Organization Management Journal

Volume 13 | Issue 1 Article 5

1-2-2016

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ORGANIZATION MANAGEMENT JOURNAL
2016, VOL. 13, NO. 1, 32–47
http://dx.doi.org/10.1080/15416518.2015.1129308

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Antecedents of Cross-Cultural Adaptation Stress in Short-Term International Assignments

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ABSTRACT
This study examines the role of cultural intelligence, perceived language fluency, and number of previous international experiences during a short-term international community service project in a foreign country. Based on a sample of 171 undergraduate and graduate students, the findings suggest that motivational cultural intelligence significantly impacted lowering cross-cultural adaptation stress levels experiences during short-term trips, while perceived language ability significantly increased stress levels. In addition, the control variables of age and gender were also found to significantly impact stress levels. Implications for research and practice are discussed.

KEYWORDS
Cross-cultural adaptation stress; cultural intelligence; international experience; perceived language fluency

Limited attention has been given to short-term international assignments in the international experience literature (Crowley-Henry & Heaslip, 2014; Suutari, Brewster, Riusala, & Syrjäkari, 2013), despite calls for more research in this area (Suutari et al., 2013), as well as an increasing number of organizations sending employees on assignments (Joinson, 2000; Starr, 2009; Starr & Currie, 2009; Tahvanainen, Welch, & Worm, 2005; Yeargan & Herod, 2002). Short-term assignments have increased in popularity because managers see these assignments as less costly (Crowley-Henry & Heaslip, 2014; Forster, 2000; Joinson, 2000), less disruptive to families (Forster, 2000; Joinson, 2000; Starr, 2009), and less unsettling to careers (Starr, 2009). Moreover, short-term assignments are an important component of international human resource strategies (Forster, 2000). Furthermore, long-term postings are often reserved for strategic needs, while short-term postings have become more common for areas such as training, addressing customer needs, or providing a specialized skill (International Assignment Perspectives, 2011). One study found that short-term assignments were most often used for skills transfer, problem solving, managerial control of a specific operation, or development for junior managers (Tahvanainen et al., 2005). However, these assignments may cause stress for the individuals who are sent abroad because they need to interact in a culture for only a short period of time in order to accomplish their assigned task.

Therefore, this article examines the role of cultural intelligence, perceived language fluency, and the number of previous international experiences on cross-cultural adaptation stress. The aim of this article is to hypothesize and test the impact of these variables on cross-cultural adaptation stress in a sample of students who went abroad for short-term international trips. The findings of this research will expand the research on short-term international assignments, which, as noted, is limited. Furthermore, identifying some potential antecedents of cross-cultural adaptation stress will be useful information for organizations to have when they send employees on short-term trips abroad. Figure 1 provides a visual representation of the hypotheses that will be developed and tested in the following.

Stress and cultural adaptation

While stress may be associated with both positive and negative behavioral and performance outcomes (Houdmont, Cox, & Griffiths, 2010; Kożusznik, Rodríguez, & Peiró, 2012; Logan & Ganster, 2005; Walinga & Rowe, 2013), it can be harmful and threatening, or it can generate opportunities and challenges (Kożusznik et al., 2012). For instance, challenge stress, which is related to work opportunities that provide chances for personal growth, has been found to be positively related to expatriate work adjustment (Firth, Chen, Kirkman, & Kim, 2014).

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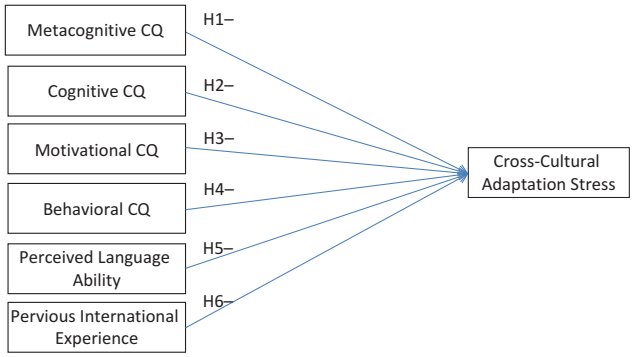

Figure 1. Proposed model of the relationships among CQ, perceived language ability, and international experience on cross-cultural adaptation stress.

However, organizational stress may occur when a person does not see him- or herself fitting into the workplace, resulting in dysfunctional behavior and/or performance (Edwards, 2008). Some researchers have suggested that individual differences exist between one's ability to cope with stress and another's ability to transform it, with the latter person having the ability to perceive stress as neutral or the ability to perceive stress as facilitating performance, whereas the former individual uses his or her energy to try to resist or cope with the stress (Walinga & Rowe, 2013). When stress is clearly dysfunctional, it can result in a biological response that can have a debilitating impact on the cognitive process (McEwen & Sapolsky, 1995). This process is critical to personal and work function. Stress that creates negative emotions and strain is generally labeled *distress* (Kożusznik et al., 2012; Rodríguez, Kozusznik, & Peiró, 2013) and is usually perceived by the individual as a potential threat (Kozusznik, Rodríguez, & Peiró, 2015; Kożusznik et al., 2012). For the purposes of this study, we define stress in terms of its debilitating potential, specifically as it relates to the inability of the individual to successfully cope with his or her environment.

Cross-cultural adaptation stress

There are various reasons that stress can occur during an international experience (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Black, Mendenhall, & Oddou, 1991; Ishii, 2012; Jassawalla, Truglia, & Garvey, 2004; Suh & Lee, 2006; Van der Bank & Rothmann, 2006). For instance, travelers can experience stress from the flight itself (Bricker, 2005, 2008; Ramsey, 2013). Moreover, perceived institutional distance, which is one's perception of the country's degree of similarity or difference from one's own, has been found to be positively related to job and travel strain (Ramsey, 2013; Ramsey, Leonel, Gomes, & Monteiro, 2011). During a cross-cultural experience, stress can induce culture shock, which is an extreme reaction to stress and has the potential to negatively impact an international traveler's performance (Sims & Schraeder, 2004). Cross-cultural adaptation stress is a specific type of stress experienced by individuals who travel abroad that focuses on the feelings associated with the adjustment to the foreign culture. It can have negative consequences on individuals. Stress during a cross-cultural experience can result from adaptation or maladaptation to the international assignment (Bhaskar-Shrinivas et al., 2005). An international employee's ability to manage stress while on a foreign assignment is critical, as psychological stressors have been noted as having an important impact on cross-cultural adaptation and potentially leading to expatriate failure (Rosenbusch & Cseh, 2012). Moreover, minimizing stress during short-term travel experiences is crucial since the time in the foreign country is brief, and it is usually necessary for an employee to quickly accomplish their assigned task.

While some research in the expatriate and international traveler's literature focuses on stress (Bhaskar-Shrinivas et al., 2005; Brown, 2008; Van der Bank & Rothmann, 2006), including one recent study that examined expatriate stress and burnout from long-term assignments (Silbiger & Pines, 2014), scant research looks at stress related to short-term assignments. Some recent exceptions do exist that focus on short-term assignments (Starr, 2009; Starr & Currie, 2009), but these studies did not examine cross-cultural adaptation stress; rather, they focused on family-related stress and issues around repatriation.

Scholars have found that the inability to cope with work and nonwork environments is due to a range of possible causes, including role conflict in the new assignment and in the inability to handle cultural differences leading to problems in cultural adaptation (Stahl & Caligiuri, 2005). Cross-cultural adaptation not only is seen as key for success of the international business traveler and expatriate, but often is seen to be associated with reducing stress (Carraher, Sullivan, & Carraher, 2005; Froese & Peltokorpi, 2011; Kożusznik et al., 2012; Lu, 2011; Morley & Flynn, 2003; Rosenbusch & Cseh, 2012; Sims & Schraeder, 2004). Additionally, role stress theory suggests that stress generated in one domain may influence stress in other domains (Bhaskar-Shrinivas et al., 2005; Kahn, Wolf, Quinn, Snoek, & Rosenthal, 1964); therefore, if one experiences cross-cultural adaptation stress, this could cause stress in other areas, such as work stress. Thus, it is important for international business managers to recognize the threat that stress can pose to successful cultural adaptation and to identify possible strategies for minimizing the potential negative impact of stress. The more that is understood about the antecedents of stress on the international assignee, the better able organizations and individuals are to make the necessary adaptations to minimize its potential negative impacts.

Cultural intelligence and cross-cultural adaptation stress

Cultural intelligence (CQ) is a person's ability to effectively function in culturally diverse situations (Ang, Van Dyne, & Koh, 2006; Ang, Van Dyne, & Tan, 2011; Earley & Ang, 2003; Ng & Earley, 2006). It is considered to be multifaceted (Thomas & Inkson, 2004), with both content and process components (Earley, Ang, & Tan, 2006). CQ is a "culture-free construct," meaning that it is not culture specific (Ng & Earley, 2006; Thomas, 2006); thus, an individual with high CQ may be able to function across a variety of cultural environments.

While there has been a plethora of research on CQ, which is thought to be a critical leadership competency (Rockstuhl, Seiler, Ang, Van Dyne, & Annen, 2011), there are many areas that still warrant investigation. Recently, many scholars have examined the relationship between cross-cultural adjustment and cultural intelligence (Abdul Malek & Budhwar, 2013; Chen, Wu, & Bian, 2014; Huff, 2013; Huff, Song, & Gresch, 2014; Konanahalli et al., 2014; Moon, Choi, & Jung, 2012; Ramalu, Raduan Che, Kumar, & Uli, 2010). However, one particularly important, yet underresearched, area of CQ is its relationship to cross-cultural adaptation stress, despite some authors having posited a relationship. For instance, some scholars suggest that CQ is related to variables such as cross-cultural communication apprehension, anxiety, and uncertainty (Ang & Van Dyne, 2008). Other authors have discussed that culture shock is the result of a stress-induced reaction (Sims & Schraeder, 2004) and that CQ is important for minimizing culture shock (Tan, 2004). Thus, it is likely that CQ is also important in minimizing cross-cultural adaptation stress.

The few scholars that have empirically examined aspects of stress and CQ have only begun to scratch the surface of the topic. For example, one article examined the moderating effects of CQ on travel strain and job strain (Ramsey et al., 2011). Other scholars examined CQ as a predictor of acculturative stress in students who migrated from one part of India to another for schooling (Ayoob, Wani, Ahmad, Jan, & Dar, 2015). Yet neither of these articles examined the four subcomponents of CQ. One article focused on the subcomponents of CQ, but it specifically examined burnout, which is considered an affective response to work-related stress (Tay, Westman, & Chia, 2008). Thus, there is much to be discovered about the relationship between CQ and stress.

CQ involves interaction with others, and interaction skills have been found to be significantly and positively related to expatriate transitional adaptation (Morley & Flynn, 2003). It is likely that higher levels of CQ will decrease stress related to cross-cultural adaptation. Most research focuses on four subcomponents of cultural intelligence: metacognitive cultural intelligence, cogitative cultural intelligence, motivational cultural intelligence, and behavioral cultural intelligence (Ang & Inkpen, 2008; Ang et al., 2006; Ang, Van Dyne, Koh, & Ng, 2004; Ang et al., 2007, 2011; Crowne, 2008, 2009, 2013a, 2013b; Crowne, Phatak, & Salunkhe 2009; Crowne, Phatak, Salunkhe, & Shivarajan 2011, 2012; Groves & Feyerherm, 2011; Moon et al., 2012; Rockstuhl et al., 2011). Metacognitive CQ refers to an individual's level of cultural awareness during cross-cultural interactions, and as a higher order cognitive function allows the individual to develop rules for social interactions during new cultural experiences (Ang et al., 2007; MacNab, Brislin, & Worthley, 2012). Cognitive CQ comprises the knowledge of norms, practices and conventions of various cultures and general knowledge about the structures of a culture (Ang et al., 2006; Ng & Earley, 2006). Motivational CQ is the desire to adapt to an unfamiliar environment, which involves focusing on learning and functioning in

different cultural situations (Ang et al., 2006, 2004, 2007, 2011; Blasco, Feldt, & Jakobsen, 2012; Lin, Chen, & Song, 2012). Finally, behavioral CQ encompasses the action aspect of the construct (Ang et al., 2011; Earley et al., 2006; MacNab et al., 2012). We focus on these subcomponents here and posit their relationship with stress related to cross-cultural adaptation. However, it should be noted that some researchers group metacognitive and cognitive into one component (Earley et al., 2006; Earley & Peterson, 2004; Lee & Maurer, 1999), as these facets refer to mental intelligence (Ang et al., 2006), whereas others have used an aggregation of all four CQ subcomponents (Engle, Dimitriadi, & Sadrieh, 2012; Engle & Nehrt, 2012).

Subcomponents of CQ and cross-cultural adaptation stress

Metacognitive CQ is a high order mental process that aids in the application of cultural knowledge (Lin et al., 2012), and it is one's knowledge of and control over cognitions (Ang et al., 2004). This component of CQ includes actively thinking about cultural situations and actively questioning one's cultural assumptions (Ang et al., 2011). A person high on this aspect of CQ has the ability to process information and the knowledge of processing it (Earley & Ang, 2003), as well as being able to be flexible in his or her self-concept in order to integrate new components into that self-concept (Earley & Ang, 2003). Some scholars have theorized three subcomponents of metacognitive cultural intelligence, including planning, awareness, and checking (Van Dyne et al., 2012).

It is likely that an individual high on metacognitive CQ has the ability to question his or her own cultural assumptions (Ang et al., 2011) and will likely be able to process the cultural information better than someone low on this component of CQ. This knowledge should lead to lower levels of stress while on a short-term international experience. Furthermore, an individual's ability to be flexible in his or her self-concept (Earley & Ang, 2003) should help that person adjust to the new cultural situation and thus minimize stress. Moreover, one study found that metacognitive CQ was significantly and negatively related to burnout (Tay et al., 2008). Thus, it is anticipated that:

Hypothesis 1: Higher levels of metacognitive cultural intelligence will decrease cross-cultural adaptation stress during a short-term international experience.

Cognitive CQ includes knowledge of cultural universals as well as cultural differences (Ang et al., 2011). Often this knowledge is gained through education and personal experiences (Ang et al., 2004, 2011; Lin et al., 2012). Some consider subdivisions of cognitive CQ to be cultural-general knowledge and cultural-specific knowledge (Van Dyne et al., 2012).

It is expected that those with higher levels of cognitive CQ will likely have lower levels of cross-cultural adaptation stress because their knowledge of cultures (Ang et al., 2006, 2011; Ng & Earley, 2006) will help them understand the cultural differences better than those with lower levels of this component of CQ. This knowledge should contribute to lowering their stress level during the short-term international experience. Additionally, since this knowledge is often gained through education and personal experiences (Ang et al., 2004, 2011; Lin et al., 2012), these individuals may be more prepared for the cross-cultural interactions that will occur during the trip abroad. In a study of expatriate managers, Jassawalla et al. (2004) found that interpersonal conflict occurred from having different perceptions of time, urgency, and implementation, and this conflict likely causes stress. This conflict could be avoided if the individual had knowledge of the culture's perception of these areas; since knowledge of the culture is an aspect of cognitive CQ, it would likely lead to lower cross-cultural adaptation stress. Thus, it is expected that:

Hypothesis 2: Higher levels of cognitive cultural intelligence will decrease cross-cultural adaptation stress during a short-term international experience.

Motivational CQ directs and motivates one's adaptation to a new cultural setting (Earley & Ang, 2003; Ng & Earley, 2006). It encompasses goal setting related to the cultural interaction (Earley & Peterson, 2004; MacNab et al., 2012). It is the source of drive in culturally diverse situations (Ang et al., 2011). An individual with high levels of motivational CQ will have a greater desire to overcome frustrations from interacting in a different culture (Lin et al., 2012). Subcomponents of motivational CQ are thought to include intrinsic interest, extrinsic interest, and self-efficacy to adjust (Van Dyne et al., 2012).

It is anticipated that motivational CQ reduces cross-cultural adaptation stress, because an individual high on this component of CQ has a desire to have international experiences (Ang et al., 2006, 2004, 2007, 2011; Blasco et al., 2012; Y.-c. et al., 2012).

Since such people want to overcome the frustrations associated with the foreign experience (Lin et al., 2012), they will likely have lower stress levels. Moreover, researchers have found that expatriate motivation was positively related to work adaptation (Chen, Kirkman, Kim, Farh, & Tangirala, 2010). Self-confidence has also been found to be important for expatriate success (Forster, 2000; Jassawalla et al., 2004). Furthermore, it is thought that expatriates should have a social orientation that includes the desire to communicate with others and to learn about the host culture (Black, 1990; Caligiuri, 2000). Since this concept includes the desire to communicate, it is likely related to the motivational component. Therefore it is expected that:

Hypothesis 3: Higher levels of motivational cultural intelligence will decrease cross-cultural adaptation stress during a short-term international experience.

Behavioral CQ involves competently interacting with individuals from diverse backgrounds (Thomas, 2006). This includes the adaptation of one's tones, gestures, and body language (Ang et al., 2007; Lin et al., 2012) and appropriate use of verbal and nonverbal behaviors (Ang et al., 2006, 2004; Ng & Earley, 2006). Furthermore, this aspect of CQ involves the understanding of when it is appropriate not to act or to refrain from interacting (Earley & Ang, 2003; Thomas, 2006) when in a cross-cultural situation. Subcomponents of behavioral CQ are thought to include verbal behavior, nonverbal behavior, and speech acts (Van Dyne et al., 2012).

It is expected that higher levels of behavioral CQ will lead to lower levels of cross-cultural adaptation stress because the ability to act appropriately in a foreign culture should minimize conflict with others in that culture. This reduction of conflict should lead to lower levels of adaptation stress. Furthermore, researchers have found that this subcomponent of CQ is significantly and negatively related to burnout (Tay et al., 2008). Therefore, it is expected that:

Hypothesis 4: Higher levels of behavioral cultural intelligence will decrease cross-cultural adaptation stress during a short-term international experience.

Perceived language fluency and cross-cultural adaptation stress

A higher level of perceived language fluency is expected to reduce cross-cultural adaptation stress because it is likely that a person who feels that he or she can communicate well in a culture will experience less stress. This idea is supported by research that found that language can lead to cross-cultural adjustment (DiMarco, 1974); more specifically, some researchers found that language ability had a positive relationship with cultural and interaction adjustment (Bhaskar-Shrinivas et al., 2005). A recent study also found that proficiency in the host country's language was related to general adjustment and interaction adjustment (Selmer & Lauring, 2015). While neither of these studies focused on cross-cultural adaptation stress, it seems likely that this type of stress is also lowered in these cases since the ability to adjust to the culture should minimize stress. Furthermore, communication ability has been found to lead to expatriate success (Holopainen & Björkman, 2005). One study found that in China, language skill was one of the personal characteristics that lead to success for expatriates (Feng & Pearson, 1999). Furthermore, a study of Japanese expatriates found that a high level of local language skills positively influenced expatriate success while on the assignment, and that local language proficiency was a significant predictor of stress level (Ishii, 2012). Therefore, it seems likely that success during expatriation is likely related to lower levels of cross-cultural adaptation stress. Moreover, one study that did focus on stress found evidence that language barriers contributed to stress for Korean expatriate women working in the United States (Suh & Lee, 2006). Thus it is anticipated that:

Hypothesis 5: Higher levels of perceived language fluency in the native language of the country being visited will decrease cross-cultural adaptation stress during a short-term international experience.

International experience and cross-cultural adaptation stress

Most of the research related to international experience focuses on cross-cultural adjustment as opposed to cross-cultural adaptation stress. In a comprehensive meta-analysis conducted, scholars found that previous international experience was positively and significantly associated with interaction adjustment, yet the effect size was small, and previous international experience was not related to cultural adjustment (Bhaskar-Shrinivas et al., 2005). However, this meta-analysis focused on traditional expatriate assignments and not short-term assignments. We believe that a higher level of past international experience is likely to lead to lower levels of cross-cultural adaptation stress during short-

term assignments because individuals should have gained some knowledge and understanding of cultural differences during their past exposure to other cultures, which would likely lead to lower levels of stress in a short-term assignment because they may be able to utilize of the knowledge gained from their past experiences. Furthermore, the duration of these assignments is short and the individual will not have to adjust for long. It is thought that expatriates' previous international experience has contributed to their development of cultural knowledge (Kim & Slocum, 2008; Moon et al., 2012; Takeuchi, Tesluk, Yun, & Lepak, 2005). Additionally, previous international experience is thought to be important in expatriate selection (Tye & Chen, 2005), thus indicating that firms consider it a proxy for successful expatriate assignments. Past exposure to other cultures should help to prepare international assignees for the current international experience. Therefore, it is anticipated that:

Hypothesis 6: Higher levels of previous international experience will decrease cross-cultural adaptation stress during a short-term international experience.

Methodology

Participants

The group consisted of 171 students (see Table 1) at a university in the northeastern part of the United States who were participating in a short-term study-abroad experience that focused on community service. The trips ranged from 7 to 12 days. To participate in the service trips, students had to complete an application process and show evidence of academic standing with a grade point average (GPA) of 3.0 or higher. The purpose of the service trips varied and included legal (e.g., business contract process), business (e.g., small business website or business plan development), or health care services (e.g., local women's health clinic and nutritional education). All study-abroad trips were organized by a university and local administrative groups, and the student groups contained approximately 10–15 university students. In all cases, the subjects spent 50–100% of their time with a local family and shared meals with these families. The locations for the trips were Barbados (4.6%), Guatemala (14.6%), and Nicaragua (80.7%).

Most of the participants were female (female = 67%). The participants' ages ranged from 18–31 years, with the majority being 18–23 years of age (91.2%), and the participants' mean age was 21.48. Both undergraduate students and graduate students were represented in the sample (undergraduates = 67.8%), and the largest single group in the sample were students in their fourth year of undergraduate schooling (37.4%). Various majors were represented, with the largest majors being physical therapy (18.7%), biology (15.8%), and occupational therapy (14%). More than half of the participants spoke at least one language other than English "reasonably well" (50.9%), and most of the participants had some international experience. The average number of countries visited prior to this experience was 5.7, and only 13 subjects (7.6%) had never before traveled abroad.

Procedure

Before going on their short-term study abroad trips, participants typically met. After being given the initial cultural intelligence questionnaire, they were given information regarding the target country's history and culture, as well as other relevant background information. About 2 weeks prior to departure, subjects met with the program director to complete a worksheet and to watch a 20- to 45-minute film (depending on country) that provided a brief overview of the history and culture of the target country. After the film, a 1- to 1½-hour discussion was led by the program director

Table 1. Correlations.

	Alpha	$\bar{X}$	*SD*	Age	Gender	Education	Lang. fluency	Travel #	Metacognitive 1	Cognitive 1	Motivational 1	Behavioral 1	Stress
Age		21.4	2.08	1									
Gender		0.67	0.47	−.127	1								
Education		4.03	1.25	**.777**[2]	−.007	1							
Language fluency		2.91	1.76	**−.165**[1]	.091	**−.192**[1]	1						
Travel #		5.70	5.58	**.185**[1]	.116	.114	.134	1					
Metacognitive 1	.777	5.17	0.88	**.196**[1]	.067	.081	**.252**[2]	**.160**[1]	1				
Cognitive 1	.785	3.69	0.96	**.217**[2]	−.055	.061	**.371**[2]	**.278**[2]	**.562**[2]	1			
Motivational 1	.770	5.72	0.88	.086	.017	.015	**.290**[2]	.097	**.605**[2]	**.376**[2]	1		
Behavioral 1	.789	4.99	0.99	**.191**[1]	.069	.145	**.212**[2]	.119	**.673**[2]	**.421**[2]	**.498**[2]	1	
Stress	.772	2.61	1.07	**.184**[1]	**−.168**[1]	.111	.028	.020	**−.169**[1]	.002	**−.237**[2]	**−.159**[1]	1

Note. **Bold** = significant. Significance: [1]$p < .05$; [2]$p < .01$.

about the film and readings. Depending on availability, subjects were also given some information about the specific service projects they would be doing in the country. For instance, participants studying health care might be involved in health education with local residents of the country, while physical and occupational therapy students might work with residents needing basic therapy. Business students might work with local businesses or entrepreneurs on their business, marketing, or bookkeeping practices. Also, subjects read and discussed a number of "mini-cultural cases" of about one paragraph (e.g., host mother would put much more food on my plate than I could eat and do not want to offend her), which were written by previous student visits to the country. In total, including the reading materials provided, the total formal pretrip preparation time was estimated to be approximately 6 hours.

Participants also completed paper surveys, pre and post trip. Pretests were administered approximately 1–2 weeks prior to the trip; these assessed cultural intelligence, perceived language ability, previous international experience, and demographic characteristics. Posttests were administered approximately 2 weeks after participants returned and assessed cross-cultural adaptation related stress. Surveys were administered in a group meeting setting. The posttrip survey assessed CQ and cross-cultural adaptation stress. Approximately 85% of subjects completed both pre- and posttrip surveys.

Measures

Stress

An investigation was completed of various measures of stress related to international travel experience, with an attempt to evaluate their potential use with university business students in a short-term study-abroad program. Among those examined was Rodríguez et al. (2013), and Kozusznik et al. (2015), who used a 33-item instrument that included a significant number of items on "home–work balance" and "workload," as well as other items related to job performance feedback, social support at work, being undervalued, and so on. Another study by Bricker (2005) focused on "travel stress," including such constructs as "fear of flying" and "anger when driving," and included 16 arguably related constructs in total, using 234 items and 5 separate subject samples. Ramsey et al. (2011) used Bricker's instruments, as well as adding a construct from the work-related role strain literature: "job strain." In addition, a study by Van der Bank and Rothmann (2006) used a number of expatriate adjustment-related items, including those focused on work, co-workers, and the organizational environment, as well as one 12-item subconstruct measuring cultural adjustment. Finally, a 165-sample meta-analysis (Connor-Smith & Flachsbart, 2013), which included the examination of stress as often seen in coping processes, suggested that based on their review, future studies should focus on specific stressors with special attention to the potential domain of the stressor, rather than on broad and general measures of stress. Given their suggestion, and in light of our not being comfortable with the international travel-related stress measures we were able to find, we decided to develop a measure specifically for our study environment.

In order to develop a measure of stress-related project work in another country that would be appropriate for a sample of university students who participated in a short-term study-abroad program, a team of four experienced international business managers was gathered along with two international business faculty members (one of whom led the process) who managed student study-abroad programs and two university students who had participated in a program similar to that which would be the focus of the study. The purpose of this group was to develop a series of possible questions that would allow us to measure the degree of stress felt by an individual who was working in a foreign culture. As a starting point, 19 of the items used by Van der Bank and Rothmann (2006) were used for discussion. Since the final instrument used in this study would also include a number of other constructs consisting potentially of 100 items or more, eventually the goal for this measure was set to eventually between five and eight items to measure this construct, since we felt more might add to a potential "fatigue" factor for the individuals completing the surveys.

Following the recommendation of Hinkin (1998), twice as many questions were developed as were wanted in the final scale; we developed 16 possible questions (Hinkin, 1998). Next, as suggested by Van Dyne, Ang, and Koh (2008), these 16 questions were then given to 10 former business expatriates to rank order (1 through 16) based upon each question's ability to assess stress experiences while working in a foreign country (Van Dyne et al., 2008). The top eight questions were retained.

A pilot test of these questions was completed on 20 students who had spent a semester abroad and had internships while doing so. Factor analysis (maximum likelihood) identified that one of the questions did not have a sufficient loading factor (>.400), and it was

eliminated from these eight questions, resulting in a seven-question measure. Finally, the data from these seven questions, from 131 subjects in this study (40 subjects were added to the sample later), were analyzed, which resulted in discovering that two questions did not have sufficient factor loadings and thus were eliminated, leaving a measure of five questions. Using the 131-subject sample, the five remaining questions had an acceptable internal reliability of .73 (with the 171-subject data set the alpha was .77). These five questions were: To what extent did you feel strain from the effort to adapt to a new culture? To what extent did you miss your family and friends? To what extent did you wish to escape from your new environment? To what extent did you feel confused about your role or identity in the new culture? To what extent did you find things in your new environment shocking or disgusting? These questions were measured on a scale of 1–7 with 1 = *to a little extent*, and 7 = *to a great extent*.

Cultural intelligence

Cultural intelligence was assessed by a self-report measure developed by Ang and colleagues (Ang et al., 2004), which is considered well established (Ang et al., 2011) and has been often used in scholarly research (Ang et al., 2006, 2007; Crowne, 2008, 2013a, 2013b; Crowne, Phatak, & Salunkhe 2009; Engle, Dimitriadi, & Sadrieh, 2012; Engle & Nehrt, 2012; Engle & Crowne, 2014; Dagher, 2010; Groves & Feyerherm, 2011; Moon, 2010; Shannon & Begley, 2008; Tarique & Takeuchi, 2008; Ward, Fischer, Lam, & Hall, 2009; Ward, Wilson, & Fischer, 2011). It measures four subscales: metacognitive, cognitive, motivational, and behavioral. Participants were asked to respond to the twenty items on a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*.

Perceived language ability

Perceived language ability was assessed by one item, "To what degree are you able to speak fluently in the language of the country to which you will travel." Participants were asked to respond on a 7-point Likert scale ranging from *to a little extent* to *to a great extent*.

Previous international experience

To assess previous international experience, participants were asked to estimate the total number of times they had traveled outside the United States. This is consistent with past research that looked at the number of countries one visited as an indication of one's level of international experience (Crowne, 2008, 2013b; Carpenter, Sanders, & Gregersen, 2001).

Controls

Basic demographic information was also gathered and used, including age, education level (number of years of college), and gender.

Results

Initial analysis of the data was conducted by examining the reliabilities of the cultural intelligence measure's four subcomponents and cross-cultural adaptation stress. The four subcomponents of CQ showed good internal reliability. As noted earlier, the final stress measure consisted of 5-items (α = .772). Furthermore, correlation analysis was conducted; means and standard deviations are reported in Table 1.

As a first step in hypothesis testing, single regression was conducted for each independent variable using age, gender, and education as controls. The results seen in Table 2 suggests that three of the four CQ factors—metacognitive, motivational, and behavioural—have some level of a significant impact on stress as individual

Table 2. Regressions using single variables with age, gender, and education as controls.

Model variables	Std. beta	Significance
Metacognitive CQ	**−.209**	**.007**[3]
Cognitive CQ	.050	.522
Motivational CQ	**−.255**	**.001**[3]
Behavioral CQ	**−.190**	**.013**[2]
Number of international travel experiences	.005	.953
Language fluency	.068	.376

Note. **Bold** = significant. Significance: [1]$p < .10$; [2]$p < .05$; [3]$p < .01$.

Table 3. Hierarchical regression models.

	Model 1, std. beta	Model 2, std. beta	Model 3, std. beta	Model 4, std. beta	Model 5, std. beta
Age	**.202** [a]	**.249**[1]	**.280**[1]	**.280**[1]	**.218**[2]
Gender	**−.143** [a]	−.117	**−.130** [a]	**−.130** [a]	**−.150**[1]
Education	−.046	−.068	−.057	−.057	
Metacognitive CQ		−.094	−.085	−.085	
Cognitive CQ		.104	.044	.044	
Motivational CQ		**−.203**[1]	**−.233**[1]	**−.233**[1]	**−.301**[3]
Behavioral CQ		−.068	−.076	−.076	
Language fluency			**.163**[1]	**.163**[1]	**.163**[1]
International travel experience				.001	
Stress	DV	DV	DV	DV	DV
F Score	**3.297**[1]	**3.570**[3]	**3.667**[3]	**3.239**[3]	**6.819**[3]
R-squared	.056	.133	.153	.153	.141
Adj. *R*-squared	.039	.096	.111	.106	.120
ΔR^2	—	.077	.020	.000	−.012

Note. **Bold** = significant. Significance: $p < .10$; [1]$p < .05$; [2]$p < .01$; [3]$p < .001$. Gender: 0 = men, 1 = women. Education = years of college. DV = dependent variable.

variables, and the number of international trips and perceived language ability did not have a significant impact in these single regressions.

To test the hypotheses within the full model and examine in some detail the potential interactions of the independent and control variables, hierarchical regression analysis was then conducted with stress as the dependent variable. In the first step, the controls were entered (age, gender, and education level), represented by Model 1 in Table 3. In the second step (Model 2), the hypothesized independent CQ variables were entered (metacognitive CQ, cognitive CQ, motivational CQ, behavioral CQ) followed by perceived language fluency (Model 3), and number of previous international trips (Model 4). Model 5 consisted only of those model variables that were found to be significant in Model 4 (full model) and was done to examine the potential of significant variables. Model 4 indicated support for hypothesis 3, which stated: "Higher levels of motivational cultural intelligence will decrease cross-cultural adaptation stress during a short-term international experience." Hypotheses 1, 2, 4, 5, and 6 were not supported. Surprisingly, hypothesis 5, which stated "Higher levels of perceived language fluency in the native language of the country being visited will decrease cross-cultural adaptation stress during a short-term international experience," was found to be significant, but in the opposite direction to that hypothesized. The control variables of age and gender also had significant impacts within the model. During this process, variance inflationary factors (VIF) for all related variables in the model were tested, with all VIF scores being below 3.0, suggesting no significant collinearity, which if above a conservative score of 5.0 might question the ability to interpret the results (Levine, Stephan, Krehbiel, & Berenson, 2005; Snee, 1973).

Discussion

This study builds on the bodies of research related to cultural intelligence, perceived language fluency, international experience, and cross-cultural adaptation stress. While much research has been conducted in these areas, to date, no study found has investigated the impact of cultural intelligence, perceived language fluency, and previous international experience on cross-cultural adaptation stress, nor has any past study examined these relationships with the subcomponents of CQ. Furthermore, this study is particularly timely, since organizations are making use of short-term international assignments (Joinson, 2000; Puccino, 2007; Starr, 2009; Starr & Currie, 2009; Tahvanainen et al., 2005; Yeargan & Herod, 2002). Thus, understanding what influences cross-cultural adaptation stress is critical so that organizations can try to minimize this type of stress for their international assignees.

Research implications

While not all the relationships hypothesized held, there were some significant findings in this study, specifically that stress was minimized by motivational CQ and that perceived language ability actually increased stress levels. Moreover, gender and age also had a significant impact on cross-cultural adaptation stress; specifically, those who were older had higher levels of stress, and females experienced higher levels of stress. Thus, our findings should aid researchers in building a clearer understanding of which variables impact cross-cultural adaptation stress: specifically, for those on short-term assignments who have a limited time to accomplish their assigned task.

This study also builds on the understanding of the four subcomponents of CQ. Interestingly, when each of the CQ factors was evaluated individually along with the control variables, three of the four factors (metacognitive, motivational, and behavioral) revealed some degree of significance. However, motivational CQ—the individual's desire to direct attention and energy toward pursuing multicultural experiences (Ang et al., 2011)—when evaluated along with the other factors, picks up enough of those factors' ability to explain the variance in stress levels to become the single dominant CQ predictive factor with regard to stress. Thus, it is possible that an individual's desire to interact with another culture may reduce stress because this desire is a more powerful influence on stress than the individual's level of cultural understanding (metacognitive CQ), knowledge of the culture (cognitive CQ), or ability to appropriately interact (behavioral CQ). Since no past study examined these components in relationship to cross-cultural adaptation stress, this research adds value to the literature. Moreover, this is a particularly significant finding since the research was longitudinal, with the independent variables assessed prior to the international travel and stress being measure immediately afterward.

Importantly, this research confirms that a structured service-oriented short-term assignment can generate cross-cultural adaptation stress, which may impact the effectiveness of the individual on the assignment. Even with some pretrip preparation, study participants still experienced cross-cultural adaptation stress. This finding builds on past research that examined adaptation stress.

Unexpectedly, the number of international trips the subject had previous to the target international short-term experience did not appear to impact stress levels. This would seem counterintuitive, since one might reasonably expect that the more one is exposed to a multicultural environment, the more comfortable and less stressful one would be with another international experience. Of course, what this study did not examine was the nature of these experiences and cultural distance associated with those previous international trips. Perhaps their previous trips may be perceived as having less of a cultural difference than that between the United States and Latin America—in particular, Nicaragua, where the majority of the subjects traveled. Moreover, this study did not examine the reason for the previous trips, which may influence stress level. For instance, if past international experiences were for vacation, and the majority of the visit was spent in a hotel, then this may not reduce a student's stress level when he or she participates in a service-oriented trip such as the experience in this study. Likewise, if a student has participated in past service-oriented international experiences, it is likely he or she may experience less cross-cultural adaptation stress on subsequent service-oriented international experiences.

Also, perceived language fluency was found to significantly increase stress levels, which was opposite from what was hypothesized. While studies have found that language ability is important for aspects of adjustment while expatriates are on international assignments (Bhaskar-Shrinivas et al., 2005), one study did find that UK students who completed international placements in the United States experienced culture shock related to language ability (Ineson, Lyons, & Branston, 2006). Since the common language in both countries is English, this study indicates that a significant negative response to a culture, such as culture shock, can occur even when one's native language would be consider the same or relatively similar. Therefore, cross-cultural adaptation stress may also occur even when the language is similar but is a different dialect. Another study found that students experienced stress when studying abroad when they discovered that their language ability, even the most advanced, still made communication in the foreign language extremely challenging (Pitts, 2009). Furthermore, if one perceives one's language skills as strong, but then finds it surprisingly more difficult to communicate in that language, this could increase one's cross-cultural adaptation stress.

Finally, another finding is that age and gender had significant impacts on stress, with older subjects experiencing higher levels of stress and women in our study experiencing higher level of stress than men. Both of these findings are interesting, but unfortunately, sample size and distribution do not allow for an adequate examination of the potential reasons for these findings, and future research needs to address this shortcoming.

Managerial implications

Poor cross-cultural adaptation has been acknowledged as a reason many expatriates return early from a foreign assignment (Jassawalla et al., 2004); thus, better understanding what can minimize cross-cultural adaptation stress is critical. Those who do not adjust well to a foreign assignment have been found to want to end the assignment early (Gabel, Dolan, & Cerdin, 2005), and since expatriate assignments are noted as costly (Black & Gregersen, 1999; Johnson, Lenartowicz, & Apud, 2006; Krell, 2005; McNulty & Tharenou, 2004; Peak, 1997; Solomon, 2000; Welch, 2003), it is important that the assignments do not fail. Moreover, managers have expressed concern about finding ways to increase success rates (Klaus, 1995; Toh & DeNisi, 2007). As a result, many organizations have been sending their employees on short-term assignments (Joinson, 2000; Starr, 2009; Starr & Currie, 2009; Tahvanainen et al., 2005; Yeargan & Herod, 2002); however, this study provides some evidence that even short-term assignments may cause stress. Thus, it may be beneficial for organizations to screen international assignees for motivational CQ when making employee selection decisions.

Furthermore, language fluency has been acknowledged as a key characteristic when selecting expatriates (Jordan & Cartwright, 1998; Tye & Chen, 2005). While language training and skill have been addressed by past scholars in the expatriate literature (Ashamalla & Crocitto, 1997; Feng & Pearson, 1999; Jordan & Cartwright, 1998; Selmer & Lauring, 2015; Tung, 1987) and some have found that language skills are related to expatriate success (Mol, Born, Willemsen, & Van Der Molen, 2005), others believe language can be learned, so it is not necessary for the selection process (Graf, 2004). Organizations may want to be cautious about how they assess language fluency for selection, particularly since selection of inviduals for short-term assignments is often not done formally, as it is done with more traditional expatriate assignments (Tahvanainen et al., 2005). Our study indicates that an individual's perception of his or her language ability may not be the most accurate assessment.

Additionally, since stress reduction skills have been found to be significantly and positively related to

expatriate transitional adaptation (Morley & Flynn, 2003), organizations can use this study as a guide to help selecting expatriates for assignments. Organizations should also consider ways to increase motivational CQ in their potential expatriates. In order to get employees to desire to go abroad and learn about other cultures, the organization will likely have to develop a global mind set, which has been defined as an openness to and an awareness of diversity among cultures and markets (Gupta & Govindarajan, 2002; Lovvorn & Chen, 2011). If the firm has a global mind set, this mind set should lead its employees to having a more global perspective, as well as motivating employees to learn more about other cultures, increasing their motivational CQ.

Limitations and future research

The student sample is a key limitation of this research because the sample was one of convenience, had limited diversity, and was not random. It comprised students who were U.S. citizens, and although the sample included both graduate and undergraduate students, all the participants were from the same university; therefore, this study may not be generalizable to other populations. Those who participated in this study had to apply to these study abroad programs and be accepted. Part of the application process included a minimum GPA. Furthermore, the programs, while work related, were all service based, which is a very specific type of international experience. We believe this student sample is appropriate for this study since the large majority of subjects are nearing graduation or are in graduate school and are therefore at the stage of entering the workforce. They may, in the relatively near future, be under consideration for working in a multicultural business environment and perhaps even going on international assignments. Also, as noted, their trip was work related and not just a study trip or a traditional study-abroad experience; thus, this trip mimicked a short-term work experience. Future studies, however, should examine more diverse populations to see whether the relationships found here hold.

Another limitation is that the countries in this study were limited to the Central America and Caribbean area. Future studies should examine short-term international experiences in other parts of the world to determine whether the relationships found here hold.

Moreover, another limitation is that measuring international experience by the number of times abroad has its limits. Others have advocated using multiple measure of international experience (Takeuchi et al., 2005). Given the finding that previous international travel did not impact stress, future research should also examine the role of cultural distance, nature, and duration of those trips to see to what degree these might moderate impacts on stress.

Furthermore, this study is limited because participants self-assessed their language ability and they may not have an accurate view of their skills. While previous research has measured language proficiency this way (Chen et al., 2014; Huff, 2013; Ishii, 2012; Selmer & Lauring, 2015), it may not be the best method for assessing language skills. It is possible that people believe that their language skills are strong until they are faced with communicating effectively in a culture where the language is native. This may then lead them to greater frustrations and higher levels of stress than those who are aware that they do not have strong language skills in the target culture. Future researchers should look at testing language skills rather than relying on self-report or in combination with self-report assessments of language skills.

Moreover, this study examines cross-cultural adaptation stress and not coping. Significant work has been done with respect to the relationship between stress and coping in the context of acculturation, which involves learning to live in a new cultural context (Jackson, Ray, & Bybell, 2013). Berry developed a model that incorporated many group-level and individual-level variables with respect to acculturation of immigrants where two of the individual-level variables were coping strategies and stress (Berry, 1997; Yan & Berliner, 2011). Thus, future research should examine his model with respect to individuals on short-term international experiences. Additionally, there is some literature on the impact of coping on experiences abroad. For instance, one study examined the impact of coping experiences for Chinese students who study in the United States, and found that coping styles had a significant influence on stress levels of students (Yan & Berliner, 2011). Another study of international students examined CQ trajectories, which is how CQ changed over time, and found a relationship between these trajectories and coping through family support (Wang, Heppner, Wang, & Zhu, 2015). Additionally, Walinga and Rowe (2013) have examined thriving, which is a process related to growth in response to the stress and not just merely coping. This concept of transforming stress may be relevant to examine for individuals on short-term experiences abroad and should be studied further. Therefore, future researchers may want to exam the relationships among CQ, cross-cultural adaptation stress, and coping strategies. It is possible it is the coping strategies of those who are high on motivational CQ that are influencing their cross-cultural adaptation stress.

One last limitation to this study is that while the models tested were significant, none of the adjusted *R*-squared values were very high. Thus, other factors

not tested here may likely have an influence on cross-cultural adaptation stress. Future scholars should continue to examine the antecedents to cross-cultural adaptation stress to determine the other significant antecedents.

Despite the limitations noted, there are some positive aspects to this study, which can be built on by future research. The duration of the trips was short; thus, future scholars should expand on this study by examining longer trips, as well as comparing short and long trips to see how duration of the trip impacts on the model tested here. Examining the impact of the duration of the trip on the relationships presented here is highly feasible, since at least one scholar noted that students are traveling abroad in greater numbers (Pitts, 2009), and others have noted the many organizations are sending workers on short-term assignments (Joinson, 2000; Starr, 2009; Starr & Currie, 2009; Tahvanainen et al., 2005; Yeargan & Herod, 2002). Furthermore, this research examined a structured study-abroad format where every subject participated in community service, while also living with a local citizen for part of the trip. Future research should compare this format various other formats.

Additionally, project-based short-term assignments, which are used to fulfill short-term needs, have been found to generate family stress (Suutari et al., 2013). Thus, future studies may want to examine the duration of the trips and family stress, as well as cross-cultural adaptation stress.

Last, as noted, the sample used in this study was not random. The students applied to participate in the program. Thus, one would expect that their motivational CQ would be high, and yet, motivational CQ still had a significant impact on cross-cultural adaptation stress. Thus, this is an interesting finding that warrants more investigation.

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References

Abdul Malek, M., & Budhwar, P. (2013). Cultural intelligence as a predictor of expatriate adjustment and performance in Malaysia. *Journal of World Business*, *48* (2), 222–231. doi:10.1016/j.jwb.2012.07.006

Ang, S., & Inkpen, A. C. (2008). Cultural intelligence and offshore outsourcing success: A framework of firm-level intercultural capability. *Decision Sciences*, *39*(3), 337–358. doi:10.1111/deci.2008.39.issue-3

Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measure and applications* (pp. 3–15). New York, NY: M.E. Sharpe.

Ang, S., Van Dyne, L., & Koh, C. (2006). Personality correlates of the four factor model of cultural intelligence. *Group & Organization Management*, *31*(1), 100–123. doi:10.1177/1059601105275267

Ang, S., Van Dyne, L., Koh, C., & Ng, K. Y. (2004, August). *The measure of cultural intelligence*. Paper presented at the Academy of Management, New Orleans, LA.

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., & Tay, C., et al. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review*, *3* (3), 335–371. doi:10.1111/j.1740-8784.2007.00082.x

Ang, S., Van Dyne, L., & Tan, M. L. (2011). Cultural intelligence. In R. J. Sternberg & S. B. Kaufman (Eds.), *The cambridge handbook of intelligence* (pp. 582–602). New York, NY: Cambridge University Press.

Ashamalla, M. H., & Crocitto, M. (1997). Easing entry and beyond: Preparing expatriates and patriates for foreign assignment success. *International Journal of Commerce & Management*, *7*(2), 106–114. doi:10.1108/eb047352

Ayoob, M., Wani, N., Ahmad, M., Jan, M., & Dar, B. (2015). Cultural intelligence as a predictor of acculturative stress and psychological well-being among college students. *Journal of the Indian Academy of Applied Psychology*, *41* (1), 86–94.

Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology*, *46*(1), 5–34.

Bhaskar-Shrinivas, P., Harrison, D., Shaffer, M., & Luk, D. M. (2005). Input-based and time-based models of international adjustment: Meta-analytic evidence and theoretical extensions. *Academy of Management Journal*, *48*(2), 257–281. doi:10.5465/AMJ.2005.16928400

Black, J. S. (1990). The relationship of personal characteristics with the adjustment of Japanese expatriate managers. *Management International Review*, *30*(2), 119–134.

Black, J. S., & Gregersen, H. B. (1999). The right way to manage expats. *Harvard Business Review*, *77*(2), 52–59.

Black, J. S., Mendenhall, M., & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *Academy of Management. The Academy of Management Review*, *16*(2), 291.

Blasco, M., Feldt, L. E., & Jakobsen, M. (2012). If only cultural chameleons could fly too: A critical discussion of the concept of cultural intelligence. *International Journal of Cross Cultural Management*, *12*(2), 229–245. doi:10.1177/1470595812439872

Bricker, J. B. (2005). Development and evaluation of the Air Travel Stress Scale. *Journal of Counseling Psychology*, *52*(4), 615–628. doi:10.1037/0022-0167.52.4.615

Bricker, J. B. (2008). Who has air travel stress? Demographic differences in air travel stress. *International Journal of Applied Aviation Studies*, *8*(1), 20–35.

Brown, R. J. (2008). Dominant stressors on expatriate couples during international assignments. *International Journal of Human Resource Management*, *19*(6), 1018–1034. doi:10.1080/09585190802051303

Caligiuri, P. M. (2000). Selecting expatriates for personality characteristics: A moderating effect of personality on the relationship between host national contact and cross-cultural adjustment. *Management International Review*, *40*(1), 61–80.

Carpenter, M. A., Sanders, W. G., & Gregersen, H. B. (2001). Bundling human capital with organizational context: The impact of international assignment experience on multinational firm performance and CEO pay. *Academy of Management Journal*, *44*(3), 493–511. doi:10.2307/3069366

Carraher, S. M., Sullivan, S. E., & Carraher, S. C. (2005). An examination of the stress experienced by entrepreneurial expatriate health care professionals working in Benin, Bolivia, Burkina Faso, Ethiopia, Ghana, Niger, Nigeria, Paraguay, South Africa and Zambia. *International Journal of Entrepreneurship*, *9*, 45–65.

Chen, A. S.-Y., Wu, I. H., & M.-d, B. (2014). The moderating effects of active and agreeable conflict management styles on cultural intelligence and cross-cultural adjustment. *International Journal of Cross Cultural Management*, *14*(3), 270–288. doi:10.1177/1470595814525064

Chen, G., Kirkman, B. L., Kim, K., Farh, C. I. C., & Tangirala, S. (2010). When does cross-cultural motivation enhance expatriate effectiveness? A multilevel investigation of the moderating roles of subsidiary support and cultural distance. *Academy of Management Journal*, *53*(5), 1110–1130. doi:10.5465/AMJ.2010.54533217

Connor-Smith, J. K., & Flachsbart, C. (2013). Relations between personality and coping: A meta-analysis. *Journal of Personality and Social Psycology*, *93*(6), 1080–1107. doi:10.1037/0022-3514.93.6.1080

Crowley-Henry, M., & Heaslip, G. (2014). Short-term international assignments. Military perspectives and implications for international human resource management. *European Management Journal*, *32*(5), 752–760. doi:10.1016/j.emj.2014.02.002

Crowne, K. A. (2008). What leads to cultural intelligence?. *Business Horizons*, *51*, 391–399.

Crowne, K. A. (2009). The relationships among social intelligence, emotional intelligence and cultural intelligence. *Organization Management Journal*, *6*, 148–163.

Crowne, K. A. (2013a). An empirical analysis of three intelligences. Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement, *45*(2), 105–114.

Crowne, K. A. (2013b). Cultural exposure, emotional intelligence, and cultural intelligence: An exploratory study. *International Journal of Cross Cultural Management*, *13*(1), 5–22.

Crowne, K. A., Phatak, A. V., & Salunkhe, U. (2009). Does culture influence intelligence? A study of the influence of cultural context. In C. Härtel, N. M. Ashkanasy & W. J. Zerbe (Eds.), *Research on emotions in organizations* (Vol. 5, pp. 275-297).Bingley, UK: Emerald Publishing Group Limited.

Crowne, K. A., Phatak, A., Salunkhe, U., & Shivarajan, S. (2011). Exploring intelligences, organizational skills and leadership in Mumbai, India. *International Journal of Business, Humanities and Technology*, *1*(2), 44–51.

Dagher, G. K. (2010). The relation between motivational and behavioral cultural intelligence and the three dimensions of cross-cultural adjustment among Arabs working in the USA. *Business Review, Cambridge*, *15*(1), 137–143.

DiMarco, N. (1974). Stress and adaptation in cross-cultural transition. *Psychological Reports*, *35*(1, Pt 1), 279–285. doi:10.2466/pr0.1974.35.1.279

Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford, CA: Stanford Business Books.

Earley, P. C., Ang, S., & Tan, J.-S. (2006). *CQ: Developing cultural intelligence at work*. Stanford, CA: Stanford Business Books.

Earley, P. C., & Peterson, R. S. (2004). The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager. *Academy of Management Learning & Education*, *3*(1), 100–115. doi:10.5465/AMLE.2004.12436826

Edwards, J. R. (2008). Person–environment fit in organizations: An assessment of theoretical progress. *The Academy of Management Annals*, *2*(1), 167–230. doi:10.1080/19416520802211503

Engle, R. L., & Crowne, K. A. (2014). The impact of international experience on cultural intelligence: An application of contact theory in a structured short-term programme. *Human Resource Development International*, *17*(1), 30.

Engle, R. L., Dimitriadi, N., & Sadrieh, F. (2012). Cultural intelligence: Antecedents and propensity to accept a foreign-based job assignment. *Journal of Applied Management and Entrepreneurship*, *17*(2), 63–79.

Engle, R. L., & Nehrt, C. C. (2012). Antecedents of cultural intelligence: The role of risk, control, and openness in France and the United States. *Journal of Management Policy & Practice*, *13*(5), 35–47.

Feng, F., & Pearson, T. E. (1999). Hotel expatriate managers in China: Selection criteria, important skills and knowledge, repatriation concerns, and causes of failure. *International Journal of Hospitality Management*, *18*(3), 309–321. doi:10.1016/S0278-4319(99)00031-6

Firth, B. M., Chen, G., Kirkman, B. L., & Kim, K. (2014). Newcomers abroad: Expatriate adaptation during early phases of international assignments. *Academy of Management Journal*, *57*(1), 280–300. doi:10.5465/amj.2011.0574

Forster, N. (2000). The myth of the 'international manager'. *International Journal of Human Resource Management*, *11* (1), 126–142. doi:10.1080/095851900340024

Froese, F. J., & Peltokorpi, V. (2011). Cultural distance and expatriate job satisfaction. *International Journal of Intercultural Relations*, *35*(1), 49–60. doi:10.1016/j.ijintrel.2010.10.002

Gabel, R. S., Dolan, S. L., & Cerdin, J. L. (2005). Emotional intelligence as predictor of cultural adjustment for success in global assignments. *Career Development International*, *10*(5), 375–395. doi:10.1108/13620430510615300

Graf, A. (2004). Expatriate selection: An empirical study identifying significant skill profiles. *Thunderbird International Business Review*, *46*(6), 667–685. doi:10.1002/(ISSN)1520-6874

Groves, K. S., & Feyerherm, A. E. (2011). Leader cultural intelligence in context: Testing the moderating effects of team cultural diversity on leader and team performance. *Group & Organization Management*, *36*(5), 535–566. doi:10.1177/1059601111415664

Gupta, A. K., & Govindarajan, V. (2002). Cultivating a global mindset. *Academy of Management Executive*, *16*(1), 116–126. doi:10.5465/AME.2002.6640211

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, *1*, 104–121. doi:10.1177/109442819800100106

Holopainen, J., & Björkman, I. (2005). The personal characteristics of the successful expatriate: A critical review of the literature and an empirical investigation. *Personnel Review*, *34*(1), 37–50. doi:10.1108/00483480510578476

Houdmont, J., Cox, T., & Griffiths, A. (2010). Work-related stress case definitions and prevalence rates in national surveys. *Occupational Medicine*, *60*(8), 658–661. doi:10.1093/occmed/kqq138

Huff, K. C. (2013). Language, cultural intelligence and expatriate success. *Management Research Review*, *36*(6), 596–612. doi:10.1108/01409171311325750

Huff, K. C., Song, P., & Gresch, E. B. (2014). Cultural intelligence, personality, and cross-cultural adjustment: A study of expatriates in Japan. *International Journal of Intercultural Relations: IJIR*, *38*, 151–157. doi:10.1016/j.ijintrel.2013.08.005

Ineson, E. M., Lyons, A., & Branston, C. (2006). Cross cultural change, adjustment and culture shock: UK to USA. *Tourism: An International Interdisciplinary Journal*, *54*(4), 355–365.

Ishii, K. (2012). Dual organizational identification among Japanese expatriates: The role of communication in cultivating subsidiary identification and outcomes. *The International Journal of Human Resource Management*, *23*(6), 1113–1128. doi:10.1080/09585192.2011.561240

Jackson, M., Ray, S. P., & Bybell, D. (2013). International students in the U.S.: Social and psychological adjustment. *Journal of International Students*, *3*(1), 17–28.

Jassawalla, A., Truglia, C., & Garvey, J. (2004). Cross-cultural conflict and expatriate manager adjustment: An exploratory study. *Management Decision*, *42*(7), 837–849. doi:10.1108/00251740410550916

Johnson, J. P., Lenartowicz, T., & Apud, S. (2006). Cross-Cultural competence in international business: Toward a definition and a model. *Journal of International Business Studies*, *37*(4), 525–543. doi:10.1057/palgrave.jibs.8400205

Joinson, C. (2000). Cutting down the days. *HR Magazine*, *45* (4), 92.

Jordan, J., & Cartwright, S. (1998). Selecting expatriate managers: Key traits and competencies. *Leadership & Organization Development Journal*, *19*(2), 89–96.

Kahn, R. L., Wolf, D. M., Quinn, R., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress*. New York, NY: Wiley.

Kim, K., & Slocum, J. W., Jr. (2008). Individual differences and expatriate assignment effectiveness: The case of U.S.-Based Korean Expatriates. *Journal of World Business*, *43*(1), 109.

Klaus, K. J. (1995). How to establish an effective expatriate program–best practices in international assignment administration. *Employment Relations Today (Wiley)*, *22* (1), 59–70.

Konanahalli, A., Oyedele, L. O., Spillane, J., Coates, R., Meding, J. V., & Ebohon, J. (2014). Cross-Cultural Intelligence (Cq) It's impact on British expatriate adjustment on international construction projects. *International Journal of Managing Projects in Business*, *7*(3), 423–448.

Kożusznik, M., Rodríguez, I., & Peiró, J. M. (2012). Cross-national outcomes of stress appraisal. *Cross Cultural Management*, *19*(4), 507–525.

Kozusznik, M. W., Rodríguez, I., & Peiró, J. M. (2015). Eustress and distress climates in teams: Patterns and outcomes. *International Journal of Stress Management*, *22*(1), 1–23.

Krell, E. (2005). Evaluating returns on expatriates. *HRMagazine*, *50*(3), 60–65.

Lee, T. W., & Maurer, S. D. (1999). The effects of family structure on organizational commitment, intention to leave and voluntary turnover. *Journal of Managerial Issues*, *11*(4), 493–513.

Levine, D., Stephan, D., Krehbiel, T., & Berenson, M. (2005). *Statistics for managers using Microsoft Excel* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

Lin, Y.-c., Chen, A. S.-y., & Song, Y.- c. (2012). Does your intelligence help to survive in a foreign jungle? The effects of cultural intelligence and emotional intelligence on cross-cultural adjustment. *International Journal of Intercultural Relations*, *36*(4), 541–552.

Logan, M. S., & Ganster, D. C. (2005). An experimental evaluation of a control intervention to alleviate job-related stress. *Journal of Management*, *31*(1), 90–107.

Lovvorn, A. S., & Chen, J.-S. (2011). Developing a global mindset: The relationship between an international assignment and cultural intelligence. *International Journal of Business and Social Science*, *2*(9).

Lu, L.-T. (2011). Lowering stress of expatriates: The role of culture and management styles. *Journal of American Academy of Business, Cambridge*, *17*(1), 77–85.

MacNab, B., Brislin, R., & Worthley, R. (2012). Experiential cultural intelligence development: Context and individual attributes. *International Journal of Human Resource Management*, *23*(7), 1320–1341.

McEwen, B. S., & Sapolsky, R. M. (1995). Stress and cognitive function. *Current Opinion in Neurobiology*, *5*(2), 205–216.

McNulty, Y. M., & Tharenou, P. (2004). Expatriate return on investment. *International Studies of Management & Organization*, *34*(3), 68–95.

Mol, S. T., Born, M. P. H., Willemsen, M. E., & Van Der Molen, H. T. (2005). Predicting expatriate job performance for selection purposes: A quantitative review. *Journal of Cross-Cultural Psychology*, *36*(5), 590–620.

Moon, H. K., Choi, B. K., & Jung, J. S. (2012). Previous international experience, cross-cultural training, and expatriates' cross-cultural adjustment: Effects of cultural intelligence and goal orientation. *Human Resource Development Quarterly*, *23*(3), 285–330.

Moon, T. (2010). Emotional intelligence correlates of the four-factor model of cultural intelligence. *Journal of Managerial Psychology*, *25*(8), 876–898.

Morley, M. J., & Flynn, M. (2003). Personal characteristics and competencies as correlates of intercultural transitional adjustment among US and Canadian sojourners in Ireland. *Management International*, *7*(2), 31–46.

Ng, K.-Y., & Earley, P. C. (2006). Culture + intelligence: Old constructs, new frontiers. *Group & Organization Management*, *31*(1), 4–19.

Peak, M. H. (1997). Darn expensive to take for granted. *Management Review*, *86*(1), 9.

Pitts, M. J. (2009). Identity and the role of expectations, stress, and talk in short-term student sojourner adjustment: An application of the integrative theory of communication and cross-cultural adaptation. *International Journal of Intercultural Relations*, *33*(6), 450–462.

Price Waterhouse Coopers LLP. (2011). *International Assignments Perspectives*, *5*, 1–42.

Puccino, S. (2007). Worldwide practices and trends in expatriate compensation and benefits. *Benefits & Compensation Digest*, *44*(1), 34–38.

Ramalu, S. S., Raduan Che, R., Kumar, N., & Uli, J. (2010). Doing business in global arena: An examination of the relationship between cultural intelligence and cross-cultural adjustment. *Asian Academy of Management Journal*, *15*(1), 79–97.

Ramsey, J. R. (2013). Institutional distance: A measurement validation and link to job and international business travel strain. *International Journal of Stress Management*, *20*(3), 163–192.

Ramsey, J. R., Leonel, J. N., Gomes, G. Z., & Monteiro, P. R. R. (2011). Cultural intelligence's influence on international business travelers' stress. *Cross Cultural Management*, *18* (1), 21–37.

Rockstuhl, T., Seiler, S., Ang, S., Van Dyne, L., & Annen, H. (2011). Beyond general intelligence (IQ) and emotional intelligence (EQ): The role of cultural intelligence (CQ) on cross-border leadership effectiveness in a globalized world. *Journal of Social Issues*, *67*(4), 825–840.

Rodríguez, I., Kozusznik, M. W., & Peiró, J. M. (2013). Development and validation of the Valencia Eustress-Distress Appraisal Scale. *International Journal of Stress Management*, *20*(4), 279–308.

Rosenbusch, K., & Cseh, M. (2012). The cross-cultural adjustment process of expatriate families in a multinational organization: A family system theory perspective. *Human Resource Development International*, *15*(1), 61–77.

Selmer, J., & Lauring, J. (2015). Host country language ability and expatriate adjustment: The moderating effect of language difficulty. *International Journal of Human Resource Management*, *26*(3), 401–420.

Shannon, L. M., & Begley, T. M. (2008). Antecedents of the four-factor model of cultural intelligence. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 41–55). Armonk, NY: M.E. Sharp.

Silbiger, A., & Pines, A. M. (2014). Expatriate stress and burnout. *The International Journal of Human Resource Management*, *25*(8), 1170.

Sims, R. H., & Schraeder, M. (2004). An examination of salient factors affecting expatriate culture shock. *Journal of Business & Management*, *10*(1), 73–87.

Snee, R. D. (1973). Some aspects of nonorthogonal data analysis: Part I. Developing prediction equations. *Journal of Quality Technology*, *5*(2), 67–79.

Solomon, C. M. (2000). The world stops shrinking. *Workforce*, *79*(1), 48–51.

Stahl, G. K., & Caligiuri, P. (2005). The effectiveness of expatriate coping strategies: The moderating role of cultural distance, position level, and time on the international assignment. *Journal of Applied Psychology*, *90*(4), 603–615.

Starr, T. L. (2009). Repatriation and short-term assignments: An exploration into expectations, change and dilemmas. *International Journal of Human Resource Management*, *20* (2), 286–300.

Starr, T. L., & Currie, G. (2009). 'Out of sight but still in the picture': Short-term international assignments and the influential role of family. *International Journal of Human Resource Management*, *20*(6), 1421–1438.

Suh, S., & Lee, M. (2006). Group work for Korean expatriate women in the United States: An exploratory study. *Journal for Specialists in Group Work*, *31*(4), 353–369.

Suutari, V., Brewster, C., Riusala, K., & Syrjäkari, S. (2013). Managing non-standard international experience: Evidence from a Finnish company. *Journal of Global Mobility*, *1*(2), 118–138.

Tahvanainen, M., Welch, D., & Worm, V. (2005). Implications of short-term international assignments. *European Management Journal*, *23*(6), 663–673.

Takeuchi, R., Tesluk, P. E., Yun, S., & Lepak, D. P. (2005). An integrative view of international experience. *Academy of Management Journal*, *48*(1), 85–100.

Tan, J.-S. (2004). Cultural intelligence and the global economy. *Leadership in Action*, *24*(5), 19–21.

Tarique, I., & Takeuchi, R. (2008). Developing cultural intelligence: The roles of international nonwork experiences. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 56–70). Armonk, NY: M.E. Sharp.

Tay, C., Westman, M., & Chia, A. (2008). Antecedents and consequences of cultural intelligence among short-term business travelers. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 126–144). Armonk, NY: M.E. Sharp.

Thomas, D. C. (2006). Domain and development of cultural intelligence: The importance of mindfulness. *Group & Organization Management*, *31*(1), 78–99.

Thomas, D. C., & Inkson, K. (2004). *Cultural intelligence: People skills for global business*. San Francisco, CA: Berrett-Koehler.

Toh, S. M., & DeNisi, A. S. (2007). Host country nationals as socializing agents: A social identity approach. *Journal of Organizational Behavior*, *28*(3), 281–301.

Tung, R. L. (1987). Expatriate assignments: Enhancing success and minimizing failure. *Academy of Management Executive (1987–1989)*, *1*(2), 117–125.

Tye, M. G., & Chen, P. Y. (2005). Selection of expatriates: decision-making models used by Hr Professionals. (Cover Story). *Human Resource Planning*, *28*(4), 15–20.

Van der Bank, M., & Rothmann, S. (2006). Correlates of expatriates' cross-cultural adjustment. *Management Dynamics*, *15*(4), 29–39.

Van Dyne, L., Ang, S., & Koh, C. (2008). Development and validation of the Cqs. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 41–55). Armonk, NY: M.E. Sharp.

Van Dyne, L., Ang, S., Ng, K. Y., Rockstuhl, T., Tan, M. L., & Koh, C. (2012). Sub-dimensions of the four factor model of cultural intelligence: Expanding the conceptualization and measurement of cultural intelligence. *Social and Personality Psychology Compass*, *6*(4), 295–313.

Walinga, J., & Rowe, W. (2013). Transforming stress in complex work environments. *International Journal of Workplace Health Management*, *6*(1), 66–88.

Wang, K. T., Heppner, P. P., Wang, L., & Zhu, F. (2015). Cultural intelligence trajectories in new international students: Implications for the development of cross-cultural competence. *International Perspectives in Psychology: Research, Practice, Consultation*, *4*(1), 51–65.

Ward, C., Fischer, R., Lam, F. S. Z., & Hall, L. (2009). The convergent, discriminant, and incremental validity of scores on a self-report measure of cultural intelligence. *Educational and Psychological Measurement*, *69*(1), 85–105.

Ward, C., Wilson, J., & Fischer, R. (2011). Assessing the predictive validity of cultural intelligence over time. *Personality & Individual Differences*, *51*(2), 138–142.

Welch, D. E. (2003). Globalisation of staff movements: Beyond cultural adjustment. *Management International Review (MIR)*, *43*(2), 149–169.

Yan, K., & Berliner, D. C. (2011). An examination of individual level factors in stress and coping processes: Perspectives of Chinese international students in the United States. *Journal of College Student Development*, *52*(5), 523–542.

Yeargan, A. M., & Herod, R. (2002). Managing short-term international assignments. *Canadian News*. Retrieved from http://www.worldatwork.org/waw/canadanews/html/canv10n3-1.html