

EXPATRIATE SUCCESS: CULTURAL INTELLIGENCE AND PERSONALITY AS
PREDICTORS FOR CROSS-CULTURAL ADJUSTMENT

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ABSTRACT

Businesses are more marketable if they have a global presence. However, with global expansion comes a need to communicate with organizations having diverse cultural backgrounds. This causes issues when selecting expatriates for the job. Expatriates possessing particular characteristics may adjust better than others. Research supports both cultural intelligence (CQ) and personality as valid predictors of cross-cultural adjustment, but do those higher in CQ adapt better than those with culturally compatible personality factors? I hypothesized that cultural intelligence (CQ) accounts for more incremental validity of cross-cultural adjustment than personality alone. The sample of approximately 111 foreign expatriates working in various countries completed measures of CQ (CQS; Earley & Ang, 2003), personality (50-item IPIP), and cultural adjustment components (Wilson & Ward, 2010). The results of a hierarchical multiple regression analysis supported the hypothesis indicating the need to consider CQ in the expatriate selection process.

DEDICATION

To my parents, Suzanne and Bill, for their encouragement and support, and to my brothers, William and Brett, for never taking it easy on me.

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The completion of this thesis could not have been possible without the contribution of several individuals. First, I would like to thank my thesis advisor, Dr. Brian O’Leary, for giving me guidance, support, and invaluable research advice. I also want to thank him for granting me the autonomy to experience the trials and tribulations of the research process. I also want to thank Dr. Biderman and Dr. Weathington for their expertise, for guiding me in the right direction with my research design, and for reading my drafts and providing their input and revisions.

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I want to give a special thanks to friends and family who volunteered and offered their help in distributing my survey; I don’t know what I would have done without their support.

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CHAPTER I

INTRODUCTON AND LITERATURE REVIEW

The global economy has increased the number of cross-cultural interactions among multi-national businesses. These foreign interactions also result in substantial investment in expatriate assignments. International businesses spend upward of \$2 million per expatriate during a four-year period (Klaff, 2002). Despite this large investment, 20 to 50% of expatriates repatriate prematurely, within a year of beginning their global assignment (Black & Gregersen, 1998). “Expatriate failure” encompasses a broad range of themes such as premature return, low performance, and adjustment problems (Harzing & Christenson, 2004). Despite the obvious pattern of failed assignments, multi-national firms continue to hire employees for their technical competence and willingness to travel or relocate (Mendenhall, Kühlmann, Stahl, & Osland, 2002). This selection strategy appears promising; however, it often yields unfavorable expatriate adjustment and inadequate on-the-job performance. The underlying causes of premature return are perplexing, but existing research addresses several explanations for ineffective expatriates (e.g., family stress, cultural inflexibility, emotional immaturity, responsibility overload, physical breakdown) (Chalré Associates, n.d.). The present study helps to further explain failures in expatriate assignments.

Because the world is not a unified, interactive platform, there are cultural barriers with which expatriates must learn to deal (Ang & Van Dyne, 2008). As multinational businesses continue to grow, so does the need to communicate and negotiate with organizations that have

diverse cultural backgrounds. Despite this rapid modernization, culture is slow to change to accommodate the manner with which global companies now interrelate (Thomas & Inkson, 2009). The cultural barriers expatriates experience go beyond attaining knowledge of the local tongue: they must also learn the customs and interactions that make a culture unique. Cultural knowledge improves the opportunity to succeed in a new culture (Ogbe, 2006). Hofstede (1983) argued that international managers and management theorists “need a much deeper understanding of the range of culture-determined value systems that, in fact, exists among countries, and that these should be taken into account when transferring management ideas from one country to another” (p. 81). People build organizational foundations according to their values, and societies are composed of institutions and organizations that reflect the dominant values within their culture (Hofstede, 1983).

Cultures are collective, complex entities of unique customs and transactions. Potential expatriates must build a repertoire of cultural knowledge to adequately adapt to an unfamiliar culture. Cultural intelligence (CQ), originally conceptualized by Earley and Ang (2003), shows promise in assisting this changeover. Imai and Gelfand (2010) examined the impact of cultural intelligence on intercultural negotiation processes and outcomes and found that cultural intelligence (CQ) is a key predictor of intercultural negotiation effectiveness. Practically speaking, their results suggest that global managers should consider CQ when selecting employees to maximize the chances of optimal agreement in intercultural negotiations.

In addition to cultural competence, existing research on expatriate adjustment supports personality components as strong indicators of cross-cultural adjustment (Caligiuri, 2000; Swagler & Jome, 2005; Ward, Leong & Low, 2004). Ward et al. (2004) demonstrated that four of the Big Five personality factors had significant relationships with cross-cultural adjustment

(i.e., extroversion, agreeableness, conscientiousness, and emotional stability), while Swagler and Jome (2005) found that personality factors significantly related to both psychological and sociocultural adjustment processes. These results suggest the importance of understanding the impact of personality on employee adaptability when selecting for expatriate assignments.

Importance of Expatriate Selection

Business leaders are concerned that their businesses do not connect naturally with the changing face of America's consumers (Llopis, 2011). Because representatives of global businesses understand the need to lead effectively while abroad, the demand for effective leadership in cross-cultural companies is widespread; leaders need to adapt their cultural perspectives to be effective in culturally diverse situations (Robinson & Harvey, 2008).

Gregersen, Morrison and Black (1998) reported that 85% of Fortune 500 companies surveyed claimed they did not have "an adequate number of global leaders," and that "67% of the firms think their existing leaders need additional skills and knowledge before they meet or exceed needed capabilities" (p. 22).

Careful candidate selection for foreign assignment is critical when multi-national corporations consider the potential costs to the company due to expatriate failure. Many multi-national corporations invest heavily in selection and training procedures in an attempt to facilitate foreign business exchange; yet many of these exchanges are unsuccessful, resulting in a lowered return on investment for companies (McNulty & Tharenou, 2004). To ensure that expatriate funds are spent effectively, organizations must carefully select employees who can successfully adjust to foreign cultures and execute their assignments. However, many individuals do not possess the personal characteristics that allow them to handle cultural differences (Kumar,

Rose & Subramanian, 2008). The present study will examine cultural intelligence (CQ) and the Big 5 personality characteristics as predictors for cross-cultural adjustment in an effort to identify effective indicators of expatriate success.

Cross-cultural Adjustment

One antecedent of expatriate job performance is the extent to which expatriates have adjusted to the culture. As defined by Black and Gregersen (1991a), *cross-cultural adjustment* represents the degree to which individuals are psychologically comfortable living outside of their home country. Haslberger (2005) further defined adaptation, or adjustment, as a “complex process in which a person becomes capable of functioning effectively in a culture other than the one he or she was originally socialized” (p. 86).

Existing research identifies two main classifications of cross-cultural adjustment demonstrated by individuals working abroad: psychological and sociocultural (Anderson, 2004; Shaffer & Shoben, 1956; Ward & Kennedy, 1993). While these categories are similar, existing research suggests that individuals differ in their ability to adjust psychologically and socioculturally in cross-cultural situations (Church, 1982; Ward & Kennedy, 2001).

Psychological adjustment focuses on the mental component of an individual; the “process by which individuals attempt to maintain a sense of mental and physical well-being in the new environment” (Swagler & Jome, 2005, p. 527). In earlier literature addressing foreign adaptation, Black (1990) described cross-cultural adjustment as “the individual's affective psychological response to the new environment” (p. 122). Searle and Ward (1990) also recognized the psychological component of adjustment, stating that it is a psychological, emotional state that should be measured from the perspective of the individual experiencing the foreign culture.

Sociocultural adjustment is the “process by which individuals learn to reinterpret their environment and increase their ability to function within the new cultural context” (Swagler & Jome, 2005, p. 527). Black and Stephens (1989) developed a sociocultural adjustment scale that measured three dimensions of cross-cultural adjustment: interaction adjustment, general adjustment, and workplace adjustment. The first dimension, interaction adjustment, focuses on adjustment by way of interacting with host country nationals. The second dimension, general adjustment, focuses on adjustment to broader conditions of the non-work environment of the new country (e.g., shopping, eating, living). The third subscale, workplace adjustment, measures adjustment to one’s work role, how well an individual balances job tasks, responsibilities, and building rapport with coworkers. Based on these dimensions of sociocultural adjustment, an individual can mentally adapt over time to a learned foreign experience, but the ability to portray cognitive adjustment outwardly is the question. In other words, sociocultural adaptation is the extent to which an individual demonstrates their adjustment in observable ways (e.g., behaviors).

Purpose of Study

Because multi-national corporations invest heavily in sending expatriates abroad, fast and effective adjustment is critical to job performance and profitability. The longer it takes an employee to make the adjustment, the greater the costs to the organization, especially if these assignments do not reach completion. Despite growing interest in expatriate management, many gaps remain in understanding the diverse factors affecting expatriate cross-cultural adjustment.

The purpose of this study is to explore individual characteristics that facilitate or hinder the cross-cultural adjustment process and, more specifically, to investigate the role that personality and cultural intelligence play in both psychological and sociocultural adjustment.

Personality and Adjustment

Early research exploring personality as a general indicator of adjustment was inconclusive (Church, 1982); personality descriptions of the “potentially” good adjuster were commonly accepted in the literature, however, they were based primarily on face validity rather than empirical support. The development of improved personality measures has provided opportunities to examine relationships between personality factors and cross-cultural adjustment (Goldberg, 1971; John, Hampson, & Goldberg, 1991; McAdams, 1995).

Existing research on expatriate adjustment identifies different aspects of personality as antecedents to cross-cultural adaptation (Caligiuri, 2000; Harrison, Chadwick & Scales; 1996; Swagler & Jome, 2005; Ward et al., 2004) with a general consensus that individuals exhibiting greater emotional stability and social tendencies are more likely to experience positive cross-cultural adjustment.

Harrison, Chadwick, and Scales (1996) investigated the effects of self-efficacy and self-monitoring on the cultural adjustment of 99 American expatriates in Europe. They found that individuals with high general self-efficacy had significantly greater degrees of general, interaction, and work adjustment than those with low general self-efficacy, while high self-monitors had more general and interaction adjustment than did low self-monitors.

Those with self-confidence and sociability seek opportunities to interact with those who have different cultural backgrounds, learn about other cultures in the process, and are not reticent to exhibit flexible behavior (Ang, Van Dyne, & Koh, 2006). These individuals are also dispositionally open to learning new things and are willing to seek out and try out novel activities (Ang et al., 2006).

With the introduction and validation of the Big Five personality factors (McCrae & Costa, 1987), researchers focused on the relationships of the five subscales (openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism/emotional stability) with expatriate adjustment (Caligiuri, 2000; Ones & Viswesvaran, 1996; Swagler & Jome, 2005; Ward et al., 2004). A couple of studies found that each of the personality factors correlated with foreign adaptation (Caligiuri, 2000; Ward et al., 2004). These studies demonstrated that personality had a significant impact on successful expatriate adjustment. Much of the research examining the relationships between personality characteristics and cross-cultural adjustment favor those individuals having high levels of openness to experience and extroversion. For example, Ward et al. (2004) demonstrated that openness to experience and extroversion were significantly related to cross-cultural adjustment among Singaporeans in Australia. Those scoring higher on these scales exhibited greater social and psychological adaptation to the culture.

Caligiuri (2000) studied the cross-cultural adjustment of 143 American expatriates and foreign inpatriates based on their sociability characteristics. These sociability characteristics were measured using the Hogan Personality Inventory (HPI, Hogan & Hogan, 1992) consisting of 24 true and false items (i.e., Being a part of a large crowd is exciting). She based her hypotheses of expatriate adjustment on contact theory and social learning theory; the more expatriates interact with host nationals, the more likely they are to become cross-culturally adjusted provided they possess personality characteristics of sociability and openness to experience. By definition, individuals who are more open to others should possess few (if any) negative predisposing attitudes that would impair their ability to develop relationships with host nationals.

Openness to Experience. McCrae and Costa (1987) defined the Big Five personality trait of openness to experience as the ability to exhibit imagination and insight, and that those high in openness to experience tend to have a broad range of interests. Other unique characteristics of those high in openness to experience include experience seeking (Zuckerman, Kuhlman, Joireman, Teta & Kraft, 1993), having thin boundaries (McCrae, 1994), typical intellectual engagement and flexibility (McCrae, 1996). Caligiuri found that expatriates higher in openness to experience were less likely to have impaired relationships with host nationals because they actively sought and developed these relationships, resulting in learned cultural norms, social skills, and behaviors that facilitated adjustment. That is, expatriates who were unrestricted by their personality tendencies were able to establish more interpersonal relationships with host nationals. In the context of the social learning theory, “expatriates who possess greater openness to experience may have a greater interest in learning about new cultures from their host national friends and acquaintances” (Caligiuri, 2000, p. 75). This suggests that cultural learning initiated by more frequent contact with locals may facilitate cross-cultural adjustment (Searle & Ward, 1990).

Extroversion. *Extroverted* individuals demonstrate excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness (McCrae & Costa, 1987). In a study examining personality traits and cross-cultural adjustment of Chinese students in Germany, Zhang, Heinz, and Erping (2010) found that those students who were more extroverted experienced better psychological adjustment. Research on personality and adjustment has found parallels between extroversion and openness to experience; it is possible that these two personality components have similar characteristics (e.g., sociability and expressiveness).

Conscientiousness. Conscientiousness involves the ability to exhibit high levels of thoughtfulness, with good impulse control and goal-directed behaviors; those high in conscientiousness tend to be organized and mindful of details (McCrae & Costa, 1987). Ward, Leong and Low (2004) studied adjustment across two samples of sojourners and host nationals in Australia and Singapore. They specifically looked at personality characteristics and their relationship to foreign adjustment. In both samples, expatriates high in conscientiousness spent more time on job-related tasks and were more psychologically well adapted than those scoring lower in conscientiousness (Ward et al., 2004). Ones and Viswesvaran (1996) also found that conscientious individuals were more likely to spend time on job-related tasks, were better able to obtain job-specific knowledge, and were less likely to engage in counterproductive work behaviors (CWBs).

Agreeableness. According to McCrae and Costa (1987), *agreeable* individuals demonstrate attributes such as trust, altruism, kindness, affection, and other pro-social behaviors. Swagler and Jome (2005) found that being more agreeable might facilitate collectivist interaction among expatriates. In addition, Ones and Viswesvaran (1999) found that expatriates high in agreeableness were more likely to avoid conflict, to be more compliant, and to be obedient to authority. These findings suggest that expatriates high in agreeableness will better adapt to a “high power-distance” culture; that is, expatriates with an agreeable nature are more likely to harmonize with foreigners who demonstrate awareness of and respect for individuals holding positions of authority in the workplace. Thus, being obedient to and respectful of power will most likely aid workplace adjustment for expatriates entering a high power-distance culture (e.g., Mexico) from a low power-distance culture (e.g., USA, Europe). Cultural customs and norms

can vary significantly across several of Hofstede's (1983) cultural dimensions; placing an expatriate in an environment that is noticeably different from their own can present difficulties in developing relationships. Those high in agreeableness should, therefore, adapt better to more extreme cultural differences.

Barnett (1953) noted that individuals differ in their propensities and abilities to deviate across the "normal boundaries of acceptable deviation... these differences predispose some of them to a hesitant and retractile attitude toward experimentation with the new, while others are much more adventurous and intrepid. In short, some people, for whatever reason, are temperamentally more conservative than others" (p. 20). Of course, conservative behavior by an expatriate can limit their opportunity to initiate interaction with host nationals, restricting potential bonds and result in maladjustment or loneliness.

Personality and Cross-cultural Maladjustment

After studying acculturation and adjustment of North Americans sojourning in Taiwan, Swagler and Jome (2005) found that individuals prone to emotional distress were more likely to experience psychological symptoms such as depression, substance abuse, and social problems while working abroad. They found, for instance, that prolonged frustration among those with existing neurotic tendencies to cultural barriers can elicit reactions such as anger, withdrawal, depression, exhaustion, and emotional numbness. However, they also found that sojourners with lower neuroticism, more agreeableness, and more conscientiousness traits fared better in their psychological adjustment to Taiwan. In addition, greater sociocultural adjustment related to higher extroversion scores.

Extroversion. As described earlier, *extroverted* individuals demonstrate excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness (McCrae & Costa, 1987). This suggests that talkative individuals are more likely to seek and develop relationships abroad with host nationals. However Ward and Chang (1997) found that extroversion scores for Americans residing in Singapore were unrelated to both psychological and sociocultural adjustment. They also examined discrepancies in extroversion scores between American participants and host nationals finding, as hypothesized, that American participants with larger discrepancies in extroversion relative to members of the host culture experienced higher levels of depression. These results suggest that extroverted individuals may not interact well with host nationals who are less receptive to those with a more talkative and expressive nature.

Emotional Stability. Neuroticism, “captures the degree to which one experiences negative affect such as anger, guilt, anxiety, and sadness, and includes the notion of how susceptible one is to stress” (Swagler & Jome, 2005, p. 528). Its counterpart, Emotional Stability, exhibits the opposite effect; it is the ability to withstand minor setbacks, failures, difficulties, and other stresses without becoming upset emotionally (Social Sciences Dictionary). In a study of Australian sojourners in Singapore, Ward, Leong and Low (2004) found a negative relationship between neuroticism and psychological adjustment. They also found that neurotic tendencies, such as worrying, hesitation, and negative thinking, relate negatively to cross-cultural adjustment. This suggests that expatriates high in neuroticism should have more difficulty adjusting to a foreign culture than those low in neuroticism. Or, in other words, expatriates high in emotional stability should experience less difficulty adjusting to a foreign culture. For this

study, the component “emotional stability” will be used rather than “neuroticism” to explain cross-cultural adjustment.

Hypothesis 1 and 2

The combination of cultural inconsistencies between home and destination cultures can lead to “culture shock,” a feeling of anxiety, loneliness, and confusion that people sometimes experience when they first arrive in another country (Reverse, 2003). Failure to recover from culture shock can result in premature returns, functional difficulties, and prolonged psychological distress (Church, 1982; Ward, Bochner, & Furnham, 2001). These psychological symptoms can then affect how an expatriate adjusts to foreign work assignments and general cultural adjustment. However, the research reviewed above suggests that taking certain personality characteristics into consideration in the selection process may alleviate distress and thwart premature repatriation. Therefore, I predict personality factors will be positively related to both dimensions of cross-cultural adjustment, psychological and sociocultural. Figure 1 explains the relationships of personality factors to Psychological Adjustment while Figure 2 explains the relationships of personality factors to Sociocultural Adjustment.

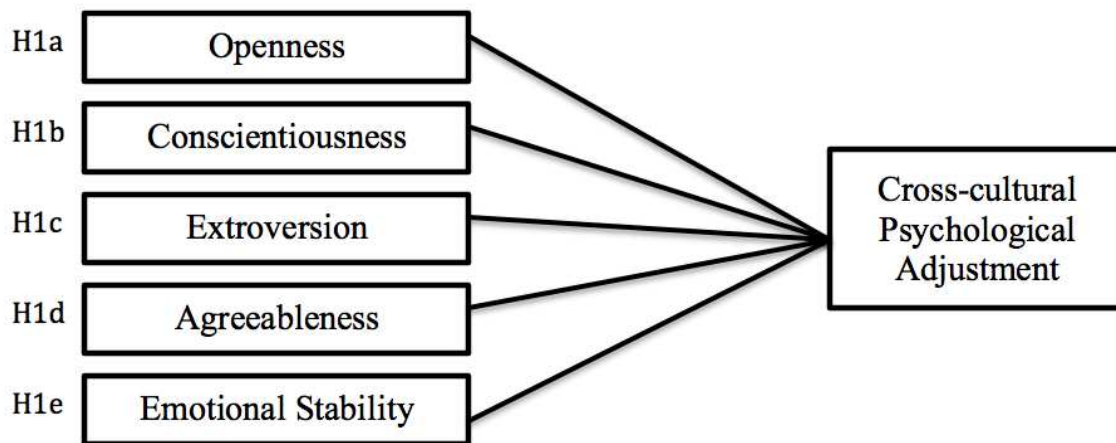


Figure 1. Components of personality (Big Five) will be positively related to Psychological Adjustment (GHQ).

Hypothesis 1a: Openness to Experience will be positively related to Psychological Adjustment.

Hypothesis 1b: Conscientiousness will be positively related to Psychological Adjustment.

Hypothesis 1c: Extroversion will be positively related to Psychological Adjustment.

Hypothesis 1d: Agreeableness will be positively related to Psychological Adjustment.

Hypothesis 1e: Emotional Stability will be positively related to Psychological Adjustment.

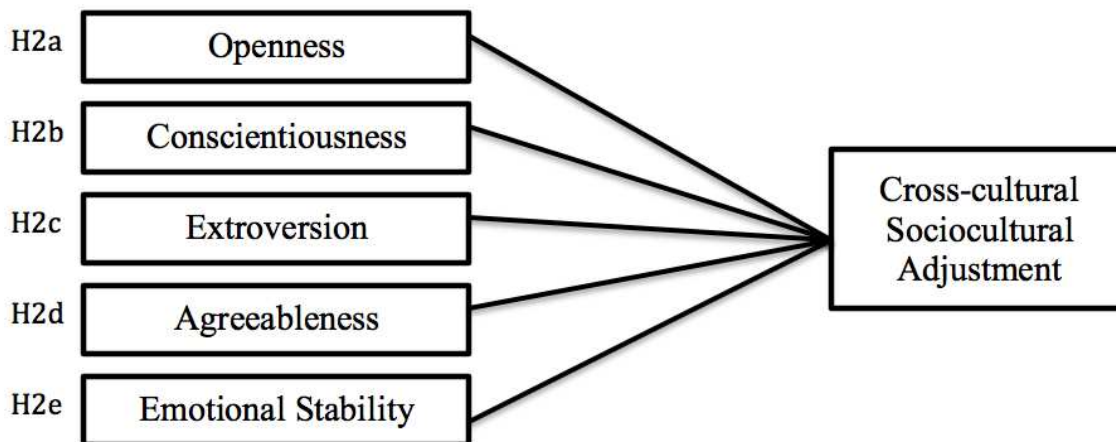


Figure 2. Components of personality (Big Five) will be positively related to Sociocultural Adjustment (SCAS-R).

Hypothesis 2a: Openness to Experience will be positively related to Sociocultural Adjustment.

Hypothesis 2b: Conscientiousness will be positively related to Sociocultural Adjustment.

Hypothesis 2c: Extroversion will be positively related to Sociocultural Adjustment.

Hypothesis 2d: Agreeableness will be positively related to Sociocultural Adjustment.

Hypothesis 2e: Emotional Stability will be positively related to Sociocultural Adjustment.

Evident from personality research on adjustment confirms the notion that personality can ultimately facilitate adjustment, however, personality alone cannot solely explain cross-cultural adjustment success in foreign countries. It is possible that a particular foundation of cultural knowledge can better facilitate cross-cultural adjustment from the beginning in comparison to preexisting personality characteristics.

Cultural Intelligence and Adjustment

Factors such as aptitude, adaptability and general knowledge of local cultural customs and language may explain smoother transitions in expatriate adjustment in comparison to personality predispositions (Chiu & Cheng, 2007; Earley & Ang, 2003; Imai & Gelfand, 2010; Lee & Sukoco, 2010). How can managers be socially intelligent in their own business settings but ineffective in culturally novel ones? Cultural intelligence may explain the discrepancies between those competent in their own country, but less so in another country.

Earley and Ang (2003) sparked much research interest on this cultural concept by developing a “cultural intelligence” (CQ) scale. They define cultural intelligence as the capability for an individual to adapt across cultures, and to gather, interpret, and act upon radically different cues to function effectively across cultural settings or in multi-national situations.

Their key objective in developing a CQ scale was to address the problem of why socially competent people fail to adjust to and understand new cultures. Their framework was built on the consensus that investigation of intelligence should go beyond cognitive abilities and personality

by incorporating behavioral, motivational, and cultural entities. CQ requires a base level of cultural knowledge (cognitive CQ), the acquisition of new cultural knowledge (motivational CQ) and alternative perspectives through mindfulness (metacognitive CQ), and the accommodation and assimilation of this knowledge into performed behaviors (behavioral CQ). Unlike personality, cultural intelligence may be developed by psychologically healthy and professionally competent people with practice (Earley & Mosakowski, 2004). The possibility of developing and strengthening one's own CQ could yield tremendous opportunity to a career in international affairs. Ward, Fischer, Lam and Hall (2008) tested the validity of CQ and found the scale to be a reliable, four-factor measure, whose scores demonstrate discriminant validity from a test of general cognitive ability. In addition, Moody (2008) performed an exploratory and confirmatory factor analyses and validated the multi-dimensional model of CQ. Below are descriptions of the components of CQ as defined by current literature (Earley & Ang, 2003; Hofstede, 1984; Thomas, 2006; Van Dyne, Ang & Livermore, 2010).

Cognitive CQ. Cognitive CQ represents the degree to which one understands the cultural systems and cultural norms, and the way cultures vary from one context to the next. This includes knowledge about a culture's economics, government, educational practices, and religious beliefs (Van Dyne et al., 2010). Basically, cognitive CQ refers to the information-processing aspects of intelligence and is the declarative knowledge one has about the systems and customs of a culture.

Metacognitive CQ. Beyond Cognitive CQ is Metacognitive CQ: the strategy used by an individual to adjust to unfamiliar surroundings. It is how an individual makes sense of inter-cultural experiences and reflects the processes individuals use to acquire and understand cultural

knowledge. For instance, metacognitive CQ occurs when individuals make judgments about their own thought processes and those of others. This includes strategizing before an inter-cultural encounter, checking assumptions during an encounter, and adjusting mental maps when actual experiences differ from expectations, i.e., awareness of a new situation and how one processes the new situation.

Motivational CQ. Motivational CQ involves showing interest, confidence, and drive to adapt cross-culturally. This also includes intrinsic and extrinsic motivations: the degree of enjoyment one receives in cultural interactions and the tangible benefits one may receive through those interactions. Essentially, motivational CQ is the desire to seek cultural exploration and the enjoyment experienced while seeking cultural adventures. According to Hofstede (1983), though an individual may have the knowledge and explicitly express desire and motivation to learn a culture, “it takes years to understand a single cultural system if one is not born to it. Even the cultural system in which we are born cannot said to be understood by us in a way which we can explain to others because we participate in it unconsciously” (p. 82).

Behavioral CQ. Behavioral CQ is an individual’s capability to adapt verbal and nonverbal behavior so it is appropriate for different cultures (Van Dyne et al., 2010). It includes having a flexible repertoire of behavioral responses that are appropriate in a variety of situations and having the capability to modify both verbal and nonverbal behavior based on those involved in a specific interaction or in a particular setting (Van Dyne et al., 2010). In other words, the degree to which an individual can effectively “pick up” on the verbal and nonverbal colloquialisms of a different culture. People who are culturally intelligent develop a behavioral capability that allows them to become competent across a wide range of cultural situations

(Thomas, 2006). This involves the ability to identify appropriate behaviors out of a behavioral repertoire that are correct for different intercultural situations and extrapolating to generate new and learned behavior.

Brislin, Worthley, and Macnab (2006) identify the cultural components of intelligence as the “set of skills, from basic to advanced, that allow an individual to become effective at eventually transferring social skills from one cultural context to another” (p. 42). In addition, cultural intelligence reflects the capability to effectively understand and adapt to a myriad of cultural contexts (Van Dyne et al., 2010). Triandis (2006) added that intelligence is “culture bound;” in the West, it is seen as linked to the speed of making correct judgments while in many African cultures, it is linked to the person’s behavior conforming to the desires of the elders.

Evidence of Cultural Intelligence as an Antecedent

The majority of research supporting CQ’s relationship with expatriate adjustment is that of a theoretical nature summarizing the potential predicting power of CQ on expatriate success (Kumar, Rose & Subramaniam, 2008); however, there are recent studies providing empirical support for CQ and its relationship to expatriate adjustment and performance (Ang, Van Dyne, & Koh, 2006; Lee & Sukoco, 2010; Ramalu, Wei & Rose, 2011; Swagler & Jome, 2005).

Ang et al. (2006) examined relationships between Big Five personality and the four-factor model of cultural intelligence. They collected data on 338 business undergraduates and found evidence for discriminant validity of the four CQ factors compared to the Big Five personality factors. They also found value in differentiating facets of personality and facets of CQ though there were significant links between the two measures.

Ramalu et al. (2011) investigated the effects of CQ on cross-cultural adjustment among

expatriates in Malaysia. “Adjustment” in this study was measured using the Black and Stephens’ (1989) self-reported Expatriate Adjustment Scale, which assesses sociocultural components of adjustment (work, interaction, and general adjustment). Their findings provided empirical support for the validity of all four dimensions of CQ in understanding how individuals adjust and perform in their international assignment. After accounting for control variables (e.g., gender, prior overseas experience, time in host country and language fluency), CQ was significantly related to cross-cultural adjustment and job performance. More specifically, greater *general* adjustment was related to greater motivational and metacognitive CQ while greater *work* adjustment was related to greater motivational CQ (Ramalu et al., 2011).

Understanding the nature and impact of CQ can have important applications to individuals, teams, and organizations functioning in a multicultural environment (Lee & Sukoco, 2010). Lee and Sukoco (2010) studied the effects of both CQ and *international experience* on cultural adjustment, cultural effectiveness, and performance of expatriates of Taiwanese MNC firms operating in three different countries. They specifically looked at the moderating effect that international experience had on the relationship between CQ and the performance and adjustment criterions. Their findings indicated that the three dimensions of CQ (cognitive, behavioral, and motivational) had a direct and significant impact on adjustment; therefore, expatriates capable of interacting in different cultures had a higher level of adjustment. Results indicated that higher levels of CQ implied a better level of adjustment than did the extent of international experience; international work and travel experience was only effective in moderating the relationship between CQ and cultural adjustment and effectiveness when the CQ level was high. Therefore, managers should consider hiring the candidates who portray higher

CQ paired with little international experience rather than those with low CQ and a breadth of international experience.

Hypothesis 3 and 4

The potential for defining a cross-cultural facet of intelligence has enormous implications in explaining and predicting the increasingly prevalent cross-cultural interactions that occur in business settings as well as aiding cross-cultural adjustment training (Thomas, 2006) and should be given more support in expatriate selection. CQ should also be given more support empirically as there are limited studies that have purported CQ as a predictor for cultural effectiveness (Lee & Sukoco, 2010; Ramalu et al., 2011). Thomas (2006) highlighted the potential advantages of CQ by conceptualizing its components and arguing that CQ not only builds on the cognitive basis of other multifaceted forms of intelligence, but that it also “parsimoniously deals with the motivational influence of different self-concepts,” something that sets this intelligence apart from others (p. 94). In addition, he states that CQ provides a clear metacognitive link between knowledge and effective behavior, and that it defines the behavioral component in a manner consistent with the existing literature of cross-cultural interactions. Therefore, I would like to add empirical support to the notion that CQ does in fact predict cross-cultural adjustment. Figure 3 demonstrates the relationships of CQ factors to Psychological Adjustment while Figure 4 demonstrates the relationships of CQ factors to Sociocultural Adjustment.

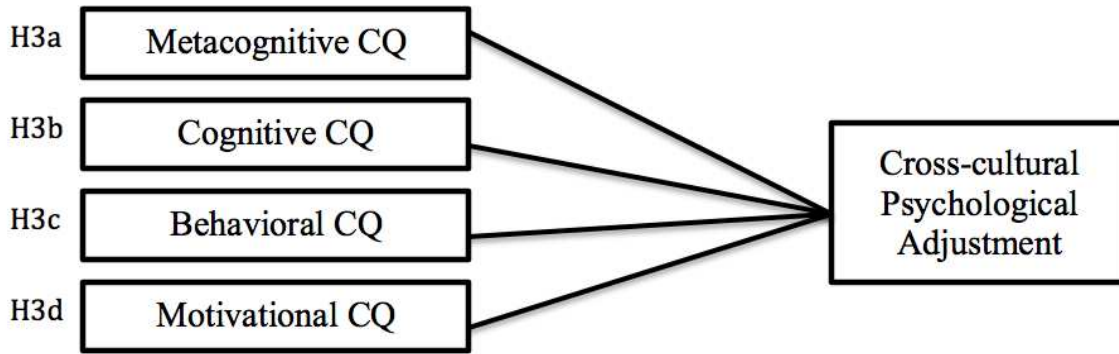


Figure 3: Factors of CQ will be positively related to Cross-cultural Psychological Adjustment.

Hypothesis 3a: Metacognitive CQ will be positively related to Psychological Adjustment.

Hypothesis 3b: Cognitive CQ will be positively related to Psychological Adjustment.

Hypothesis 3c: Behavioral CQ will be positively related to Psychological Adjustment.

Hypothesis 3d: Motivational CQ will be positively related to Psychological Adjustment.

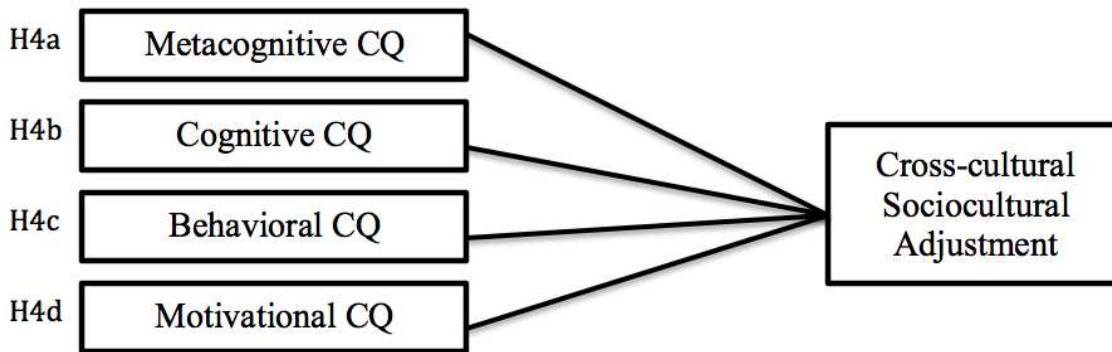


Figure 4. Factors of CQ will be significantly related to Cross-cultural Sociocultural Adjustment

Hypothesis 4a: Metacognitive CQ will be positively related to Sociocultural Adjustment.

Hypothesis 4b: Cognitive CQ will be positively related to Sociocultural Adjustment.

Hypothesis 4c: Behavioral CQ will be positively related to Sociocultural Adjustment.

Hypothesis 4d: Motivational CQ will be positively related to Sociocultural Adjustment.

Cultural Intelligence and Personality Factors

Though research on personality shows a breadth of evidence in predicting cross-cultural adjustment, there may be other underlying factors or characteristics that expatriates possess that may influence their adjustment as well (Swagler & Jome, 2005). In 2005, Swagler and Jome examined both personality factors *and* acculturation variables against cross-cultural adjustment among North American sojourners in Taiwan. The term “acculturation” as used by Swagler and Jome is the extent to which individuals identify with their culture of origin or the new culture in which they are immersed. The acculturation measure used, the VIA, measured the degree to which participants ranked on items pertaining to the *mainstream culture* (i.e., culture of foreign country) and *heritage culture* (i.e., North American culture). These two acculturation dimensions each tapped domains such as values, social relationships, and celebrations of traditions with questions such as “I am interested in having friends from my heritage culture,” or “I believe in mainstream Taiwanese values.” The NEO-FFI 60 item inventory was used to measure personality among sojourners, by distinguishing the degree to which participants ranked on five different personality dimensions (openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism). Based on their results, sojourners who demonstrated more acculturation to the Taiwanese culture were also more adjusted cross-culturally above and beyond demonstrated personality traits. Swagler and Jome used the acculturation measure as a reflection of one’s cultural identification. From this study, it appears that cultural interests and congruency in cultural beliefs could explain more for adjustment than personality factors, considering its cultural distinction, based on the evidence in this study that acculturation accounted for more of the variance in cross-cultural adjustment than that of personality.

Hypothesis 5

Personality inventories do not identify cultural components that may explain better cross-cultural adjustment as does the CQ measurement (based on the depth of the CQS and its cultural components). Though CQ has only recently received empirical support, none of the expatriate adjustment research specifically compares personality components to components of CQ to identify a better predictor. Therefore, I would like to examine the differential effects of the dimensions of personality and CQ on expatriate cross-cultural adjustment. Because the CQ construct includes specific *cultural* components that are not addressed in existing measures of personality, I believe that CQ will provide a better explanation for cross-cultural adjustment than personality. Specifically, I would like to determine whether CQ accounts for variance of cross-cultural adjustment over that accounted for by Big Five personality variables.

Hypothesis 5a: Cultural Intelligence will exhibit incremental validity in the prediction of Psychological Adjustment (GHQ) over Big Five personality dimensions.

Hypothesis 5b: Cultural Intelligence will exhibit incremental validity in the prediction of Sociocultural Adjustment (SCAS) over Big Five personality dimensions.

CHAPTER II

METHOD

Participants

Participants of the study included 111 expatriate professionals and study abroad students (of several nationalities) located in various countries around the world. There were 61 males and 50 females who completed the online survey. Of the sample, 90 were expatriate professionals while 19 were study abroad students. Several nationalities were observed in the sample: 19.8% were American, 19.8% were German and many other nationalities specific to Africa, Asia, and Australia were represented in addition to the American and European participants. Look to Appendix A for a frequency table of all nationalities represented in the study. In addition, participants were located in over 30 different countries across the world. Look to the Appendix for a frequency distribution of participant location. This sample was obtained through “snowball” sampling as well as convenience sampling. Methods of obtaining expatriate participation involved using social networking websites such as LinkedIn and Facebook as well as online expatriate blogs (e.g., Expat Blog). Study abroad students were gathered through connections with several different University study abroad programs in the U.S. and in Europe as well as using social networking sites, Facebook and LinkedIn. A written blurb containing a short description of the study along with an attachment to the online survey was posted to these websites and blogs.

Materials

The Cultural Intelligence Scale (CQS; Earley & Ang, 2003), the Big 5 Personality Inventory (50-item IPIP; Goldberg, 1999), and the Sociocultural Adaptation Survey-Revised (SCAS-R; Wilson & Ward, 2010) were administered to the expatriate and student sample. The GHQ-12 (Goldberg, 1972) was also administered to assess psychological adjustment of expatriates.

Cultural Intelligence Scale. Cultural intelligence of participants was measured using the Cultural Intelligence Scale (CQS) developed by Earley and Ang (2003), comprised of 20 items with four subscales measuring Metacognitive CQ (four items), Cognitive CQ (six items), Motivational CQ (five items), and Behavioral CQ (five items). This instrument required respondents to rate each item on a 7-point rating scale (endpoints: *strongly disagree/strongly agree*). A study by Rockstuhl and Ng (2008) found internal consistency reliabilities for each subscale of the CQS: metacognitive CQ = .77, cognitive CQ = .87, motivational CQ = .85 and behavioral CQ = .81. For this study, internal consistency reliabilities were as follows: metacognitive CQ = .90, cognitive CQ = .89, motivational CQ = .80, and behavioral CQ = .90. CQ is also an aggregate multidimensional construct (Earley & Ang, 2003). The four dimensions of CQ are qualitatively different facets of the overall capability to function and manage effectively in culturally diverse settings. The dimensions of CQ may or may not correlate with each other. Thus, overall CQ represents an aggregate multidimensional construct, which according to Earley and Ang (2003) includes: (i) dimensions at the same level of

conceptualization as the overall construct; and (ii) dimensions make up the overall construct. Higher sum scores of the CQS will reflect more cultural intelligence. In sum, metacognitive CQ, cognitive CQ, motivational CQ and behavioral CQ are different capabilities that together form overall CQ.

Personality Inventory. Personality was measured using the 50-item IPIP (Goldberg, 1999), a modified version of the Big Five Personality Inventory, with items measuring each of the five-factor model traits: extroversion, agreeableness, openness to experience, conscientiousness, and emotional stability. Each item is a phrase describing a behavior (e.g., ‘Am the life of the party’), and participants were instructed to indicate how accurately this phrase describes them, using a 7-point response scale (end points: *strongly disagree/strongly agree*). Scores for individual items from each scale were summed to produce a total score for each of the five scales. The IPIP scale shows a pattern of convergent, discriminant, and criterion-related validity comparable to other Big Five questionnaires (Donnellan, Oswald, Baird & Lucas, 2006). For this study, internal consistency reliabilities were as follows: openness to experience = .78, conscientiousness = .82, extroversion = .80, agreeableness = .80, emotional stability = .86.

Sociocultural Adaptation Scale. Sociocultural adjustment was measured using a 21-item scale developed by Wilson and Ward (2010). This scale, the SCAS-R (Sociocultural Adaptation Survey-Revised) is a revised version of the 16-item scale originally developed by Searle and Ward (1990). Items of this measurement indicate the degree of competency with which participants rate themselves on sociocultural adaptation. Sample items include “interacting at social events” and “finding my way around.” Responses are based on a 1 to 7-point response scale (end points: *not at all competent/extremely competent*). In 1990, Searle and Ward reported

an internal reliability (Cronbach's alpha) of 0.81 for the 16-item SCAS. Other studies that utilized shorter versions of this instrument found Cronbach's alphas ranging between 0.75 and 0.91 with a mean of 0.85 (Ward & Kennedy, 1999). A more recent study that utilized a revised 29-item version found an internal consistency of 0.88 (Swagler & Jome, 2005). For this study, using the 21-item revised SCAS, the internal consistency reliability was .90.

Psychological Adjustment Scale. Psychological adjustment was measured using the General Health Questionnaire-12 (GHQ-12). This measurement contains 12 items that measure change in mental health and in levels of psychological functioning (e.g., "Have you recently been feeling unhappy and depressed?" (Goldberg, 1972). Responses are given on a 7-point scale (end points: *never/always*). According to Gouveia, Barbosa, Andrade and Carneiro (2010), the GHQ has a Cronbach's alpha of .89. For this study, the Cronbach's alpha of all 12 items was .84.

Demographic and Control Variables. Several additional variables were considered in addition to personality, CQ and cross-cultural adjustment: gender, age, nationality, prior international experience, family cohabitation, length of stay and pre-departure training. These variables were included in the online survey to explain the variability of these characteristics among participants. I intended to use the gender and pre-departure training as variables in the analyses because previous research suggests that these two variables have significant impacts on expatriate cross-cultural adjustment. Studies by Selmer and Leung (2003) and Haslberger (2007) provide evidence that women tend to be better adjusted than men overall. Other research encourages the utilization of programs that will ensure that expatriates have realistic expectations prior to their global assignments (e.g., through tailored pre-departure cross-cultural training)

(Caligiuri, Phillips, Lazarova, Tarique & Burgi, 2001). Thus, gender and training were included in the analyses of this study.

Procedure

After receiving IRB approval (see Appendix C), scales of the all variables examined as well as a demographic questionnaire were transcribed onto an online survey from via Google Documents and distributed to expatriate participants' e-mail or blog sites as a link to complete anonymously. The online survey also included a consent form, which described privacy and confidentiality of the participants' responses as well as a background to the purpose of the study.

The order with which individual measures were organized onto a Google Document form were as follows: the 50-item IPIP scale, the CQS, the Wilson and Ward (2010) SCAS-R scale measuring sociocultural adaptation, the GHQ-12 measuring psychological adjustment, and lastly, the demographic questionnaire (e.g., gender, nationality, prior international experience, family presence and pre cross-cultural training).

CHAPTER III

RESULTS

Preliminary Analyses

I conducted *t* tests comparing mean scores on Psychological Adjustment and Sociocultural Adjustment by gender and training (i.e., has received pre-departure training, has not received pre-departure training). Gender differences were found for Psychological Adjustment, $t(109) = 3.18, p < .05$, but not for Sociocultural Adjustment, $t(108) = 1.28, ns$. Men ($M = 68.36, SD = 7.45$) demonstrated more Psychological Adjustment while Women ($M = 62.84, SD = 11.871$) demonstrated lower Psychological Adjustment. Differences in training were significant for both Psychological $t(84) = -2.30, p < .05$ and Sociocultural Adjustment $t(83) = -3.36, p < .01$. Those who did not receive training ($M = 64.88, SD = 10.70$) demonstrated less Psychological Adjustment than did those who *did* receive training ($M = 69, SD = 6.63$). In addition, those who did not receive training ($M = 109.86, SD = 13.71$) demonstrated less Sociocultural Adjustment than those who *did* receive training ($M = 119.62, SD = 16.48$). To account for these significant differences, gender and training were included in the regression analyses as covariates. Table 1 below shows the intercorrelations and coefficient alphas among all study variables while Table 2 shows the means, standard deviations, and ranges for all independent and dependent variables used in the analyses.

Table 1
Intercorrelations and Coefficient Alphas for
Independent, Dependent, and Demographic Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Gender	–													
2. Training	-.193	–												
3. Openness	-.136	.315**	(.78)											
4. Conscientiousness	-.260**	.141	.125	(.82)										
5. Extroversion	.004	.299**	.380**	.073	(.80)									
6. Agreeableness	.083	.043	.300**	.262**	.294**	(.80)								
7. Emotional Stability	-.238*	.134	.081	.249**	.200*	.028	(.86)							
8. Motivational CQ	-.119	.155	.296**	.086	.346**	.282**	.283*	(.80)						
9. Behavioral CQ	-.044	.156	.184	.163	.111	.314**	.131	.369**	(.90)					
10. Metacognitive CQ	-.011	.214*	.359**	.229*	.246**	.475**	.164	.454**	.572**	(.90)				
11. Cognitive CQ	-.020	.303	.329**	.151	.204*	.178	-.056	.450**	.310**	.509**	(.89)			
12. Psychological Adjustment	-.291**	.208	.272**	.364**	.292**	.116	.725**	.254**	.163	.217*	.047	(.84)		
13. Sociocultural Adjustment	-.122	.346**	.337**	.306**	.229*	.336**	.370**	.471**	.513**	.570**	.484**	.482**	(.90)	
14. Total CQ	-.057	.284**	.376**	.208*	.281**	.382**	.133	.695**	.741**	.792**	.801**	.198*	.661**	(.92)

Notes. *p < .01, **p < .001

Table 2
Descriptive Statistics for All Main Study Variables

Variable	<i>M</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>
Independent				
Openness	53.69	7.58	28	70
Conscientiousness	50.05	9.68	22	69
Extroversion	46.59	9.22	25	66
Agreeableness	55.25	8.21	26	70
Emotional Stability	47.60	10.72	24	68
Motivational CQ	29.8	4.07	20	35
Behavioral CQ	25.95	6.15	8	35
Metacognitive CQ	22.50	3.96	10	28
Cognitive CQ	28.76	7.37	11	42
Dependent				
Psychological Adjustment	65.41	9.30	21	82
Sociocultural Adjustment	112.35	15.77	73	142

Major Analyses

Results of Hypothesis 1. To analyze Hypotheses 1, I conducted a hierarchical regression analysis with Psychological Adjustment as the dependent variable. I included demographic variables in Step 1. Step 2 included gender and training in addition to Personality components (i.e., Openness to experience, Conscientiousness, Extroversion, Agreeableness, and Emotional Stability). Look to Table 3 for a summary of this analysis.

Step 1 of the regression was significant ($R^2_{adj} = .072, p < .05$) but only gender was significant in explaining the variance in Psychological Adjustment, ($\beta = -.229, t(111) = -2.150, p < .05$). Pre-departure training was not significant in explaining variance in Psychological Adjustment, ($\beta = .164, t(111) = 1.542, ns$). Adding personality variables in Step 2 added significance to the model, ($R^2_{adj} = .593, \Delta R^2 = .533, p < .001$), providing support to Hypothesis 1, stating that Personality is significantly related to Psychological Adjustment. With

the exception of Extroversion and Agreeableness, Personality explained a significant proportion of variance in Psychological Adjustment.

As predicted, Openness to experience was significantly related to Psychological Adjustment ($\beta = .203, t(111) = 2.524, p < .05$), providing support for Hypothesis 1a. Conscientiousness was significantly related to Psychological Adjustment ($\beta = .203, t(111) = 2.780, p < .05$), therefore, Hypothesis 1b was supported. Emotional stability was significantly related to Psychological Adjustment ($\beta = .603, t(111) = 8.027, p < .01$). Thus, Hypothesis 1e was supported. Unexpectedly, Extroversion was not significantly related to Psychological Adjustment ($\beta = .095, t(111) = 1.144, ns$) in addition to Agreeableness ($\beta = -.026, t(111) = -.325, ns$). Hypothesis 1c and 1d were not supported.

Table 3

Hierarchical Regression Analysis Summary for Demographic and Personality Variables for Predicting Psychological Adjustment

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>Sr2</i>
Step 1					
Gender	-.160	.180	-.229	-2.150*	-.230
Training	.283	.184	.164	1.542	.167
Step 2					
Gender	-.160	.125	-.095	-1.279	-.143
Training	-.019	.132	-.011	-.142	-.016
Openness	.221	.088	.203	2.524*	.275
Conscientiousness	.187	.067	.203	2.780*	.300
Extroversion	.084	.073	.095	1.144	.129
Agreeableness	-.027	.084	-.026	-.325	-.037
Emotional Stability	.480	.060	.603	8.027**	.673

Note. N = 111 * $p < .05$. ** $p < .001$.

Step 1. $R2adj. = .072, \Delta R2 = .094^*$

Step 2. $R2adj. = .593, \Delta R2 = .533^{**}$

Results of Hypothesis 2. To analyze Hypothesis 2, I conducted another hierarchical regression analysis using Sociocultural Adjustment as the dependent variable. Step 1 included the demographic variables, gender and training, while Step 2 included a block of the personality

components (i.e., Openness to experience, Conscientiousness, Extroversion, Agreeableness, and Emotional Stability) in addition to the demographic variables. Look to Table 4 for the summary of this regression.

Step 1 was significant ($R^2_{adj} = .101, p < .05$). After adding Personality components in addition to gender and training, Step 2 was also significant ($R^2_{adj} = .258, \Delta R^2 = .197, p < .001$), providing support for Hypothesis 2. Thus, Personality was significant in explaining variance in Sociocultural Adjustment among expatriates. Though Step 2 was significant, only Openness to experience ($\beta = .199, t(111) = 2.002, p < .05$) and Emotional Stability ($\beta = .158, t(111) = 2.325, p = .023$) were significantly related to Sociocultural Adjustment after controlling for other personality factors.

Table 4

Hierarchical Regression Analysis Summary for Demographic and Personality Variables for Predicting Sociocultural Adjustment

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>Sr2</i>
Step 1					
Gender	.068	.149	.048	.457	.050
Training	.514	.152	.356	.356**	.349
Step 2					
Gender	.122	.142	.086	.856	.097
Training	.325	.150	.225	2.169*	.240
Openness	.199	.099	.219	2.002*	.222
Conscientiousness	.099	.077	.128	1.283	.145
Extroversion	.033	.083	.044	.393	.045
Agreeableness	.123	.095	.140	1.293	.146
Emotional Stability	.158	.068	.237	2.325*	.256

Note. $N = 111, * p < .05. ** p < .001.$

Step 1. $R^2_{adj} = .101, \Delta R^2 = .122^*$

Step 2. $R^2_{adj} = .258, \Delta R^2 = .197^{**}$

Results of Hypothesis 3 I performed yet another hierarchical regression analysis to examine Cultural Intelligence (CQ) factors against Psychological Adjustment as the dependent

variable. Step 1 involved gender and training against Psychological Adjustment while Step 2 included Metacognitive CQ, Cognitive CQ, Behavioral CQ, and Motivational CQ in addition to the demographic variables. A summary of this regression is presented in Table 5. Step 1 was significant ($R^2_{adj} = .072, p < .05$). However, only gender differences were significant in explaining Psychological Adjustment ($\beta = -.229, t(111) = -2.150, p < .05$). Though Step 1 was significant, Step 2 was not significant in explaining the variance in Psychological Adjustment ($R^2_{adj} = .092, \Delta R^2 = .063, ns$). Adding CQ to the model did not explain a significant proportion of variance in Psychological Adjustment, thus, Hypothesis 3 was not supported. With closer examination in Step 2, none of the factors of CQ were significantly related to Psychological Adjustment. However, gender did remain significantly related to Psychological Adjustment ($\beta = -.225, t(111) = -2.105$).

Table 5

Hierarchical Regression Analysis Summary for Demographic and Cultural Intelligence Variables for Predicting Psychological Adjustment

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>Sr2</i>
Step 1					
Gender	-.386	.180	-.229	-2.150*	-.230
Training	.283	.184	.164	1.542	.167
Step 2					
Gender	-.380		-.225	-2.105*	-.230
Training	.274		.159	1.417	.157
Motivational CQ	.162	.135	.151	1.205	.134
Behavioral CQ	-.010	.095	-.013	-.101	-.011
Metacognitive CQ	.175	.129	.187	1.355	.151
Cognitive CQ	-.135	.092	-.182	-1.468	-.163

Note. $N = 111, * p < .05, ** p < .001$.

Step 1. $R^2_{adj} = .072, \Delta R^2 = .094^*$

Step 2. $R^2_{adj} = .092, \Delta R^2 = .063$

Results of Hypothesis 4. To analyze Hypothesis 4, I conducted a hierarchical regression to examine the relationship of CQ components against Sociocultural Adjustment. Step 1 included the demographic variables gender and training while Step 2 included factors of CQ in addition to gender and training. Results of this regression are in Table 6. Step 1 was significant, (R^2 adj. = .101, $p < .05$). Step 2 was also significant (R^2 adj. = .503, $\Delta R^2 = .416$, $p < .001$), providing support for Hypothesis 4. Thus, factors of CQ were significant in explaining the variance in Sociocultural Adjustment. See Table 6 for a summary of this regression.

As expected, factors of CQ were significant in explaining the variance in Sociocultural Adjustment after controlling for gender and training. However, Motivational CQ was not significant in explaining Sociocultural Adjustment after controlling for the other variables, ($\beta = .132$, $t(111) = 1.411$, *ns*).

Table 6

Hierarchical Regression Analysis Summary for Demographic and Cultural Intelligence Variables for Predicting Sociocultural Adjustment

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>Sr2</i>
Step 1					
Gender	.068	.149	.048	.457	.050
Training	.514	.152	.356	3.371*	.349
Step 2					
Gender	-.054	.113	-.038	-.480	-.054
Training	.228	.121	.158	1.885	.209
Motivational CQ	.121	.086	.132	1.411	.158
Behavioral CQ	.163	.059	.255	2.761*	.298
Metacognitive CQ	.215	.080	.274	2.682*	.291
Cognitive CQ	.134	.058	.218	2.323*	.254

Note. N = 111, * $p < .05$. ** $p < .001$.
 Step 1. R^2 adj. = .101, $\Delta R^2 = .122$ *
 Step 2. R^2 adj. = .503, $\Delta R^2 = .416$ **

Results of Hypothesis 5. To determine whether or not adding components of CQ provided incremental validity over and above Personality factors in explaining variance of Psychological Adjustment, I performed a hierarchical multiple regression analysis with Psychological Adjustment as the dependent variable. Step 1 included a block of the demographic variables, gender and training. Step 2 included a block of the Personality components and Step 3 included a block of the factors of CQ. Results of this regression are in Table 7.

Step 1 was significant, (R^2 adj. = .072, $p < .05$), demonstrating that demographic variables were significantly correlated to Psychological Adjustment. Again, adding components of Personality to the regression equation was significant in Step 2, (R^2 adj. = .627, $\Delta R^2 = .533$, $p < .001$), consistent with Hypothesis 3. Specifically, Openness to experience, ($\beta = .203$, $p < .05$), Conscientiousness ($\beta = .203$, $p < .05$), and Emotional Stability ($\beta = .603$, $p < .001$) were positively related to Psychological Adjustment.

However, adding CQ factors in Step 3 did not add significance to the equation (R^2 adj. = .630, $\Delta R^2 = .003$, ns). Thus, Hypothesis 5a is not supported; CQ did not provide incremental validity over and beyond that of Personality in explaining the variance in Psychological Adjustment. In addition, Openness to experience, Conscientiousness, and Emotional Stability remained significant in Step 3.

Table 7

Hierarchical Regression Summary for Personality Dimensions and Cultural Intelligence
Variables for Predicting Psychological Adjustment

Variable	<i>B</i>	<i>SEB</i>	β	<i>Sig.</i>	<i>Sr2</i>
Step 1					
Gender	-.386	.180	-.229	.034*	-.230
Training	.283	.184	.164	.127	.167
Step 2					
Gender	-.160	.125	-.095	.205	-.143
Training	-.019	.132	-.011	.887	-.016
Openness	.221	.088	.203	.014*	.275
Conscientiousness	.187	.067	.203	.007*	.300
Extroversion	.084	.073	.095	.256	.129
Agreeableness	-.027	.084	-.026	.746	-.037
Emotional Stability	.480	.060	.603	.000**	.673
Step 3					
Gender	-.162	.130	-.096	.217	-.143
Training	-.019	.139	-.011	.893	-.016
Openness	.235	.093	.216	.014*	.281
Conscientiousness	.189	.070	.204	.009*	.134
Extroversion	.089	.076	.101	.248	-.016
Agreeableness	-.013	.096	-.013	.890	.650
Emotional Stability	.488	.066	.612	.000*	-.073
Motivational CQ	-.062	.098	-.058	.528	-.073
Behavioral CQ	.030	.066	.040	.646	.054
Metacognitive CQ	-.020	.098	-.021	.840	-.024
Cognitive CQ	-.001	.070	-.001	.991	-.001

Note. N = 111, * $p < .05$. ** $p < .001$.

Step 1. $R^2_{adj.} = .072$, $\Delta R^2 = .094^*$

Step 2. $R^2_{adj.} = .593$, $\Delta R^2 = .533^{**}$

Step 3. $R^2_{adj.} = .575$, $\Delta R^2 = .003$

To determine whether or not adding components of CQ provided incremental validity over and above Personality factors in explaining variance of Sociocultural Adjustment, I conducted a hierarchical multiple regression with Sociocultural Adjustment as the dependent variable. Step 1 included a block of the demographic components. Step 2 included a block of the Personality components while Step 3 included a block of CQ factors. Table 8 shows a summary of these regression results.

Step 1 was significant ($R^2_{adj.} = .101$, $p < .05$). Step 2 was also significant ($R^2_{adj.} = .258$, $\Delta R^2 = .197$, $p < .001$) demonstrating that Personality components were significantly related to

Sociocultural Adjustment after controlling for demographic variables, consistent with Hypothesis 2, as previously stated. However, only Openness ($\beta = .219, p < .05$) and Emotional Stability ($\beta = .237, p < .05$) were significantly correlated to Sociocultural Adjustment after controlling for gender and training.

After adding CQ factors in Step 3, the change in R^2 was significant ($R^2 \text{ adj.} = .564, \Delta R^2 = .301, p < .001$). As expected, CQ exhibited incremental validity in the relationship to Sociocultural Adjustment over and beyond Big Five personality dimensions. Thus, Hypothesis 5b is supported. In addition, Emotional Stability remained significant in Step 2 ($\beta = .237, p < .05$) and in Step 3 ($\beta = .280, p < .05$). However, only Behavioral CQ ($\beta = .283, p < .05$) and Cognitive CQ ($\beta = .316, p < .05$) were significantly related to Sociocultural Adjustment in Step 3 after controlling for other CQ factors.

Table 8

Hierarchical Regression Summary for Personality Dimensions and Cultural Intelligence
Variables for Predicting Sociocultural Adjustment

Variable	<i>B</i>	<i>SEB</i>	β	<i>Sig.</i>	<i>Sr2</i>
Step 1					
Gender	.068	.149	.048	.649	.050
Training	.514	.152	.356	.001*	.349
Step 2					
Gender	.122	.142	.086	.395	.097
Training	.325	.152	.225	.033*	.240
Openness	.199	.099	.219	.049*	.222
Conscientiousness	.099	.077	.128	.203	.145
Extroversion	.033	.083	.044	.696	.045
Agreeableness	.123	.095	.140	.200	.146
Emotional Stability	.158	.068	.237	.023*	.256
Step 3					
Gender	.011	.111	.008	.920	.012
Training	.144	.119	.100	.230	.140
Openness	.078	.079	.086	.330	.114
Conscientiousness	.063	.060	.082	.296	.122
Extroversion	-.030	.065	-.041	.643	-.054
Agreeableness	.036	.082	.041	.666	.051
Emotional Stability	.186	.057	.280	.002*	.358
Motivational CQ	.039	.086	.042	.654	.053
Behavioral CQ	.181	.056	.283	.002*	.355
Metacognitive CQ	.136	.084	.173	.109	.187
Cognitive CQ	.194	.061	.316	.002*	.352

Note. N = 111, * p < .05. ** p < .001.

Step 1. R2adj. = .101, $\Delta R2 = .122^*$

Step 2. R2adj. = .258, $\Delta R2 = .197^{**}$

Step 3. R2adj. = .564, $\Delta R2 = .301^{**}$

CHAPTER VI

DISCUSSION

This study explored individual characteristics that facilitated or hindered the cross-cultural adjustment process and, more specifically, investigated the role that personality and cultural intelligence played in both psychological and sociocultural adjustment.

In Hypothesis 1, personality was significant in explaining the Psychological Adjustment among expatriate; expatriates with greater Openness to experience, Conscientiousness, and Emotional Stability were better able to adjust to their assignments. However, Extroversion and Agreeableness did not significantly relate to Psychological Adjustment. Looking more closely at Hypothesis 2, personality had a significant impact on Sociocultural Adjustment. However, only Openness to experience and Emotional Stability demonstrated a significant relationship to Sociocultural Adjustment. Similarly to Hypothesis 1, Extroversion was not significantly related Sociocultural Adjustment in this particular context.

Past research suggests that individuals who are extroverted, or exhibiting a gregarious nature, may not acclimate to cultures that value more conservative and introverted demeanors (Ward & Chang, 1997) which was a unique finding in this study as well.

Consistent with previous research, individuals exhibiting emotional stability and social tendencies were more likely to experience positive psychological adjustment (Caligiuri, 2000; Harrison et al., 1996; Swagler & Jome, 2005; Ward et al., 2004). Specifically, Ward et al. (2004) demonstrated that Openness to experience was significantly related to psychological adjustment

among Singaporeans in Australia. In addition, expatriates high in conscientiousness spent more time on job-related tasks and were more psychologically well adapted than those scoring lower in conscientiousness (Ward et al., 2004). Ones and Viswesveran (1996) also found that conscientious individuals were better able to obtain job-specific knowledge and were less likely to engage in counterproductive work behaviors (CWBs).

Previous research suggests that aptitude, adaptability and general knowledge of local cultural customs and language may explain smoother transitions in expatriate adjustment in comparison to an individual's personality tendencies (Earley & Ang, 2003; Imai & Gelfand, 2010; Lee & Sukoco, 2010). I wanted to address the problem of why socially competent people fail to adjust to and understand new cultures. The CQS scale developed by Earley and Ang (2003) measuring cultural intelligence goes beyond assessing cognitive abilities and personality by incorporating behavioral, motivational, and cultural entities. In this study, I anticipated significant relationships among CQ components and both dimensions of cross-cultural adjustment.

In examining CQ components against Psychological Adjustment, none of the CQ factors were significantly related to this dimension of cross-cultural adjustment. This was inconsistent with Hypothesis 3, stating that factors of CQ would correlate significantly with Psychological Adjustment.

By contrast, all factors of CQ were significant in explaining variance in Sociocultural Adjustment with the exception of Motivational CQ. This is an interesting finding considering Motivational CQ comprises the desire and willingness to interact with people of a different culture, implying that individuals scoring high in this dimension would demonstrate greater Sociocultural Adjustment.

Unexpectedly, I did not find a significant change to the regression equation after adding factors of CQ to the Personality and Psychological Adjustment relationship. This indicated that CQ did *not* account for a significant proportion of variance in Psychological Adjustment over and beyond that of Personality and demographic variables. In other words, CQ did not exhibit incremental validity in the prediction of Psychological Adjustment over the Big Five personality dimensions. In fact, leaving out the factors of CQ would have been better in this instance. It is apparent that CQ should not be used to predict Psychological Adjustment, based on the results of this study.

However, by adding CQ components in addition to Personality and demographic factors to the Sociocultural Adjustment equation, the significance of the relationship increased. CQ better explained the proportion of variance in Sociocultural Adjustment over and beyond that of Personality and demographic variables. In other words, adding CQ to the regression equation better explained Sociocultural Adjustment among expatriates than did personality by strengthening the relationship.

Conclusion

While CQ and Personality were both significantly related to Sociocultural Adjustment, it was CQ that was not related to Psychological Adjustment. I was expecting to find significance among CQ factors to both cross-cultural adjustment dimensions after controlling for personality and demographic variables in Hypothesis 5. However, CQ was only significant in explaining variance in Sociocultural Adjustment after controlling for personality variables and demographic variables. Though Personality was significantly related to Sociocultural Adjustment in

Hypothesis 2, adding CQ factors in Hypothesis 5 demonstrated that CQ was the better predictor for Sociocultural Adjustment.

Implications

Hofstede (1984) argued that international managers and management theorists “need a much deeper understanding of the range of culture-determined value systems that, in fact, exists among countries, and that these should be taken into account when transferring management ideas from one country to another” and this study is no exception to that statement (p. 81). While both CQ and Personality were significantly related to Sociocultural Adjustment, CQ explained more variance in Sociocultural Adjustment than did Personality. However, CQ did not explain the variance in Psychological Adjustment whatsoever. Therefore, expatriate selection procedures should incorporate the CQS scale in their practices when addressing Sociocultural Adjustment. In addition, they should not completely annihilate personality from being considered for successful expatriate adjustment; this study showed that Personality was significant in explaining Psychological Adjustment. However, Personality would not be useful in explaining or predicting Sociocultural Adjustment.

In addition, because pre-departure training showed a positive relationship to both dimensions of cross-cultural adjustment in preliminary analyses, the ultimate findings demonstrating the effectiveness of CQ should be incorporated in expatriate pre-departure training practices. Though CQ did not demonstrate effectiveness over components of personality when examining psychological adjustment, CQ should be considered when examining sociocultural adjustment, especially if sociocultural adjustment implies expatriate assignment completion or successful job performance abroad.

Another implication in this study was the distinction between Psychological and Sociocultural adjustment. I did not anticipate different outcomes I received between these two dimensions, though I do encourage to distinguish these two dimensions in future research. Separating these two entities were useful in this study.

Gender was also significant in explaining Psychological Adjustment, however, it was not significant and explaining Sociocultural Adjustment. It is interesting to note that whether you are male or female may be contingent on your psychological well-being while adjusting abroad. In this study, males were better psychologically adjustment than females. However, future research should explore this variable in more detail.

Limitations

There were a few limitations to the study that are important to mention. One limitation involved the manner with which data was collected. By integrating all assessments into one online-survey, I put my study at risk for common method variance. This may have had an influence on the results of the study. In addition, surveys required participants to rank themselves on all items. By using self-report data, I may not have received true results of the participants I surveyed; some responses may have been inflated.

Because several participants I surveyed were not fluent in English, I ran the risk of creating confusion in having a survey written completely in English. To make certain that survey items were understood by all participants, I altered the wording of a few test items to make them comprehensible. However, changing the wording may have also distorted the meaning of the items.

Another limitation involved the size of my sample. With time constraints, I was unable to obtain the number of expatriate participants that I had hoped for the study and this may have also affected the study outcomes. In addition, not all participants were expatriates. Because I was aiming for a large sample, I began recruiting international and study abroad students; this may have skewed survey responses as well.

Lastly, my two dependent variables, Psychological and Sociocultural Adjustment, were explained in this study as implying expatriate success. However, other dependent variables may better explain success than cross-cultural adjustment (e.g., job performance).

Suggestions for Future Research

This study added to the empirical support of the CQ measure. However, future research should continue to utilize this relatively new measure to add to the support of cultural intelligence considering this is a relatively new concept in expatriate adjustment research. Future research should also take a closer look at control variables to see if they have significant effects on cross-cultural adjustment (e.g., marital status, length of stay in host country, cultural differences, age). Research by Selmer, Luring and Feng (2009) suggests that age of expatriates may have a positive association with managerial performance abroad. Future research should investigate this variable to determine if age does in fact impact job performance abroad.

Also, the SCAS-R scale, which I used to measure Sociocultural Adjustment, has five subscales that I did not distinguish in this study. Because I found significance of Personality and CQ in explaining Sociocultural Adjustment, perhaps future research could use this same measure but make a distinction among the five subscales (e.g., interpersonal communication, academic/work performance, personal interests and community involvement, ecological

adaptation, and language proficiency) to find specific components that may have a stronger impact on adjustment. In addition, Sociocultural Adjustment could be used to determine job performance as a dependent variable rather than adjustment; because Sociocultural Adjustment implies the practical and explicit displays of cross-cultural adjustment, studying how Sociocultural Adjustment relates to job performance may be beneficial and more evident of expatriate success.

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APPENDIX A

NATIONALITY AND LOCATION DATA OF PARTICIPANTS

PARTICIPANT COUNTRY OF ORIGIN

	Frequency	Percent
Austria	1	0.90
Belgium	1	0.90
Brazil	1	0.90
Canada	3	2.70
China	1	0.90
Colombia	1	0.90
Denmark	1	0.90
Egypt	1	0.90
England	4	3.60
Europe	1	0.90
France	5	4.50
Germany	22	19.82
India	1	0.90
Iran	1	0.90
Ireland	2	1.80
Italy	6	5.41
Lisbon	1	0.90
Lithuania	1	0.90
Macedonia	1	0.90
Mexico	3	2.70
Moldova	1	0.90
Nepal	1	0.90
New Zealand	1	0.90
Northern Ireland	1	0.90
Philippines	1	0.90
Poland	2	1.80
Portugal	1	0.90
Romania	2	1.80
Russia	1	0.90
Saudi Arabia	1	0.90
Slovakia	1	0.90
South Africa	1	0.90
South Korea	1	0.90
Spain	1	0.90
Sweden	1	0.90
Tanzania	1	0.90
Turkey	1	0.90
UK	9	8.11
Ukraine	1	0.90
USA	22	19.82
USSR	1	0.90
Venezuela	1	0.90
Total	111	100.00

PARTICIPANT LOCATION

	Frequency	Percent
Afghanistan	1	0.90
Argentina	9	8.11
Australia	1	0.90
Austria	1	0.90
Brazil	1	0.90
Cambodia	1	0.90
Canada	2	1.80
China	1	0.90
Costa Rica	1	0.90
England	1	0.90
Ethiopia	1	0.90
France	2	1.80
Germany	3	2.70
Holland	1	0.90
Hong Kong	1	0.90
Italy	1	0.90
Kenya	2	1.80
Kuwait	1	0.90
Mexico	2	1.80
Netherlands	27	24.32
Oceania	1	0.90
Puerto Rico	1	0.90
Qatar	1	0.90
Russia	1	0.90
Saudi Arabia	1	0.90
Sierra Leone	1	0.90
Spain	1	0.90
St. Lucia	1	0.90
Thailand	1	0.90
UK	4	3.60
USA	34	30.63
Vietnam	1	0.90
Total	111	100.00

APPENDIX B
SURVEY MEASURES GIVEN TO PARTICIPANTS

□ **IPIP-50 Questionnaire (Personality Inventory)**

Responses given based on a 7-pt rating scale 1=*Strongly Disagree*, 7=*Strongly Agree*

1. I am the life of the party.
2. I feel little concern for others.
3. I am always prepared.
4. I get stressed out easily.
5. I have a rich vocabulary.
6. I don't talk about.
7. I am interested in people.
8. I leave my belongings around.
9. I am relaxed most of the time.
10. I have difficulty understanding abstract ideas.
11. I feel comfortable around people.
12. I insult people.
13. I pay attention to details.
14. I worry about things.
15. I have a vivid imagination.
16. I keep in the background.
17. I sympathize with others' feelings.
18. I make a mess of things.
19. I seldom feel depressed.
20. I am not interested in abstract ideas.
21. I start conversations.
22. I am not interested in other peoples' problems.
23. I get chores done right away.
24. I am easily disturbed.
25. I have excellent ideas.
26. I have little to say.
27. I have a soft heart.
28. I often forget to put things back in their proper place.
29. I get upset easily.
30. I do not have a good imagination.
31. I talk to a lot of different people at parties.
32. I am not really interested in others.
33. I like order.
34. I change my mood a lot.
35. I am quick to understand things.
36. I don't like to draw attention to myself.
37. I take time out for others.
38. I shirk my duties.
39. I have frequent mood swings.
40. I use difficult words.
41. I don't mind being the center of attention.

42. I feel others' emotions.
43. I follow a schedule.
44. I get irritated easily.
45. I spend time reflecting on things.
46. I am quiet around strangers.
47. I make people feel at ease.
48. I am exacting in my work.
49. I often feel depressed.
50. I am full of ideas.

General Health Questionnaire (GHQ)-12

Responses are given on a 7-point scale, *1=Never, 7=Always*

1. Able to concentrate
2. Capable of making decisions
3. Face up to problems
4. Lose sleep over worry (reverse coded)
5. Constantly under strain (reverse coded)
6. Cannot overcome difficulties (reverse coded)
7. Unhappy or depressed (reverse coded)
8. Loss of confidence in self (reverse coded)
9. Thinking of self as worthless (reverse coded)
10. Play useful part in things
11. Enjoy day-to-day activities
12. Reasonably happy

Cultural Intelligence Scale (CQS)

Responses are on a 7-point rating scale, 1=*Strongly Disagree*, 7=*Strongly Agree*

Meta-cognitive CQ

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 CQ

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 CQ

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

Behavioral CQ

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.

Sociocultural Adaptation Scale-Revised (SCAS)

Responses on a 7 pt. scale, 1 = *Not at all competent*, 7 = *Extremely competent*

1. Building and maintaining relationships.
2. Managing my academic/work responsibilities.
3. Interacting at social events.
4. Maintaining my hobbies and interests.
5. Adapting to the noise level in my neighborhood.
6. Accurately interpreting and responding to other people's gestures and facial expressions.
7. Working effectively with other students/work colleagues.
8. Obtaining community services I require.
9. Adapting to the population density.
10. Understanding and speaking [*host language*].
11. Varying the rate of my speaking in a culturally appropriate manner.
12. Gaining feedback from other students/work colleagues to help improve my performance.
13. Accurately interpreting and responding to other people's emotions.
14. Attending or participating in community activities.
15. Finding my way around.
16. Interacting with members of the opposite sex.
17. Expressing my ideas to other students/work colleagues in a culturally appropriate manner.
18. Dealing with the bureaucracy.
19. Adapting to the pace of life.
20. Reading and writing [*host language*].
21. Changing my behavior to suit social norms, rules, attitudes, beliefs, and customs.

APPENDIX C
IRB APPROVAL LETTER

MEMORANDUM

TO: Elizabeth Evans IRB #
11-169
Dr. Bart Weathington
Dr. Mike Biderman
Dr. Brian O'Leary

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Bart Weathington, IRB Committee Chair

DATE: November 22, 2011

SUBJECT: IRB # 11-169: Finding the Better Predictor of Expatriate Adjustment; A
Look at Personality and Cultural Intelligence

The Institutional Review Board has reviewed and approved your application and assigned you the IRB number listed above. You must include the following approval statement on research materials seen by participants and used in research reports:

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 11-169.

Please remember that you must complete a Certification for Changes, Annual Review, or Project Termination/Completion Form when the project is completed or provide an annual report if the project takes over one year to complete. The IRB Committee will make every effort to remind you prior to your anniversary date; however, it is your responsibility to ensure that this additional step is satisfied.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

For any additional information, please consult our web page <http://www.utc.edu/irb> or email instrb@utc.edu

Best wishes for a successful research project.

VITA

Elizabeth Hallaine Evans is from Columbus, Georgia. She attended the University of Georgia and received a Bachelor of Science degree in Psychology with a minor in Spanish in May 2009. While at the University of Georgia, she participated in several research projects with her professors, one of which she was recognized as a contributing author and became published later in 2012. While also at UGA, she traveled to Spain where she earned several credits in Business Spanish and Spanish grammar in addition to experiencing and interacting with the Spanish culture. Elizabeth began graduate studies in August 2010 at The University of Tennessee at Chattanooga. She has worked as a graduate assistant, selection committee coordinator, and student trainer in University Center, and taught a Psychology Research Methods Lab. She also worked at Shaw Industries where she applied her skills in job analysis, distance learning programs, and ergonomics training. Elizabeth graduates in May 2012 with a Master of Science in Psychology: Industrial – Organizational.