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# Expatriate Adjustment of U.S. Military on Foreign Assignment: The Role of Personality and Cultural Intelligence in Adjustment

Jennifer Pauline Stockert  
*Minnesota State University - Mankato*

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Running Head: FACTORS AFFECTING EXPATRIATE ADJUSTMENT

Expatriate Adjustment of U.S. Military on Foreign Assignment:  
The Role of Personality and Cultural Intelligence in Adjustment

Jennifer Pauline Stockert

A Thesis Submitted in Partial Fulfillment for the Degree of  
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In  
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Minnesota State University

Mankato, Minnesota

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Jennifer Pauline Stockert

This thesis has been examined and approved by the following members of the  
student's committee.

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Dr. Daniel Sachau – Advisor

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Dr. Lisa Perez – Committee Member

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Dr. Kelly Meier – Committee Member

## FACTORS AFFECTING EXPATRIATE ADJUSTMENT

### **Abstract**

Expatriate Adjustment of U.S. Military on Foreign Assignment: The Role of Personality and Cultural Intelligence in Adjustment. Jennifer Pauline Stockert. Master of Arts in Industrial/Organizational Psychology. Minnesota State University, Mankato. Mankato, MN. 2015. The present study explored the relationships between personality, cultural intelligence, and adjustment to expatriate assignments. More narrowly, this study explored which facets of cultural intelligence are related to United States Air Force (USAF) members' adjustment to international assignments in Germany. The study also aimed to clarify the relationship between Big Five personality factors and adjustment in USAF expatriates. Expatriate adjustment was measured using the Expatriate Adjustment Scale by Black and Stephens (1989). Cultural Intelligence was measured using the Extended Cultural Intelligence Scale by Van Dyne, Ang, Ng, Rockstuhl, Tan, and Koh (2012). Big Five personality factors were measured using the International Personality Item Pool by Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough (2006). There were 64 respondents to the electronic survey distributed to Spangdahlem Air Base. The results indicated that significant positive relationships were found between ten sub facets of cultural intelligence and adjustment. No significant relationships between Big Five personality factors and adjustment were found in this study.

# FACTORS AFFECTING EXPATRIATE ADJUSTMENT

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### **Introduction**

Globalization is one of the major trends affecting organizations across industrialized countries. More than ever before employees are being sent across borders for work or they are working in multinational teams. The Conference Board surveyed 130 multi-national organizations (MNC) and found that 25% of these organizations had between 200 and 2,000 managers on overseas assignments (Caligiuri, 2000). Based on globalization trends, the number of overseas managers has likely increased since then. A common problem with expatriate assignments is a high number of early returns: between 16 and 40 percent of American placements end prematurely (Black, Mendenhall, & Oddou, 1991). This is concerning because the cost of sending an employee overseas can be up to three times the base pay of the same domestic position (Shaffer, Harrison, & Gilly, 1999). Furthermore, an estimated 30 to 50 percent of overseas Americans who stay at their assignments are rated as “slightly” or “not at all effective” in their work (Copeland & Griggs, 1985).

### **Expatriate Adjustment**

Psychological adjustment is often used as an outcome measure for expatriate assignments, because inadequate adjustment of expatriates can lead to poor performance on the job. Adjustment sub-divides into objective adjustment and subjective adjustment (Black, 1988). Objective adjustment “is the degree to which a person has mastered the role requirements and is able to demonstrate that adjustment via his or her performance” (Black, 1988, p. 278). Subjective adjustment is “the degree of comfort the incumbent feels in the new role requirements” (Black, 1988, p. 278).

The degree of adjustment is dependent on the time spent in the new role.

Torbiorn (1982) theorized a four stage, U-curve process of adjustment. The first stage, lasting through the first couple of weeks, is characterized by feelings of excitement and fascination with the new environment (Torbiorn, 1982) and is commonly referred to as the “honeymoon stage” (Black, 1988, p. 278). In the next stage, the expatriate begins to experience conflict in the new role as he/she learns that behaviors that were previously acceptable are no longer appropriate in the new environment. Feelings of stress and low levels of satisfaction characterize this stage, because the person has not yet learned which behaviors are appropriate. In the third stage, the person begins to learn appropriate behaviors and can now reasonably navigate the new environment on their own. In the fourth and final stage of adjustment, the expatriate has assimilated to the new environment, understands cultural differences, and can function with ease (Black, 1988).

Black (1988) proposed that subjective adjustment, though previously treated as a unidimensional concept (Black, 1990), actually consists of three factors: general adjustment, work adjustment, and interactional adjustment. General adjustment is the adjustment to everyday living conditions like weather and transportation (Torbiorn, 1982). Work adjustment, is the assimilation to work tasks and duties (Black, 1988). Interactional adjustment is one’s ability to interact comfortably with host country nationals (Black, 1988; Black & Stephens, 1989).

### **Personality**

A review of early research might suggest that using personality characteristics to predict expatriate success is a waste of time (Benson, 1978; Brislin, 1981; Deller, 1997). However, Ones and Viswesvaran (1997) suggest that past results may be due



to methodological problems with the research and construct issues. Relationships between personality characteristics and job performance were very weak prior to the development of the Big Five personality taxonomy (Barrick & Mount, 1991). Research supports this five-factor model of explaining personality across occupations and cultures (Buss, 1991; Goldberg, 1993; McCrae & Costa, 1989; McCrae & John, 1992). In their meta-analysis, Mol, Born, Willemssen and van Molen (2005) showed that Big-Five personality traits are equal to if not better at predicting performance for expatriates than domestic employees. The Big Five dimensions have had many different names but will be referred to in this study as Extraversion, Conscientiousness, Openness, Agreeableness, and Emotional Stability. Extraversion is one's level of "talkativeness, assertiveness, and activity level" (Goldberg, 1993, p.27). Conscientiousness consists of "organization, thoroughness, and reliability" (Goldberg, 1993). Openness consists of "imagination, curiosity, and creativity" (Goldberg, 1993, p.27). Agreeableness is described as "kindness, trust and warmth" toward others (Goldberg, 1993, p.27). Finally, emotional stability (neuroticism) consists of "nervousness, moodiness, and temperament" traits (Goldberg, 1993, p. 27). Due to limitations in the length of the survey, the present study will focus on three of the Big Five personality traits: Extraversion, Openness, and Conscientiousness.

**Extraversion.** Caligiuri (2000) argued that those who have a higher propensity to seek out relationships like those who are extraverted will cope well in an international environment, because they will be more likely to make host national friends. Bhatti , Battour, Ismail, and Sundram (2014) suggested that those high in extraversion may adjust well in cross-cultural environments because their energy and

assertiveness suggest positive attitudes. Wolff and Kim (2012) tested the relationships between extraversion and networking and found that those high in extraversion were more likely to engage in networking behaviors. Therefore, extraversion may lead to greater networking abilities in cross-cultural settings that may help expatriates adjust. Several studies have found support for extroversion's positive relationship with expatriate assignment success (Ang et al., 2007; Caligiuri, 2000; Shaffer, Harrison, Gregersen, Black, & Ferzandi, 2006). Caligiuri's (2000) results suggest that extroversion may serve as a predictor of intent to leave assignment in that those who were extraverted were less likely to want to leave. Ang et al. (2007) discovered a positive relationship between extroversion and adjustment of expatriates. Furthermore, Shaffer, Harrison, Gregersen, Black, and Ferzandi (2006) showed that extraversion was associated with several measures of expatriate assignment success including adjustment, withdrawal intentions, contextual performance, and task performance.

**Openness.** Some researchers proposed that those scoring high on openness have fewer black and white views of appropriate behavior and therefore would be more likely to adjust to a culture that differs from their own (Black, 1990; Cui & van den Berg, 1991). Arthur and Bennett (1995) asked 300 expatriates what factors were essential for success in their assignment. The results included several factors including but not limited to extra-cultural openness. Their research paved the way for more scientific analyses of the relationship between openness and success of overseas assignments.

Caligiuri (2000) used evolutionary psychology theory and past research suggestions (Abe & Wiseman, 1983; Black, 1990; Cui & van den Berg, 1991; Dinges,

1983; Finney & Von Glinow, 1987; Hammer, Gudykunst, & Wiseman, 1978; Ones & Viswesveran, 1997) to suggested that openness would be positively related to performance and inversely related to desire to terminate one's assignment early. Research results are mixed as to which measures of success openness predicts (Ang, Van Dyne, Koh, 2006; Ang et al., 2007; Caligiuri, 2000; Shaffer et al., 2006). Caligiuri (2000) found no evidence that openness was related to adjustment. On the contrary, Ang et al.'s (2006) research suggested that openness would be positively associated with effective adjustment, which was supported by follow-up research (Ang et al., 2007). Furthermore, Schaffer et al. (2006) showed that openness positively associates with several assignment outcomes including measures of adjustment and performance.

**Conscientiousness.** Behling (1998) argued that conscientiousness, falling shortly below cognitive ability, might be the second most important performance predictor across jobs. In their meta-analysis, Barrick and Mount (1991) found conscientiousness relates to several performance indicators across several different jobs. Leiba-O Sullivan (1999) suggested that conscientiousness might determine a person's "capacity to develop perceptual- questioning skills" (Leiba-O Sullivan, 1999, p. 720). This ability can help those choose to re-evaluate a cross-cultural judgment if one feels it will be helpful for their career (Leiba-O Sullivan, 1999). In opposition, Ones and Viswesvesvaran (1997) suspected that conscientiousness would not influence one's ability to adjust. The research shows mixed findings about the role conscientiousness plays in expatriate success outcomes. Shaffer et al. (2006) did not find any correlations between conscientiousness and adjustment; however, their analysis did show conscientiousness to be a significant predictor of cultural

adjustment and task performance. Furthermore, conscientiousness related positively to task performance and negatively to intent to withdraw in an expatriate sample (Schaffer et al., 2006). Ang et al. (2007) discovered that conscientiousness positively related to adjustment and Deller (1997) found a significant relationship between supervisor's ratings of adjustment and conscientiousness.

Overall, evidence supports the theory that personality factors such as openness, conscientiousness, and extraversion are positively related expatriate adjustment. Personality factors are not the only construct that has received attention as a possible predictor of adjustment. More recently, researchers have theorized and researched the construct Cultural Intelligence as an additional potential predictor of psychological adjustment in expatriates.

### **Cultural Intelligence**

Cultural intelligence is “an individual’s capability to function and manage effectively in culturally diverse settings” (Kim, Kirkman, & Chen, 2008, p. 3). Early and Ang (2003) developed a theory of cultural intelligence as a response to globalization which resulted in individuals living and working with people from different cultures. Their research was driven in part by the need to explain why some individuals are adapting better to a new culture than others. The original concept of cultural intelligence (CQ), developed by Early and Ang (2003), was pulled from Sternberg and Detterman’s (1986) multidimensional theory of intelligence. Sternberg and Detterman (1986) theorized that intelligence should not just be thought of as something to be expressed inside “the classroom”. Instead, researchers should look beyond those walls where different types of intelligence might develop. This idea drove Early and Ang (2003) to explore the idea that some form of intelligence is

helping some people cope well compared to others in diverse settings. Early and Ang (2003) felt cultural intelligence was not just a singular concept and instead could be divided into several factors.

**Cultural Intelligence: A Four-Factor Model.** Sternberg conceptualized four types of intelligence: cognitive, metacognitive, behavioral, and motivational intelligence (Kim, Kirkman, & Chen, 2008). Whereas cognitive intelligence is the knowledge one holds, metacognitive intelligence is the knowledge of one's "control of cognition" (Kim, Kirkman, & Chen, 2008, p. 4). In other words, metacognition is the control one has over his or her thought processes. Motivational intelligence is the direction and magnitude of one's cognition while behavioral intelligence is the individual's capability to adjust actions (Kim, Kirkman, & Chen, 2008). Early and Ang (2003) applied the four structures of intelligence to cultural intelligence.

Cognitive cultural intelligence is the "general knowledge and knowledge structures about culture" (Ang, Van Dyne, & Koh, 2006, p. 101). Meta-cognitive cultural intelligence is "the processes individuals use to acquire and understand cultural knowledge" (Ang, Van Dyne, & Koh, 2006). Behavioral cultural intelligence is "the capability to exhibit appropriate verbal and non-verbal actions when interacting with people from different cultures" (Ang, Van Dyne, & Koh, 2006 p. 101). Motivational cultural intelligence is "the magnitude and direction of energy applied toward learning about and functioning in cross-cultural situations" (Ang, Van Dyne, & Koh, 2006). The four-factor model has remained the predominant theory of cultural intelligence used in research (eg., Ang, Van Dyne, Koh, and Ng, 2004; Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007; Sahin, Gurbuz, & Köksal, 2014).

**Cultural Intelligence: Empirical Research.** A 2012 review of cultural intelligence highlighted the construct's strength giving credit to its rigorous development (Ng, Van Dyne, & Ang, 2012). The four facets of Cultural Intelligence consistently positively relate to previous international experience whether working abroad or just visiting. However, results are mixed regarding which facets are significant. Tay, Westman, and Chia (2008) found length of experience relates to only Cognitive CQ, but others (Shannon and Begley, 2008) discovered working international experience relates to metacognitive and motivational CQ. On the contrary, Crown (2008) found international work experience relates to all facets except motivational CQ. When considering non-work overseas experience, Takeuchi, Tesluk, Yun, and Lepak (2005) found that experience overseas relates to only some facets of CQ. Tarique and Takeuchi (2008) found that for non-work international experience, all facets of CQ relate to number of countries visited while length of time abroad relates only to metacognitive and cognitive CQ.

Several studies have shown that CQ affects the level of psychological adjustment of individuals living and working abroad. Motivational CQ predicts levels of general and work adjustment beyond that of realistic previews of the job and living conditions (Templar, Tay, and Chandrasekar, 2006). Furthermore, Ang and colleagues found that metacognitive and cognitive CQ explained differences in task performance, motivational CQ accounted for variance in general adjustment, while behavioral CQ predicted both task performance and general adjustment (Ang, Van Dyne, Koh, and Ng, 2004). Ang, Van Dyne, Koh, Ng, Templar, Tay, and Chandrasekar (2007) showed that higher levels of work, general, and interactional adjustment resulted from higher motivational and behavioral CQ. Williams (2008) demonstrated that

motivational CQ predicted both sociocultural and psychological adjustment. Chen, Kirkman, Kim, Farh, and Tangirala, (2010) found that motivational CQ positive predicts overall job performance in expatriates.

**Cultural Intelligence: Eleven Sub-Dimensions.** Recently Van Dyne, Ang, Ng, Rockstuhl, Ling Tan, and Koh (2012) researched deeper into the cultural intelligence construct to develop a better model that would allow for deeper level of analysis. Using the existing four-factor model and intelligence theory, the authors came up with 11 sub-dimensions of the four-factor model (Van Dyne et al., 2012). Cognitive CQ sub-divides into culture-general knowledge and context specific knowledge. Culture-general knowledge is the basic understanding of what makes a culture. High culture-general knowledge allows one to know what elements might be used to compare and contrast different cultures. Context-specific knowledge is knowledge held about a specific area or region of the world. This could include a country or specific region and could include knowing what types of gifts are appropriate to bring to a dinner party in Hong Kong. Meta-cognitive CQ sub-divides into three sub-dimensions: planning, checking, and awareness. Planning would be any preparation one would do before an interaction with someone from a different culture. It might include thinking how to meet objectives with a specific person from another culture. Checking is one's capability to adjust their assumptions when things do not go as expected in a cultural interaction. One will evaluate their "mental schemas" to see if they match the current interaction and then adjust them when differences occur (Van Dyne et al., 2012). Finally, awareness is the level at which someone is "real-time thinking" about how a culture can affect theirs and other's thoughts and behaviors. Behavioral CQ sub-divides into verbal behavior, non-verbal behavior, and

speech acts. Verbal behavioral CQ is one's capability to make changes to the rate, volume, and inflection when speaking in a cross-cultural situation. Non-verbal behavioral CQ is the capability to change one's gestures, body, language, and facial expressions in a cross-cultural interaction to more effectively communicate (Van Dyne et al., 2012). Speech acts is the adjustment one makes to how messages are conveyed when in another culture. Some cultures have differences in the way apologies are made, disagreements are handled, how they say "no" and being able to adjust these is theorized to be a component of behavioral cultural intelligence (Van Dyne et al., 2012). Finally, motivational CQ sub-divides into three sub-dimensions: intrinsic interest, extrinsic interest, and self-efficacy to adjust. Intrinsic interest is valuing a culturally diverse experience because it is satisfying in itself; whereas extrinsic interest is valuing the experience for the benefit one receives from it (Ryan & Deci, 2000; Van Dyne et al., 2012). Self-efficacy to adjust is the belief one has the ability to handle the stress of adjusting to a new culture (Van Dyne et al., 2012).

Researchers have yet to look into the specific sub-dimensions of cultural intelligence and their relation to expatriate success cross-culturally.

### **Personality, Cultural Intelligence, and Adjustment**

Research into the cross-section of personality and cultural intelligence is limited but suggestive of important relationships (Ang, Van Dyne, and Koh, 2006; Şahin, Gurbuz, & Köksal, 2014). A longitudinal study showed that extraversion measured at time one increased the level of metacognitive and behavioral cultural intelligence at time two while controlling for length of time on overseas assignment. The results also showed that openness at time one related to greater levels of motivational CQ at time two while controlling for time on assignment (Sahin et al.,



2004). Ang et al. (2006) showed that Conscientiousness positively related to Metacognitive CQ, Extraversion positively related to motivational, cognitive, and behavioral CQ, and openness positively related to all four facets of cultural intelligence.

Research on the relationships between adjustment, cultural intelligence, and personality is limited and shows mixed results (Ang et al., 2007; Huff et al., 2014; Ward, Fischer, Lam, & Hall, 2009). Ang et al. (2007) showed that motivational and behavioral CQ explained additional variance beyond that of conscientiousness in factors measuring adjustment. Huff, Song, and Gresch (2014) found that motivational CQ explained additional variance beyond personality factors for all three facets of adjustment. Furthermore, when motivational CQ was added to the model, personality factors were no longer significant for general and work adjustment. However, Ward et al. (2009) could not find that cultural intelligence explained any variance beyond that of personality factors. More research looking into the interrelationships of personality factors, cultural intelligence and measures of expatriate success needs to be conducted to get a better understanding of how they interact.

### **The Present Study**

The present study will look into antecedents that predict adjustment in United States Air Force airmen stationed at Spangdahlem Air Force base in Germany. More specifically, the study will look into relationships between the 11 newly theorized facets of Motivational CQ, Cognitive CQ, Metacognitive CQ, and Behavioral CQ. Past research has supported positive relationships between Motivational, Cognitive, Metacognitive, and Behavioral CQ with expatriate adjustment. This study will be, to the researcher's knowledge, the first to look into a deeper level of analysis of cultural

intelligence by looking into relationships of the 11 sub-facets with adjustment.

Intrinsic and extrinsic motivation, factors of Motivational CQ, to learn about other cultures should drive personal behaviors that lead one to learn appropriate behavior of the host culture quickly and therefore, lead to higher levels of psychological adjustment. Higher self-efficacy to adjust, another facet of Motivational CQ, should also lead to adjustment, because the person is more likely to believe they can learn to fit in to the culture. This theory informs the first hypothesis.

**Hypothesis 1: The higher the airmen's level of Motivational CQ factors (Intrinsic Motivation, Extrinsic Motivation, and Self-efficacy) the higher their overall adjustment.**

Cultural general knowledge, a facet of Cognitive CQ, which is the knowledge of what elements might be used to compare and contrast cultures, could lead to higher levels of adjustment, because people with broad cultural knowledge will be aware of which aspects of the host culture could be different from their home culture. In this way, they may experience less stress when confronted with differences. They also may more readily adjust when they are aware of what aspects of life may be different in their host culture. Context specific knowledge, the second facet of Cognitive CQ, is knowledge held about a specific region or country. This knowledge could lead to greater adjustment especially when the knowledge is held about the region or a similar culture to which the expatriate is being hosted. Holding specific knowledge about a region even if it is culturally different from the host country, might allow the expatriate to more readily look for similar differences in their host country. This

expectation for differences may reduce stress caused by these differences and help the expatriate transition through the four stages of adjustment. This theory leads to the second hypothesis.

**Hypothesis 2: The higher the airmen's level of Cognitive CQ factors (Cognitive General Knowledge and Cognitive Specific Knowledge), the higher their overall adjustment.**

Planning, a factor of Meta-cognitive CQ, includes any preparation one does before interacting with someone from a different culture. It implies the anticipation that there will be cultural differences that may require adjustment of one's behavior in order to accomplish a goal. Thinking about these differences ahead of time may lead to more pleasant interactions between the expatriate and the host national if that planning leads to an adjustment of the expatriate's behavior to fit host culture norms. For example, one could plan to dress differently than they normally do if they know that their cultural dress norms may be offensive to the person whom they anticipate to interact with. This type of planning may lead to more positive interactions, which could lead to better relationships with host country nationals. This in turn, may lead to better adjustment for the expatriate.

Awareness, the second factor of Metacognitive CQ, is one's thought processes about how culture can affect both theirs and other's way of thing and behaving. This awareness could help expatriates adjust, because they may more likely analyze a conflicting situation and try to understand why the other person is behaving or thinking differently than they do about a topic. This deeper understanding could lead

to more pleasant interactions in the host culture, as well as more quickly move the expatriate through the stages of adjustment.

Checking, the third factor of Metacognitive CQ, has to do with the adaptability of one's mental schema or assumptions they hold about a culture when a current interaction opposes their held beliefs. This real-time evaluation and adjustment of their current beliefs would lead to a more accurate understanding of the culture there are living in. This accuracy in understanding of the culture represents the third phase of adjustment, and therefore checking may lead to quicker overall adjustment. Together, these theories of metacognitive CQ factors make up the third hypothesis.

**Hypothesis 3: The higher airmen's level of Metacognitive CQ factors (Planning, Awareness, and Checking), the higher their overall adjustment.**

The modification of speech acts, or the way messages like apologies or disagreements are conveyed, is one of the factors of Behavioral CQ. The adjustment of one's behavior to match the speech act of the host culture may lead to less misunderstandings between the expatriate and host nationals, because behavior will not be misinterpreted as rude. This will lead to more pleasant interactions and better relationships which could increase adjustment.

Modification of verbal behavior, another factor of Behavioral CQ, may lead to greater adjustment in that it allows for easier communication between the expatriate and host country nationals. The increase in the quality of communication and interactions may lead to greater ease in building relationships that help the expatriate to adjust more readily.

Modification of nonverbal behavior such as gestures or body language to communicate more effectively with host nationals, like verbal modification, could also lead to better relationships. This in turn, could lead to more effective adjustment. These theories inform the fourth hypothesis.

**Hypothesis 4: The higher airmen's level of Behavioral CQ factors (Speech Acts, Verbal Behavior, Nonverbal Behavior), the higher their overall adjustment.**

The present study also explores the nature of the relationship between personality factors and adjustment. The study focuses on the three personality factors that seem to have had the most predictive results in past research: extraversion, openness, and conscientiousness. Some evidence shows that personality may not have a direct effect on adjustment, but instead personality affects adjustment by leading to increased cultural intelligence of the expatriate (Huff, Song, & Gresch, 2014). Personality may drive the expatriate's motivation to learn about the new culture leading to an increase of cultural intelligence, which in turn leads to better adjustment. This informs the study's final hypothesis.

**Hypothesis 5: Cultural Intelligence will mediate the relationship between personality factors and expatriate adjustment.**

## FACTORS AFFECTING EXPATRIATE ADJUSTMENT

### **Method**

Airmen at Spangdahlem United States Air Force (USAF) were emailed an electronic survey via the base personnel email distribution server. The survey was designed to measure factors of psychological adjustment to overseas assignments. The survey contains four scales including the Extended Cultural Intelligence Scale, the Expatriate Adjustment scale, the International Personality Item Pool, and a measure of demographic information.

### **Participants**

Participants included active duty United States Air Force personnel currently on assignment at the Spangdahlem Air Force Base near the western border of Germany. Spangdahlem Air Force Base is home of the 52<sup>nd</sup> Fighter Wing whose mission is to “defend American and allied interests and build partner capacity.” The wing has over 5,560 active-duty members and 210 Department of Defense civilians. The wing supports NATO and national defense directives by maintaining and deploying radar systems (USAF, 2015).

### **Materials**

**Demographics.** To gain information about participants that may help to understand expatriate adjustment, several demographic questions were included in the survey. The questions included gender, age, marital status, time on current assignment, previous international experience, years in the air force, and previous cultural training. All demographic questions can be seen in Appendix A.

**Cultural Intelligence (CQ).** The Extended Cultural Intelligence Scale (E-CQS) developed by Van Dyne, Ang, Ng, Rockstuhl, Tan, and Koh (2012) was used to assess cultural intelligence of the airmen. Van Dyne and colleagues (2012) developed

the extended scale from the Cultural Intelligence Scale (CQS) (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007). The CQS contains four sub-scales of Cultural Intelligence: Motivational Cultural Intelligence, Metacognitive Cultural Intelligence, Behavioral Cultural Intelligence, and Metacognitive Cultural Intelligence. The E-CQS is a 37-item scale shown to be a better fitting model of cultural intelligence than the Cultural Intelligence Scale developed by Ang et. al (2007) and contains 11 sub dimensions of the four sub-scales. The 11 sub dimensions demonstrated acceptable reliabilities in validation studies (metacognitive CQ = .77-.83; cognitive CQ = .76-.85; motivational CQ = .76-.82; and behavioral CQ = .75-.79) (Van Dyne, Ang, Ng, Rockstuhl, Tan, and Koh, 2012). Examples of the 11 sub dimensions can be found in Table 1 below. Participants responded to the items on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The full scale can be found in Appendix B.

**Table 1.***Example items from the Extended Cultural Intelligence Scale*

<u>Four Facets</u>	<u>11 Sub-facets</u>	<u>Example items</u>
Motivational CQ	Intrinsic Motivation	“I thrive on experiencing cultural differences that are new to me”
	Extrinsic Motivation	“I value the reputation I would gain from living or working in a different culture.”
	Self-Efficacy to Adjust	“I am confident I can socialize with locals in a culture that is unfamiliar to me.”
Cognitive CQ	Culture General Knowledge	“I can describe similarities and differences in legal, economic, and political systems across cultures.
	Context-Specific Knowledge	“I can describe effective ways for dealing with conflict in different cultures.”
Metacognitive CQ	Planning	“I think about possible cultural differences before meeting people from other cultures.”
	Awareness	“I am aware of how my cultural background influences my interactions with people from different cultures.”
	Checking	“I adjust my cultural knowledge after a cultural misunderstanding.”
Behavioral CQ	Speech Acts	“I modify the way I disagree with others to fit the cultural setting.”
	Verbal behavior	“I modify the amount of warmth I express to fit the cultural context.”
	Non-Verbal Behavior	“I modify how close or far apart I stand when interacting with people from a different culture.

**Personality.** Three of the Big Five personality traits (Extraversion, Openness, and Conscientiousness) were measured with the 30 items from the 50 item International Personality Item Pool (Goldberg, Johnson, Eber, Hogan, Ashton,



Cloninger, & Gough, 2006). The extraversion (10 items,  $\alpha = .87$ ), conscientiousness (10 items,  $\alpha = .79$ ), and openness (10 items,  $\alpha = .84$ ) subscales have demonstrated acceptable reliabilities in the past (Goldberg, 1992). Full scale can be seen in Appendix C.

**Adjustment.** Black and Stephen's (1989) sixteen-item Expatriate Adjustment Scale was used to measure the level of psychological adjustment of airmen. The scale contains three facets of adjustment: General Adjustment (9 items,  $\alpha = .82$ ), Interaction Adjustment (4 items,  $\alpha = .89$ ), and Work Adjustment (3 items,  $\alpha = .91$ ) (Black & Stephen, 1989). Participants were asked to indicate how well adjusted they think they are to various aspects of their current assignment. Aspects include housing conditions (general adjustment), host national interaction outside of work (interaction adjustment) and job conditions (work adjustment). Responses can range on a seven-point scale from 1 (very unadjusted) to 7 (very adjusted). Full scale can be seen in Appendix D.

**Procedure.** A military officer in the mental health department stationed at Spangdahlem contacted potential participants via email. The email asked participants to click on a link provided opened to the electronic survey. Participants were allowed to exit the survey at any time and were informed that the results will be anonymous.

## Results

### Demographics

There were 64 Airmen respondents used in analyses, 48 were male and 16 were female, with an average age of 31 years. Tenure in the Air Force ranged from 1 to 29 years with an average of 9 years. Previous time spent abroad ranged from 0 to 20 years with an average of 3.34 years. Tenure on current assignment at Spangdahlem Air Base ranged from 1 to 240 months, with an average tenure of 22 months.

### Expatriate Adjustment Scale

The overall reliability for the Expatriate Adjustment Scale was good ( $\alpha = .93$ ). On average, airmen reported an overall adjustment score of 5.30 (s.d. = 1.04) on a 1 to 7 scale, indicating that airmen at this base are pretty well adjusted.

### Extended Cultural Intelligence Scale (E-CQS)

Overall the reliability for the E-CQS was high ( $\alpha = .96$ ). Airmen reported an average overall CQ score of 5.25 (s.d. = .82) on a 1 to 7 scale indicating that airmen on this base have fairly high CQ.

**Motivational CQ.** For the Motivation CQ sub facet, three items were combined to create the Intrinsic Motivational subscale, three items were combined to create the Extrinsic Motivational subscale and three items were combined to create the Self-efficacy subscale. Reliabilities were acceptable for each scale.

**Table 2.***Descriptive Statistics and Reliabilities for Motivation CQ Subscales.*

Scale	Range	Mean	Std. Dev.	$\alpha$
Intrinsic Motivation	1-7	5.56	1.25	.89
Extrinsic Motivation	1-7	5.73	1.33	.92
Self-efficacy	1-7	5.99	1.16	.92

**Cognitive CQ.** For the Cognitive CQ sub facet, five items were combined to create the Culture General Knowledge subscale and five items were combined to make the Context Specific Knowledge subscale. Reliabilities were acceptable for each scale.

**Table 3.***Descriptive Statistics and Reliabilities for Cognitive CQ Subscales.*

Scale	Range	Mean	Std. Dev.	$\alpha$
Culture General Knowledge	1-7	4.88	1.03	.80
Context Specific Knowledge	1-7	4.58	1.31	.94

**Metacognitive CQ.** Within the Metacognitive CQ sub facet, three items were combined to create the Planning subscale, three items were combined to make the

Awareness subscale and three items were combined to make the checking subscale.

Reliabilities were acceptable for each scale.

**Table 4.**

*Descriptive Statistics and Reliabilities for Metacognitive CQ Subscales.*

Scale	Range	Mean	Std. Dev.	$\alpha$
Planning	1-7	4.78	1.14	.81
Awareness	1-7	5.83	.92	.89
Checking	1-7	5.67	.96	.88

**Behavioral CQ.** For the Behavioral CQ sub facet, three items were combined to create the Speech Acts subscale, three items were combined to create the Verbal subscale, and three items were combined to create the Nonverbal subscale.

Reliabilities of all subscales were acceptable.

**Table 5.**

*Descriptive Statistics and Reliabilities for Behavioral CQ Subscales.*

Scale	Range	Mean	Std. Dev.	$\alpha$
Speech Acts	1-7	5.39	1.04	.86
Verbal Behavior	1-7	5.12	1.18	.89
Nonverbal Behavior	1-7	5.15	1.19	.89

### Big Five International Personality Item Pool Scales

Ten items were combined to create the Extraversion scale, ten items were combined to make the Conscientiousness scale, and ten items were combined to create the Openness scale. All reliabilities were acceptable.

**Table 6.**

*Descriptive Statistics and Reliabilities for IPIP Scales.*

Scale	Range	Mean	Std. Dev.	$\alpha$
Extraversion	1-5	3.06	.77	.89
Conscientiousness	1-5	3.90	.59	.80
Openness	1-5	3.89	.55	.80

### Subscales of Adjustment

To ensure that relationships did not differ between cultural intelligence and each of the sub factors of adjustment, subscales were created for general adjustment ( $\alpha = .92$ ), interaction adjustment ( $\alpha = .96$ ), and work adjustment ( $\alpha = .95$ ).

Reliabilities of all three subscales were acceptable. These sub scales were correlated with motivational CQ, cognitive CQ, metacognitive CQ, and behavioral CQ. No meaningful differences were found in the relationships between the CQ factors and the subscales of adjustment. The procedure was repeated with extraversion, conscientiousness, and openness. The correlations between extraversion, conscientiousness, openness and the three subscales of adjustment did not

meaningfully differ, therefore the full scale of adjustment will be used to test the hypotheses. A table including all study correlations can be found in Appendix E.

### **Hypothesis Tests**

**Hypothesis 1: The higher the airmen's level of Motivational CQ factors (Intrinsic Motivation, Extrinsic Motivation, and Self-efficacy) the higher their overall adjustment.**

To test this relationship, a Pearson's Correlation was calculated between all three factors of Motivational CQ and overall expatriate adjustment. Intrinsic motivation was significantly positively related to adjustment ( $r = .56, p < .01$ ). Extrinsic motivation was significantly positively related to adjustment ( $r = .67, p < .01$ ). Self-efficacy was significantly positively related to adjustment ( $r = .62, p < .01$ ). As intrinsic motivation, extrinsic motivation, and self-efficacy increase, so does one's level of adjustment.

To further explain the relationship, overall adjustment was regressed onto intrinsic motivation, extrinsic motivation, and self-efficacy to see which factors explain the most variance. The multiple regression indicated that the combination of extrinsic motivation ( $\beta = .45, p < .01$ ) and self-efficacy ( $\beta = .29, p = .048$ ) explained 48% of the variance in airmen adjustment scores ( $F(2,58) = 26.67, p < .001$ ). When all the variables were entered, intrinsic motivation did not explain any significant variance.

Significant relationships were found between all three sub facets of Motivational CQ and expatriate adjustment. Furthermore, extrinsic motivation explained the most variance in airmen adjustment. Therefore, Hypothesis 1 was supported.

**Hypothesis 2: The higher the airmen's level of Cognitive CQ factors (Culture General Knowledge and Context Specific Knowledge), the higher their overall adjustment.**

To test this relationship, a Pearson's Correlation was calculated between the two factors of Cognitive CQ and overall expatriate adjustment. Culture general knowledge was significantly positively related to adjustment ( $r = .60, p < .001$ ). Context specific knowledge was significantly positively related to adjustment ( $r = .50, p < .001$ ). As cognitive specific and cognitive general knowledge increase, so does one's level of adjustment.

To further explain the relationship, overall adjustment was regressed onto culture general knowledge and context specific knowledge to see which factors explain the most variance. The multiple regression indicated that culture general knowledge ( $\beta = .60, p < .001$ ) alone explained 36% of the variance in airmen adjustment scores ( $F(1, 59) = 33.62, p < .001$ ).

The two facets of Cognitive CQ were found to be positively related to expatriate adjustment. Also, airmen's level of culture general knowledge can predict a little over a third of the differences seen between those who are well adjustment and those who are not adjusted to the new cultural environment. Therefore, Hypothesis 2 was supported.

**Hypothesis 3: The higher airmen's level of Metacognitive CQ factors (Planning, Awareness, and Checking), the higher their overall adjustment.**

To test this relationship, a Pearson's Correlation was calculated between the two factors of Cognitive CQ and overall expatriate adjustment. Planning was significantly positively related to adjustment ( $r = .40, p = .002$ ). Awareness had a

significant modest, positive relationship to adjustment ( $r = .29, p = .022$ ). Finally, checking had a significant and modest, positive relationship to adjustment ( $r = .35, p = .005$ ). As one's planning, checking, and awareness increase, so does one's level of adjustment to the overseas culture.

To further explain the relationship, overall adjustment was regressed onto planning, awareness, and checking to see which factors explain the most variance. The multiple regression indicated that planning ( $\beta = .40, p = .002$ ) alone explained 16% of the variance in airmen adjustment scores ( $F(1, 57) = 10.78, p = .002$ ).

All three facets of Metacognitive CQ were found to be significantly positively related to expatriate adjustment. Furthermore, airmen's reported level of planning predicts a significant portion of the differences seen between airmen who are well adjusted and those who are not adjusted. Therefore, Hypothesis 3 was supported.

**Hypothesis 4: The higher airmen's level of Behavioral CQ factors (Speech Acts, Verbal Behavior, Nonverbal Behavior), the higher their overall adjustment.**

To test this relationship, a Pearson's Correlation was calculated between the three factors of Behavioral CQ and overall expatriate adjustment. Airmen's rating of speech acts was significantly moderately positively related to adjustment ( $r = .41, p = .001$ ). Verbal behavior was not significantly related to adjustment ( $p = .079$ ). A significant modest positive relationship between nonverbal behavior and adjustment was found ( $r = .29, p = .022$ ). As the modification of speech acts and non-verbal behavior increase, so does one's level of adjustment.

To further explain the relationship, overall adjustment was regressed onto speech acts and nonverbal behavior to see which factors explain the most variance. The multiple regression indicated that speech acts ( $\beta = .42, p = .001$ ) alone explained



18% of the variance in airmen adjustment scores ( $F(1, 58) = 12.35, p = .001$ ).

Airmen's modification of speech acts predicts a significant portion of the differences found between those who are all well-adjusted and those who are unadjusted to the cross-cultural environment.

Modification of speech acts and non-verbal behavior when speaking to someone of a different cultural background was found to be positively related to adjustment, while no relationship was found between the modification of verbal behavior and adjustment. Therefore, Hypothesis 4 was partially supported.

**Hypothesis 5: Cultural Intelligence will mediate the relationship between personality factors and expatriate adjustment.**

To test this relationship, a Pearson's Correlation was calculated between personality factors and adjustment to replicate findings in previous studies. The results indicated that there was no significant relationships found between extraversion and adjustment ( $p = .27$ ), conscientiousness and adjustment ( $p = .52$ ), and openness and adjustment ( $p = .77$ ). Because no relationship was discovered between personality factors and expatriate adjustment, mediation analysis was not conducted. Therefore, Hypothesis 5 was not supported.

## **Discussion**

### **Cultural Intelligence**

The results of the study support previous findings that Motivational, Cognitive, Metacognitive, and Behavioral Cultural Intelligence positively predict expatriate cross-cultural adjustment. Furthermore, the findings expand our understanding of adjustment by providing evidence of what aspects of cultural intelligence are driving differences in expatriates who are well adjusted and those who are not.

### **Motivational CQ**

Motivational CQ is divided into intrinsic motivation, extrinsic motivation, and self-efficacy to adjust. According to the results, all three factors of Motivational CQ were positively related to adjustment. Extrinsic motivation was found to be the strongest predictor of adjustment, meaning that it has the most influence on levels of adjustment and drives the majority of the Motivational CQ effect on adjustment. It appears that expatriates who feel there is some benefit such as pay or reputation to be gained from working in another culture or interacting with those from the host culture are more likely to adjust. This indicates that it may be beneficial for organizations to draw attention to the external benefits of the experience of working abroad to have the greatest effect on an expatriate's motivation to adjust. Self-efficacy was the second most influential Motivational CQ factor. It appears that expatriates who are confident they have the ability to adjust are more likely to do so. Self-efficacy explains additional differences not already explained by extrinsic motivation. Therefore, to have the greatest influence on adjustment, organizations should take measures to increase expatriate efficacy to adjust. This may include training on the process of

acclimation, what to expect, and what activities the expatriate can do to ease or increase their adjustment to the host country.

### **Cognitive CQ**

Cognitive CQ is divided into culture general knowledge and context specific knowledge. The results indicated that both cognitive general and specific knowledge are positively related to adjustment. Cognitive general knowledge was found to have the strongest influence on levels of expatriate adjustment. Therefore, expatriates that can speak multiple languages, understand differences in legal, political, and family systems across cultures, and compare cultural value frameworks have an easier time adjusting to a cross-cultural environment. Culture general knowledge may be more beneficial in environments where expatriates are interacting with people from several cultural backgrounds (Van Dyne, Ang, Ng, Rockstuhl, Tan, and Koh, 2012). It may be that our sample of expatriates work with a more diverse cultural group and therefore culture general knowledge has a greater influence on adjustment to life at Spangdahlem Air Base. The results indicate that organizations may benefit from training on a wide range of culture aspects so expatriates more generally understand differences between cultures as opposed to just information about the specific culture they are moving to.

### **Metacognitive CQ**

Metacognitive CQ is divided into planning for cross cultural interactions, checking and adjusting one's cultural schemas, and awareness of cultural influence on behavior. The results indicated that all three factors of Metacognitive CQ were positively related to adjustment. Specifically, planning for a cross-cultural interaction could predict the greatest differences in whether or not an expatriate was adjusted.

Planning may include thinking about cultural differences before a cross-cultural interaction, thinking about what one wants to accomplish from a cross-cultural interaction, and/or developing action plans for how one will interact with someone from a different cultural background. Expatriates who think about how they will interact with people from a different cultural background are more likely to adjust. This planning likely leads to better interactions with those from the host country creating more positive experiences and deeper relationships. These relationships are a potential source for increasing cultural knowledge, which was found to influence adjustment. The implication for organizations would be train expatriates how to plan for these interactions and think about how to meet goals in an interaction as well as provide practice opportunities for re-training their thought patterns. Organizations would also seem to benefit from selecting those who already have higher Metacognitive CQ, especially higher levels of planning behavior as that seems to have the greatest influence on adjustment.

### **Behavioral CQ**

Behavioral CQ is divided into adjustment of speech acts, adjustment of verbal behavior, and adjustment of non-verbal behavior while interacting with someone from another culture. The results indicated that adjustments of speech acts and non-verbal behavior were both positively related to expatriate psychological adjustment. A positive but non-significant relationship was found between verbal behavior adjustment and psychological adjustment of expatriates. It may be that a weak relationship exists, but the current study was unable to detect it with the low sample size.

Of the two factors that were significant, modification of speech acts explained the only significant variance in expatriate adjustment. This indicates that modification of speech acts is the strongest Behavioral CQ predictor of adjustment. Speech act modification may include an adaptation of how one disagrees with another, makes requests, or shows appreciation for someone from a different cultural background. It may be that these interactions hold greater significance for relationship building than other non-speech act interactions. Closer host relationships may bring more opportunities to learn about cultural differences and benefit the adjustment of those with better host national relationships. The practical implications for organizations trying to aid in adjustment of their expatriate personnel would be to focus cross-cultural training on appropriate behavior for different speech acts and provide practice opportunities for expatriates to improve the modification of their behavior in these specific interactions.

### **Personality Factors**

The current study results could not find support for a relationship between extraversion, conscientiousness, or openness and expatriate adjustment. Previous studies found support for positive relationships between these three personality factors and adjustment (Ang et al., 2006; Ang et al., 2007; Caliguiri, 2000; Deller, 1997; Schaffer et al., 2006); however, the present study did not replicate the findings. One possibility for the lack of significant relationships could be that the relationships between personality factors and adjustment could be weaker for this particular sample. Military personnel living at Spangdahlem spend most of their time working alongside other Americans at the base. The base offers facilities that provide American food and products which would make it possible for a military official to

live at Spangdahlem and rarely find themselves faced with the need to adjust cross-culturally. Those who are maybe less open to learning about different cultures, trying new food, and are more introverted might spend most of their time within the comforts of the base. They may feel adjusted to their life on base and continue to enjoy the interactions they have when they travel off base, because they are still in tourist mode or the initial stages of adjustment. This might lead these individuals to report higher scores for adjustment.

### **Limitations and Future Directions**

The present study supported expatriate literature by confirming previous findings of the relationship between cultural intelligence and expatriate psychological adjustment. The study furthered our understanding of the relationships between cultural intelligence and adjustment by providing a deeper understanding of which factors matter most for predicting adjustment. However, there were several limitations to the study that should be addressed.

One such limitation is that the sample size used in the study was small. The sample size was limited due to an Air Force regulation of surveys that resulted in an early closing of the data collection. No significant relationships were detected between the modification of verbal behavior and adjustment as well as between personality factors and adjustment. It may be that relationships that do exist were too small to be detected with the sample size obtained. Due to the small sample size, the participants in this study may not be representative of members of the Spangdahlem Air Base. Future studies are needed to clarify the relationship between personality and adjustment that gather sample sizes large enough to detect a smaller effect.

Another limitation was the design of the study. The study used self-ratings of abilities. Subjective ratings do not always provide the most accurate measurement as they tend to carry a certain amount of error. It may be that some participants in the study did not have accurate self-view of their adjustment or cultural intelligence. Furthermore, the cross-sectional methodology does not allow us to infer direction of the relationships. A longitudinal design in future studies would be beneficial to the clarification of these relationships, to see if personality and cultural intelligence factors are antecedents to adjustment.

An additional limitation was the specificity of the sample. Military bases are an atypical environment for expatriates, because personnel have access to food establishments and other home country supplies that are not likely available to non-military expatriates. Furthermore, many of the personnel live on base where they will likely have fewer interactions with host nationals than other types of expatriates who likely interact with host nationals on a regular basis. Furthermore, it should be noted that the nature of Air Force occupations may influence factors in this study. Air force personnel are often required to relocate to a new base on average every four years. The frequency of relocating may make military personnel better prepared for the process of adjustment or make them have different expectations for an experience abroad than non-military expatriates. Furthermore, military expatriates are distinguished from other expatriates in their control over relocation. Military expatriates often do not have a choice in relocation and can be sent overseas based on skill needs on that base and not necessarily desire to go abroad. Because of the specificity of this sample, findings may not be transferrable across all expatriates. Cross-validation studies are needed to provide evidence that these relationships apply to non-military expatriates.

Future studies should also look into a new area of expatriate research known as repatriation, or the process of returning to one's native country after living abroad. There is limited research exploring the psychological effects of repatriation, and some expatriates argue that repatriation may even be a harder adjustment than adjusting to a host country (Bruno, 2015). This has huge implications for companies investing money to send personnel overseas. Approximately 25% of repatriates leave their company two years after returning home which is a very large investment loss for the



company (Stroh, Mendenhall, Black, & Gregersen, 2005). Researchers should look into investigating the predictors of successful repatriation to better understand how to help with repatriate adjustment.

## Appendices

### Appendix A

#### Demographics

1. Gender

- Male
- Female

2. What year were you born?

3. How many years have you been in the Air Force?

4. Was your last assignment overseas or in the U.S.

- Overseas
- U.S.

5. How many years have you spent overseas prior to your assignment at Spangdahlem Air Force Base?

6. How many months of service have you spent in your current assignment at Spangdahlem Air Force Base?

7. What is your level of education?

- Some high school
- High school diploma
- Some college
- Bachelor's degree
- Master's degree
- Ph.D/ Professional Degree

8. Marital Status

- Married and living with spouse
- Married but spouse does not reside with me
- Not married but live with significant other
- Single
- Other

9. How many people, including yourself and any others over age 17, are living in your household while on assignment at Spangdahlem?

10. Do you have children living in your household between the ages of 0 and 17 years?

- No
- Yes

11. How many children live in your household who are between the ages of 0 and 17 years old?

12. Which level of school do your children attend? Check all that apply.

- Before pre-school
- Pre-school
- Elementary school
- Middle school
- High school
- Other

13. Did you have any cross-cultural training (i.e. any training that prepared you for relocating overseas) before departure?

- Yes
- No

14. Was the training you received effective?

- Yes
- No

**Appendix B****Cultural Intelligence (Extended Cultural Intelligence Scale)**

Read each statement and select the response that best describes your capabilities.

Select the answer that BEST describes you AS YOU REALLY ARE.

<b>1 = Strongly Disagree</b>	<b>2 = Disagree</b>	<b>3 = Somewhat Disagree</b>	<b>4 = Neither Agree nor Disagree</b>	<b>5 = Somewhat Agree</b>	<b>6 = Agree</b>	<b>7 = Strongly Agree</b>				
<b>1.</b>	I develop action plans before interacting with people from a different culture.			1	2	3	4	5	6	7
<b>2.</b>	I think about possible cultural differences before meeting people from other cultures.			1	2	3	4	5	6	7
<b>3.</b>	I ask myself what I hope to accomplish before I meet with people from different cultures.			1	2	3	4	5	6	7
<b>4.</b>	I am aware of how my cultural background influences my interactions with people from different cultures.			1	2	3	4	5	6	7
<b>5.</b>	I pay attention to how culture may influence what is happening in a situation.			1	2	3	4	5	6	7
<b>6.</b>	I am conscious of how other people's cultural background may influence their thoughts, feelings, and actions.			1	2	3	4	5	6	7
<b>7.</b>	I adjust my understanding of a culture while I interact with people from that culture.			1	2	3	4	5	6	7
<b>8.</b>	I double check the accuracy of my cultural knowledge during intercultural interactions.			1	2	3	4	5	6	7
<b>9.</b>	I adjust my cultural knowledge after a cultural misunderstanding.			1	2	3	4	5	6	7
<b>10.</b>	I modify the way I disagree with others to fit the cultural setting.			1	2	3	4	5	6	7
<b>11.</b>	I change how I make requests of others depending on their cultural background.			1	2	3	4	5	6	7
<b>12.</b>	I vary the way I show gratitude (express appreciation, accept compliments) based on the cultural context.			1	2	3	4	5	6	7
<b>13.</b>	I change my use of pause and silence to suit different cultural situations.			1	2	3	4	5	6	7
<b>14.</b>	I vary my verbal behaviors (accept, tone, rate of speaking) to fit specific cultural contexts.			1	2	3	4	5	6	7
<b>15.</b>	I modify the amount of warmth I express to fit the cultural context.			1	2	3	4	5	6	7
<b>16.</b>	I modify how close or far apart I stand when interacting with people from different cultures.			1	2	3	4	5	6	7
<b>17.</b>	I change my nonverbal behaviors (hand gestures, head movements) to fit the cultural situation.			1	2	3	4	5	6	7
<b>18.</b>	I vary the way I greet others (shake hands, bow, nod) when in different cultural contexts.			1	2	3	4	5	6	7

<b>19.</b> I truly enjoy interacting with people from different cultures.	1	2	3	4	5	6	7
<b>20.</b> I thrive on experiencing cultural differences that are new to me	1	2	3	4	5	6	7
<b>21.</b> Given a choice, I prefer working with people from different (rather than similar) cultural backgrounds.	1	2	3	4	5	6	7
<b>22.</b> I value the reputation I would gain from living or working in a different culture.	1	2	3	4	5	6	7
<b>23.</b> Given a choice, I would value the tangible benefits (pay, promotion, perks) that could be gained from an intercultural interaction more than a same-culture interaction.	1	2	3	4	5	6	7
<b>24.</b> I value the reputation I would gain from developing global networks and culturally diverse connections.	1	2	3	4	5	6	7
<b>25.</b> I am confident I can persist in coping with the living conditions in different cultures.	1	2	3	4	5	6	7
<b>26.</b> I am sure I can handle the stress of interacting with people from cultures that are new to me.	1	2	3	4	5	6	7
<b>27.</b> I am confident I can socialize with locals in a culture that is unfamiliar to me.	1	2	3	4	5	6	7
<b>28.</b> I can describe views of beauty and aesthetics across cultural settings.	1	2	3	4	5	6	7
<b>29.</b> I can describe the different cultural value frameworks that explain behaviors around the world.	1	2	3	4	5	6	7
<b>30.</b> I can describe differences in family systems and the varied role expectations for men and women across cultures	1	2	3	4	5	6	7
<b>31.</b> I can describe similarities and differences in legal, economic, and political systems across cultures.	1	2	3	4	5	6	7
<b>32.</b> I can speak and understand many languages.	1	2	3	4	5	6	7
<b>33.</b> I can describe the ways leadership styles differ across cultural settings.	1	2	3	4	5	6	7
<b>34.</b> I can describe how to put people from different cultures at ease.	1	2	3	4	5	6	7
<b>35.</b> I can describe effective negotiation strategies across different cultures.	1	2	3	4	5	6	7
<b>36.</b> I can describe different ways to motivate and reward people across cultures.	1	2	3	4	5	6	7
<b>37.</b> I can describe effective ways for dealing with conflict in different cultures.	1	2	3	4	5	6	7

Note: © Cultural Intelligence Center, 2014. Used by permission of the Cultural Intelligence Center. Use of this scale is granted to academic researchers for research purposes only. For information on using the scale or items for purposes other than academic research (e.g. consulting, program evaluation, non-academic organizations), send an email to [cquery@culturalq.com](mailto:cquery@culturalq.com).

## Appendix C

### Big Five Personality (International Personality Item Pool Big-Five Facets)

Describe yourself as you generally are now, not as you wish to be in the future. Your responses will be kept confidential. I \_\_\_\_\_.

1 = Very Inaccurate	2 = Moderately Inaccurate	3 = Neither Accurate nor inaccurate	4 = Moderately Accurate	5 = Very Accurate
1.	Am the life of the party		1	2 3 4 5
2.	Am always prepared		1	2 3 4 5
3.	Have a rich vocabulary		1	2 3 4 5
4.	Don't talk a lot		1	2 3 4 5
5.	Leave my belongings around		1	2 3 4 5
6.	Have difficulty understanding abstract ideas		1	2 3 4 5
7.	Feel comfortable around people		1	2 3 4 5
8.	Pay attention to details		1	2 3 4 5
9.	Have a vivid imagination		1	2 3 4 5
10.	Keep in the background		1	2 3 4 5
11.	Make a mess of things		1	2 3 4 5
12.	Am not interested in abstract ideas		1	2 3 4 5
13.	Start conversations		1	2 3 4 5
14.	Get chores done right away		1	2 3 4 5
15.	Have excellent ideas		1	2 3 4 5
16.	Have little to say		1	2 3 4 5
17.	Often forget to put things back in their proper place		1	2 3 4 5
18.	Do not have a good imagination		1	2 3 4 5
19.	Talk to a lot of different people at parties		1	2 3 4 5
20.	Like order		1	2 3 4 5
21.	Am quick to understand things		1	2 3 4 5
22.	Don't like to draw attention to myself		1	2 3 4 5
23.	Shirk my duties		1	2 3 4 5
24.	Use difficult words		1	2 3 4 5
25.	Don't mind being the center of attention		1	2 3 4 5
26.	Follow a schedule		1	2 3 4 5
27.	Spend time reflecting on things		1	2 3 4 5
28.	Am quiet around strangers		1	2 3 4 5
29.	Am exacting in my work		1	2 3 4 5
30.	Am full of ideas		1	2 3 4 5

**Appendix D****Expatriate Adjustment**

Please indicate how well adjusted (how comfortable) you are with each of the following aspects of your current overseas assignment.

<b>1 = Very Unadjusted</b>	<b>2 = Unadjusted</b>	<b>3 = Somewhat Unadjusted</b>	<b>4 = Neutral</b>	<b>5 = Somewhat Adjusted</b>	<b>6 = Adjusted</b>	<b>7 = Very Adjusted</b>
<b>1. Living conditions in general</b>				1	2	3 4 5 6 7
<b>2. Housing conditions</b>				1	2	3 4 5 6 7
<b>3. Food</b>				1	2	3 4 5 6 7
<b>4. Shopping</b>				1	2	3 4 5 6 7
<b>5. Cost of Living</b>				1	2	3 4 5 6 7
<b>6. Transportation</b>				1	2	3 4 5 6 7
<b>7. Weather</b>				1	2	3 4 5 6 7
<b>8. Entertainment/ recreation facilities and opportunities</b>				1	2	3 4 5 6 7
<b>9. Health care facilities</b>				1	2	3 4 5 6 7
<b>10. Socializing with host nationals</b>				1	2	3 4 5 6 7
<b>11. Interacting with host nationals on a day-to-day basis</b>				1	2	3 4 5 6 7
<b>12. Interacting with host nationals outside of work</b>				1	2	3 4 5 6 7
<b>13. Speaking with host nationals</b>				1	2	3 4 5 6 7
<b>14. Specific job responsibilities</b>				1	2	3 4 5 6 7
<b>15. Performance standards and expectations</b>				1	2	3 4 5 6 7
<b>16. Supervisory responsibilities</b>				1	2	3 4 5 6 7

**Appendix E****Table 7.***Correlation table with all variables in the present study.*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Overall Adjustment	(.93)														
2. Intrinsic Motivation	.56**	(.89)													
3. Extrinsic Motivation	.67**	.73**	(.92)												
4. Self-efficacy	.62**	.71**	.74**	(.92)											
5. Cognitive General Knowledge	.60**	.67**	.57**	.67**	(.80)										
6. Cognitive Specific Knowledge	.50**	.61**	.48**	.56**	.82**	(.94)									
7. Planning	.40**	.51**	.44**	.45**	.66**	.63**	(.81)								
8. Awareness	.29*	.48**	.36*	.53**	.53**	.52**	.50**	(.89)							
9. Checking	.35**	.51**	.42**	.47**	.57**	.46**	.51**	.57**	(.88)						
10. Speech Acts	.42**	.36**	.41**	.39**	.55**	.46**	.44**	.42**	.80**	(.86)					
11. Verbal Behavior	.23	.18	.19	.15	.41**	.34**	.36**	.29*	.57**	.73**	(.89)				
12. Nonverbal Behavior	.29**	.35**	.32**	.31*	.51**	.41**	.29**	.34**	.51**	.66**	.72**	(.89)			
13. Extraversion	.15	.33**	.10	.29*	.15	.22	.13	.06	.18	.08	-.00	.00	(.89)		
14. Conscientiousness	-.09	-.22	-.05	-.16	-.13	-.12	-.07	-.06	.06	.16	.28*	.11	-.10	(.80)	
15. Openness	.04	.23	.08	.15	.18	.20	.23	.24	.30*	.19	.02	-.04	.32*	-.02	(.80)

*Note:* Numbers in parentheses are reliability coefficients\* $p < .05$ , \*\* $p < .01$



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