 11 items adapted from Stephan and Stephan (1985). Responses were on a seven-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'. We adapted three items, with high internal consistency, from Gudykunst and Nishida (2001) (e.g. 'I get anxious around people from other cultures', 'When I meet someone from another culture I get very nervous', 'Travelling in lands where I can't read the street names gives me anxiety').

Cross-cultural communication effectiveness

We used a six-item scale to measure cross-cultural communication effectiveness (e.g. 'How effective are you in understanding colleagues/clients/salespeople from another culture?'). We measured the dependent variable effective cross-cultural communication using six statements in which respondents assessed their ability to express themselves to foreigners and understand foreigners from three perspectives: self, colleague and boss. We adapted the statements from Hammer, Gudykunst and Wiseman (1978). Respondents chose from a seven-point Likert scale ranging from 1 (very ineffective) to 7 (very effective).

Job satisfaction

We measured job satisfaction with global integrative questions rather than using a faceted job satisfaction construct with several dimensions of the job. The job satisfaction scale consists of three items (e.g. 'I would recommend friends to work for my department', 'In general, I like working here' and 'All in all I am satisfied with my job'), which are adapted from the Brayfield and Rothe (1951) scale and were also used by Mitchell, Holtom, Lee, Sablynski and Erez (2001). Participants responded on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Control variables

To control for demographic variables, the last part of the questionnaire included 19 questions about age, gender, education, work experience and about personal background factors such as the department, the industry, the company, work experience at home and abroad, contact frequency when abroad, intercultural interaction frequency in the job, living status when living abroad, travel experience and initial thoughts about working internationally. The answer format was partially open (6 items), closed (11 items) and partially closed (2 items). We included one marker variable ('I always get excited when visiting a concert') to detect common method bias (CMB) (Lindel and Whitney 2001).

As self-rated questions related to personal competencies and performance might induce socially desirable answers, we added a scale to control for social desirability bias. To measure social desirability, we used the 10-item MC-2 scale (Strahan and Gerbasi 1972).

Sample description

In a first review of the data, we deleted respondents who were not Chinese. Next, we deleted respondents with $> 10\%$ missing data (Hair, Black, Babin and Anderson 2010). Because we

ran the analysis with the statistical program analysis of moment structures (AMOS), we needed a complete data-set with no missing values; thus, we replaced missing values in the several Likert-type scales with the respective mean. Then, we deleted respondents with more than two outliers. After these reviews, our final sample consisted of 225 valid questionnaires. All respondents have international work experience as they work in foreign multinationals.

Table 1 presents the demographic variables of the sample of 225 Chinese respondents. More male respondents answered the questionnaire (58% male vs. 42% female respondents). Respondents have an average age of 33 years. Their education levels are rather high: 76.1% have a master's degree or higher, and 99.6% have bachelor's degree or higher. Most respondents (73.5%) are not religious. Most respondents (76.1%) have frequent international contacts in work. They had limited experience (27%) with traveling at a young age. Thinking about working abroad began at a later age; 85% of respondents first thought about international work at university or in a later stage.

Table 1. Sample characteristics.

External variables	Mean/frequency	SD/percentage
Age	33.5 years	5.2 years
Gender (male/female)	131/94	58%/42%
Education		
1 = high school or lower	0	0
2 = technical vocational	1	0.4
3 = bachelor	53	23.6
4 = Master/MBA	160	71.1
5 = Ph.D.	11	4.9
6 = others	0	0
Frequency foreign interaction		
1 = no, never		
2 = sometimes	6	2.7
3 = often	48	21.3
4 = all the time	103	45.8
	68	30.2
Time abroad		
1 = less than 3 months	40	24.1
2 = 3–6 months	14	8.4
3 = 6–12 months	11	6.6
4 = 1–3 years	31	18.7
5 = 3–5 years	11	6.6
6 = more than 5 years	20	12
Missing	39	23.5
First thought about working internationally		
1 = never		
2 = primary school	12	5.3
3 = secondary school	5	2.2
4 = at university	14	6.2
5 = during first years of work	92	40.9
6 = later	32	14.2
	70	31.1
Religion		
1 = no religion	160	73.3
2 = Buddhist	39	17.3
3 = other religion	15	6.7
missing	6	2.7
Work experience	10.40 years	5.25 years

Results

Measurement model analysis

We assessed internal consistency of the different scales using the reliability coefficients (RCs). The results are reported in Table 2. The effectiveness scale RC is 0.86. RC of the satisfaction scale is 0.78. The CQSplus scale (CQS supplemented with four meta-cognitive items) has an RC of 0.87. The four dimensions separately have RCs of 0.64 (MC CQ), 0.81 (COG CQ), 0.70 (MOT CQ) and 0.72 (BEH CQ). The anxiety scale has an RC of 0.76. All items have factor loadings > 0.5, demonstrating convergent validity.

To examine discriminant validity, we ran confirmatory factor analysis (CFA), which shows good measurement fit ($\chi^2/df = 1476$, comparative fit index (CFI) $= 0.948$, the root mean square error of approximation (RMSEA) $= 0.046$). Next, we compare the four

Table 2. Construct items with factor loadings (standardized regression weights) and construct reliabilities.

Items of the constructs in the questionnaire	Standardized regression weights/factor loadings	Construct reliability
Communication effectiveness		0.86
EFFs1	0.57	
EFFc1	0.56	
EFFs2	0.78	
EFFc2	0.89	
EFFb2	0.89	
Job satisfaction		0.78
SAT1	0.79	
SAT2	0.77	
SAT5	0.63	
Motivation dimension		0.70
MOT1	0.64	
MOT2	0.69	
MOT3	0.66	
Cognitive dimension		0.81
COG1	0.78	
COG3	0.88	
COG4	0.66	
COG6	0.55	
Behavioral dimension		0.72
BEH3	0.66	
BEH4	0.81	
BEH5	0.55	
Meta-cognitive dimension		0.64
MC4	0.53	
MC5	0.69	
MC7	0.60	
Anxiety		0.76
ANX2	0.80	
ANX6	0.81	
ANX7	0.53	
CQ		0.87
CQmot	0.97	
CQcog	0.65	
CQbeh	0.68	
CQmc	0.83	

Table 3. Overview of the correlations between the constructs.

	EFF	SAT	MOT	COG	BEH	MC	ANX	CQ
Communication effectiveness (EFF)	**0.75**[a]							
Job satisfaction (SAT)	0.34	**0.73**						
Motivation dimension (MOT	0.61	0.43	**0.66**					
Cognitive dimension (COG)	0.42	0.34	0.58	**0.73**				
Behavioral dimension (BEH)	0.29	0.20	0.63	0.50	**0.69**			
Meta-cognitive dimension (MC)	0.30	0.29	0.81	0.58	0.79	**0.61**		
Anxiety (ANX)	− 0.29	0.04	− 0.51	− 0.25	− 0.27	− 0.38	**0.73**	
CQ	0.54	0.41					− 0.47	**0.79**

[a] AVEs are represented in bold.

dimensional models of CQ with the two dimensional model. After constraining all covariances to 1, model fit becomes bad (χ^2/df = 2501; CFI = 0.823; RMSEA = 0.082). The delta chi-square test value of 14.7 with a *p*-value < 0.05 demonstrates discriminant validity between the latent constructs. So, a four dimensional model of CQ is better than the two dimensional model.

In order to test convergent validity, we examine the factor loadings of the CQ dimensions in Table 3. We note that they are high (0.65–0.97). Because of these high factor loadings of the CQ dimensions and because some correlations (see Table 6.4) between CQ dimensions are higher than the square root of the corresponding average variance extracted (AVE) (MOT-BEH, MOT-MC) or very close to it (BEH-MC), we decided to use a second-order construct for the CQSplus (see Figure 2).

If we make use of the CQ dimensions separately, we find a powerful effect of the MOT CQ on the dependent variables. However, the CQ dimensions correlate moderately high with each other, so there is convergent validity, but discriminant validity is not high enough (see Table 3). Because of this outcome, the second-order construct was used. This is in line with earlier findings of research from Lee and Sukoco (2010), who use CQ as an integrated construct.
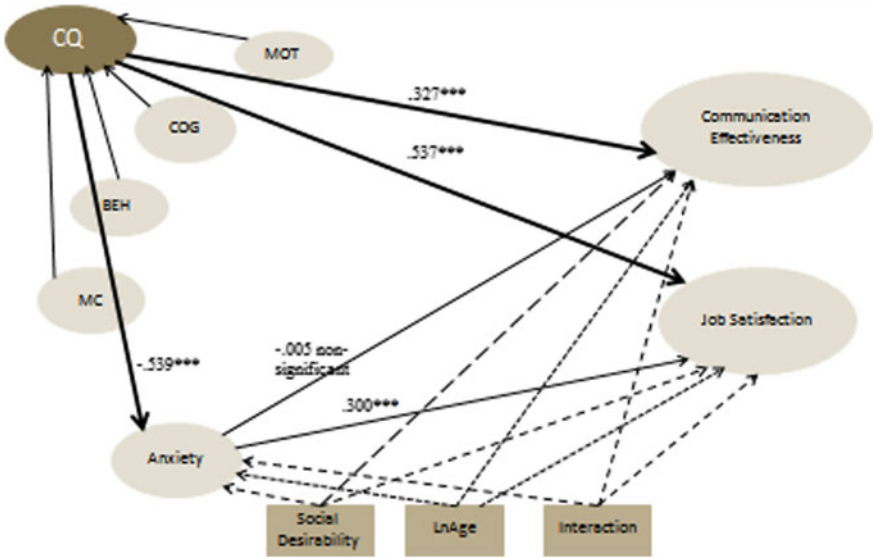

Figure 2. AMOS model with regression coefficients.

We test for CMB simultaneously in two ways. We relate the unconstrained measurement model to the unobserved marker variable (item excited: 'I get very excited when visiting a concert'). After relating the unobserved marker variable to all items in the measurement model and after running CFA, we observe non-significant regression weights (0.102–0.216) for all marker-item relations. At the same time, as part of decomposition, next to the CMB marker unobserved factor, we relate the social desirability observed factor to all the items in the measurement model. After running CFA, we do not find improvement (even a decrease) of measurement fit (χ^2/df = 1837; CFI = 0.916; NFI = 0.839; RMSEA = 0.061). This decrease is significant ($p < 0.000$). We find non-significant regression weights for the CMB marker variable but mostly significant regression weights for the social desirability variable (except regression weights between social desirability and MC7, MC5, BEH4, BEH3 and COG6). The standardized factor loadings for the items do not change much after testing for CMB and social desirability (Podsakoff, MacKenzie, Lee and Podsakoff 2003). Therefore, we conclude that there is no significant CMB for this measurement model; however, we do find significant social desirability in some of the measures. Therefore, we control for social desirability.

Structural model

Our structural model (see Figure 2) shows a second-order cultural intelligence variable CQ as an independent variable, a mediating variable anxiety, two dependent variables communication effectiveness and job satisfaction and three control variables, age, interaction frequency and social desirability. Model fit is good (χ^2/df = 1487; CFI = 0.936, NFI = 0.831 and RMSEA = 0.047). Social desirability measure is significant for all items, except two items of communication effectiveness, PEs1 and PEs2 ($p = 0.282$ and $p = 0.318$, respectively).

We test our Hypotheses 1–4b with the help of regression analysis. For an overview of all standardized regression coefficients, see Table 4.

Table 4. Standardized regression weights of the relationships within the structural model after CFA with significance levels.

Relations	Standardized regression coefficients	*p*-Values
ANX ← CQ	− 0.455	***
ANX ← Interact[a]	− 0.203	0.004
ANX ← LnAge	0.146	0.028
SAT ← ANX	0.416	***
EFFECT ← CQ	0.563	***
SAT ← CQ	0.630	***
MOT ← CQ	0.939	***
COG ← CQ	0.744	***
BEH ← CQ	0.853	***
MC ← CQ	0.921	***
SAT ← Interact	0.278	***
EFFECT ← Interact	0.238	***
MOT ← Interact	0.220	***
COG ← Interact	0.154	0.011
BEH ← Interact	0.098	0.102
MC ← Interact	0.100	0.106

Note: ***$p \leq 0.001$.
[a] Interact, interaction frequency.

Test of hypotheses

Hypothesis 1 predicted that *the level of CQ is positively associated with the level of communication effectiveness.* Figure 2 indicates that CQ has a significant impact on communication effectiveness (0.327, $p \leq 0.001$). Therefore, Hypothesis 1 is supported. As expected, CQ influences communication effectiveness positively.

Hypothesis 2 predicted that t*he level of CQ is positively associated with the level of job satisfaction.* Figure 2 indicates that the impact of CQ on the level of job satisfaction is 0.537 ($p \leq 0.001$), in support of Hypothesis 2. As expected, CQ positively influences job satisfaction.

Hypothesis 3 predicted that *the level of CQ is negatively associated with the level of anxiety*. Figure 2 indicates that the influence of CQ on the level of anxiety experienced by sojourners is $- 0.539$ ($p \leq 0.001$). This result supports Hypothesis 3, meaning that CQ has a negative influence on the level of anxiety: a higher level of CQ goes together with a lower level of anxiety.

Hypothesis 4a predicted that *the level of anxiety is negatively associated with the level of communication effectiveness*. This hypothesis could not be supported. The regression weight is very small and non-significant ($p = 0.908$). This study did not find any influence of anxiety on the effectiveness of communication.

Hypothesis 4b predicted that *the level of anxiety is negatively associated with the level of job satisfaction*. Figure 2 shows a positive influence of anxiety on job satisfaction with a regression weight of 0.300 ($p \leq 0.01$). Therefore, Hypothesis 4b is rejected. We find an unexpected significant positive relationship between anxiety and job satisfaction. We expected that enduring exposure to anxiety would have a decreasing influence on job satisfaction; however, we do find the opposite relationship, anxiety relates to job satisfaction positively.

Control variables

Some of the demographic variables, such as contact frequency, length of time spent abroad and status of living when living abroad, showed too many missing values and were not used.

Age as a control factor has a positive influence on anxiety; standardized regression weight is 0.146 ($p \leq 0.05$). This means that older managers have more problems with ambiguity and stress than younger ones. A possible explanation is that the older-generation Chinese managers tend to not speak foreign languages very well and were raised in an era of communism without signs of capitalistic economic reforms. The younger-generation Chinese learned English at primary school (Yajun 2003) and from television, the Internet and Facebook.

Interaction frequency measures the intensity of interaction with foreigners within the multinational company. For this control factor, we find a significant standardized regression weight on anxiety of $- 0.203$ ($p = 0.004$). The standardized regression weights of interaction with the other CQ dimensions (MOT, COG, BEH and MC) are high: 0.939, 0.744, 0.853 and 0.921, respectively, with *p*-values of 0.001, 0.005, 0.005 and 0.005, respectively. Interaction also loads positively on job satisfaction (0.287, $p \leq 0.01$) and communication effectiveness (0.238, $p \leq 0.001$) and plays an important role in developing CQ and reducing anxiety. Interaction is a precondition for final cross-cultural adjustment. Gender had no significant effect ($p = 0.151$).

Discussion

CQ theory has been developed since its inception by Earley (2002), Earley and Ang (2003), Ang et al. (2007), Thomas (2006) and Thomas et al. (2008). After development of

the CQ scale, a number of empirical studies have been conducted to further the development of a CQ theory (Elenkov and Manev 2009; Ward et al. 2009; Ramalu et al. 2010; Groves and Feyerherm 2011; MacNab and Worthley 2011; Ward et al. 2011). Some studies have been done with regard to finding antecedents of CQ, whereas other studies have related CQ to its outcomes. So far, studies have been done with expatriates, domestic managers, leaders and international students. In this study, we have built further on the relationship between CQ and its outcomes. We argue that two variables are not very well researched, 'communication effectiveness', and 'job satisfaction', while these two variables may be important mediators in the relationship between CQ and less proximal outcomes such as adjustment and task performance. Furthermore, we run this study with a sample of host country managers working for foreign MNEs in China. We will now describe the contributions this study makes to theory development with regard to CQ.

Cross-cultural interactions can create feelings of uncertainty and anxiety because there is not enough information to predict the reactions on behavior in a cross-cultural interaction, and the unfamiliar cultural codes raise the level of anxiety. In these instances, CQ enables a person to better predict culturally new situations and suppress the need to make early judgments. The level of tolerance toward ambiguity can be raised, reducing stress and feelings of threat or anxiety. This study confirms (see Figure 2) that CQ has a decreasing effect on anxiety, while it increases communication effectiveness and job satisfaction. Therefore, CQ is an important facilitator in cross-cultural interactions. Because communication is a key process in developing understanding and adjustment between people of different cultures, any ability to enhance this process is important and should be nurtured.

CQ relates positively to job satisfaction. This is an important outcome because job satisfaction functions as a driver to continue and sustain communication in cross-cultural interactions. Job satisfaction is an important variable with regard to intention to stay with the organization, important for host country managers who developed their CQ after having experienced frequent cross-cultural interactions with foreign expatriates. Turnover among local employees is high. There is a risk they quit their job to be hired by other foreign multinationals (Wong and Law 1999).

CQ also reduces the level of anxiety. This has never been investigated for host country national managers who also operate in an ambiguous environment due to the unfamiliar corporate culture of the foreign multinational which will be home country context related (Wong and Law 1999).

Our last contribution relates to anxiety and communication effectiveness. We found no significant effect between anxiety and communication effectiveness ($-0.005, p = 0.908$). From our model, we may conclude that CQ reduces anxiety to such a level that it does not harm communication. Again, this stresses the importance of the CQ variable.

As a separate discussion point, leading to future research, we found unexpectedly a positive relationship between anxiety and job satisfaction. Uncertainty avoidance creates anxiety (Gudykunst and Nishida 2001). Because uncertainty avoidance is much smaller in China, compared with Japan (Hofstede 2001), we may expect the level of anxiety to be lower for the Chinese sample in this study than for the Japanese sample used in Gudykunst and Nishida's (2001) study. The low level of uncertainty avoidance in China may have a moderating effect on the relationship between anxiety and job satisfaction. We may also assume that job satisfaction for this rather homogeneous sample of highly educated Chinese managers in this study is rather high because working for a multinational company guarantees a good level of job complexity, good payments and higher status. This, however, does not yet explain the positive linear character of the relationship

between anxiety and job satisfaction. However, we may speculate that for the Chinese respondents, the higher the anxiety for or fear of the unknown, the higher the satisfaction because the ability to master this fear or anxiety gives an extra boost of satisfaction. Another argument is that satisfaction is measured as a one-dimensional construct in this study. When satisfaction is assumed to be multi-dimensional, then including these other dimensions may give different outcomes. So part of the explanation of the relationship between anxiety and job satisfaction is still hidden.

Another possible explanation might come from Anxiety and Uncertainty Management theory (Gudykunst 2005). It suggests that anxiety is a feeling with a complex double meaning. On the one hand, it is not a good advisor when searching for appropriate answers in a cross-cultural interaction because it may bias perception and hamper effective communication. On the other hand, anxiety makes people feel alert and thriving, stimulating a person to act in complex situations. Anxiety is a trigger to feel involved, it raises the level of adrenaline in the body, and it stimulates the usage of our senses intensively. This might explain the positive relationship between anxiety and satisfaction. For adventurous people (which host managers might be), a certain level of ambiguity and uncertainty may give a positive tension of excitement leading to a higher concentration and effectiveness. The theory goes on by stating that there are extreme levels that may have other effects than levels in between. A level of anxiety that is too high makes people so uneasy that this might affect satisfaction negatively. A level of ambiguity and uncertainty that is too low may in some cases lead to boredom and a lower level of concentration. Looking at our model, CQ may lower anxiety to such in between levels that the positive relationship with satisfaction appears, while the possibility exists that CQ lowers anxiety that much that also satisfaction lowers, stressing again the positive relationship between anxiety and satisfaction. Further research should test these relationships in more heterogeneous samples.

Limitations

Like most studies, this study contains some limitations that need to be discussed (Chang, Witteloostuijn and Eden 2010). Most important problem is that we collected the data concerning dependent variables and the independent variables from the same respondents (self-report measures). Doing so, we run the risk of finding inflated relationships (Podsakoff et al. 2003) or self-generated validity (Feldman and Lynch 1988). To reduce the problem of method bias, we took some precautions. In line with Podsakoff et al. (2003), we wrote an introductory letter, indicating that responses are treated anonymously, that there are no right or wrong answers, and that the respondents should answer the questions as honestly as possible. Furthermore, we changed the order of the measures in the questionnaire; we started with the dependent variables, followed by the independent variables. Next to these procedural remedies, we made use of some statistical remedies; we made use of a marker variable to control for CMB (Lindel and Whitney 2001; Podsakoff et al. 2003). The results showed that CMB is low (see, for details, the final paragraph of the 'Measurement model analysis' sub-section within the 'Results' section earlier in the article). We also tested for and found social desirability, for which we controlled.

This research was conducted within a homogeneous country sample of an Asian country. Chinese managers working for international organizations in China were approached. The translation of the CQS and the TIPI scale were already available. The other scales or items were translated into Chinese according to appropriate procedures (translation and back-translation, Brislin 1970). Because we had no control on the already

available translations, there could be some flaws into these translations. Another possible limitation is that the CQS scale consists of items that are very close in meaning and that these items cannot be distinguished appropriately in the Chinese language.

As indicated earlier, although we tested for social desirability, reporting performance measures (in this case, cultural communication effectiveness) should preferably be done by supervisors, by peers or by subordinates. This, however, would have gone at the cost of anonymity of the respondents and may have led to lower response rates.

Further research

We conducted this study in China. Most research thus far conducted on the CQS was conducted in the USA and in some Asian countries (e.g. Singapore). Research making use of European, South-American or African samples would be welcome. This research is a one-sample study. To enable comparative research, more and different country samples should be included in future research.

Further research with regard to anxiety is necessary. Anxiety is a normal feeling in interaction and communication, let alone in cross-cultural interaction and communication. Low and high levels of anxiety seem to work counterproductively. A certain level of anxiety is a precondition, however: it stimulates curiosity and concentration. The conditions and the levels under which anxiety is not harmful needs further research.

Further research could focus on the more distal outcome variables such as adjustment, job performance or productivity and the role of the intermediate variables, communication effectiveness and job satisfaction. Also, research on the antecedents of CQ such as personality, language ability and the role of biculturalism deserve further attention.

Conclusions

The study contributes to further development of CQ, especially with regard to outcome variables such as communication effectiveness and job satisfaction. To a great extent, CQ is a key variable supporting employees working in international organizations. Not only expatriates can benefit from developing CQ but also host country employees who come into contact with foreign cultures regularly. This large group is often neglected in international research; because they are working in their home country, it is assumed that they do not have any adjustment problems. However, this group also feels tensions when working in a corporate culture influenced by the country where the headquarters is located and which is distant from their home culture. The combination of anxiety and job satisfaction at the same time among the respondents in this study can be explained in that these host country employees are highly motivated to work for a foreign company because it gives them incentives in the form of status and (higher) salary but at the same time they feel the tension and anxiety to work with foreign managers as a result of intercultural communication barriers. Getting a grip on this group's communication effectiveness and well-being contributes to the performance of these multinational firms.

References

Ang, S., and Inkpen, A.C. (2008), 'Cultural Intelligence and Offshore Outsourcing Success: A Framework of Firm-Level Intercultural Capability,' *Management Decisions*, 39, 337–358.

Ang, S., and Van Dyne, L. (2008), *Handbook of Cultural Intelligence: Theory, Measures and Applications*, Armonk, NY: M.E. Sharpe.

Ang, S., Van Dyne, L., Koh, C., Ng, K.Y., Templer, K.J., Tay, C., and Chandrasekar, N.A. (2007), 'Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance,' *Management and Organization Review*, 3, 335–371.

Babin, B.J., and Boles, J.S. (1996), 'The Effects of Perceived Co-Worker Involvement and Supervisor Support on Service Provider Role Stress, Performance and Job Satisfaction,' *Journal of Retailing*, 72, 57–75.

Ball-Rokeach, S. (1973), 'From Pervasive Ambiguity to Definition of the Situation,' *Sociometry*, 36, 378–389.

Beaton, D.E., Bombardier, C., Guillemin, F., and Ferraz, M.B. (2000), 'Guidelines for the Process of Cross-Cultural Adaptation of Self-Report Measures,' *Spine*, 25, 3186–3191.

Bonache, J. (2005), 'Job Satisfaction Among Expatriates, Repatriates and Domestic Employees: The Perceived Impact of International Assignments on Work-Related Variables,' *Personnel Review*, 34, 110–124.

Bossard, A.B., and Peterson, R.B. (2005), 'The Repatriate Experience as Seen by American Expatriates,' *Journal of World Business*, 40, 9–28.

Brayfield, A.H., and Rothe, H.F. (1951), 'An Index of Job Satisfaction,' *Journal of Applied Psychology*, 35, 307–311.

Brislin, R. (1970), 'Back-Translation for Cross-Cultural Research,' *Journal of Cross-cultural Psychology*, 1, 185–216.

Brislin, R., Worthley, R., and Macnab, B. (2006), 'Understanding Behaviors that Serve People's Goals,' *Group and Organization Management*, 31, 40–55.

Burke, R.J. (1988), 'Some Antecedents and Consequences of Work-Family Conflict,' *Journal of Social Behavior and Personality*, 3, 287–302.

Chang, S-J., Witteloostuijn, A.V., and Eden, L. (2010), 'From the Authors: Common Method Variance in International Business Research,' *Journal of International Business Studies*, 41, 178–184.

Chen, A.S.-Y., Lin, Y.-C., and Sawangpattanakul, A. (2011), 'The Relationship Between Cultural Intelligence and Performance with the Mediating Effect of Culture Shock: A Case of Philippine Laborers in Taiwan,' *International Journal of Intercultural Relations*, 35, 246–258.

Collings, D.G., Scullion, H., and Morley, M.J. (2007), 'Changing Patterns of Global Staffing in the Multinational Enterprise: Challenges to the Conventional Expatriate Assignment and Emerging Alternatives,' *Journal of Worlds Business*, 42, 198–213.

De Beuckelaer, A., and Lievens, F. (2009), 'Measurement Equivalence of Paper-and-Pencil Surveys: A Large Scale Examination in 16 Countries,' *Applied Psychology: An International Review*, 58, 336–361.

Downes, M., Thomas, A.S., and McLarney, C. (2000), 'The Cyclical Effect of Expatriate Satisfaction on Organizational Performance: The Role of Firm International Orientation,' *The Learning Organization*, 7, 122–134.

Earley, P.C. (2002), 'Redefining Interactions Across Cultures and Organizations: Moving Forward With Cultural Intelligence,' *Research in Organizational Behavior*, 24, 271–299.

Earley, P.C., and Ang, S. (2003), *Cultural Intelligence: Individual Interactions Across Cultures*, Stanford, CA: Stanford University Press.

Elenkov, D.S., and Manev, I.M. (2009), 'Senior Expatriate Leadership's Effects on Innovation and the Role of Cultural Intelligence,' *Journal of World Business*, 44, 357–369.

Fairbrother, K., and Warn, J. (2003), 'Workplace Dimensions, Stress and Job Satisfaction,' *Journal of Managerial Psychology*, 18, 8–21.

Feldman, J.M., and Lynch, J.G. Jr. (1988), 'Self-Generated Validity and Other Effects of Measurement on Belief, Attitude, Intention, and Behavior,' *Journal of Applied Psychology*, 73, 421–435.

Gabel, M., and Brunner, H. (2003), *Global Inc.: An Atlas of the Multinational Corporation*, New York: New Press.

Ganzach, Y. (1998), 'Intelligence and Job Satisfaction,' *The Academy of Management Journal*, 41, 526–539.

Gosling, S.D. (2004), 'Should We Trust Web-Based Studies? A Comparative Analysis of Six Preconceptions About Internet Questionnaires,' *American Psychologist*, 59, 93–104.

Groves, K.S., and Feyerherm, A.E. (2011), 'Leader Cultural Intelligence in Context: Testing the Moderating Effects of Team Cultural Diversity on Leader and Team Performance,' *Group and Organization Management*, 36, 535–566.

Gudykunst, W.B. (2004), *Bridging Differences* (4th ed.), Thousand Oaks, CA: Sage.

Gudykunst, W.B. (2005), *Theorizing About Intercultural Communication*, Thousand Oaks, CA: Sage.

Gudykunst, W.B., and Nishida, T. (2001), 'Anxiety, Uncertainty, and Perceived Effectiveness of Communication Across Relationships and Cultures,' *International Journal of Intercultural Relations*, 25, 55–71.

Gudykunst, W.B., and Shapiro, R. (1996), 'Communication in Everyday Interpersonal and Intergroup Encounters,' *International Journal of Intercultural Relations*, 20, 19–45.

Hackman, R., and Oldham, G.R. (1976), 'Motivation Through-Out the Redesign of Work: Test of a Theory,' *Organizational Behavior and Human Decision Processes*, 16, 250–279.

Hair, J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2010), *Multivariate Data Analysis: A Global Perspective*, New York: Macmillan.

Hammer, M.R., Gudykunst, W.B., and Wiseman, R.L. (1978), 'Dimensions of Intercultural Effectiveness: An Exploratory Study,' *International Journal of Intercultural Relations*, 2, 382–393.

Herman, S., and Schield, E. (1961), 'The Stranger Group in Cross-Cultural Interaction,' *Sociometry*, 24, 165–176.

Hofstede, G. (2001), *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations* (2nd ed.), Thousand Oaks, CA: Sage.

Holopainen, J., and Björkman, I. (2005), 'The Personal Characteristics of the Successful Expatriate: A Critical Review of the Literature and an Empirical Investigation,' *Personnel Review*, 34, 37–50.

Ickes, W. (1984), 'Composition in Black and White,' *Journal of Personality and Social Psychology*, 47, 330–341.

Imai, L., and Gelfand, M.J. (2010), 'The Culturally Intelligent Negotiator: The Impact of Cultural Intelligence (CQ) on Negotiation Sequences and Outcomes,' *Organizational Behavior and Human Decision Processes*, 112, 83–98.

Judge, T.A., and Bono, J.E. (2001), 'Relationships of Core Self-Evaluations Traits – Self-Esteem, Generalized Self-Efficacy, Locus Of Control, and Emotional Stability – With Job Satisfaction and Job Performance: A Meta-Analysis,' *Journal of Applied Psychology*, 86, 80–92.

Kedia, B.L., and Mukherji, B.L. (1999), 'Global Managers: Developing a Mindset for Global Competitiveness,' *Journal of World Business*, 34, 230–251.

Kim, Y.Y. (2001), *Becoming intercultural: An Integrative Theory of Communication and Cross-Cultural Adaptation*, Thousand Oaks, CA: Sage.

Lee, L-Y., and Sukoco, B.M. (2010), 'The Effect of Cultural Intelligence on Expatriate Performance: The Moderating Effects of International Experience,' *The International Journal of Human Resource Management*, 21, 963–981.

Leong, C.S., Furnham, A., Cary, L., and Cooper, C.L. (1996), 'The Moderating Effect of Organizational Commitment on the Occupational Stress Outcome Relationship,' *Human Relations*, 49, 1345–1363.

Limaye, M.R., and Victor, D.A. (1991), 'Cross-Cultural Business Communication Research: State of the Art and Hypotheses for the 1990s,' *Journal of Business Communication*, 28, 277–299.

Lindel, M.K., and Whitney, D.J. (2001), 'Accounting for Common Method Variance in Cross-Sectional Research Designs,' *Journal of Applied Psychology*, 86, 114–121.

Louis, M.R., Posner, B.Z., and Powell, G.N. (1983), 'The Availability and Helpfulness of Socialization Practices,' *Personnel Psychology*, 36, 857–866.

MacNab, B.R., Brislin, R., and Worthley, R. (2012), 'Experiential Cultural Intelligence Development: Context and Individual Attributes,' *International Journal of Human Resource Management*, 23, 1320–1341.

MacNab, B.R., and Worthley, R. (2011), 'Individual Characteristics as Predictors of Cultural Intelligence Development: The Relevance of Self-Efficacy,' *International Journal of Intercultural Relations*, 30, 1–10.

Mendenhall, M., and Oddou, G. (1985), 'The Dimensions of Expatriate Acculturation: A Review,' *Academy of Management Review*, 10, 39–47.

Mitchell, T.R., Holtom, B.C., Lee, T.W., Sablynski, C.J., and Erez, M. (2001), 'Why People Stay: Using Job Embeddedness to Predict Voluntary Turnover,' *Academy of Management Journal*, 44, 1102–1122.

Molinsky, A. (2007), 'Cross-Cultural Code-Switching: The Psychological Challenges of Adapting Behavior in Foreign Cultural Interactions,' *Academy of Management Review*, 32, 622–640.

Newbury-Birch, D., and Kamali, F. (2001), 'Psychological Stress, Anxiety, Depression, Job Satisfaction, and Personality Characteristics in Preregistration House Officers,' *Postgraduate Medical Journal*, 77, 109–111.

Ng, K-Y., Van Dyne, L., and Ang, S. (2011), 'Cultural Intelligence: A Review, Reflections, and Recommendations for Future Research,' in *Conducting Multinational Research Projects in Organizational Psychology*, eds. A.-M. Ryan, F.T.L. Leong, and F. Oswald, Washington, DC: American Psychological Association.

Phakiti, A. (2003), 'A Closer Look at the Relationship of Cognitive and Metacognitive Strategy Use to EFL Reading Achievement Test Performance,' *Language Testing*, 20, 26–56.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., and Podsakoff, N.P. (2003), 'Common Method Bias in Behavioral Research: A Critical Review of the Literature and Recommended Remedies,' *Journal of Applied Psychology*, 88, 879–903.

Ramalu, S.S., Rose, R.C., Kumar, N., and Uli, J. (2010), 'Doing Business in Global Arena: An Examination of the Relationship Between Cultural Intelligence and Cross-Cultural Adjustment,' *Asian Academy of Management Journal*, 15, 79–97.

Rhinesmith, S.H. (1992), 'Global Mindsets for Global Managers,' *Training and Development*, 10, 63–68.

Rockstuhl, T., Seiler, S., Ang, S., Van Dyne, L., and Annen, A. (2011), 'Cultural Intelligence and Cross-Border Leadership Effectiveness in a Globalized World,' *Journal of Social Issue*, 67, 825–840.

Sinaiko, H.W., and Brislin, R.W. (1973), 'Evaluating Language Translations: Experiments on Three Assessment Methods,' *Journal of Applied Psychology*, 57, 328–334.

Srinivas, K.M. (1995), 'Globalization of Business and the Third World: Challenge of Expanding the Mindsets,' *Journal of Management Development*, 14, 26–49.

Stephan, W., and Stephan, C. (1985), 'Intergroup Anxiety,' *Journal of Social Issues*, 41, 157–166.

Sternberg, R.J., and Detterman, D.K. (1986), *What Is Intelligence? Contemporary Viewpoints on Its Nature and Definition*, Norwood, NJ: Ablex.

Strahan, R., and Gerbasi, K.C. (1972), 'Short Homogeneous Versions of the Marlow–Crowne Social Desirability Scale,' *Journal of Clinical Psychology*, 28, 191–193.

Suutari, V., and Brewster, C. (2003), 'Repatriation: Empirical Evidence from a Longitudinal Study of Careers and Expectations Among Finnish Expatriates,' *International Journal of Human Resource Management*, 14, 1132–1151.

Templer, K.J., Tay, C., and Chandrasekar, N.A. (2006), 'Motivational Cultural Intelligence, Realistic Job Preview, Realistic Living Conditions Preview, and Cross-Cultural Adjustment,' *Group and Organization Management*, 31, 154–173.

Tett, R.P., and Meyer, J.P. (1993), 'Job Satisfaction, Organizational Commitment, Turnover Intention, and Turnover: Path Analysis Based on Meta-Analytical Findings,' *Personnel Psychology*, 46, 259–293.

Thomas, D.C. (2006), 'Domain and Development of Cultural Intelligence: The Importance of Mindfulness,' *Group and Organization Management*, 31, 78–99.

Thomas, D.C., Elron, E., Stahl, G., Ekelund, B.Z., Ravelin, E.C., Cerdin, J-L., Poelmans, S., Brislin, R., Pekerti, R., Aycan, Z., Maznevski, M., Au, K., and Lazarova, M.B. (2008), 'Cultural Intelligence: Domain and Assessment,' *International Journal of Cross-Cultural Management*, 8, 123–143.

Thomas, D.C., and Inkson, K. (2003), *Cultural Intelligence: People Skills for Global Business*, San Francisco, CA: Berrett-Koehler.

Testa, M.R. (2001), 'Organizational Commitment, Job Satisfaction, and Effort in the Service Environment,' *Journal of Psychology*, 135, 226–236.

Trevor, C.O. (2001), 'Interactions Among Actual Ease-of-Movement Determinants and Job Satisfaction in the Prediction of Voluntary Turnover,' *Academy of Management Journal*, 44, 621–638.

Tung, R.J. (1993), 'Managing Cross-National and Intra-National Diversity,' *Human Resource Management*, 32, 461–477.

Ulijn, J.M., and Strother, M.B. (1995), *Communicating in Business and Technology: From Psycholinguistic Theory to International Practice*, Pieterlen: Peter Lang.

Ulrey, K.L., and Amason, P. (2001), 'Intercultural Communication Between Patients and Health Care Providers: An Exploration of Intercultural Effectiveness, Cultural Sensitivity, Stress, and Anxiety,' *Health Communication*, 13, 449–463.

Vedadi, A., Kheiri, B., and Abbasalizadeh, M. (2010), 'The Relationship Between Cultural Intelligence and Achievement: A Case Study in an Iranian Company,' *Iranian Journal of Management Studies*, 3, 25–40.

Vidal, M., Valle, R., and Aragon, M. (2007), 'Antecedents of Repartriates Job Satisfaction and Its Influence on Turnover Intentions: Evidence from Spanish Repatriated Managers,' *Journal of Business Research*, 60, 1272–1281.

Walbott, H., and Scherer, K. (1986), 'How Universal and Specific Is Emotional Experience: Evidence from 27 Countries on Five Continents,' *Social Science Information*, 25, 763–796.

Walton, S.J. (1990), 'Stress Management Training for Overseas Effectiveness,' *International Journal of Intercultural Relations*, 14, 507–527.

Ward, C., and Fischer, R. (2008), 'Personality, Cultural Intelligence and Cross-Cultural Adaptation,' in *Handbook of Cultural Intelligence*, eds. S. Ang and L. Van Dyne, Armonk, NY: Sharpe, pp. 159–176.

Ward, C., Fischer, R., Lam, F.S.Z., and Hall, L. (2009), 'The Convergent, Discriminant, and Incremental Validity of Scores on a Self-Report Measure of Cultural Intelligence,' *Educational and Psychological Measurement*, 69, 85–105.

Ward, C., Wilson, J., and Fischer, R. (2011), 'Assessing the Predictive Validity of Cultural Intelligence Over Time,' *Personality and Individual Differences*, 51, 138–142.

Weiss, D.J., Dawis, R.V., England, G.W., and Lofquist, L.H. (1967), *Manual for Minnesota Satisfaction Questionnaire* (Vol. 22), Minneapolis, MN: University of Minnesota Industrial Relations Center, Minnesota Studies in Vocational Rehabilitation.

Westhofer, J.H., and Taylor, J. (2010), 'International Differences in Job Satisfaction: The Effects of Public Service Motivation, Rewards and Work Relations,' *International Journal of Productivity and Performance Management*, 59, 811–828.

Wong, C-S., and Law, K.S. (1999), 'Testing Reciprocal Relations by Non-Recursive Structural Equation Models Using Cross-Sectional Data,' *Organizational Research Methods*, 2, 69–87.

Yajun, J. (2003), 'English as a Chinese Language,' *English Today*, 19, 3–8.

Yamazaki, Y., and Kayes, D.C. (2004), 'An Experiential Approach to Cross-Cultural Learning: A Review and Integration of Competencies for Successful Expatriate Adaptation,' *Academy of Management Learning and Education*, 3, 362–379.

Young, K.M., and Cooper, C.L. (1995), 'Occupational Stress in the Ambulance Service: A Diagnostic Study,' *Journal of Managerial Psychology*, 10, 29–36.