

## ABSTRACT

Title of Dissertation: CROSS-CULTURAL COMPETENCE TRAINING  
EFFECTIVENESS: THE IMACT OF TRAINING  
TRANSFER AND PREDICTORS OF TRANSFER

Emily Greene Feinberg, Doctor of Philosophy, 2013

Dissertation Directed by: Dr. Paul Hanges  
Department of Psychology

In order to better understand the many inconsistencies found in previous research on cross-cultural competence (3C) training effectiveness, this study investigated the impact of training transfer (i.e., the extent to which training concepts are applied to the job context) on cross-cultural success outcomes. Predictors of training transfer unique to 3C training setting were also examined. Specifically, individual characteristics, such as personality (i.e., openness to experience, tolerance for ambiguity), cultural motivation, and previous international experience, in addition to climate for transfer (i.e., home and host organizations), were discussed as important factors that will likely impact the extent to which training transfer occurs. Hypotheses were tested in a sample of Peace Corps volunteers ( $N=101$ ) who were completing a cross-cultural training course in preparation for foreign assignment. Results found support for training transfer main effects, as well as cultural motivation and home organization climate for transfer as significant predictors of transfer. Theoretical and practical implications are discussed.

CROSS-CULTURAL COMPETENCE TRAINING EFFECTIVENESS:  
THE IMACT OF TRAINING TRANSFER AND PREDICTORS OF TRANSFER

by

Emily Greene Feinberg

Dissertation submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park, in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
2013

Advisory Committee:

Professor Paul Hanges, Chair  
Professor Cheri Ostroff  
Professor Mo Wang  
Professor Sharon Glazer  
Professor Kathryn Bartol, Dean's Representative

© Copyright by  
Emily Greene Feinberg  
2013

## Acknowledgements

I would like to thank my advisor and committee chair, Dr. Paul Hanges, for all of his support over the past years. Thank you for making stats “fun,” from my first semester through my final dissertation analyses, and for the copious edits via track-changes, in addition to the many phone calls to stay connected. Thank you, also, to my committee: Dr. Cheri Ostroff, Dr. Mo Wang, Dr. Sharon Glazer, and Dr. Kathryn Bartol. Your feedback and support throughout the dissertation process were incredibly helpful and I know that my dissertation is a stronger piece of scholarship thanks to your input. I would also like to thank my fellow SDOS colleagues for their friendship and collegiality throughout the process, in addition to Carol Gorham for her guidance near and far. Lastly, I would like to thank my family and friends outside of the Maryland community. They had almost no clue what I have been working on this entire time, and I believe my parents still think I’m an excellent closet organizer thanks to this degree, but were always a calming and supportive force regardless. I truly couldn’t have done it without you all; my sincerest thanks.

## Table of Contents

Chapter 1: Introduction and Overview .....	1
Chapter 2: Literature Review on Cross-Cultural Competence .....	4
3C Training Practices: Goals, Content and Delivery, and Outcomes.....	7
3C Training Effectiveness.....	12
Moderators of 3C Training Effectiveness.....	16
Chapter 3: Rationale for the Current Study .....	18
Training Transfer .....	20
Mediating Impact of Training Transfer .....	23
Predicting Training Transfer in Cross-Cultural Training .....	24
Individual Characteristics: Personality, Cultural Motivation, Previous Experience Abroad.....	28
Work Environment: Climate for Transfer.....	39
Chapter 4: Method .....	43
Participants.....	43
Cross-Cultural Competence Training .....	45
Procedure .....	46
Measures .....	48
Personality, Background, and Motivation Measures .....	50
Cross-Cultural Success .....	53
Chapter 5: Results .....	55
Hypothesis Testing.....	63
Supplemental Analyses.....	72
Chapter 6: Discussion .....	74
Limitations and Future Directions .....	87
Implications.....	95
Conclusion .....	97
Appendix A.....	99
Appendix B.....	101
Appendix C.....	103
Appendix D.....	105
Appendix E .....	111
References.....	125

## List of Tables

Table 1. Study Measures and Data Collections .....	112
Table 2. Study Variable Means, SDs, Reliabilities, Correlations .....	113
Table 3. Time 1 vs. Time 2 Trainer Ratings .....	114
Table 4. Trainer Overall Skill Ratings .....	116
Table 5. Trainer vs. Volunteer Skill Ratings .....	117
Table 6. Hypothesis 1 Regression Tables .....	118
Table 7. Supplementary Analysis Means, SDs, Reliabilities, Correlations.....	121

## List of Figures

Figure 1. Proposed Model of Training Transfer .....	122
Figure 2. Evaluation Research Measurement Model .....	123
Figure 3. Training Transfer Model with Found Relationships .....	124

## **Chapter 1: Introduction and Overview**

Cross-cultural competence (3C), or an individual's ability to work successfully with people from different national cultural backgrounds (Johnson, Lenartowicz, & Apud, 2006), is an increasingly important area in organizational psychology. As companies become more international and employees are placing a higher value on global expertise, there are more workers being placed outside their home countries on foreign assignments (Kraimer, Wayne, & Jaworski, 2001; Mercer, 2008). According to research on international work assignment trends in 800 multinational organizations, 56 percent of companies polled have increased expatriate usage from 2000 to 2005 (ORC Worldwide, 2006). Furthermore, in Mercer's 2008 *Benefits Survey for Expatriates and Globally Mobile Employees*, which includes 243 multinational companies and over 94,000 expatriates, the number of employees on international assignments increased by almost 90 percent from 2005 to 2008. According to the same report, 47 percent of companies surveyed had increased the deployment of traditional expatriates (i.e., employees on 1-5 year assignments) and 38 percent increased the deployment of global nomads (i.e., employees that continuously move from country to country on multiple assignments) (Mercer, 2008).

Given the growing international nature of business and employee interactions, both practitioners and researchers in organizational behavior have become interested in the factors related to cross-cultural competence, and how to best develop this in employees being sent on foreign assignment, leading to more research in this domain of organizational behavior (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Shaffer,

Kraimer, Chen, & Bolino, 2012). Many studies have already investigated best practices in cross-cultural competence training by focusing on training content (e.g., culture-specific, culture-general), method of teaching (e.g., didactic, experiential), mode of instruction (e.g., classroom, online), and characteristics of trainees (e.g., personality, biodata) which are related to higher success while sent on assignment (Littrell, Salas, Hess, Paley, & Riedel, 2006).

Despite this wealth of knowledge on training practices in relation to expatriate performance outcomes, researchers have yet to examine training transfer, or the extent to which trainees actually use the concepts instructed in training while on assignment. The issue of carry-over from training to the performance situation is referred to as “the problem of the transfer of training” (Broad & Newstrom, 1992). According to common estimates of training and development in the private sector, only 10% of training outcomes are transferred back to the job (Baldwin & Ford, 1988). With reported annual training investments exceeding \$100 billion in U.S. organizations (Dolezalek, 2005), the amount of dollars wasted by non-transfer can be astounding. Given the critical need to adequately prepare individuals for foreign assignments and the very costly programming that is currently used in international organizations for this purpose, it is important to assess the impact of training transfer on performance outcomes, and predictors of training transfer (i.e., individual and workplace characteristics) which lead to a higher use of training concepts. In doing so, organizations will be able to select and train individuals better for foreign assignments, by choosing the highest potential individuals and fostering their development through workplace practices which lead to the largest gains in learning

and application of cultural competence, reducing costs of ineffective training programming and failed assignments.

In order to fill this much needed gap, the current study examines the impact of training transfer on success outcomes and predictors of cross-cultural training transfer. Specifically, this study looks at the extent to which training transfer impacts the relationship between training outcomes and cross-cultural success (see Figure 1). In other words, does using concepts from training lead to increased 3C training effectiveness? This is an important contribution because it focuses on the extent to which skills developed in training are applied in the job setting while abroad, and how this application impacts cross-cultural outcomes, providing a missing link in the 3C training effectiveness research and clarifying previous inconsistencies in the literature (Morris & Robbie, 2001).

Predictors of training transfer, unique to 3C training setting, will also be examined. Specifically, individual characteristics such as personality (i.e., openness to experience, tolerance for ambiguity), cultural motivation, and previous work experience are discussed as important trainee factors that will likely increase the extent to which training transfer occurs. The work environment, specifically climate for transfer, is also suggested to play a significant role in predicting training transfer. Findings will help researchers and practitioners identify “high potential” individuals who will likely gain more from training, and also better understand workplace factors which foster learning retention and application to the job environment, improving the overall transferability and utility of 3C training in organizational settings.

The following sections will review previous research on 3C, 3C training, outcomes of cross-cultural training, and findings from evaluation studies of these programs. The problem of training transfer and relevant research findings will also be discussed. A model of cross-cultural training transfer will then be proposed, including several hypotheses suggested by the relationships outlined in the model.

## **Chapter 2: Literature Review on Cross-Cultural Competence**

Throughout the research on intercultural interactions, the definition of 3C has been largely ambiguous or not clearly stated, leading to fuzziness in the nature of the construct (Johnson, Lenartowicz, & Apud, 2006). For example, early work by Gertsen (1990) described 3C as “the ability to function effectively in another culture” (p. 346), explained in terms of three interdependent dimensions: affective (e.g., personality traits and attitudes), cognitive (e.g., how individuals acquire and categorize cultural knowledge), and behavioral (e.g., being an effective communicator). Leiba-O’Sullivan (1999) described 3C simply in terms of stable and dynamic competencies which are critical for cross-cultural adjustment. In their comprehensive review of various definitions of 3C, Johnson et al. (2006) define it as “an individual’s effectiveness in drawing upon a set of knowledge, skills, and personal attributes in order to work successfully with people from different national cultural backgrounds at home or abroad” (p. 530).

Perhaps due to the ambiguous nature of the construct, several potential ways of grouping the most relevant competencies have been suggested (Black & Mendenhall, 1990; Leiba-O’Sullivan, 1999; Mendenhall & Oddou, 1985). For example, by reviewing

the extant expatriate literature, Mendenhall and Oddou (1985), and later Black and Mendenhall (1990), were able to identify several broad dimensions of competencies which were associated with increased adjustment: Perceptual, others-oriented, and self-oriented. According to their classification, the perceptual dimension involves the ability to make correct attributions about the reasons or causes of host nationals' behavior (Mendenhall & Oddou, 1985). This ability allows the expatriate to predict the behaviors in an intercultural exchange in the future, reducing the uncertainty in interpersonal relations over time, leading to positive outcomes. In other research, perception and other meta-cognitive skills (Earley & Ang, 2003), have been related to increased adjustment and performance in foreign settings (Ang & Van Dyne, 2008; Bhaskar-Shrinivas et al., 2005), suggesting the perceptual dimension as central to 3C.

The others-oriented dimension, also described as relational in nature, includes abilities such as relationship development and willingness to communicate with dissimilar individuals. In Mendenhall and Oddou's (1985) review of the literature, these competences were found to be related to expatriate managerial success. Further, in an empirical investigation of the key factors for achieving positive international outcomes, relational skills were ranked as one of the most important elements (Arthur & Bennett, 1995). Similarly, in a quantitative review of the predictors of expatriate adjustment, interpersonal skills were found to be significantly related to general adjustment and performance (Hechanova, Beehr, & Christiansen, 2003), demonstrating the central role of relational KSAOs in completing successful foreign assignments.

Lastly, Mendenhall and Oddou (1985) described self-orientation as an important dimension related to the acculturation of expatriate managers. This dimension includes activities and attributes that operate in order to strengthen the expatriate's feelings of self and wellbeing. This involves reinforcement substitution or cultural flexibility (i.e., replacing pleasurable activities in the home culture with those available in the host country), stress reduction, and technical competence. In multiple expatriate samples, the use of these self-maintenance activities has been shown as a predictor of cultural and work adjustment, in addition to contributing to task performance (Shaffer, Harrison, Gregersen, Black, & Ferzandi, 2006), providing evidence for the importance of self-maintenance in achieving cross-cultural success.

Given that cross-cultural competence is significantly related to achieving cross-cultural success, many international organizations seek the aid of training programs to develop and hone these skills in their employees (Bhawuk & Brislin, 2000). In the 2010 Global Relocation Trends Survey, which polled 150 multinational companies, 80% of companies report using 3C training to help prepare employees for international assignments (Brookfield Global Relocation Services, 2010), demonstrating the widespread usage of 3C training in industry.

Littrell et al. (2006) performed a review of the past 25 years of cross-cultural training research. In their article, 3C training was defined as the “educative process used to improve intercultural learning via the development of the cognitive, affective, and behavioral competencies needed for successful interactions in diverse cultures” (p.356). The individuals who most commonly go through 3C training are expatriates in an

organization. Expatriates are often classified as individuals who relocate to another country for at least one year for a business assignment. Typical expatriates are middle management to upper level executives which are sent overseas to manage the operations of a foreign subsidiary, often selected based on a technical skill, irrespective of their ability to do well in a foreign context (ORC Worldwide, 2006).

Although expatriate assignments are an important and common practice for international organizations wishing to expand or develop their business practices, many of these assignments are unsuccessful (Littrell et al., 2006). Often, unhappy individuals will have a premature return to their home country, failing to complete project work that was intended for the duration of their stay. Unsuccessful expatriation may also include slow start-up times, decreased productivity, weak interpersonal relationships with host-country nationals (HCN), possibility resulting in a negative prospect for future foreign endeavors in that location or with other international subsidiaries. In order to help prevent these unsuccessful international assignments, 3C can be developed in employees through cross-cultural competence training, leading to improved intercultural success. The following section will outline common practices in 3C training. This will include a discussion of training goals, training content and delivery, and common conceptualizations used to assess the outcome of 3C training.

### 3C Training Practices: Goals, Content and Delivery, and Outcomes

Many types of 3C training programs are offered for expatriate assignments (Littrell & Salas, 2005). Despite varied content of training materials and format of training programs, several similarities exist. For example, the general aim of 3C training

is to increase the likelihood that an expatriate will be successful on a foreign assignment. Cross-cultural success is most frequently operationalized through adjustment and performance (Black, Mendenhall, & Oddou, 1991). Cross-cultural adjustment is generally conceptualized as the degree of psychological comfort an expatriate has with the various aspects of a host culture (Harrison, Chadwick & Scales 1996). Research suggests that expatriate adjustment can be segmented into three specific areas: adjustment to the general environment, adjustment to interaction with host nationals, and adjustment to work (Black et al., 1991). Performance is also a common outcome of cross-cultural success (Caligiuri & Day, 2000). Technical performance encompasses behaviors that either transform raw material into goods or services or otherwise directly support an organization's technical core (Borman & Motowidlo, 1993). Conversely, contextual performance deals with those behaviors which are out of a specific job context, but support broader organizational and societal goals. Expatriate-specific performance involves elements of intercultural effectiveness, such as language and culture proficiency or replacement planning. Given this understanding of success, 3C training programs should help employees being sent on foreign assignment to develop the knowledge, skills, and abilities that facilitate adjustment to the country and HCNs, adjustment to work, and performance related to job duties, as well as improving intercultural effectiveness.

3C training varies greatly in content and delivery (Littrell & Salas, 2005). Early research on 3C training classified trainings simply in terms of a didactic or experiential nature (Kealey & Protheroe, 1996), although many types of training fall under each of

these categories. Didactic training commonly involves the use of lectures or presentations to teach students country-specific knowledge associated with an expatriate assignment. This approach involves giving factual information about working, living, and interacting in a foreign context and had been related to increases in declarative and procedural knowledge (Littrell & Salas, 2005). Language training, focusing on developing the language skills required for interactions in the host country, is a common form of didactic training. Similarly, culture awareness training involves teaching the expatriate information about their own values and culture, in order to help individual appreciate the differences between his or her own culture and the host country. By providing this background information, expatriates are able to perceive differences between cultures more readily and hopefully change their actions or interpretations accordingly, increasing adjustment to the foreign culture (Bennett, 1986). Experiential training, on the other hand, is based on the premise of learning by doing. In this format, students are given role plays and participate in activities which they will likely experience during their foreign assignment (e.g., holding a business meeting, going to a market), increasing their familiarity with common practices of the host culture. Due to the behavioral nature of this training, increases in culture-appropriate behaviors are expected, in addition to improvements in communication skills. Similarly, interaction training, or shadowing a current expatriate on assignment, allows the individual to see firsthand how things are done in the foreign context. This on the job training is commonly used by companies who often rotate employees on foreign assignment, sending over the replacement employee before the current expatriate has completed their term. During this time when both

individuals are working in the host country, the experienced worker facilitates the training by introducing the new employee to other coworkers and members of the community, explaining common business and daily living practices, attempting to make the transition to the new location easier through the first-hand experience.

A mix of both didactic and experiential approaches is commonly found in many types of 3C training. The culture assimilator, developed originally for use in the military, has been a popular type of cross-cultural training involving both didactic and experiential components (Fiedler, Mitchell, & Triandis, 1970). This involves a text-book with short descriptions of descriptions of an incident or situation where interaction takes place between at least one person from the target culture and persons from other cultures. Students read each of the scenarios and then are given 4 or 5 explanations about why there is a problem in the situation. After they choose which response they think most accurately describes the situation, they are asked to turn to a specific page and are given feedback about the explanation they have chosen. If it is the incorrect choice, they are given an explanation why it is false, and are asked to go back and make another selection. If they are indeed correct, they are then given extensive information about the scenario and why it is the correct or incorrect choice, involving culture theory, and describing larger similarities and differences between the cultures. In a classroom setting, each scenario is then discussed by the class, and dialogue surrounding the answers and information is encouraged. The result is a training program that makes people more knowledgeable about different cultures, and quickens the adjustment when working in those settings.

Attribution training is another common focus of 3C training for expatriate settings, involving both didactic and experiential components. In foreign contexts, individuals are often faced with novel or ambiguous situations which need to be interpreted correctly in order to achieve positive outcomes (Triandis, 1975). Attribution training helps individuals develop the skills and abilities associated with forming more accurate interpretations of HCN behaviors. In classroom settings, this is often done by having a lecture component followed by a role play exercise to demonstrate how a better understanding of a particular culture can change an individual's subsequent actions. By learning the host-culture point of view, individuals are able to improve their ability to make isomorphic attributions (i.e., give meaning to a particular behavior within a culture as intended), improving the accuracy of an interpretation of events, likely leading to greater success in foreign contexts (Bhawuk, 2001). Mixed formats of training have been found to be most effective in increasing 3C training outcomes (Mendenhall et al., 2004).

Several outcome or dependent variables are used in 3C training to operationalize training effectiveness. This includes knowledge, behavior, attitude, adjustment, performance, and satisfaction (Mendenhall et al., 2004). The category of knowledge includes dependent variables such as culture-specific knowledge and awareness of cultural differences between host and home culture. Behavioral measures are also common DVs in 3C training, including problem-solving ability of trainees in intercultural situations, the ability to deal with cross-cultural misunderstandings, and intercultural communication skill proficiency. The category of attitude includes dependent variables such as cultural interest, positive attitude towards members of other cultures, trainee

ethnocentrism, and reduced stereotyping. Adjustment measures include dependent variables such as perceived well-being, health and safety concerns, the ability to adjust to a foreign culture, and perceived control of the environment. Performance is another popular outcome of 3C Training, related to work performance and achieving company goals. Lastly, training satisfaction, or perceived satisfaction with participation in the training program, is a common dependent variable in 3C training, which is also commonly measured throughout the training literature

### 3C Training Effectiveness

Over the past 20 years, several studies have reviewed the effectiveness of 3C training (Mendenhall et al., 2004). The first major evaluation was performed by Black and Mendenhall (1990) who qualitatively reviewed the empirical literature on cross-cultural training up to 1988. The authors described how many of the 29 identified studies used different content and methods for their training programs, and coded each study individually in terms of three indicators of training effectiveness: cross-cultural skill, adjustment, and performance. Using this method, they found that, in general, 3C training was related to increased cross-cultural skills, in facilitating adjustment, and in enhancing job performance. The studies they reviewed, however, produced somewhat conflicting results, and the review did not meta-analytically quantify the effect sizes, but rather provided a rough tallying of “significant” and “non-significant” findings, limiting the interpretation and implication of results.

As a response, Deshpande and Viswesvaran (1992) conducted a meta-analysis to quantify the actual magnitudes of the effects of 3C training programs on the success of

expatriate managers. Within the extant 3C training literature, 21 studies with sufficient measures of the relationship between cross-cultural training and a relevant outcome variable (i.e., self-development, perception, relationship, adjustment, performance) were identified and meta-analyzed for effects. The 90% credibility interval value was met for all outcome variables (Hunter & Schmidt, 1990), suggesting the significant impact of 3C training on expatriate manager success. The presence of moderating variables, such as trainee characteristics, job characteristics and training method were discussed, but could not be statistically investigated due to small sample sizes. Despite some concerns regarding deficiencies in the studies they reviewed (e.g., research design, limited data, range restriction), Deshpande and Viswesvaran (1992) held that 3C training had a positive impact on the development of managers in cross-cultural settings. They concluded that the study provided sufficient evidence that 3C training in general is effective, and “should remove any doubts that corporate leaders have about the effects of cross-cultural training” (p. 306).

Building off these efforts, Morris and Robie (2001) performed a meta-analysis of the effects of cross-cultural training on expatriate performance and adjustment, incorporating the more recent research in this domain. Out of the 220 studies located, very little empirical research was found to have adequate data, with only 16 studies for expatriate adjustment and 25 studies for expatriate performance identified. Using the remaining studies, the mean correlation for the relationship between training and adjustment was 0.12 ( $p < 0.05$ ), and the correlation for the relationship between training and performance was 0.26 ( $p < 0.05$ ). However, there was substantial variability in the

distribution of effect sizes, suggesting that potential moderators existed. A moderator analysis for the impact of training type (i.e., cultural assimilator, attribution training, cultural awareness), study setting (i.e., lab or field), and publication status was also conducted. Due to the small sample size of inclusion studies, no analysis could be conducted for the impact of training type, but a partial moderating effect for study setting was found for expatriate adjustment. No significant effect was found for the publication status on training outcomes. Thus, the impact of moderating factors remained inconclusive. Additional research on individual differences related to success on international assignments (e.g., cognitive ability, personality, biodata, work experiences, vocational interests) was suggested as a possible explanation for the found inconsistencies.

To continue progress in this field, Mendenhall et al. (2004) performed a qualitative assessment of cross-cultural training programs from 1988-2000. Based on their review of the literature, the authors supported the positive impact of 3C training on effectiveness in foreign settings, while noting several limitations. The magnitude of the effectiveness of the 3C training was found to vary according to the type of dependent variable being measured (e.g., knowledge, behavior). The review also found significantly positive results in a smaller number of studies compared to previous reviews (Black & Mendenhall, 1990; Deshpande & Viswesvaran, 1992). Overall, Mendenhall et al. (2004) indicated that 3C training was not effective in attaining all the objectives associated with 3C training in practice. In fact, the authors noted the non-rigorous nature of the research designs of many of the evaluation studies included in the review, and stated that it was

impossible to determine a conclusion regarding the efficacy or lack of efficacy regarding 3C training. Instead, Mendenhall et al. (2004) expressed a need for more work that systematically investigates potential moderators of 3C training effectiveness, such as training content and delivery, and the motivation and developmental readiness of trainees.

Most recently, Littrell et al. (2006) conducted a qualitative review of 25 years (1980–2005) of research addressing the use of cross-cultural training in preparing managers for an international assignment. In their search, they identified and examined 29 prior conceptual reviews and 16 empirical studies. Overall, they found that cross-cultural training appears to be effective at enhancing the expatriate's success on overseas assignments, supporting previous meta-analytic findings (Black & Mendenhall, 1990; Morris & Robie, 2001). However, based on the very scant amount of research which exists, in addition to the many methodological flaws which are prevalent throughout these studies, the authors concluded that there was insufficient empirical evidence to conclude that 3C training was indeed effective. More quantitative research, using stronger research methods (e.g., control groups, random assignment, pre-test and post-test measures) and multiple indicators of expatriate success (i.e., outcome measures), was urged by the authors to solidify findings.

Littrell et al. (2006) also provided a lengthy discussion of the many variables that have been found to moderate the effects of training on expatriate performance. Namely, individual attributes, such as cognitive flexibility, non-ethnocentrism, extroversion, social skills, open-mindedness, cultural empathy, and behavioral flexibility, were discussed as

significant moderators for the impact of training effectiveness (Littrell et al., 2006). Training factors, such as the timing of the training (e.g., predeparture, while on assignment) and training rigor (e.g., method, length of training) were also discussed. Additionally, several attributes of the environment were explained as important moderators for the relationship between training participation and success outcomes, including job characteristics (e.g., job clarity, job discretion), family-level attributes (e.g., spouse adjustment), and the cultural toughness or distance between the home country and the assignment country. Despite all of these findings, the need for future empirical research in this area was further expressed: “By examining the many moderating variables that have the potential to influence the success of an overseas assignment, research evidence will be more conclusive and a stronger argument could be made to demonstrate the effectiveness of 3C training” (p. 383, Littrell et al., 2006).

#### Moderators of 3C Training Effectiveness

As the results of the reviews suggest, many moderators are suggested to explain the varying effectiveness of 3C training (Mendenhall et al., 2004; Morris & Robie, 2001). Moderators explain the conditions under which an effect or relationship is likely to be present and likely to be stronger (Aguinis, 2004). Notably, all reviews of the 3C training literature mentioned the likely moderating impact of the training content and mode used in various trainings on overall training outcomes (Littrell et al., 2006). This finding was not surprising, as trainings in any field will lead to different outcomes depending upon what is taught in the course and how the content of the course is delivered to students. The presence of this moderator is likely present in previous meta-analyses, leading to

smaller effect sizes for training outcomes. Best practices in meta-analyses clearly describe how variables in any field or setting should not be aggregated if they are too dissimilar in nature, or else relationships between variables will be confounded by third variables (Hunter & Schmidt, 1990).

Furthermore, in the relatively few empirical studies on 3C training, poor research designs were often employed. More specifically, due to the foreign nature of assignments, field data on training effectiveness is especially hard to collect, leading to most of the studies on 3C training relying on single source, self-report data from the expatriate. This was often collected as a retrospective measure, collected upon return of the individual to their home country, likely further reducing the accuracy of measurement (Mendenhall et al., 2003; Morris & Robie, 2001). Also, many of the designs of the training studies did not implement rigorous research methods, with very few control groups or longitudinal data collections, reducing the internal validity of the findings (Kealey & Protheroe, 1996). Given what we know from the general training literature, it is unsurprising that problems in research design and measurement pose threats to the accuracy of 3C training evaluation research, as poor measurement and research methods negatively impact all types of evaluation research. Thus, continued work on 3C training measurement and evaluation is suggested, but are not atypical areas of concern for better understanding training effectiveness across domains.

### **Chapter 3: Rationale for the Current Study**

In order to best advance our understanding of 3C training and effectiveness, the current study focuses on an overlooked area of research in this domain: The impact of training transfer on 3C training effectiveness. Training transfer has been conceptualized as the extent to which KSAOs acquired in a training program are applied, generalized, and maintained over some time in the job environment (Baldwin & Ford, 1988). More broadly speaking, transfer assesses the extent to which learning of a response in one task or situation influences the response in another task or situation (Adams, 1987). From an organizational perspective, the transfer of skills and knowledge acquired during training back to the job context represents perhaps the most central aspect of training effectiveness, as it indicates the overall utility of training: To what extent is training transferred by employees while on the job and how does this impact overall job success? What factors, related to the individual and the environment, lead to increased training transfer? Because a vast amount of training investment has been wasted due to poor training transfer, researchers have attempted to reveal the determinants of the transfer process in many settings (Blume, Ford, Baldwin, & Huang, 2010; Goldstein & Ford, 2002), yet many specific areas of training transfer remain unknown.

In the cross-cultural training context, training transfer has yet to be empirically studied and is an important area for research (Aguinis & Kraiger, 2009; Caliguri & Tarique, 2006). In fact, a call for research in this particular domain has been stated by several researchers. For example, in their recent review of the benefits of training and

developments for individuals, organizations, and society, Aguinis and Kraiger (2009) explicitly mentioned this need:

“Training research has consistently found support for both individual and situational moderators on relationships among training interventions, trainee learning, and workplace performance. For example, in this review we highlighted the importance of moderators ... in the relationship between cross-cultural training and expatriate adjustment and the relationship between training and transfer. However, additional research is needed to understand fully the range and impact of these moderators.” (p. 461).

Furthermore, Caliguri and Tarique (2006) discussed this same research gap in the cross-cultural training literature:

“It is well known in the domestic training literature that training content often does not transfer to the actual work setting... For this reason, domestic research examining the ways to facilitate or improve transfer has received much attention in the recent past (e.g., Ford & Weissbein, 1997). Meanwhile cross-cultural training scholars have largely ignored the transfer issue -- to date, no research has examined the transfer problem within a cross-cultural training context.” (p. 125)

As the authors discussed, without studying the transfer piece specifically, it is impossible to know the extent to which lessons learned from the training context are actually being used by individuals while on foreign assignments, and how this application leads to higher cross-cultural success while on assignment. Furthermore, by focusing specifically on predictors of training transfer, researchers are able to better understand which factors lead to increased utilization of training competencies, helping to improve overall training utility, reducing unnecessary labor and ineffectual training costs. Thus, examining training transfer in terms of its potentially mediating impact on international assignment success, as well as predictors of use and application, is therefore a critical need for international organizations and researchers, and will be the focus of the current study.

## Training Transfer

Formal employee training is intended to result in the learning of new knowledge, skills, attitudes or other characteristics in one environment (i.e., the training situation) that can be applied or used in another environment (i.e., the performance situation) (Goldstein & Ford, 2002). Presumably, what was learned in the training context should then be applied to help performance on the job, to improve trainee success in their typical role. However, a common experience is that learning from a formal training program is not always carried back for application on the job. In a study of sales training at Xerox, Rackman and Ruff (1991) reported there was an 87% of loss of skills within one month of the completion of the training. In fact, typical estimates of skills lost due to poor transfer of training range from 66% to 90% (Sookhai & Budworth, 2010). With organizations spending billions of dollars each year on formal training and development programs (Dolezalek, 2005), as well as facing increasing competition on a global scale, the money spent on training for only a possible 10% to 34% return is questionable. The issue of carry-over from training to the performance situation is referred to as the “transfer of training problem,” which is defined as the failure of the trainee to effectively and continually apply the knowledge and skills gained in training to his or her job (Broad & Newstrom, 1992).

Baldwin and Ford (1988) define the positive transfer of training "as the degree to which trainees effectively apply the knowledge, skills and attitudes gained in a training context to the job" (p. 63). This basic definition can also be elaborated to make the distinction between transfer to “near” situations (i.e., similar to the training conditions) or

to “far,” dissimilar situations (Laker, 1990). Given the high stakes involved, it becomes very important to understand the dynamics of transfer in order to look for ways to minimize transfer losses while improving the yield from any training program.

While the question of transferability of training has been present in the field of applied psychology nearly from the start (e.g., Thorndike's work in the early 1900's considered the transfer of learned behaviors from one setting to another), research on transfer in the context of formal organizational training only surfaced in the mid-1970's, with the onset of Kirkpatrick's (1976) seminal training effectiveness taxonomy. This model focuses on the impact of training through four major indicators: 1) trainee reactions (i.e., how trainees feel about training), 2) learning (i.e., what they learn), 3) behavior (i.e., whether they apply what they learn in the workplace), and 4) organizational results (i.e., whether perceived performance deficits have been fixed). Both researchers and practitioners have conducted numerous studies using this framework and continue to do so even now, most likely due to the simplicity of application and accessibility of the Kirkpatrick model (Bates, 2004).

Since the development and widespread use of the Kirkpatrick framework, the types of outcomes used to evaluate training programs have been expanded to include cognitive, affective, and motivational outcomes (Alliger & Janak, 1989; Kraiger, Ford, & Salas, 1993), in addition to a greater focus on the many individual and situational characteristics which are likely to impact the training effectiveness process (Noe, 1986). For example, Tannenbaum and Yukl (1992) examined trainee characteristics (e.g., ability, personality, motivation) on training effectiveness, whereas Noe and Schmitt

(1986) discussed the environmental component in training transfer. Noe and Schmitt's (1986) focus on the environment expanded and updated the transfer of training literature by incorporating more environmental factors (e.g., trainee career and job attitudes). Baldwin and Ford (1988) reviewed the major empirical studies of training transfer and proposed a systems model of transfer of training. Their model highlights the importance of such training inputs as trainee characteristics (e.g., ability, personality, motivation), training design (e.g., principles of learning, sequencing, training content), and work environment (e.g., support, opportunity to use) on training outputs (e.g., learning, retention) and the key transfer outcomes such as generalization (i.e., application of learned outcomes to a variety of situations) and maintenance (i.e., continuing to use the new methods). This framework has provided a solid foundation for followers to design and investigate important propositions related to training transfer, and researchers have indeed supported the influence of these factors on training transfer and transfer outcomes (Holton, 1996; Holton, Bates, & Ruona, 2000).

In the present study, Holton's (1996) transfer of training model (See Figure 2) will be used as the basis for the proposed model of 3C training transfer. This model has received much attention and empirical support. According to this perspective, there are several levels of influences which impact training effectiveness outcomes, including ability (e.g., ability, transfer design), motivation (e.g., motivation to learn, motivation to transfer), and environmental elements (e.g., reaction towards training, transfer climate), in addition to secondary influences (e.g., personality, job attitudes). Holton's model takes a holistic approach to the transfer of training problem and moves the literature away from

a purely outcomes-based evaluation to a more comprehensive discussion about how training works and how the factors that make it work can be enhanced in the organization. In doing so, Holton's (1996) framework avoids the weaknesses that were identified in the case of outcomes-based models that assumed simpler relationships and causal linkages. Several researchers have since built frameworks based on this model, yet the basic principles of Holton's work (1996) remain unchanged (Alvarez, Salas, & Garofano, 2004; Colquitt et al., 2000).

#### Mediating Impact of Training Transfer

As suggested by other training transfer researchers (Holton, 1996; Holton, 2000), the current study conceptualizes training transfer as a mediator that serves as the underlying process through which learning in the training context impacts cross-cultural success (See Figure 1). Specifically, individuals who learn in training, and use and apply what they have learned in training while on their foreign job assignment, will be related to success during their time abroad. This effect should occur because cross-cultural training has been shown to help develop KSAOs which help individuals more easily interact, work, and adjust in a foreign context (Littrell et al., 2006), thus the application of these learned competencies while on assignment, should serve as the underlying mechanism for learning leading to successful expatriation.

The significant impact of training transfer on training outcomes has received attention in general training settings (Blume et al., 2010), yet the impact of transfer in specifically the 3C training environment remains unknown, and has been expressed by several researchers as a much needed area of study (Aguinis & Kraiger, 2009; Caliguri &

Tarique, 2006). This direct assessment is necessary in order to isolate whether or not 3C training concepts are actually being used in foreign job settings, and how the application of training KSAOs impacts cross-cultural success outcomes, which may be able to explain the many conflicting results found in previous 3C training effectiveness studies.

Based on this apparent need, the following hypothesis is proposed:

*Hypothesis 1: Training transfer mediates the relationship between learning and cross-cultural success.*

### Predicting Training Transfer in Cross-Cultural Training

In order to increase the utility of 3C training by individuals sent on foreign assignments, it is important to investigate the most significant factors which impact the extent to which training transfer will occur in this particular setting. As mentioned previously, many researchers have developed models to better understand training transfer (Holton, 1996; Kirkpatrick, 1976), and several predictors of training transfer have been discussed in the general training literature (Cheng & Hampson, 2008; Holton et al., 2000). In fact, so many studies on training transfer have been conducted, that a meta-analysis of predictors of training transfer was recently performed by Blume and colleagues (2010) to better understand the overall impact of the various predictors identified by researchers. According to this research, several factors were found to significantly impact the extent to which transfer of learning occurs across learning contexts. The largest effects, corrected for unreliability in both the predictor and dependent variables, were found for cognitive ability ( $\rho=.37$ ), motivation ( $\rho=.29$ ), conscientiousness ( $\rho=.28$ ), and transfer climate ( $\rho=.27$ ). A moderator analysis found stronger effects for data collected from studies with shorter time lags between end of

training and time of transfer measure, self versus other measures of transfer, and use versus effectiveness conceptualizations of training transfer yielded higher effects, in addition to a strong same-source and same-measurement-context bias which also inflated observed relationships. These are all logical findings, as an individual must possess the ability to process and retain information from training (i.e., cognitive ability), the desire (i.e., motivation) and dedication to participate in training and develop oneself (i.e., conscientiousness), and an environment conducive to applying newly learned concepts to the workplace (i.e., training climate), in order for use or effectiveness of training to take place. However, in the 3C training environment, these factors may not all be as important as in general settings, as a unique type of learning takes place, involving awareness, cognitive perspective taking, and adapting to new situations through understanding. Conversely, many of the studies involved in the previous studies included in the meta-analysis involved memory or motor skills (e.g., in-basket exercise), neither which are directly related to 3C. Thus, these findings cannot be assumed to hold in a 3C context, further demonstrating the need for the current study.

For example, despite Blume and colleagues' overall finding that cognitive ability was the factor most strongly predictive of transfer, this was found to strongly differ based on the type of skills being trained. Although based on only two studies, it is interesting to note that there was a small, negative relationship between cognitive ability and the transfer of open skills ( $-.14$ ). This contrasts with the moderately strong, positive relationship between cognitive ability and the transfer of closed skills ( $.41$ ). Thus for the current study, focusing on 3C skills which are strongly open and influenced by the

environment, cognitive ability would not be a relevant factor to examine. Similarly, conscientiousness, or the propensity of being thorough and careful, has been found to be the most consistent and strongest predictor of both training performance and job performance, in comparison to the other Big 5 factors (Barrick & Mount, 1991). These studies were performed by coding previous training studies which involved motor skills, which again are not central to 3C factors of perspective taking, interpersonal skills, or self-maintenance skills, thus not likely relevant to the current study.

To build on this general understanding of training transfer, the current study focuses specifically on expatriate preparation, and proposes that several factors unique to the cross-cultural learning environment will likely impact training transfer in this setting. Indeed, in the global business literature, many individual characteristics and factors related to work assignments and foreign environments have been significantly related to increases in cross-cultural success (Hechanova et al., 2003), and are also suggested to differentially impact the extent to which training transfer occurs.

Furthermore, it is especially important to focus on unique predictors of cross-cultural training transfer due to the nature of 3C learning, as research has shown that open skills are much more variable in how they are practiced and transferred than closed skills (Blume et al., 2010). The open-closed continuum is a way of classifying motor skills in relation to the extent to which they are influenced by the environment, or the characteristics of the context in which the person performs the skill (Poulton, 1957). For example, returning a serve in tennis would be considered an open skill, because the player needs to calibrate the way they approach the ball and hold their racket based on

how the opponent has hit it towards them, whereas bowling or archery are closed skills that have consistent, stable targets. Similarly, 3C would also be classified as involving open skills, as the expatriate is commonly faced with novel, unpredictable situations, and must make appropriate inferences based on the cultural nuances, and change behavior accordingly. Ability to navigate these complicated dynamics involves few procedural rules (except for a maybe traditional ceremony, such as a wedding), leaving much of the skill in how the individual takes in the multiple cues of the situation and decides to react, making training transfer a variable possibility. Conversely, Excel training, or any technical training, would be considered closed skill learning, as there is only one way for running software programs and statistical analyses based on procedural knowledge.

In Blume et al.'s (2010) meta-analysis of training transfer, the impact of training skill type on the predictor-transfer relationship was examined using the open and closed spectrum to classify studies. The authors therefore coded training studies related to leadership or interpersonal skills as open, because they involve flexibility in how they are carried out based on situational demands, whereas closed skills, such as technical or software training, were coded as closed, due to their stable and predictable functioning. Because of this difference in variability, it was unsurprising that the authors found that virtually all predictor-transfer relationships were stronger for open than for closed skills, including trainee experience ( $\rho = .06$  and  $-.02$ , respectively), motivation ( $\rho = .19$  and  $.11$ , respectively), and self-efficacy ( $\rho = .23$  vs.  $.10$ , respectively). With open skills, trainees have to decide when and how to best apply trained principles and concepts to the job. Closed skills, in contrast, have clear transfer behaviors (i.e., Creating a pivot table in

Excel), and thus the impact of environmental factors is considerably less important.

Given that 3C is very much an open skill, it is likely that many factors will impact how likely 3C learnings are later applied in country, further supporting the necessity of the current research focus.

The following section will discuss the most central predictors of cross-cultural competence training transfer in terms of individual characteristics, as well as environmental factors, taking into account findings from both the general training and expatriate literatures.

#### *Individual Characteristics: Personality, Cultural Motivation, Previous Experience Abroad*

##### Personality: Openness to Experience and Tolerance for Ambiguity

Several individual characteristics are suggested to uniquely predict training transfer in the cross-cultural training context. Namely, the personality dimensions of openness to experience and tolerance for ambiguity are suggested to predict the training transfer behaviors of individuals (See Figure 1). Openness to experience, also referred to as intellectance, describes individuals in terms of their being original, innovative, willing to take risks (Costa & McCrae, 1992), and flexible (Ones & Viswesvaran, 1997). Costa and McCrae (1992) distinguish among several facets of openness to experience, including ideas (e.g., intellectual curiosity and open-mindedness), actions (e.g., being adaptable, valuing experimentation, and liking novelty), and values (e.g., fluid political and religious beliefs). People who score high on openness to experience tend to be less dogmatic in their ideas, more willing to consider different opinions, and more open to all kinds of situations than people who score low on openness to experience (Costa & McCrae, 1992;

McCrae & Costa, 1987). Tolerance for ambiguity refers to the “the tendency to perceive ambiguous situations as desirable” (Budner, 1962, p. 29). As conceptualized by Frenkel-Brunswik (1949), tolerance for ambiguity is a general disposition that broadly influences cognition, attitudes, and behavior. Low tolerance for ambiguity is characterized by rigidity, dichotomous thinking, authoritarianism, and ethnocentrism.

Personality theory has been applied to study individual success across a variety of organizational settings, and is also suggested to explain the influence of these personality dimensions in predicting training transfer in cross-cultural settings. According to this perspective, personality characteristics are dispositional traits that predispose individuals to behave in certain ways given a goal or the specific context of a situation (Costa & McCrae, 1992). Situations with unclear social norms, or “weak” situations, allow for personality tendencies to manifest as expectations are unclear and consequently, behaviors tend to be determined by individual predispositions. Personality has been shown to have a direct influence on workplace behaviors, as behavior is a function of a person’s personality and the situation (Mischel, 1977).

Indeed, researchers have found significant relationships between the personality dimensions of openness to experience and tolerance for ambiguity in training settings (Barrick & Mount, 1991; Salgado, 1997). For example, Barrick and Mount (1991) meta-analytically investigated the relation of the “Big Five” personality dimensions to several job performance indicators. Results showed that openness to experience ( $\rho = .25$ ) (in addition to extraversion and conscientiousness), was a significant predictor of training proficiency. They noted that individuals who score high on the openness to experience

dimension are more likely to have positive attitudes toward learning experiences, as the construct assesses characteristics such as curiosity, broadmindedness, and creativity, which are associated with general learning aptitude. Individuals with this dimension are more likely to be motivated in a training program, are more willing to engage in learning activities, and thus are more likely to benefit from training programs. Openness to experience was also significantly related to increased learning in other training contexts (Klein & Lee, 2006; Mitchell & Nicholas, 2004). Specifically in the cross-cultural training context, Lievens et al. (2003) found that openness to experience was significantly related to instructors' ratings of cross-cultural training performance.

Few studies have also examined the influence of openness to experience on training transfer. Herold, Davis, Fedor, and Parsons (2002) reported openness to experience allows trainees to better capitalize on earlier learning successes and to acquire necessary skills faster. This suggests intellectual curiosity enables trainees to explore, flexibly accept, and adopt new skills, although more research on this was requested. Similarly, in a meta-analysis of predictors of training transfer, personality dimensions were found to have small correlations with transfer, and openness to experience was found to have a slightly higher relationship (.08), than with the other dimensions (agreeableness =  $-0.03$ , extraversion =  $0.04$ ), aside from conscientiousness ( $0.28$ ) (Blume et al., 2005). This suggests that intellectual curiosity may enable trainees to be more likely to explore, accept, practice, and therefore adopt new skills, which would be particularly useful in a cross-cultural training environment, where openness to novelty

must be embraced in order to effectively adopt newly learned skills in a foreign environment.

Similarly, tolerance for ambiguity has also been shown to positively impact training performance. A higher tolerance for ambiguity has been related to increased dedication to learning new concepts, with increased endurance on novel on tasks and higher levels of achievement (Chapelle & Robert, 1986). McLain (1993), for example, reports that students who are tolerant of ambiguity are more willing to take risks and open to change, which might make them more committed to learning in training environment involving novel concepts, such as those related to foreign cultures and experiences.

Researchers have yet to look at the impact of tolerance of ambiguity on cross-cultural training performance or transfer, but theory based on this construct implies that a significant effect should be present. For example, Ehrman (1999) maintains that tolerance of ambiguity operates at three different levels: intake, tolerance of ambiguity proper, and accommodation. On the first level, tolerance enables learners to receive novel input, such as new language. Students with tolerance of ambiguity can perceive and accept new information better than those with low tolerance, as they are more comfortable with many unknown elements. The second level involves being able to “hold contradictory or incomplete information without either rejecting one of the contradictory elements or coming to premature closure on an incomplete schema” (Ehrman, 1999, p.331). The last level involves adapting the self according to new material, by integrating new information with the existing schemata. From this perspective, it can be implied that

individuals who are more tolerant of ambiguity will be more adept at learning new cultural material, less quickly to form decisions about new concepts, and more willing to adapt to the new understanding, meaning increased training transfer should occur.

In expatriate research, the personality dimensions of openness to experience and tolerance for ambiguity have been found to be important indicators of cross-cultural success which also might have implications for training transfer (Arthur & Bennett, 1995; Shaffer et al., 2006). In a study of expatriate success factors, openness was found to predict both task and contextual performance outcomes, as rated by the expatriate and a coworker. Openness also predicted lower desire to terminate the assignment and higher levels of work adjustment (Shaffer et al., 2006). For expatriate spouses, openness was related to increased psychological and socio-cultural adjustment, as well as to intercultural interactions (Ali et al., 2003).

Similarly, organizational scholars repeatedly assert that tolerance for ambiguity positively influences performance and adjustment in cross-cultural settings (Arthur & Bennett, 1995, Nishida, 1985; Yamazaki & Kayes, 2004). In a study of Japanese students studying in the U.S.A., participants were rated on their interpersonal communication skills and tolerance for ambiguity, followed by their level of cross-cultural adaptation, measured by their level of culture shock, psychological adjustment, and interaction effectiveness (Nishida, 1985). Results indicated that tolerance for ambiguity was negatively related to culture shock. Specifically, individuals who were able to react to new and uncertain situations with minimal discomfort reported more positive feelings

toward their experiences, and thus experienced less culture shock than those who were reacted to ambiguous situations with greater discomfort (Nishida, 1985).

Herman and Tetrick (2009) found coping strategies as an explanatory mechanism for the relationship between tolerance for ambiguity and cross-cultural adjustment, such that individuals who have a higher tolerance for ambiguity may use more problem-focused coping strategies leading to increased adjustment, versus those lower in tolerance for ambiguity who may use more emotion-focused strategies with lower adjustment outcomes. This may suggest that those with higher tolerance for ambiguity may then want to apply training more readily in order to most effectively cope and adjust to the new setting.

No research has yet looked at openness to experience or tolerance for ambiguity in relation to specifically 3C training transfer, thus this study will provide researchers and practitioners with a better understanding of the impact of these personality dimensions in a 3C training environment. Given the findings that increased openness to experience and tolerance for ambiguity are related to improved learning, higher training performance, and higher expatriate success, these factors are also likely to lead to increased use of cross-cultural training concepts. If an individual is more open to new information and can deal better with ambiguity, they may also be more likely to take information relating to these contexts, and try to incorporate it in novel cultural job settings. Thus, the following hypotheses are suggested:

*Hypothesis 2: Individuals who score higher on openness to experience will exhibit greater levels of training transfer compared to lower scoring individuals.*

*Hypothesis 3: Individuals who score higher on tolerance for ambiguity will exhibit greater levels of training transfer compared to lower scoring individuals.*

### Cultural Motivation

In general terms, motivation is the activation of psychological processes associated with goal-oriented behavior (Goldstein & Ford, 2002). Traditionally, this has been operationalized in terms of arousal (i.e., heightened awareness that initiates action), direction (i.e., target object desired), and persistence of behavior (i.e., actions taken to achieve a goal) (Mitchell, 1982). In the cultural competence training literature, cultural motivation is a common type of motivation that has interested researchers. Specifically, cultural motivation reflects the desire to direct attention and energy toward learning about and functioning in situations characterized by cultural differences (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007), based on intrinsic interest (Deci & Ryan, 1985). In general settings, this can be called motivation to learn. Much research has shown that the motivation of trainees, including motivation to learn, has been found to play a significant role in training outcomes and training transfer across developmental contexts (Beier & Kanfer, 2010). Thus, cultural motivation is also suggested to be a significant predictor of cross-cultural training transfer (See Figure 1).

Much research has shown that motivation to learn (i.e., general form of cultural motivation) strongly impacts training transfer across training environments. For example, motivation to learn was found as the mediating construct between pre-training characteristics and training outcomes (Quinones, 1995). Klein, Noe, and Wang (2006) found that motivation to learn was significantly related to course outcomes, including satisfaction and performance. In fact, such a large number of studies have investigated

the role of motivation to learn and self-efficacy in the training context, that several meta-analyses have been conducted in order to assess their overall effect.

Colquitt, Lepine, and Noe (2000) meta-analyzed the training motivation literature in terms of common antecedents (i.e., individual and workplace characteristics) and outcome variables. They found that motivation to learn was also found to be significantly related to training transfer ( $\rho = .58$ ), suggesting that both types of motivation are strongly predictive of the use of training concepts in the job settings. Even more recently, Blume and colleagues (2010) performed a meta-analysis on the predictors of training transfer, and motivation to learn ( $\rho=.23$ ) was found to be a significant indicator of transfer. This study also showed that motivation to learn was particularly important for open versus closed skills (.19 and .11, respectively), implying a similarly significant relationship for the transfer of cross-cultural skills.

A great deal of research in the expatriate literature has also looked at the role of motivation in cross-cultural environments. Namely, cultural motivation, often discussed as one component of cultural intelligence, deals with an individual's desire and self-efficacy in adapting to a new culture (Earley & Mosakowski, 2004), and has been used to predict performance on several outcome variables related to cross-cultural effectiveness (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007; Chen et al., 2010). For example, Ang and colleagues (2007) found support for the relationship between cultural motivation and increased cultural adaptation. According to the authors, cultural motivation provides the goal-driven behavior which helps individuals through stressful situations, allowing individuals better cope and adjust while on assignment. Furthermore,

Chen et al. (2010) showed that cultural motivation in an expatriate sample predicted work adjustment, moderated by subsidiary support. When more support was given, the relationship between these two constructs was found to decrease. This finding suggests that this type of subsidiary support may replace individual expatriate efforts, demonstrating the central importance of cultural motivation in achieving foreign success.

Since motivation to learn has a strong impact on training transfer across training contexts, especially for open versus closed skills, and cultural motivation is significantly related to increased cross-cultural success, cultural motivation (i.e., a specific form of motivation to learn) should also lead to increased levels of 3C training transfer. If an individual believes they have the capacity to function well in an intercultural environment, and is intrinsically interested in learning about other cultures, they should be more motivated to exert greater effort and apply KSAOs from training to the foreign job context. Thus, the following hypothesis is proposed:

*Hypothesis 4: Individuals who score higher on cultural motivation will exhibit greater levels of learning transfer compared to lower scoring individuals.*

#### Previous Experience Abroad

Previous experience abroad is suggested to help facilitate the extent to which 3C training transfer occurs (see Figure 1). In the general training and education literatures, it has longtime been understood that previous experience related to a certain content area increases training performance and transfer of that content area (Graham & Gagne, 1940). Starting with the seminal work by Thorndike (1898), who showed that any behavior that is followed by pleasant consequences is likely to be repeated, researchers have showed that time required to perform a task decreases as task familiarity increases

(Thurstone, 1919). This effect, often described as a learning curve, has been replicated over a variety of settings. Repeated practice has also been discussed in terms of automaticity, such that after enough repetition and skill development, learned activities are performed with minimal effort, which can then be repeated in near or similar situations (Gagne, 1977).

The importance of previous experience abroad has also been discussed briefly in the 3C training literature. In their review of cross-cultural training effectiveness literature, Black and Mendenhall (1990) proposed a framework of 3C training based on Social Learning Theory (Bandura, 1977). According to this perspective, learning is affected by both observation and experience, in that people must first notice behavior, remember the modeled behavior, practice performing the behavior, and then get positive feedback, in order to continue using and therefore fully learning a new skill. In the 3C training context, developing 3C therefore depends on the attention of the trainee of the new competencies, the ability to remember the competencies, the opportunity to practice 3C, and positive feedback from the environment after using what was learned. Black and Mendenhall (1990) discuss that the more similar the trained modeled behavior is to what has been experienced in the past, the easier the new behavior will be to reproduce in a foreign context, as the process of observing and practicing the KSAOs has already taken place in the training setting, making the application of the competency the only step that needs to take place. Previous foreign experience in the past would therefore help an individual more readily apply training concepts for this reason.

In the expatriate literature, previous experience abroad has repeatedly been related to higher cross-cultural success (Black et al., 1991; Takeuchi, Tesluck, Yun, & Lepak, 2005; Takeuchi, Wang, & Marinova, 2005). In a study of previous travel experience on expatriate adjustment, results indicated that past international experience moderates the relationship between current assignment tenure and general and work adjustment. More specifically, increased amounts of previous international travel was related to a stronger relationship between tenure and general adjustment, demonstrating that previous experience indeed increases adjustment to a new, foreign context (Takeuchi et al., 2005a). The relationship of international work experience and expatriate success was also examined in terms of cultural distance (Takeuchi et al., 2005b). In their study, a lack of prior foreign work experience in a culturally similar context had stronger negative impact on the amount of psychological workplace strain experienced by expatriates when compared to a lack of prior international work experience in cultural dissimilar context. Prior experience was therefore suggested to have an indirect influence on adjustment, through mechanisms such as psychological workplace strain (Takeuchi et al., 2005). A recent meta-analysis has also confirmed the positive impact of previous international work experience on cross-cultural success, with analyses showing significant effect sizes for both interaction adjustment ( $\rho = .13$ ) and for work adjustment ( $\rho = .06$ ) (Bhaskar-Shrinivas et al., 2005). In sum, these studies point to a simple conclusion that individuals who have been in other cultures prior to an expatriate work assignment, tend to adjust to the new assignment better.

Given that previous related experience improves training performance and training transfer, and that previous experience abroad is highly correlated with expatriate success, it is also suggested that previous experience abroad will increase training transfer. This will likely occur because individuals with previous foreign assignments should have a higher familiarity dealing with novel cultural situations and therefore feel more comfortable reacting to a new cultural situation, and therefore more automatically apply 3C concepts from training (Bandura, 1977). Previous cross-cultural experience may give individuals higher baseline levels of 3C, allowing them to work even more effectively in applying 3C concepts, making the transfer of 3C easier for these individuals. Lastly, individuals with previous cross-cultural experience may perceive 3C training as more relevant and more important than those who have not had any foreign assignments, as the difficulty of interacting in a foreign context has already been experienced, highlighting the need to develop 3C to better prepare themselves for future cross-cultural experiences. Thus, formal 3C training may be more readily transferred by these individuals due to this higher perceived importance and demonstrated need for applying these KSAOs to cross-cultural settings. Given this reasoning, the following hypothesis is suggested:

*Hypothesis 5: Individuals who have increased previous experience abroad will exhibit greater levels of training transfer compared to individuals with less previous experience abroad.*

#### *Work Environment: Climate for Transfer*

Social, peer, subordinate, and supervisor support all play a central role in training transfer (Faction et al., 1995; Tracey, Tannenbaum, & Kavanagh, 1995). Unless trainees

transfer into job situations that have a climate that supports the use of the behaviors learned in training, they will be less likely to use their learned skills. Climate refers to employees' perceptions of what the organization is like in terms of practices, policies, procedures, that signal to people what is important (Schneider, 1975). Organizational climate reflects the shared perceptions of employees about an organization (i.e., conceptualized and studied as an organizational variable), whereas psychological climate is based on individual perceptions (i.e., conceptualized and measured at the individual level) (Ostroff, Kinicki, & Tamkins, 2003). Schneider (1975) suggests that organizations or work units can be characterized by a variety of climates, such as a climate for service or a climate for safety. Organizational climate for transfer consists of those situations' and consequences that either inhibit or help to facilitate the transfer of what has been learned in training onto the job situation (Rouiller & Goldstein, 1993). This might include encouragement of training from supervisors and coworkers, such as goal setting, social cues, as well as positive (e.g., monetary bonus) or negative feedback (e.g., ridicule from peers) from the environment surrounding concepts learned. In the cross-cultural training environment, climate for transfer is suggested to be an especially important predictor, as the national culture and climate of a foreign assignment is largely unknown before arrival, thus a trainee's organizational practices, practices, and procedures will largely guide how individuals will behave in this setting (See Figure 1).

Numerous studies have shown that organizational climate for transfer and psychological climate for transfer are related to increases in training transfer by individuals (Bennett, Lehman, & Forst, 1999; Tracey et al., 1995; Xiao, 1996). For

example, Tracey and colleagues (1995) assessed transfer climate in a group of management personnel who were attending a supervisory skills training program. Transfer climate, as perceived by the participants, directly influenced training transfer, such that social support among the immediate network of supervisors and coworkers, was the strongest predictor of effective transfer. Similarly, Xiao (1996) looked at a number of factors related to the transfer of training for Chinese industry workers. Participants completed a survey about their experiences with the training and at the job site several months after completing the training. Supportive supervisory behaviors, such as helping set goals for applying the training, providing assistance when trying the new behaviors, and feedback on task performance, was found to be most predictive of training transfer. Bennett et al. (1999) looked at the effect of psychological climate for transfer in a study of management training effectiveness. In this study, climate was operationalized in terms of employee perceptions of factors relating to supervisory or coworker support, workload, role ambiguity and department policies and procedures they thought helped or hurt transfer. Transfer was measured in terms of employee self-reported attitudes about customer service. Results showed that there was a moderately high correlation between a positive transfer climate and employee perceptions of training goals achieved, highlighting the impact of climate on skill transfer. Several studies have found similar results (Brinkerhoff & Montesino, 1995), with meta-analytic results estimating the impact of climate ( $\rho=0.21$ ) and specifically support ( $\rho=0.27$ ) to be consistently related to increased transfer of training (Blume et al., 2010), demonstrating the importance of climate for transfer likely in an international organizational setting.

Although to date climate for transfer has not been specifically tested in a cross-cultural training environment, previous research on expatriates has shown that several organizational characteristics indeed play a large role in cross-cultural success outcomes. Perceived organizational support (POS), or employees' global beliefs concerning the extent to which the organization values their contributions and cares about their well-being, was found to have a direct effect on adjustment (Takeuchi, Wang, Marinova, & Yao, 2008). Similarly, in a study of the organizational predictors of job satisfaction among expatriates, participation in organizational decision-making and the perceived value of the overseas assignment to career advancement were both significantly related to job satisfaction (Naumann, 1993). In fact, in a recent meta-analysis of the predictors of expatriate success, co-worker support and logistical support were found to significantly predict adjustment (Bhaskar-Shrinivas et al., 2005). Taken together, these findings suggest that perceptions of organizational factors strongly impact success while on foreign assignment.

Given that climate for transfer strongly predicts transfer in the general training literature, and that organizational characteristics have played a significant role in expatriate success, psychological climate for transfer is also suggested to impact transfer in a cross-cultural training environment. Specifically, individuals who perceive a higher climate for transfer (i.e., psychological climate for transfer) will be more likely to use and apply 3C concepts on the job while abroad, as organizational policies, practices, and procedures that help facilitate training transfer, should in fact increase the application of 3C while on assignment. Furthermore, because individuals on an expatriate assignment

are coming from their home organization to work in another organization (i.e., host organization), the workplace policies, practices, and procedures related to training transfer may be different. In multinational companies, the climate in one office may be drastically different from other office locations, based on the local leadership, differing organizational policies and practices, and other environmental influences. Thus, the current study will add to the understanding of training transfer by examining the influence of both home and host organizations' climate for transfer, which is unique to the 3C training environment. Thus, the following two-part hypothesis is proposed:

*Hypothesis 6a: Individuals who perceive a more positive home organization climate for transfer will exhibit greater levels of training transfer compared to individuals who perceive a less positive climate for transfer.*

*Hypothesis 6b: Individuals who perceive a more positive host organization climate for transfer will exhibit greater levels of training transfer compared to individuals who perceive a less positive climate for transfer.*

## **Chapter 4: Method**

### **Participants**

Participants of this three-phase study were volunteers from the Peace Corps, who were attending a pre-service training program as a mandatory part of their service in the organization. At the start of the study (i.e., Time 1 and Time 2), participants included 120 volunteers based at four different training locations, including Costa Rica ( $N=31$ ), Albania ( $N=41$ ), Fiji ( $N=26$ ), and Mali ( $N=22$ ). Due to volunteer attrition based upon premature return from assignment and also failure to be present at time of data collection, the third and final wave included only 101 volunteers, including those from Costa Rica ( $N=27$ ), Albania ( $N=36$ ), Fiji ( $N=20$ ), and Mali ( $N=18$ ). No systematic differences in

attrition between locations is assumed, as it is a relatively even dispersion of participant drop-out across the locations, with Costa Rica ( $N=4$ ), Albania ( $N=5$ ), Fiji ( $N=6$ ), and Mali ( $N=4$ ). Training posts were nominated by the Peace Corps organization to participate, based on timing (all had starting dates in early 2011) and geographic location, in order to have a mix of participants from all regions. The participants, similar to the overall Peace Corps volunteer population, was 60% female, aged 21-71 years ( $M=26.28$ ,  $SD= 7.91$ , median=24) and 80% Caucasian, with approximately 91% with at least an undergraduate degree.

Founded in 1961 by John F. Kennedy, the Peace Corps is an independent U.S. government agency that provides volunteers for countries requesting assistance around the world. Volunteers serve in 77 countries in Africa, Asia, the Caribbean, Central and South America, Europe, and the Middle East. Peace Corps Volunteers live, learn, and work with a community overseas for 27 months, providing technical assistance in six program areas: Education, youth and community development, health, business and information and communications technology, agriculture, and environment (Peace Corps, 2011).

Each Peace Corps volunteer is assigned a particular job in support of these program areas with a goal to be completed during their tenure abroad. For example, education volunteers commonly work with local teachers to teach math, science, English, or information and communication technologies. They work as teachers or team-teachers in primary or secondary schools and as teacher trainers in universities or teacher-training centers. Volunteers work with teachers to improve teaching methodologies, classroom

management, educational assessments, parental involvement, and gender equity in the classroom. Health Volunteers work with local governments, clinics, nongovernmental organizations, and communities at the grassroots level. They focus on outreach, awareness, and prevention programs in public health, hygiene, sanitation, and HIV/AIDS (Peace Corps, 2011). Volunteers are supervised by both a regional Peace Corps officer, as well as a HCN supervisor from their work location.

### Cross-Cultural Competence Training

In order to help prepare individuals for their missions, the Peace Corps gives its volunteers an intensive in-country, pre-service training (PST) before they are sent to their specific assignment locations. This training lasts 12 weeks, and focuses on the language, culture, and workplace skills necessary for completing Peace Corps assignments, building competencies and smoothing the transition to their actual assignments. Training content focuses on culture-specific outcomes (e.g., language, traditional cultural practices, professional norms, local foods), as well as developing culture-general 3C (e.g., perspective-taking, interpersonal skills, increased cultural flexibility, reduced ethnocentrism). A variety of teaching techniques are used during the training, including role-plays, skits, group discussions, debriefing sessions, self-directed learning activities, and panel discussions. Trainees live with host families during this training period to allow participants to begin their immersion into the host culture, and practice their 3C KSAOs (Peace Corps, 2011).

The pre-service trainings are developed in-country by local Peace Corps staff, affiliated HCNs, and contracted training experts, all of whom also help lead the trainings.

Training curriculum does not follow a standardized format across posts, but lesson plans are derived largely from “Culture Matters,” a resource developed by researchers at the Peace Corps, and share many over-arching goals. For example, all pre-service trainings aim to help the volunteer integrate successfully into the community, facilitate working relationships with HCNs in support of their work assignment, and promote a better understanding of culture and how it impacts everyday life and perspective. Training is overseen by the Post Leader at each training location, who liaises with the Peace Corps Headquarters and local educators to ensure the training meets training objectives. The typical trainer to trainee ratio is approximately 1:6 to allow for the necessary feedback to be given to trainees throughout the training process. The content of the training course is considered to be highly appropriate for preparing individuals for the cultural demands of their assignment (Trent, 2005). Based on its careful development and the way the training is applied, the training program is assumed to be content valid. Please see Appendix A for an example pre-service training lesson plan.

#### Procedure

Participants in this study were assessed using questionnaires three times over the first six months of their service: Pre-training (Time 1), post-training (Time 2), and 3-months in country (Time 3). Time 1 data was collected at the start of their pre-service training program, approximately two weeks after they arrived at their appointed training post in their host country. This was done by asking each cohort of participants to fill out a paper survey in a classroom setting, with approximately 30 minutes allotted for completion, led by the Post Leader at each site. The Time 1 volunteer survey included a

brief overview of the study, followed by measures for cross-cultural skills, cultural attitudes, personality (i.e., openness to experience and tolerance for ambiguity), cultural motivation, previous travel experience and other demographic information. Individuals were asked to use a seven-digit unique ID in order to protect their confidentiality, as well as allow the researcher to link subsequent survey responses.

At Time 1, the trainers of volunteers also rated each of the participants on the same cross-cultural skills. Directions on how to rate the trainees were given by the Peace Corps Headquarters to the Post Leader at each location, who then instructed their local trainers on how to carry out the ratings. Assessment information was given all in English. The calibration of ratings was also discussed at each post prior to finalizing ratings. Please see Appendix B for the full instructions given to trainers at the Time 1 data collection.

The second data collection took place the week prior to completion of the training program (i.e., 10 weeks after Time 1). At this point, the volunteers were again given surveys in a classroom setting which re-assessed the cross-cultural skills and attitudes, in addition to their cultural motivation and other measures requested by Peace Corps (Time 2). Peace Corps Trainers also evaluated the cross-cultural skills of the volunteers at this time. This was done by filling out the same assessments as in Time 1, using the same methodology.

The final data collection, Time 3, was collected after the volunteers had been on working on the job for three months (i.e., 3 months after the Time 2 data collection, 6 months after start of training). All training posts regularly hold a meeting with the

volunteers at this time back at the original training post location, in order to check in on progress and adjustment, providing a similar opportunity for this last data collection across posts. Similar to before, surveys were handed out in a classroom setting by the Post Leaders. Survey 3 measured the volunteers' training transfer, climate for transfer, and cross-cultural success outcomes (i.e., adjustment, premature return intentions). No data was collected from other sources at this time, due to testing feasibility issues: Volunteers are largely placed individually in their host country at various schools and offices, often with limited access to mail or internet, so contacting others was not possible.

For each data collection, surveys were collected upon completion by post leaders and returned via mail to the Peace Corps Headquarters. Table 1 has a full list of the measures collected at each point over the study. Detailed information about each of these assessments is provided in the following section:

## Measures

### *Learning Assessments*

Learning was assessed in terms of the cross-cultural skills central to the Peace Corps cross-cultural training programs (see Appendix C for full list). This was done by comparing the cross-cultural skill levels pre and post training (i.e., difference score) in order to determine changes in learning. Because Peace Corps training posts do not have a standardized curriculum for their training, a training skill analysis was performed in order to come up with a standardized method for assessing the cross-cultural skills of the participants across all posts in the study. This was done by using a grounded-research

approach and first looking at previous research findings on cross-cultural skill areas. In particular, Black and Mendenhall's seminal research (1990) offers a taxonomy of 3C based on three sets of skills: Interpersonal, perspective-taking, and self-maintenance. This framework has been used in other studies as the basis of cultural competency measures (Deshpande & Viswesvaran, 1992; Leiba-O'Sullivan, 1999), therefore was also found appropriate for the current research.

Behavior skill statements were then written for each of those three 3C categories based on learning materials from the Peace Corps training programs. This was done by reviewing all of the lesson plans in each of the participating posts, in order to determine the common content areas and skills trained by all posts, which could then be written up as behavioral statements for under each of the three cultural dimensions in the framework. For example, for interpersonal skills, items were written based on the key work and social relationships discussed in the training, such as "Using appropriate body language related to personal space and physical contact while interacting with host country nationals in an informal community or social setting" and "Appropriately applying culture specific behaviors when interacting with members of the opposite sex." For the perspective taking dimension, items were written to reflect the ability to purposefully shift one's own perspective or cognitive frame of reference used to interpret information based on host country culture, such as: "Being sensitive to concerns that are unique to a host country national during workplace interactions (e.g., power distance)" and "Pausing to reflect upon an intercultural situation before reacting." Lastly, self-maintenance skills related to behaviors that helped with coping to the novel foreign

environment, such as “Engaging in hobbies, alone or with others, and regularly maintaining these activities” and “Being mindful of symptoms of culture shock.”

These behavioral skill statements were then validated by cultural experts at the Peace Corps Headquarters, as well as the Post Leaders from each of the participating training countries, to ensure they were indeed relevant and central to the training provided to the volunteers. The resulting framework included a total of 27 behavioral items under each of the three competencies. Ratings for all of the cultural skills were made using a 5-point ordinal scale (1=*Novice*, 2=*Beginner*, 3=*Intermediate*, 4=*Advanced*, 5=*Superior*), with written behavioral descriptions of each of the ratings provided. For example, Novice =*No opportunity to perform this behavior. Little or no understanding of how to perform this skill.* The complete assessment can be found in Appendix C.

#### *Personality, Background, and Motivation Measures*

A variety of scales were used to measure the various individual difference factors in the study as described as follows. All measures in their entirety can be found in Appendix D.

*Openness to Experience.* Big Five factor markers from Goldberg (1992) were used to assess openness to experience at the first data collection in the study (Time 1). Ten items measure this dimension, such as “has a vivid imagination.” Responses were made using a 5-point Likert scale ranging from 1 (1 (*strongly disagree*) to 5 (*strongly agree*)). Cronbach’s alpha has been reported at .89 (Shaffer et al., 2006) in expatriate research using this measure.

*Tolerance for Ambiguity.* Tolerance for Ambiguity was measured at the first data collection in the study (Time 1), using an assessment recently developed and validated for an international management use by Herman et al. (2010). Based on 12 items, this measure taps into the four facets of valuing diverse others (e.g., “I avoid settings where people don’t share my values” [Reverse Coded]), change (e.g., “A good job is one where what is to be done and how it is to be done are always clear” [Reverse Coded]), challenging perspectives (e.g., “A good teacher is one who makes you wonder about your way of looking at things”), and unfamiliarity (e.g., “I like parties where I know most of the people more than ones where all or most of the people are complete strangers” [Reverse Coded]). Ratings were made using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Herman et al. (2010) demonstrated adequate internal consistency reliability for this measure (Cronbach’s alpha = 0.73).

*Cultural Motivation.* Cultural motivation was assessed using the “cultural motivation” subset of the Cultural Intelligence Scale (CQS) developed by Ang and colleagues (2007). Sample items include, “I enjoy interacting with people from different cultures” (i.e., intrinsic motivation) and “I am confident that I can socialize with locals in a culture that is unfamiliar to me” (i.e., self-efficacy). Ratings were made using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). In prior research, this measure was shown to have good internal consistency reliability (Cronbach’s alpha = 0.81).

*Previous Experience Abroad.* Previous experience abroad was assessed by asking individuals to count the total number of international trips abroad they have had (i.e.,

frequency) and cumulative time spent abroad (i.e., months) during each foreign experience. International trips were specified as travels outside the US related to leisure, work, study, or extended residence, but excluding travel for the Peace Corps. A similar method was employed by Takeuchi et al. (2005) which found this to be a valid conceptualization of international experience for the expatriate population.

*Climate for Transfer.* The Learning Transfer Systems Inventory (LTSI), developed by Holton and colleagues (2000), is the most widely used assessment for climate for transfer and was also used as the basis for this measure in the current study. The LTSI is based off the original climate for transfer instrument developed by Rouiller and Goldstein (1993), yet uses a slightly different factor structure and was validated cross-culturally and across multiple sectors (Chen, 2003; Yamnill, 2001). The result was a 30-item measure which conceptualize the transfer process in terms of the original workplace factors, in addition to dimensions for trainee characteristics and ability/enabling elements. For the purpose of measuring the psychological climate for transfer construct in the current study, only the sub-dimensions for workplace factors that tap directly into individual perceptions of organizational climate (i.e., practices, policies, and procedures) were used. The resulting measure was 13 items, with 4 items written to reflect the home organization (i.e., Peace Corps), and the remaining 9 assessing the host organization. Ratings were made on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Peace Corps volunteers are part of the Peace Corps for throughout their tenure abroad. However, after they complete training and are sent on location to work, they

become part of a local school or health center or similar type of organization. Thus, the current study uses the Peace Corps as the “home organization” and the specific volunteer sites are referred to as “host organizations,” as they are the temporary working organization of the volunteer. These sites only partner with the Peace Corps and are distinct and completely separate organizations, and are therefore hypothesized to have unique organizational climates that require separate measurement in order to capture these perceptions.

*Training Transfer.* Transfer was assessed by developing a new measure which examined the extent to which content from the culture training course had been used since participation. The basis of this measure was one developed by Tesluk et al. (1995), which similarly assessed the extent to which individuals transfer the knowledge and skills presented in training sessions to their core jobs. A sample item is “I have been using the skills presented in the training course to help complete my job duties.” The original scale exhibited sufficient internal consistency reliability (Cronbach’s alpha = 0.87). In addition to this holistic question, items have been added to reflect the use of the specific competencies instructed in the pre-service training course. For example, “I use the communication skills presented in the pre-service training course to help avoid cross-cultural misunderstandings on the job.” Ratings were made on a five point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

#### *Cross-Cultural Success*

The current study used multiple measures commonly found in the expatriate literature to operationalize cross-cultural success (Mendenhall et al., 2004). These

measures included job satisfaction, job performance, premature return intentions, and adjustment, and are described in the following section (see Appendix D for full measures).

*Job Satisfaction.* Overall job satisfaction was assessed using three items, such as “In general, I like my assignment.” This was based on a single-item measure, “I like doing the things I do at work,” by Wanous, Reichers, & Hudy (1997) which has been used in multiple domains. The response options ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*).

*Job Performance.* Job performance was measured in terms of contextual performance and task performance, common indicators use in the expatriate literature (Mendenhall et al., 2004). For example, contextual performance was measured with items such as “Effectiveness at representing the Peace Corps to the host national community,” whereas task performance was measured by items such as “Technical performance on this Peace Corps volunteer assignment.” All eight performance items were rated using a 5-point rating scale ranging from 1 (*Novice*) to 5 (*Superior*).

*Premature Return Intentions.* Premature return from assignment is a common indicator of cross-cultural success often used in the expatriate research, and was also measured in the current study, using a 4-item measure based on Caliguri (2000). Sample items include, “I am seriously considering ending my Volunteer service early” and “I intend to stay for the entire expected length of my service.” The response options ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). A low score indicated a greater desire to remain in the global assignment and a high score indicated a greater desire to terminate

the global assignment. Previous expatriate research (Caliguri, 2000) has demonstrated good internal consistency reliability (Cronbach's alpha=0.83).

*Cross-Cultural Adjustment.* The adjustment measure by Black and Stephens (1989) was used to assess general (8 items), interaction (4 items), and work (3 items) adjustment facets (1=*Poor*, 5=*Excellent*). In other expatriate research, the internal consistency reliabilities have been shown to be sufficient, with Cronbach's alphas reported at 0.79, 0.89, and 0.89 respectively (Wang & Takeuchi, 2007).

## Chapter 5: Results

Means, standard deviations, reliabilities, and correlations between the measures appear in Table 2. Because skill ratings were made by trainers of different cultural backgrounds and in different locations, effect coding was used to see if there were significant group differences for ratings. Analyses showed that there was a significant group difference for the trainer ratings of skills by location at both Time 1 ( $R^2=0.67$ ,  $F(3,116)=88.60$ ,  $p<0.05$ ) and Time 2 ( $R^2=0.69$ ,  $F(3,110)=84.36$ ,  $p<0.05$ ), so location was controlled for in the trainer rating analyses. Conversely, no significant differences were found between the trainee means and the mean of the group means by location for the Time 1 ( $R^2=0.02$ ,  $F(3,115)=2.75$ ,  $p>0.05$ ) or Time 2 ( $R^2=0.07$ ,  $F(3,111)=3.25$ ,  $p>0.05$ ) data collections, demonstrating that results from across locations could be treated equally. See Table 3 for a full list of skill ratings.

Analyses were then performed to examine the impact of several potential factors that may have influenced the cross-cultural skill level of participants. For example, age of trainee has been shown to impact training success, such that lower age is related to higher

classroom performance, especially for open learning environments (Warr & Bunce, 1995). Thus, a regression was used to see if age was significantly related to skill level as measured by trainers. No significance was found for this factor at Time 1 ( $R^2=0.01$ ,  $F(1,114)=0.02$ ,  $p>0.05$ ) or Time 2 ( $R^2=0.01$ ,  $F(1,108)=0.25$ ,  $p>0.05$ ), demonstrating that age of trainees does not impact skill proficiency in the current study. Furthermore, age of trainee did not significantly relate to any other variable in the model, so it was not necessary to use as a control variable in the analyses.

Previous research has also found that gender can significantly impact training performance. Thus, a regression was used to see if gender was significantly related to skill level as measured by trainers. No significance was found for this factor at Time 1 ( $R^2=0.01$ ,  $F(1,118)=0.03$ ,  $p>0.05$ ) or Time 2 ( $R^2=0.01$ ,  $F(1,112)=0.06$ ,  $p>0.05$ ), demonstrating that gender of trainees does not significantly impact skill proficiency in the current study. Furthermore, gender did not significantly relate to any other variable in the model, so it was not necessary to use as a control variable in the analyses.

Cultural distance or perceived dissimilarity of the host culture from that of the could also impact training performance. Thus, a regression was used to see if cultural distance was significantly related to skill level as measured by trainers. No significance was found for this factor at Time 1 ( $R^2=0.01$ ,  $F(1,116)=0.01$ ,  $p>0.05$ ) or Time 2 ( $R^2=0.02$ ,  $F(1,108)=1.06$ ,  $p>0.05$ ), demonstrating that the perceived cultural distance of trainees does not significantly impact skill proficiency in the current study. Based on these findings, it was deemed unnecessary to include any of these variables as controls when analyzing the data for findings.

The next step in the analysis was to determine the psychometric properties of the scales. Specifically, Exploratory Factor Analysis (EFA) using a Maximum Likelihood extraction was performed on measures that were newly constructed for this study using SPSS. Factors were retained for those that showed eigenvalues of greater than 1. For previously validated scales or adaptations of related measures, I used Confirmatory Factor Analysis (CFA) in LISREL to ensure that factor purity remained over time and over multiple data collection locations, as originally intended. With an a priori notion of the factor structure of the variables, a CFA was appropriate for determining the extent to which these scales were successful indicators of their respective constructs and exhibited adequate internal consistency reliability. CFA results were inspected for factor loadings which loaded onto the latent variable at less than .40, which did not significantly relate to the latent factor ( $p > 0.05$ ), or which had small squared multiple correlations. Poorly performing items were dropped and model fit and reliability analyses were conducted on the modified scales.

As recommended in the literature, I examined model fit using several indices with have different measurement properties. Specifically, I evaluated model fit using the chi-square goodness-of-fit statistic, the RMSEA, the CFI, and the SRMR (Kline, 2005). For the chi-square goodness-of-fit statistic ( $\chi^2$ ), non-significance ( $p > 0.05$ ) indicates good fit (i.e., failure to reject the null supports the hypothesis). Due to extreme sensitivity of this statistic to normality and sample size, the ratio of  $\chi^2$  to degrees of freedom ( $\chi^2/df$ ) is reported, with values of 3 indicating good fit and up to 4 as reasonable fit (Carmines & McIver, 1981). In addition, RMSEA, CFI, and SRMR are reported as they are less

dependent on sample size. For RMSEA, values below .05 are considered excellent fit, values between .05 and .08 are considered good fit, and values between .08 and .10 are considered mediocre fit (MacCallum, Browne, & Sugawara, 1996). For CFI, values above .95 are considered excellent fit and values between .90 and .95 are considered good fit (Hu & Bentler, 1999). For SRMR, values of .10 or less are considered favorable (Kline, 2005). Results of these preliminary analyses for each scale are described below.

*Learning.* Learning was assessed by measuring skills related to 3C based on three factors: Interpersonal skills, perspective taking skills, and self-maintenance skills. This resulted in the development of a 27-item 3C framework. Sample items include “Being sensitive to concerns that are unique to a host country national during workplace interactions (e.g., power distance)” and “Engaging in hobbies, alone or with others, and regularly maintaining these activities.” An exploratory factor analysis of the cross-cultural skill items using maximum likelihood extraction supported a one factor solution for the measure (62.59% variance explained;  $\lambda_1 = 16.91$ ,  $\lambda_{2-3} < 1.00$ ), in which all items loaded higher than .40 on a single factor ( $\alpha = 0.94$ ). Learning was assessed by regressing the Skills at Time 1 (pre-training) onto Time 2 (post-training) and using the residuals as the learning measure ( $M = 0.90$ ,  $SD = 0.66$ ). Ratings means and average learning score for each individual can be found in Table 3. Overall skill dimension information can be found in Table 4.

A paired-samples t-test confirmed that there were significant differences between the volunteer self-reported skills and trainer rated skills, with volunteers rating themselves significantly higher both pre-training (Volunteer  $M = 3.30$  vs. Trainer

$M = 2.40$ ,  $t(119) = 8.34$ ,  $p < 0.01$ ) and post-training (Volunteer  $M = 3.76$  vs. Trainer  $M = 3.30$ ,  $t(114) = 4.76$ ,  $p < 0.01$ ) than did the trainers. See Table 5 for full information regarding differences between these skill ratings. Given the behavioral descriptions for each rating (i.e., 1=Novice, 2=Beginner, 3=Intermediate, 4=Advanced, 5=Superior), the trainer assessments are likely a more accurate indicator for skill level (i.e., lower absolute value), and will therefore be used to operationalize skill change and learning measures in this study instead of the self-assessed skills.

*Openness to Experience.* A single factor CFA was conducted on the 10 previously validated personality markers for openness to experience (Goldberg, 1992). Items 1 (“Have a rich vocabulary (in English),” 4 (“Carry the conversation to a higher level”) and 6 (“Am not interested in abstract ideas” (R) did not load adequately ( $\lambda = 0.35$ ,  $\lambda = 0.21$ ,  $\lambda = 0.17$ ), and were therefore dropped due to low factor loadings (i.e., below .40). The remaining model (with 7 items) fit the data adequately:  $\chi^2 = 496$  (df = 177,  $p < 0.01$ ),  $\chi^2/df = 2.8$ , RMSEA = .10, CFI = .90, SRMR = .06. A reliability of the final scale showed adequate internal consistency ( $\alpha = 0.78$ ).

*Tolerance for Ambiguity.* Tolerance for ambiguity was measured using a 12-item assessment developed by Herman et al. (2010). This measure was originally developed based on four facets: valuing diverse others, change, challenging perspectives, and unfamiliarity, but was shown to be a unitary construct. A confirmatory factor analysis was run and several items did not load adequately and were therefore dropped (items 3, 5, 7, 8) due to low factor loadings (i.e., below 0.40 for all items- 0.27, 0.28, 0.30, 0.34, respectively). The remaining 8 items were found to be those related to two facets of the

original model, valuing diverse others (items 1, 2, 4, 6) and valuing change (items 9, 10, 11), therefore a 2-factor CFA was conducted and showed acceptable model fit:  $\chi^2 = 459$  (df = 142,  $p < 0.01$ ),  $\chi^2/\text{df} = 3.23$ , RMSEA = .09, CFI = .74, SRMR = .09. Although this did not demonstrate ideal fit, a one factor model had a significantly worse fit ( $\Delta\chi^2 = 670$  (df = 1),  $p < .01$ ;  $\chi^2 = 684$  (df = 143,  $p < 0.01$ ),  $\chi^2/\text{df} = 4.78$ , RMSEA = .10, CFI = .66, SRMR = .11). Furthermore, the original tolerance for ambiguity scales were constructed as two separate dimensions for these remaining items, thus the 2-factor model was determined appropriate. The internal consistency reliability for these final scales were adequate: Valuing diverse others (4 items,  $\alpha = 0.67$ ) and valuing change (4 items,  $\alpha = 0.62$ ).

*Cultural Motivation.* Cultural motivation was assessed using the “cultural motivation” subset of the Cultural Intelligence Scale (CQS) developed by Ang and colleagues (2007). Although cultural motivation is conceptualized as a flexible attitude and was measured at each data collection, the Time 2 data will be used to assess this factor because it indicates the volunteer’s attitude at the conclusion of the training program. This is more appropriate than the measure at Time 1, as this is prior to the training program, and also the measure at Time 3, due to the possible confounding nature of measuring transfer behavior (i.e., the DV) at the same time. A confirmatory factor analysis supported a single factor solution:  $\chi^2 = 337.94$  (df = 122,  $p < 0.01$ ),  $\chi^2/\text{df} = 2.77$ ; RMSEA = .07, CFI = .98, SRMR = .04 with an alpha level of 0.85.

*Previous Experience Abroad.* Previous experience abroad was assessed by asking individuals to count the number of international trips abroad they have had (frequency) and cumulative time spent abroad (months) during each foreign experience, based on a

method employed by Takeuchi et al. (2005). Descriptives were run for both conceptualizations and it was notable that several individuals did not respond (Frequency:  $N=111$ ; Duration:  $N=103$ ). The range for both dimensions were also very wide (Frequency: Range=0-57,  $M=8.02$ ,  $SD=8.67$ ; duration: Range=0-81,  $M=12.19$ ,  $SD=16.30$ ). In order to normalize this wide variety of responses, the Z-score for each facet was used to capture each of these dimensions.

*Training Transfer.* Transfer was assessed by asking the extent to which content from the culture training course had been used since participation, based on the measured used by Tesluk et al. (1995). An exploratory factor analysis using a maximum likelihood rotation supported a one factor solution (46% variance explained;  $\lambda_1 = 5.48$ ,  $\lambda_{2-3} < 1.00$ ) in which all items loaded higher than .40 on a single factor, with alpha= 0.89.

*Job Satisfaction.* Overall job satisfaction was assessed using three simple items, based on the approach by Wanous, Reichers, & Hudy (1997). An exploratory factor analysis using a maximum likelihood rotation supported a one factor solution (71% variance explained;  $\lambda_1 = 2.13$ ,  $\lambda_{2-3} < 1.00$ ) in which all items loaded higher than .40 on a single factor, with alpha= 0.89.

*Job Performance.* Job performance was measured in an eight-item measure based on contextual performance and task performance, common indicators use in the expatriate literature (Mendenhall et al., 2004). An exploratory factor analysis using a maximum likelihood rotation supported a one factor solution (57% variance explained;  $\lambda_1 = 5.15$ ,  $\lambda_{2-3} < 1.00$ ) in which all items loaded higher than .40 on a single factor, with alpha= 0.90.

*Premature Return Intentions.* Premature return from assignment intentions was measured in the current study using a 4-item measure based on Caliguri (2000). A low score indicated a greater desire to remain in the global assignment and a high score indicated a greater desire to terminate the global assignment. An exploratory factor analysis using a maximum likelihood rotation supported a one factor solution (56% variance explained;  $\lambda_1 = 2.24$ ,  $\lambda_{2-3} < 1.00$ ) in which all items loaded higher than .40 on a single factor, with  $\alpha = 0.73$ .

*Cross-Cultural Adjustment.* The adjustment measure by Black and Stephens (1989) was used to assess general (8 items), interaction (4 items), and work (3 items) adjustment facets. Using confirmatory factor analysis, adjustment was confirmed as three facet measure with good model fit:  $\chi^2 = 178.90$  ( $df = 62$ ,  $p < 0.05$ );  $\chi^2/df = 2.89$ ; CFI = 0.94; RMSEA = 0.07; SRMR = 0.07). This supports the theoretical differences between the major settings of adjustment experienced during expatriation, including general (items 1-8,  $\alpha = 0.87$ ), interaction (items 9-12,  $\alpha = 0.90$ ), and work (items 13-15,  $\alpha = 0.88$ ).

*Climate for Transfer.* Climate for transfer was assessed using a measure based off work by Holton and colleagues (2000), created to assess the climate dimensions for both the home organization (i.e., Peace Corps) and host organization (items 5-13). An exploratory factor analysis using maximum likelihood rotation supported a two factor solution (58% variance explained;  $\lambda_1 = 5.51$ ,  $\lambda_2 = 1.95$ ,  $\lambda_3 < 1.00$ ), divided into Peace Corps climate for transfer (items 1-4,  $\alpha = 0.84$ ) and Host Country climate for transfer (items 5-13,  $\alpha = 0.85$ ).

For the main analyses, regression and correlations were used to examine the hypotheses rather than structural equation modeling, due to limited sample size ( $N=101$  at Time 3) and the increased power requirement necessary to perform that type of analysis with so many parameters. The following section will go over the steps taken in order to test the proposed hypotheses.

### Hypothesis Testing

In order to assess Hypothesis 1, the mediating impact of training transfer on the relationship between learning and cross-cultural success, it was first important to determine whether significant learning had occurred over the course of the cross-cultural training. This was done by examining the difference between the cross-cultural skill level of the volunteers' pre-training (Time 1) and post training (Time 2), as rated by their respective Peace Corps trainers. Indeed, across all cross-cultural skill measures, post training skills ( $M=3.30$ ,  $SD=0.90$ ) were rated to be significantly higher than pre training ( $M=2.40$ ,  $SD=0.88$ ), ( $t(113)=14.50$ ,  $p<0.01$ ). Thus, learning did indeed occur. See Table 4 for full analyses.

Next, I assessed the potentially mediating impact of training transfer on learning and cross-cultural success (Hypothesis 1), via a series of regressions looking at the relationship between learning and the cross-cultural outcomes (see Table 6). Learning was analyzed by putting the pre-training skills into the regression and using the post-training skills as the interaction term. Mediation was then examined using the three-step approach as outlined by Barron and Kenny (1996). Although often disputed, the Barron and Kenny (1996) method often requires less statistical power than the Sobel test (Friz &

MacKinnon, 2007), and was therefore used to determine results. This requires regressing the dependent variable on the independent variable, the dependent variable on both the mediator and the independent variable, and the mediator on the independent variable with all relationships significant, and the relationship between the independent variable decreasing when the mediator is added to the equation. Again, this was examined in terms of four outcome variables: Job satisfaction, job performance, premature return intentions, and adjustment (general, interaction, work). Each of these analyses went as follows:

*Job Satisfaction.* When the trainers' initial assessment (Time 1) of volunteers' skills were entered into the job satisfaction regression, no significant relationship was obtained ( $R^2=0.08$ ,  $F(4,93)=2.12$ ,  $p>0.05$ ). However, when the post training assessment of skills was added to the regression, these skills added a significant amount of variance in the prediction of job satisfaction ( $\Delta R^2=0.06$ ,  $F(5,92)=3.10$ ,  $p<0.05$ ). Thus, a significant relationship was found between learning and improved job satisfaction. Transfer was then added into the equation to determine if this variable would impact the relationship between learning and job performance. A trending main effect for training transfer on job satisfaction was found ( $R^2=0.18$ ,  $F(6,91)=3.26$ ,  $p<0.01$ ,  $Beta\_transfer=0.19$ ,  $t=1.90$ ,  $p<0.06$ ), in addition to support for the full model.

The relationship between learning and transfer was then examined. Although support was found for the full model, the co-efficient for learning was not found to be significant ( $R^2=0.13$ ,  $F(5,93)=2.77$ ,  $p<0.05$ ,  $Beta\_learning=0.20$ ,  $t=1.09$ ,  $p>0.05$ ), thus support for mediation is not possible for any of the remaining outcomes as this is a

necessary condition for both this approach and the Sobel (1982) test for mediation. In sum, Hypothesis 1 was not supported for the job satisfaction outcome. Training transfer did not mediate the relationship between learning and job satisfaction.

*Job Performance.* When the trainers' initial assessment (Time 1) of volunteers' skills were entered into the job satisfaction regression, no significant relationship was obtained ( $R^2=0.04$ ,  $F(4,93)=0.79$ ,  $p>0.05$ ). However, when the post training assessment of skills was added to the regression, these skills added a significant amount of variance in the prediction of job satisfaction ( $\Delta R^2=0.07$ ,  $F(5,92)=2.53$ ,  $p<0.05$ ). Thus, a significant relationship was found between learning and improved job satisfaction. Transfer was then added into the equation to determine if this variable would impact the relationship between learning and job performance. A main effect for training transfer on job satisfaction was found ( $\Delta R^2=0.07$ ,  $F(6,91)=2.80$ ,  $p<0.05$ ,  $Beta\_transfer=0.24$ ,  $t=2.31$ ,  $p<0.05$ ), in addition to support for the full model.

The relationship between learning and transfer was already found to have support for the full model but with the co-efficient for learning was not found to be significant ( $R^2=0.13$ ,  $F(5,93)=2.77$ ,  $p<0.05$ ,  $Beta\_learning=0.20$ ,  $t=1.09$ ,  $p>0.05$ ), thus support for mediation was not found. In sum, Hypothesis 1 was not supported for the job performance outcome. Training transfer did not mediate the relationship between learning and job performance.

*Premature Return Intentions.* When the trainers' initial assessment (Time 1) of volunteers' skills were entered into the premature return intentions regression, no significant relationship was obtained ( $R^2=0.04$ ,  $F(4,94)=1.01$ ,  $p>0.05$ ). When the post

training assessment of skills was added to the regression, these skills also did not add a significant amount of variance in the prediction of general adjustment ( $\Delta R^2=0.02$ ,  $F(5,92)=1.26$ ,  $p>0.05$ ). Thus, no significance was found between learning and premature return intentions. Transfer was then added into the equation to determine if this variable would impact the relationship between learning and premature return intentions. A main effect for training transfer on premature return intentions was found ( $\Delta R^2=0.10$ ,  $F(6,91)=2.90$ ,  $p<0.05$ ,  $\text{Beta\_transfer}=-0.33$ ,  $t=-3.24$ ,  $p<0.05$ ), in addition to support for the full model.

The relationship between learning and transfer was already found to have support for the full model but the co-efficient for learning was not found to be significant ( $R^2=0.13$ ,  $F(5,93)=2.77$ ,  $p<0.05$ ,  $\text{Beta\_learning}=0.20$ ,  $t=1.09$ ,  $p>0.05$ ), thus support for mediation was not found. In sum, Hypothesis 1 was not supported for the premature return intention outcome. Training transfer did not mediate the relationship between learning and premature return intentions.

*General Adjustment.* When the trainers' initial assessment (Time 1) of volunteers' skills were entered into the general adjustment regression, no significant relationship was obtained ( $R^2=0.02$ ,  $F(4,94)=0.51$ ,  $p>0.05$ ). When the post training assessment of skills was added to the regression, these skills also did not add a significant amount of variance in the prediction of general adjustment ( $\Delta R^2=0.01$ ,  $F(5,93)=0.60$ ,  $p>0.05$ ). Thus, no significance was found between learning and general adjustment.

Transfer was then added into the equation to determine if this variable would impact the relationship between learning and general adjustment. A main effect for

training transfer on general adjustment was found, but no support for the full model ( $\Delta R^2=0.07$ ,  $F(6,92)=1.67$ ,  $p>0.05$ ,  $\text{Beta\_transfer}=0.28$ ,  $t=2.61$ ,  $p<0.05$ ).

The relationship between learning and transfer was already found to have support for the full model but the co-efficient for learning was not found to be significant ( $R^2=0.13$ ,  $F(5,93)=2.77$ ,  $p<0.05$ ,  $\text{Beta\_learning}=0.20$ ,  $t=1.09$ ,  $p>0.05$ ), thus support for mediation was not found. In sum, Hypothesis 1 was not supported for the general adjustment outcome. Training transfer did not mediate the relationship between learning and general adjustment.

*Interaction Adjustment.* When the trainers' initial assessment (Time 1) of volunteers' skills were entered into the interaction adjustment regression, no significant relationship was obtained ( $R^2=0.05$ ,  $F(4,94)=1.26$ ,  $p>0.05$ ). When the post training assessment of skills was added to the regression, these skills also did not add a significant amount of variance in the prediction of interaction adjustment ( $\Delta R^2=0.02$ ,  $F(5,93)=1.49$ ,  $p>0.05$ ). Thus, no significance was found between learning and interaction adjustment. Transfer was then added into the equation to determine if this variable would impact the relationship between learning and interaction adjustment. A trending effect for training transfer on interaction adjustment was found, but no support for the full model ( $\Delta R^2=0.04$ ,  $F(6,92)=1.88$ ,  $p>0.05$ ,  $\text{Beta\_transfer}=0.20$ ,  $t=1.90$ ,  $p<0.06$ ).

The relationship between learning and transfer was already found to have support for the full model but the co-efficient for learning was not found to be significant ( $R^2=0.13$ ,  $F(5,93)=2.77$ ,  $p<0.05$ ,  $\text{Beta\_learning}=0.20$ ,  $t=1.09$ ,  $p>0.05$ ), thus support for mediation was not found. In sum, Hypothesis 1 was not supported for the interaction

adjustment outcome. Training transfer did not mediate the relationship between learning and interaction adjustment.

*Work Adjustment.* When the trainers' initial assessment (Time 1) of volunteers' skills were entered into the work adjustment regression, a trending relationship was obtained ( $R^2=0.08$ ,  $F(4,94)=2.13$ ,  $p<0.10$ ). When the post training assessment of skills was added to the regression, these skills added a significant amount of variance in the prediction of work adjustment ( $\Delta R^2=0.02$ ,  $F(5,93)=2.32$ ,  $p>0.05$ ). Thus, significance was found between learning and work adjustment. Transfer was then added into the equation to determine if this variable would impact the relationship between learning and work adjustment. No effect for training transfer on work adjustment was found, but trending support for the full model ( $\Delta R^2=0.01$ ,  $F(6,92)=1.91$ ,  $p<0.09$ ,  $Beta\_transfer=0.03$ ,  $t=0.27$ ,  $p>0.05$ ).

The relationship between learning and transfer was already found to have support for the full model but the co-efficient for learning was not found to be significant ( $R^2=0.13$ ,  $F(5,93)=2.77$ ,  $p<0.05$ ,  $Beta\_learning=0.20$ ,  $t=1.09$ ,  $p>0.05$ ), thus support for mediation was not found. In sum, Hypothesis 1 was not supported for the work adjustment outcome. Training transfer did not mediate the relationship between learning and work adjustment.

In summary, despite several main effects between transfer and the cross-cultural success outcome variables, no support was found for Hypothesis 1, training transfer mediating the relationship between learning and cross-cultural success. Next, predictors of training transfer were assessed by running correlational analyses between the proposed

variables and training transfer (see Table 2). Each of these proposed predictors were analyzed as follows:

Hypothesis 2 predicted that individuals who were more open to experience would exhibit greater levels of training transfer compared to individuals lower in openness to experience. A correlation was run to examine if higher openness to experience (Time 1) would be related to increased training transfer (Time 3). No significance was found ( $r(100)=.14, p>0.05$ ).

Hypothesis 3 predicted that individuals who had a higher tolerance for ambiguity would exhibit greater levels of training transfer compared to individuals lower in tolerance for ambiguity. A correlation was run to examine if higher tolerance for ambiguity (Time 1) would be related to increased training transfer (Time 3). No significance was found for either dimension of tolerance for ambiguity, valuing diverse others ( $r(100)=.03, p>0.05$ ) or change facets ( $r(100)=-0.05, p>0.05$ ). Thus, tolerance for ambiguity was not found to be a predictor of increased training transfer.

Hypothesis 4 predicted that individuals who had higher cultural motivation would exhibit greater levels of training transfer compared to individuals lower in cultural motivation. A correlation was run to examine if higher cultural motivation (Time 2) would be related to increased training transfer (Time 3). Significance was found, demonstrating a positive relationship between cultural motivation and transfer ( $r(98)=0.24, p<0.05$ ). Thus, support was found for cultural motivation as a significant predictor of increased training transfer.

Hypothesis 5 predicted that individuals who had more previous experience abroad would exhibit greater levels of training transfer compared to individuals who had less previous experience abroad. A correlation was run to examine if increased previous experience abroad would be related to increased training transfer. Significance was not found for the frequency of international experience measure ( $r(95) = -0.01, p > 0.05$ ) or the duration of international experience measure ( $r(88) = 0.03, p > 0.05$ ) in relation to training transfer. Thus, previous international experience abroad was not found to be a predictor of increased training transfer.

Hypothesis 6 predicted that individuals who perceived a more positive climate for transfer would exhibit greater levels of training transfer compared to individuals who perceived a less positive climate for transfer, in reference to both the home organization (6a) and host organization (6b). A correlation was run to examine if a more positive climate for transfer (Time 3) would be related to increased training transfer (Time 3). Significance was found between Peace Corps climate for transfer and training transfer ( $r(101) = 0.46, p < 0.05$ ), but was not found for the host organization's climate for transfer facet and training transfer ( $r(101) = 0.13, p > 0.05$ ). Thus, partial support was found for the impact of climate for transfer on training transfer, with a significant, positive relationship between home climate for transfer and increased training use, and no significance for host climate for transfer and training use.

To summarize, partial support was found for the hypothesized model of training transfer (see Figure 3 for the overall model with results). Significant skill gain over the course of the cross-cultural training was demonstrated. The relationship between learning

and cross-cultural success was then examined. Interestingly, support was found for the relationship between learning and improved job satisfaction, job performance, and work adjustment. No significance was found for the relationship between learning and the remaining cross-cultural success outcomes (i.e., premature return intentions, general adjustment, and interaction adjustment). Next, the potentially mediating impact of training transfer specifically was examined. Across all outcome variables, training transfer was not found to significantly mediate the relationship between learning and success. In other words, using the training did not seem to be the process through which those who learned in training became successful while abroad, thus *Hypothesis 1* was not supported. However, significant main effects were found with increased training transfer related to stronger cross-cultural success for all the outcome measures, except for work adjustment. In testing the relationship between predictors and increased transfer, support was found for increased cultural motivation (*Hypothesis 4*) and home organization climate for transfer (*Hypothesis 6a*) related to increased training use. The remainder of the proposed factors was not significantly related.

I've also tested the proposed mediated model in its entirety using Mplus. This included the full set of antecedents to transfer and transfer effects on outcome variables. As suggested by the lack of support found in the hypotheses, the proposed model of training transfer did not have good fit:  $\chi^2 = 402.16$  (df = 26,  $p < 0.01$ ),  $\chi^2/df = 15.47$ ; RMSEA = .35, CFI = .38, SRMR = .35. This is likely due to the small sample size for this type of complex analysis, as well as intervening variables that were not captured in the current research. Future research, with a larger sample size, is suggested.

## Supplemental Analyses

Given that the background variables collected at Time 1 were not found to be significant (i.e. personality, previous international experience), but support was found for cultural motivation measured at Time 2 and climate for host organizational transfer at Time 3, supplementary analyses were conducted on additional attitudes measured over the course of the study to examine the temporal effects of these factors on transfer behavior. For example, empathy (i.e., to perceive emotions and the frame of reference in others) and cultural flexibility (i.e., attitude towards substituting activities enjoyed in one's home country with existing, and usually distinct, activities in the host country) are common factors in the 3C literature which are related to expatriate success (Black, 1990; Mol et al., 2005; Leong, 2007), and likely have implications for 3C training transfer. Furthermore, cultural motivation was examined at Time 2 (*Hypothesis 4*) to predict training transfer as a result of the training program, but was also measured both pre-training (Time 1) and 3-months in country (Time 3) to assess cultural attitudes over time, and can also be analyzed to examine the dynamic impact of attitude on transfer behavior. Consequently, correlational analyses with these additional competencies and training transfer are included in the following section (see Table 7). Appendix D has a full description of these measures. These supplementary analyses went as follows:

A correlation was run to examine if higher empathy would be related to increased training transfer. Empathy was not significantly correlated with training transfer at Time 1 ( $r(101) = 0.13, p > 0.05$ ), but a significant relationship was found between empathy measured post training (Time 2) and training transfer ( $r(99) = 0.21, p < 0.05$ ). A paired

samples t-test demonstrated that empathy at Time 1 ( $M=3.84$ ,  $SD=0.47$ ) was significantly increased at Time 2 ( $M=3.99$ ,  $SD=0.56$ ), ( $t(113)=4.38$ ,  $p<0.05$ ). Thus, support was found for increased empathy as a significant predictor of increased training transfer.

A correlation analysis was run to examine if higher cultural flexibility would be related to increased training transfer. No significance was found for cultural flexibility measured pre-training and transfer ( $r(101)=0.10$ ,  $p>0.05$ ), however, a positive relationship was found between cultural flexibility measured post training (Time 2) and training transfer ( $r(99)=0.33$ ,  $p<0.05$ ). A paired samples t-test demonstrated that cultural flexibility at Time 1 ( $M=4.13$ ,  $SD=0.50$ ) was significantly increased at Time 2 ( $M=4.23$ ,  $SD=0.47$ ), ( $t(113)=3.94$ ,  $p<0.01$ ). Thus, support was found for increased cultural flexibility as a significant predictor of training transfer.

A correlation analysis was run to examine if higher cultural motivation would be related to increased training transfer. No relationship was found between cultural motivation measured at Time 1 and training transfer ( $r(98)=0.18$ ,  $p<0.05$ ). However, significance was found for a positive relationship between cultural motivation and increased training transfer at Time 2 ( $r(98)=0.24$ ,  $p<0.05$ ) and Time 3 (Time 3) ( $r(101)=0.22$ ,  $p<0.05$ ). A paired samples t-test demonstrated that cultural motivation at Time 1 ( $M=4.24$ ,  $SD=0.52$ ) was significantly increased in comparison to at Time 2 ( $M=4.36$ ,  $SD=0.49$ ;  $t(113)=2.41$ ,  $p<0.05$ ) and at Time 3 ( $M=4.31$ ,  $SD=0.60$ ;  $t(100)=0.22$ ,  $p<0.05$ ). Thus, support was found for increased cultural motivation as a significant predictor of increased training transfer.

In sum, supplemental analyses showed that empathy, cultural flexibility, and cultural motivation when increased over the course of the training were significant predictors of training transfer, whereas prior to training, no significant relationship was found with these variables and transfer behavior. A discussion of these findings will be provided in the next section, in addition to study limitations and future directions, implication for practice and research, and the conclusion.

## **Chapter 6: Discussion**

While cross-cultural training for expatriate assignments remains a common practice in international organizations, what makes people more likely to use their training and how that impacts their success while abroad, was not examined until this study. Instead, practitioners and academics alike have remained unaware of the potential influence of the 3C context on training transfer, relying only on a general understanding of training effectiveness practices, despite significant research demonstrating differences in expatriate success and learning effectiveness based on individual and environmental factors (Littrell & Salas, 2005; Shaffer et al., 2012)

Training transfer has been conceptualized as the extent to which KSAOs acquired in a training program are applied, generalized, and maintained over some time in the job environment (Baldwin & Ford, 1988). In other words, transfer is how much individuals use information learned in a training context back on the job. Without studying the transfer piece specifically, it is impossible to know the degree to which lessons learned from the training context are actually used by individuals while on foreign assignments, and how this application leads to higher cross-cultural success while on assignment.

Furthermore, by focusing specifically on predictors of training transfer, researchers are able to better understand which factors lead to increased utilization of training competencies, helping to improve overall training utility, reducing unnecessary labor and ineffectual training costs. Research has also shown that predictors of transfer are especially important for open skills (Blume et al., 2010), such as cross-cultural competence training, thus an important focus for expatriate research (Aguinis & Kraiger, 2009; Caliguri & Tarique, 2006). Based on this clear need, the current study sought to investigate the unique predictors of cross-cultural training transfer and impact on cross-cultural success, to highlight ways to maximize the effectiveness of cultural preparation and selection for assignment.

To address this question, I examined the proposed mediating impact of training transfer on the relationship between learning and cross-cultural success, such that learning would lead to cross-cultural success, through the process of training transfer (*Hypothesis 1*). In order to test this hypothesis, I first needed to examine the extent to which learning occurred over the extent of the training program. This was made possible by establishing a cross-cultural skill assessment that would allow for the measurement of cultural learning over the course of the three-month training program, based on a theoretical framework (Black & Mendenhall, 1990). Unlike previous 3C research, learning in the present study was determined by comparing trainers' assessment of cross-cultural skills both pre and post training. I found evidence that the trainees did indeed significantly increase their skill levels over the course of the training program (see Table 3 and Table 4). In other words, the training significantly improved the culturally

appropriate behaviors of participants, as rated by their trainers. This is an important contribution in itself, as previous research on cross-cultural training effectiveness has largely relied on self-reported measures, single data collections post training (e.g., no pre-test), and using general effectiveness measures that only holistically assess training effectiveness, versus at the behavioral skill level (Mendenhall et al., 2003; Morris & Robie, 2001). Indeed, an analysis of the volunteer ratings versus the trainer skill ratings show there were significant differences in reporting, such that volunteers were consistently inflating their scores (see Table 5), demonstrating the overall value of using multi-source data in this type of research. One could argue that trainers would be motivated to rate the trainees higher at the end of training, although evidence of a significant learning effect with the volunteer skill ratings as well supports that learning did indeed exist, mitigating this potential limitation.

The relationship between increased learning and cross-cultural success was then examined. Interestingly, support was found for the relationship between learning and improved job satisfaction, job performance, and work adjustment. Conversely, no significance was found for the relationship between learning and premature return intentions, general adjustment, and interaction adjustment. This is a noteworthy pattern, as those factors found to be significantly related were all outcomes in the workplace setting, whereas those not significantly related were factors related to a more general domain.

This pattern in the partial support suggests that individuals who were rated as significantly changing their behaviors more over the course of their 3C training, were

also found to have stronger success in the workplace versus outside the work context. This could imply that individuals who are able to work hard to learn new concepts and change behavior over the course of a training, may also be more likely to work hard while on the job leading to higher success outcomes. Personality Theory, or the idea that people have stable dispositions which influence their behavior across settings (Costa & McCrae, 1992; Mischel, 1977), may help explain this finding. According to this perspective, personality characteristics are dispositional traits that predispose individuals to behave in certain ways given a goal or the specific context of a situation (Costa & McCrae, 1992). Situations with unclear social norms, or “weak” situations, allow for personality tendencies to manifest as expectations are unclear and consequently, behaviors tend to be determined by individual predispositions. These ambiguous settings are common in foreign intercultural interactions, thus the demonstrated impact of personality on 3C training outcomes and on intercultural success is not surprising (Black, 1990; Caliguri, 2000; Littrell et al., 2006).

Furthermore, personality has a direct influence on workplace behaviors, as behavior is a function of a person’s personality and the situation (Mischel, 1977). Indeed, researchers have found a moderate relationship between personality and job performance (Barrick & Mount, 1991). Specifically, conscientiousness, or the propensity of being thorough and careful, was found to be the most consistent and strongest predictor of both training performance and job performance, in comparison to the other Big 5 factors (Barrick & Mount, 1991). Conscientiousness implies a desire to do a task well across settings, and includes elements such as self-discipline and carefulness, and has also been

shown to impact 3C training performance and expatriate performance. In research examining the role of the Big 5 on expatriate success, Caliguri (2000) found that conscientiousness was positively related ( $r=0.34$ ) to the supervisor-rated performance on the expatriate assignment, while extroversion, agreeableness, and emotional stability (effect sizes ranging from  $-.22$  to  $-.31$ ) were negatively related to whether expatriates desire to terminate their assignment. Furthermore, Shaffer et al. (2006) found that agreeableness was an important predictor of interaction adjustment, whereas extraversion was a significant predictor for cultural adjustment. Thus, conscientiousness was the only trait directly related to workplace success, whereas the other traits were more likely to help in non-work environments.

A similar effect of personality may have also occurred in the current study. Neither openness to experience nor tolerance for ambiguity were found to be significantly related to any of the cross-cultural success outcomes (see Table 2) which is contrary to previous findings (Shaffer, 2006), but the impact of conscientiousness remains unknown. Conscientiousness was not measured in the sample as it is not unique to the expatriate context and known to be influential in performance settings as discussed, but was likely related to both learning ability and workplace success outcomes in this sample as well.

An alternative explanation for this finding could be that learning was more directly relatable to the work context than the more general social environment, leading to a stronger relationship with these outcome variables and this pattern in results. Although it was assumed that the training content covered all aspects of cross-cultural skills, individuals were ultimately being trained to be successful Peace Corps volunteers

on assignment, thus workplace effectiveness should have been the ultimate goal of the preparation. Also, the outcomes of job performance, job satisfaction, and job adjustment may be more proximal success outcomes of learning than general and interaction adjustment and premature return intentions, making the relationship with these factors more likely to become significant. Unlike job performance and job satisfaction, adjustment in general settings can be influenced by a variety of outside factors that are in no way related to 3C learning, such as comfort of housing conditions or cost of living, thus less directly related. Similarly, a volunteer could have learned quite a bit in the training environment but may consider leaving their position early due to a family situation at home, or other unrelated factors. Many outside variables may have influenced these success ratings, leading to this pattern of results.

Next, the potentially mediating impact of training transfer specifically was examined (*Hypothesis 1*). Across all outcome variables, training transfer was not found to mediate the relationship between learning and success, as no significance was found for the direct relationship between learning and training transfer, a necessary condition for mediation (Baron & Kenny, 1986). In other words, using the training was not the process through which people who learned became successful while abroad, so no support for Hypothesis 1 was found.

This lack of support for transfer acting as a mediator could be due to measurement error and research design challenges. Specifically, training transfer was self-reported information related to ability, which is often less accurate than ability-ratings made by others (Mabe & West, 1982). This could be potentially due to self-enhancing biases,

especially for those who have not incorporated the training into their daily behaviors, resulting in exaggerated scores. Indeed, the mean rating for transfer was 3.81 ( $SD=0.57$ ) out of 5, which is even higher than the average outcome measure variables (e.g., job satisfaction  $M=3.68$  ( $SD=0.79$ ), job performance  $M=3.47$  ( $SD=0.62$ )). Similarly, participant self-ratings of skills were shown to be significantly higher for both pre-training and post-training measures (see Table 5), so they likely inflated their transfer behavior ratings as well. Training transfer is also a generally challenging construct to measure, as being able to differentiate using training or already having a specific skill, especially related to culture which is an open skill, requires great precision and clarity (Blume et al., 2010). Indeed, many studies have shown that self-reported measures of transfer are distorted in the presence of social desirability (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Taylor, Russ-Eft, & Taylor, 2009). The current study did however largely separate the data collection of predictor and transfer variables (all were measured at Time 2 except for climate for transfer), which has been shown to hugely inflate relationships between the constructs examined (Blume et al., 2010). Furthermore, it was assumed that the skills measured in the training setting were directly related to challenges experienced by volunteers on assignment, but content delivered across training locations was not standardized nor validated through job analyses to ensure they cover the skills fully needed to succeed. Therefore it's not completely known to what extent the 3C learning mapped onto the job and social requirements while on assignment. These challenges in measurement may have led to possibly too much error in capturing both

learning and training transfer, for the impact of training use to be found significant, especially in a relatively small sample ( $N=101$  at Time 3).

The lack of support for transfer mediating the learning - cross-cultural success relationship could also mean that these variables are more indirectly and complexly related than previously expected. Learning, transfer behavior, and expatriate success are relatively distal constructs. As the classic Theory of Reasoned Action suggests, attitudes influence intentions to perform a behavior, which then influences actual behaviors from taking place (Fishbein & Ajzen, 1975). Thus, the relationship between cross-cultural skill building and using the training while in country (i.e., behavior) and that impact on success outcomes, is assuming the absence of many other variables (e.g., attitudes), which have been already found to directly influence expatriate success (Littrell et al., 2006; Schaffer et al., 2006). This study focused specifically on training transfer as it was never previously examined, so many other known factors were left out accordingly.

Despite the lack of support for mediating, increased training transfer was positively related to stronger cross-cultural success for all the cross-cultural success measures, except for work adjustment. This finding suggests that applying the training was indeed related to success in country, although less helpful for building workplace competence related to adjustment. Both quantitative skill ratings and qualitative information from follow-up conversations with Post Leaders, confirm that the training may have been relatively less effective for workplace specific cultural preparation. In terms of the data collected, several skills related to workplace behaviors were shown to have both lower ratings at the end of training (Time 2) and relatively lower change over

the course of the training. For example, “Appropriately applying culture specific behaviors when interacting with a workplace supervisor” (skill 10) only had a mean rating at Time 2 of 2.97( $SD=1.38$ ), despite the overall skill average mean of 3.30 ( $SD=0.97$ ), significantly lower ( $t(113)=-10.85, p<0.01$ ) than the average skill as assessed by the trainers. Similarly, “Being sensitive to concerns that are unique to a host country national during workplace interactions (e.g., power)” (skill 15) also had lower skill ratings (Time 2  $M=3.00, SD=1.29$ ) than average skill ratings ( $t(113)=-11.43, p<0.01$ ). See Table 3 for a full list of skill ratings.

Furthermore, post-study conversations with Training Post leaders and staff suggested similar sentiments regarding the overall lack of cultural workplace preparation. During these conversations, several locations mentioned that they felt they had less training content focusing specifically on workplace-appropriate behaviors and norms, and were unsurprised that only incremental skill gain was found to occur in this area of cross-cultural competence. In response to this identified skill deficiency, the Peace Corps has since designed a training module to focus specifically on cultural workplace behaviors in the host country, which will hopefully fill this gap in training content and learning.

This study also examined predictors of training transfer unique to the cross-cultural setting. Support was found for cultural motivation (*Hypothesis 4*) and home organization climate for transfer (*Hypothesis 6a*) leading to increased training transfer, but not for openness to experience (*Hypothesis 2*), tolerance for ambiguity (*Hypothesis 3*), previous international experience (*Hypothesis 5*), or host organization climate for

transfer (*Hypothesis 6b*). The potential reasoning for this partial support is discussed in the following section.

The relationship between increased cultural motivation and increased training transfer was found to be significant (*Hypothesis 4*). This makes sense, as increased cultural motivation indicates that an individual is very interested and willing to learn about a new culture, and therefore should be especially eager to learn new information that should help their success in that culture, making them more likely to apply those leanings in the workplace, in order to be as effective as possible while in country. Motivation across training contexts has a demonstrated influence on transfer behavior (Blume et al., 2010; Colquitt, Lepine, & Noe, 2000). In a meta-analysis of predictors of training transfer, motivation was actually found to be one of the strongest predictors of this behavior, after only cognitive ability and conscientiousness. Confirming this more general finding in the 3C training context setting is also impactful, adding to our understanding of both motivation and 3C research.

Similarly, individuals who perceived a more positive climate for transfer were found to have higher transfer behaviors (*Hypothesis 6*), specifically in relation to their perceptions of the host organization (i.e., Peace Corps) climate for transfer (*6a*), but not for host country climate for transfer (*6b*). Climate for transfer is defined as those situations' and consequences that either inhibit or help to facilitate the transfer of what has been learned in training onto the job situation (Rouiller & Goldstein, 1993). This difference in perceptions of organizational climate could be based on the volunteers' relatively recent entry into their host organization (i.e., 3 months), whereas they had been

working with the Peace Corps since the beginning of training and therefore twice as long (i.e., 6 months). Due to this greater familiarity of organizational policies, practices, and procedures, and feelings of support from the Peace Corps organization, this could have lead to a stronger likelihood that they would use lessons from training, leading to this significant relationship. Limited time with the host organization likely prevented these perceptions of the host organization to be significantly related at that point in their tenure abroad.

The personality dimensions of openness to experience (Hypothesis 2) and tolerance for ambiguity (Hypothesis 3) were not found to be related to increased training transfer. This could be the result of the study population being a relatively homogeneous group of Peace Corps volunteers who presumably had high levels of openness to experience and tolerance for ambiguity ratings due to self-selection by becoming a volunteer. In fact, in order to be accepted into the organization, the Peace Corps screens individuals, partially based on their willingness and motivation to serve in this capacity. This is done through a written application and interview, which “personal attributes, such as flexibility, adaptability, social and cultural awareness, motivation, and commitment to Peace Corps service” are assessed (Peace Corps, 2012). Thus, all volunteers, and participants in the current study, have already been pre-screened based on their seemingly high openness and tolerance for novel context, resulting in very little diversity in their responses. Indeed, the mean ratings for this dimension were extremely high for openness to experience ( $M= 4.04$ ,  $SD=0.46$ , 5 point scale), giving credence to the range restriction interpretation for this non-significant result. However, the mean ratings were less extreme

for the tolerance for ambiguity measures (valuing diverse others facet  $M=3.73$ ,  $SD=0.56$ , change facet  $M=3.58$ ,  $SD=0.65$ ), suggesting there may be an alternative explanation.

Support may not have been found for these dimensions also due to the potentially more distal relationship between personality and behavior, such as training transfer, as suggested previously. Classic behavior theory suggests that attitudes and behavioral intentions influence behavior (Fishbein & Ajzen, 1975). Furthermore, personality traits are considered distal variables that influence behaviors through the mediating effects of proximal motivation processes (e.g., Barrick, Mount, & Strauss, 1993; Judge & Ilies, 2002). Thus, in this paradigm, personality may be influencing attitudes more directly than actual transfer behavior, resulting in lack of support for these personality dimensions as direct predictors of transfer. Findings in the supplemental analyses section demonstrate that there were significant relationships between empathy, cultural motivation, and cultural flexibility when measured at elevated levels post-training (Time 2), whereas at the start of the training (Time 1) and when ratings were significantly lower, these effects were not found to be significant. This pattern of results suggests that increased 3C attitudes are related to increased transfer behavior. Thus, attitudes are likely to be playing a role in transfer behavior, impacting the direct relationship between personality and training use.

Similarly, no support was found for increased training transfer related to previous experience abroad (*Hypothesis 5*). This could be due to the relatively homogeneous and well-travelled nature of the sample, as it is self-selecting who joins the Peace Corps. Indeed, the majority of participants had extensive travel experience, with 96% of those

responding having had at least one trip abroad and an average of 8 trips outside the country, relative to a typical US citizen, with only 30% even having a passport (Avon, 2011). Lack of support may also be due to error related to the measurement of construct. Interestingly, only 111 participants filled out the frequency question, and even fewer, 103, of the original 120 participants completed the duration question on their survey. This question asked participants to report the length of time abroad by month which could have been challenging to come up with during the brief testing period. Conversations with Training Post Leaders confirmed this explanation. Apparently several participants had complained that it was difficult to tally time abroad, so they were told they could skip this question. Although this operationalization has worked successfully in previous research (Takeuchi et al., 2005), this prior research was with an older, adult population, which perhaps could have responded more accurately, than the younger sample in this study ( $M=26.28$  years,  $SD= 7.91$ , median=24 years).

Alternatively, the proposed Social Learning Theory (Bandura, 1977) perspective used to suggest the relationship between increased experiences abroad and increased training transfer, may have functioned differently than originally expected. Social Learning Theory (Bandura, 1977) posits that when an individual watches the interactions of others, an understanding of how new behaviors are performed is formed, which is later used to inform future actions of the individual. Based on this simple premise, it follows that expatriates on foreign assignment learn the behaviors, customs, and norms of those cultures through direct experience or through observation of the host nationals' behaviors. This perspective has already been used in several expatriate studies to describe

how much of human behavior is learned by observing others (Bhaskar-Shrinivas et al., 2005; Takeuchi, Tesluk, Yun, & Lepak, 2005). Thus, in the current study, it was hypothesized that with more experience abroad, individuals will be more apt to transfer new behaviors because they have already benefitted by learned behaviors while previously abroad, and more likely to do it again. Instead, those with prior experience could have felt that the training was less necessary for them due to that previously learned behavior.

In sum, the current study found partial support for its proposed predictors of cross-cultural competence training transfer, with increased cultural motivation and perceptions of home organization climate transfer leading to higher training use, whereas the personality dimensions of openness to experience and tolerance for ambiguity, in addition to previous experience abroad and host country climate for transfer, were not found to be significant. Additional analyses also showed that the relationship between attitudes and transfer behavior changed over time, with significant relationships found between cultural motivation, empathy, and cultural flexibility only post-training, but not when measured at the start of the training program. This suggests that attitudes are likely influencing the relationship between the more distal variables and transfer behavior. Given these findings, a discussion of the limitations and recommended future research to address these limitations, will be discussed in the following section.

#### Limitations and Future Directions

Several factors may have limited the results obtained in the current study, which suggest areas for future research. Namely, despite the strong external validity of working

with an actual cross-cultural organization such as the Peace Corps, which uses extensive expatriate preparation around the globe, many variables could not be controlled due this non-laboratory, real-world setting. In order to minimize differences across all data collections, Peace Corps trainers and volunteers were given paper surveys to complete in similar classroom settings, with identical instructions, and in the same time period during their training programs. Still, data was collected in six different countries, each over three time periods, allowing for many differences in environmental factors, which may have influenced the accuracy of responses.

For example, depending upon how participation in the study was first presented by the Post Leaders, both trainers and trainees could have felt more or less likely to respond in a desirable manner. All materials originated from the Peace Corps Headquarters and were disseminated via email to Post Leaders at each location, and then discussed and carried out locally. Despite having the same written instructions, if there was an implied expectation that the study was being performed in order to evaluate the training posts, trainers may have wanted to lower initial skill ratings (Time 1) and inflate post-training ratings (Time 2) to make sure their location was able to demonstrate significant learning gains. This would likely influence the accuracy responses, as performance ratings are highly susceptible to environmental factors (Anderson, Warner, & Spencer, 1984). No significance differences were found between the trainee group skill ratings, but trainer ratings were found to vary by location, perhaps due to this factor.

Cross-cultural differences may have also impacted study ratings. Specifically, while all Peace Corps volunteers are from the US, the trainers were largely from the host

country of the training center (i.e., Costa Rica, Albania, Fiji, Mali). Although trainers across locations were given the same study background information, assessment instructions, and were encouraged work together in each location to norm their ratings across trainees, extensive research has demonstrated that culture affects every aspect of assessment, and in a multicultural context, this creates a strong potential for bias, misunderstanding, and inconsistency. Recent work by Lanik and Mitchell Gibbons (2011) discussed the importance of cross-cultural assessor training in multicultural assessment centers, given the subjective nature of cross-cultural training assessment, which this study was not able to follow. Furthermore, all study materials were given in English, although the English fluency of the trainers by location was likely variable, which could have impacted their interpretation of the ratings and scales. Future research using diverse raters should ensure that they be given appropriate guidelines and standardization procedures, and also measure for language fluency, in order to minimize and control for the influence of cultural background on rating choice.

In addition to possible external influences on the skill ratings, the results may also be limited by common self-serving biases across locations. Namely, large differences have been found in how individuals rate their own behaviors in comparison to how a supervisor or peer may rate them, due to common self-promoting biases, resulting in inflated self-assessment ratings (Harris & Schaubroeck, 1998). Thus, a desirability bias may have influenced trainee ratings of personality, cross-cultural skill levels, and outcome variables, towards more favorable scores. The first data collection was performed only two weeks after the start of training, which may have led participants to

think it was important for them to score highly for job placement, as their job assignment was still unknown at this point in their tenure. Indeed, when comparing the self-assessment of skills made by trainees to that of the trainers in the current study, ratings were significantly higher for both pre and post training assessments (see Table 3), thus a similar effect is expected to have occurred for the initial personality and background assessments done at the same time.

Furthermore, similar self-protecting biases are expected for the cross-cultural outcomes and transfer ratings that were measured in Time 3, as volunteers are hoping to do well on their relatively new assignments. Participants were asked to use a unique identifier on their assessments instead of their name to increase their sense of confidentiality and reduce the likelihood of bias in responses, but paper surveys in a classroom setting were still used, which may not have fully mitigated this effect from taking place. Using an online survey platform, with more presumed anonymity was not an option in this study due to limitations in computer access across locations, but would likely prevent some of this bias in future research.

Response bias is a common threat in survey research, which describes when an individual systematically responds to a range of questionnaire items on some basis other than the content (Paulhus, 1991). This can be induced by context effects such as item format or the nature of previous questions in a survey. In order to refute this bias, I have determined that the pattern of results is not consistent over time periods, demonstrating that individuals seem to be responding in a thoughtful matter. For example, cultural motivation at Time 2 ( $r(101)=.24, p<0.05$ ) is more strongly related to training transfer

than cultural motivation measured at Time 3 ( $r(101)=.22, p<0.05$ ). Similarly, cultural flexibility at Time 2 ( $r(101)=.33, p<0.05$ ) is more strongly related to training transfer than cultural flexibility measured at Time 1 ( $r(101)=.22, p<0.05$ ). Based on this pattern of findings, response bias does not seem to be a serious threat to the findings.

The current study may also be limited by the timing constraints of the training program and multi-wave research design. Specifically, the first data collection was performed in the second week of the pre-service training at each training post. This forced trainers to make behavioral ratings of trainees with very little information regarding their skill levels, which may have led to more superficial and therefore less accurate results. Conversely, the second data collection was performed during the last week of each training program, allowing sufficient time for the trainers to develop a deeper relationship with trainees, and likely have a better understanding of their true cross-cultural skill levels. Thus, the ratings from Time 2 are likely to be more accurate than those made at the beginning of the program.

The timing of the third and final data collection, conducted only three months after the conclusion of the 3C training program, may have been especially limiting in this study. Both training transfer and cross-cultural outcomes were measured at this time, which is a potential confound for results, as this commonly leads to inflated relationships between variables. Furthermore, the training transfer measure, which asked participants to recall the extent to which they have been using lessons learned from training while on the job, is potentially limited by the fact that volunteers had only completed 3 of 24 months on assignment. Blume et al's (2010) meta-analysis of training transfer literature

has shown that training transfer measured immediately following training will be much more highly rated than if it is measured after a significant amount of time has lapsed. In the current study, training transfer resulted in a mean rating of 3.81 ( $SD=0.57$ ) out of 5 (1=*Strongly Disagree*, 5=*Strongly Agree*), which is relatively high. Thus, if training transfer were measured later in their stay, the reported levels of use may significantly decrease.

Similarly, temporal changes in the volunteers' adjustment levels may have also impacted cross-cultural success outcomes assessed at this point, as expatriates commonly experience drastic shifts in attitudes over the course of their tenure abroad which would either positively or negatively skew their responses (Bhaskar-Shrinivas et al., 2005; Oberg, 1960). The time on assignment for Peace Corps volunteers is 24 months in total, whereas this study, due to feasibility constraints, measured training transfer, climate for transfer, and success outcomes after only three months on the job. Expatriate adjustment research shows that at the start of an international assignment an individual will likely be in the honeymoon phase of their stay, which is characterized by excitement due to the novelty of the culture, and will likely not feel the strain of the host culture until after this dissipates later in their stay, inflating perceptions of success at this point (Bhaskar-Shrinivas et al., 2005; Oberg, 1960). Ideally, data would have been collected at additional three month intervals throughout their tenure in the host country, and certainly towards the end of their assignment. Future research should continue to use a within subject design, although continue data collections related to outcome variables throughout the

remainder of their stay, to allow for the temporal influences of adjustment to be more thoroughly examined.

Furthermore, the timeframe of the data collection may also have influenced trainee perceptions of organizational climate for transfer. Similar to the cross-cultural success measures, climate for transfer was also measured at Time 3, which was six months after the volunteers first began their pre-service training, and only three months after the start of their actual volunteer assignment in their host organization. In testing the relationship between climate for transfer and actual transfer, home country climate was found to be significantly related to increased transfer, whereas host country climate for transfer was not.

A likely explanation for this partial support could be that it was too early for the volunteers to fully understand their host organization's climate, as tenure is positively related to organizational climate strength (Lindell & Brandt, 2000). Although organizational climate is more readily understood than organizational culture, three months may still be too brief for a volunteer to be fully socialized into the host organization through interactions with host organization co-workers, making it difficult to understand the extent to which they were being supported or encouraged to use skills from training. Conversely, volunteers likely felt much clearer about Peace Corps expectations after six months within that organization. The Peace Corps, or home organization in this study, was also responsible for sending the volunteers abroad, providing the training for the volunteers, and helping them develop throughout their international experience, thus likely leading to stronger organizational climate

perceptions. Future research should examine the perceptions of both home and host organization climate for transfer for expatriates farther into their foreign assignments, to better understand this phenomenon over time. In fact, the impact of host organization climate could even supersede home country in importance as full socialization and adjustment takes place, and the host organization becomes more distantly part of their organizational identity. The impact of tenure on organizational climate is therefore an interesting focus for future research on this topic.

Lastly, due to temporal differences found in the predictors of training transfer analyses, additional research should investigate possible alternative relationships between individual differences, attitudes, and training transfer. Namely, the majority of the results that were supported in the current study were for the predictors of transfer measured at Time 2 and Time 3 (i.e., cultural motivation, climate for home organization transfer), whereas no support was found those variables dispositional and background variables collected at the very start of the cross-cultural training program (i.e., personality, previous experience abroad).

Indeed, in the supplementary analyses section of the results, the relationship between attitudes and training transfer were found to differ based on the timing of the data collection (see Table 7). When testing the relationship between cultural motivation and transfer (*Hypothesis 4*), support was found for the variable when measured at Time 2 as described in the results section. Conversely, analyses examining the cultural motivation measure collected at Time 1 and transfer found the relationship to be no longer significant. A similar pattern was found for the empathy and cultural flexibility

dimensions, such that there was significance for these variables only post-training. Thus, the current study failed to find support for the relationship between background factors (i.e., personality, previous international experience) and increased training transfer, although attitudes measured post-training, including cultural motivation, empathy, and cultural flexibility were shown to be significant predictors. This may have been further impacted by the range restriction in the Peace Corps sample, which was selected into service based largely on their motivation to serve, seemingly high openness to new experience and flexibility, and likely previous experience abroad, thus not necessarily representative of an average expatriate who may less willingly be sent on an international assignment. Future research should therefore continue to look at the influence of intermediary variables, such as attitudes, which are likely influencing the individual difference - training transfer relationships. Ideally this research should also be conducted in a more diverse sample, to allow for the range of background and personality characteristics to be wider and therefore more able to pick up subtle differences in how these factors influence transfer and cross-cultural success.

### Implications

Results from the current study suggest several implications for cross-cultural training in terms of both research and corporate practices. The current study was able to demonstrate that 3C training led to significant behavioral change. This was made possible by developing a competency framework with measurable skills which were measured pre and post training. Researchers should therefore continue to employ a strong research design and cross-cultural skill assessment practices in future evaluation research on the

topic. The skill gain demonstrated in this study should also encourage organizations to continue to use 3C preparation prior to foreign assignments. In particular, the found relationship between learning and success outcomes related to the workplace, imply that learning may be especially impactful for workplace functioning versus more general social settings. Thus, organizations should make sure that their training focuses on this domain of cultural competency.

In terms of training transfer, the implications are less straightforward. In the current study, training transfer did not significantly mediate the relationship between learning and cross-cultural success outcomes. However, main effects were found between training transfer and all cross-cultural success outcomes, except for work adjustment. This implies that 3C training use is indeed related to later success, especially when the training sufficiently covers the necessary components of a job function, in order to maximize this relationship. Difficulties due to measurement and timing of data collection for transfer behavior may have resulted in this lack of support, thus future research is suggested to address these issues.

Furthermore, for predictors of training transfer, this study found that stable personality and background factors (e.g., openness to experience, tolerance for ambiguity, previous international experience) were not significantly related to increased transfer, whereas flexible competencies, such as cultural motivation, Peace Corps climate for transfer, and elevated empathy and cultural flexibility were indeed significant. This suggests that pre-selecting individuals for training based on these background qualities may not be completely necessary, as the learning over the course of the program will also

shift participant attitudes and motivation, which will then impact the likelihood that they will use their training while on assignment. In other words, regardless of predispositions or previous international experience, flexible 3C competencies post-training were able to better predict training transfer, likely due to the more proximal nature of their relationship. Thus, organizations should focus more on how to change attitudes during training and fostering strong climates for transfer to encourage and foster training use, instead of pre-selecting individuals for training, as likelihood to use 3C training was related more closely to trainable and environmental factors versus stable individual differences and experience, as hypothesized. Additional research on the impact of attitudes on transfer behavior, in a more diverse sample, should be conducted to further examine these relationships.

## Conclusion

Cross-cultural competence training is a common practice in international organizations. In order to better understand what makes 3C training more effective in terms of utility, the current study focused on training transfer and its impact on success and predictors of use, a previously overlooked domain. Through longitudinal analyses, this study showed that 3C learning occurred over the course of a cross-cultural training program and training use was related to cross-cultural success, although did not serve as a mediator between learning and success outcomes. 3C attitudes and climate perceptions of the home organization as measured post-training were found to predict training transfer, whereas dispositional and background factors measured at the start of training were not, suggesting a more complex relationship between these factors, perhaps due to the distal

relationship of learning and success and likely intermediary factors (e.g., attitudes), in addition to range restriction of the relatively homogeneous sample. Additional research on cross-cultural training transfer, with longer measurement intervals of outcome variables, a focus on the impact of attitudes on behavior, and a more diverse sample, is suggested to better understand these relationships, and continue progress in this domain.

## Appendix A

### *Peace Corps pre-service training sample lesson plan (from Costa Rica)*

#### **Core Competency #2: Integrating Successfully into the Community**

KSAs	Learning Objective	Delivery Method	Evaluation Method	Evaluation Timing
<p>K: Local cultural values</p> <p>S: Living and working within cultural values</p> <p>A: Willingness to learn new culture and adapt to it</p>	Through interaction with their PST community and host family, trainees will be able to demonstrate a basic knowledge of local cultural values.	Lecture  Group Discussion	Role play (e.g., How to greet people of different ages)	During and after session
<p>K: Local cultural social norms</p> <p>S: Adaptation to cultural social norms</p> <p>A: Willingness to learn new culture and adapt to it</p>	By the end of PST, trainees will be able to describe and demonstrate key elements of culture in regard to social norms, including age and gender dynamics.	Session by LCFs followed by group discussion	Role play (e.g., How to greet people of different ages using culturally appropriate expressions)	During and after session while they are out for application
<p>K: Traditional practices and customs</p>	By the end of PST, trainees will be able to identify important characteristics of traditional practices and customs.	Lecture  Small Group Discussion	PCTs explain major customs to the LCFs.	After the session
<p>K: Professional culture and norms</p> <p>S: Adapt to professional culture and norms</p> <p>A: Willingness to learn new culture and adapt to it</p>	Throughout PST, trainees will be able to demonstrate awareness of professional norms, including dress, appointments and concepts of time, and office procedures.	Lecture  Small Group Discussion	PCTs describe major norms	During and after session

K: American values and differences from local culture	By the end of PST, trainees will be able to identify at least 10 major differences between American and local culture.	Small Group Discussion	PCTs list and explain major differences to the LCFs	After the session
K: Cultural taboos	By Week 6 of PST, trainees will be able to identify at least 5 sensitive or taboo topics that PCVs may encounter while living and working in Costa Rica.	Lecture Group Discussion	Say and describe their meaning to the LCFs	While and after session
K: Strategies for effective communication S: Demonstrate communication strategies	By the end of PST, trainees will be able to identify at least five principles or strategies for effective communication and apply them appropriately in interactions with colleagues and community members.	Lecture and small group discussion	Demonstration	After the session
K: Strategies for integrating S: Applying strategies for integration	Before site visit, trainees will be able to identify and demonstrate appropriately at least 5 community entry and engagement techniques.	Session by Tech Trainer	PCTs will list the major community entry techniques	After the session
K: PCV role S: Explaining PCV role A: Realistic, reasonable expectations	By the end of PST, trainees will be able to explain Peace Corps goals and mission, as well as the PCV role in the community, both in English and in the local language.	Session by the Tech Trainer	PCTs will list and explain the PC's goals and mission	During session

## Appendix B

Dear Trainer,

As you probably are already aware, your Peace Corps Post is participating in a study on the effectiveness of our Pre-Service Training (PST). The purpose of this study is to examine the extent to which our cross-cultural training helps prepare Volunteers for their service assignments and improves adjustment to the local culture. In order to do this, we will be asking Volunteers to fill out a survey at the start of PST (now), at the end of PST, and approximately 3 months after PST. At each of these points, we will ask questions about their cross-cultural skills and attitudes to determine how their cultural understanding develops over time. We will also ask a few questions about their personality and background. This information will give us a better idea of the types of Volunteers we have, which can then inform future types of trainings and materials we provide.

Below you will find the steps for the survey administration. We believe it is fairly straightforward and should only take around 30-45 minutes total to complete. We ask that you give out this survey to all Volunteers at your training post during classroom time, at some point in **the 2<sup>nd</sup> week of training**. The survey should be administered at the start of the day or in-between sessions to have everyone's full attention (avoid handing this out at the end of the day).

Steps for trainee survey administration:

1. Print out copies of the full "Time 1 Trainee Survey" for each student and staple together. There should be 9 pages total.
2. Hand out surveys packets to trainees.
3. Read the overview letter out loud to the group of trainees (1<sup>st</sup> page of survey packet) and ask them to follow along as you read.
4. Ask if they have any questions. Reassure trainees that no information collected will impact them negatively in any way. All information collected will be analyzed in the aggregate, along from data collected from training posts around the world, so they should really feel no hesitation about filling out the survey.
5. Ask them to write and sign their names on the front page, indicating they understand the purpose and aims of the study.
6. Ask them to write down their last 4 digits of their social security number plus their 3-digit US telephone area code on the space provided under their signature. This will be their Seven-Digit Unique ID which will keep their name confidential.
7. Ask them to write their Seven-Digit Unique ID on each of the pages in their survey packet.
8. Once this is done, ask them to tear off the front page of the survey packet, keeping the stapled packed intact.
9. These papers should then be collected from all of the trainees and then placed in an envelope. Tell them that no one will see this identifying information except for

the researchers. We need to use this ID in order to link information they provide to us in the survey after training and 3-months in country, so it is vital they correctly provide this ID so we can match up responses.

10. Trainees can then start the survey and complete it at their own pace. Remind them to please read all directions carefully as they go through the different sections.
11. Surveys should be collected all at the same time once everyone is done. This is to maintain confidentiality.
12. Surveys can be scanned in and sent back to the researcher OR hard copies of the surveys can be sent to Peace Corps Washington.
13. The envelope with the first page of the surveys can also be scanned. PLEASE do not try to match up the front page of the surveys to the responses because this will breach the confidentiality promised to the trainees.

At this time we also ask you (the trainer) to rate each of the trainees at your post using a separate survey (attached). This should also be completed at some point in **the 2<sup>nd</sup> week of training**. This will be a much shorter survey than the one given to the trainees because you will only be rating their behavioral skills. It is preferable to have all of the trainers work together to assign ratings or have one trainer (the most experienced trainer) do all of the ratings (if possible).

Steps for trainer ratings:

1. Print out a trainer rating form for each of the volunteers at your post.
2. Fill it out a survey for each volunteer.
3. Scan and send these to researcher OR send hard copies to Peace Corps Washington.

Again, just like for the trainees, we ask that you please take this survey seriously because findings from this study will likely impact later training practices. We know this study is time consuming but we really think this will be a helpful evaluation that will make our PST even stronger.

We greatly appreciate your input. If you have any questions about this study, please feel free to talk with your training staff or email your Cross-cultural & Diversity Training Specialist at the HQ.

## Appendix C

*Please rate your ability in performing the following behaviors using the scale provided. We understand that some behaviors may not have been discussed yet in the trainings or only briefly mentioned, so use your best judgment based on what you know about your skills which might predict ability in these areas.*

**Novice (1):** No opportunity to perform this behavior. Little or no understanding of how to perform the skill.

**Beginner (2):** Performs this behavior on occasion. Has basic understanding of how to perform this skill but often struggles.

**Intermediate (3):** Regularly performs this behavior but sometimes forgets. Has good understanding of skill.

**Advanced (4):** Often performs this behavior. Has strong understanding of skill.

**Superior (5):** Almost always performs this behavior. Has a very strong understanding of skill indicating cultural fluency of someone who has been in-country for an extended period.

1. Using appropriate body language related to personal space and physical contact while interacting with host country nationals in an informal community or social setting.
2. Using appropriate gestures while interacting with host country nationals in an informal community or social setting.
3. Using appropriate behaviors while interacting with host country nationals in a work setting.
4. Using appropriate greetings and sayings in an informal community or social setting.
5. Changing verbal behavior (e.g., tone, volume) when an interaction requires it.
6. Seeking-out friendships within their peer group and community in order to develop social support systems.
7. Using existing networks to build new networks within a peer group and in the community.
8. Following local norms of respect when interacting with community members (e.g., village elders).

9. Appropriately applying culture specific behaviors when interacting with members of the opposite sex.
10. Appropriately applying culture specific behaviors when interacting with a workplace supervisor.
11. Informally taking in new cultural knowledge (e.g., values, customs) when interacting with people from the community.
12. Informally taking in new cultural knowledge when interacting with people from work (e.g., power-related differences, practices).
13. Identifying values of host culture family and being sensitive to these differences.
14. Being sensitive to concerns that are unique to a host country national during informal community interactions (e.g., gender roles).
15. Being sensitive to concerns that are unique to a host country national during workplace interactions (e.g., power).
16. Pausing to reflect upon an intercultural situation before reacting.
17. Trying to take the perspective of host country nationals and making attributions based on their cultural framework instead of own framework.
18. Trying to adapt behavior to fit local customs related to gender roles.
19. Being aware of the values of own culture.
20. Being aware of biases and stereotypes from my own culture.
21. Engaging in hobbies, alone or with others, and regularly maintaining these activities.
22. Proactively using coping mechanisms, such as engaging in familiar activities (e.g., listening to own music) or physical activities (e.g., exercising), to combat culture shock.
23. Being aware of positive and negative periods of well-being.
24. Being mindful of symptoms of culture shock.
25. Thinking of strategies to combat difficult periods of well-being and applying these strategies.
26. Following Peace Corps policies related to personal safety and security.
27. Identifying common health concerns and using proper behaviors to promote physical health.

## Appendix D

*Please rate the following statements on how well they describe you, in general, using the scale provided. We are trying to understand how you think about some of these characteristics to better understand our trainees' dispositions, so please try to be as accurate and honest as possible.*

### Openness to Experience (Goldberg, 1992)

*Please rate the following statements on how well they describe you, in general, using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. I have a rich vocabulary (in English).
2. I have a vivid imagination.
3. I have excellent ideas.
4. I am quick to understand things.
5. I use difficult words (in English).
6. I spend time reflecting on things.
7. I am full of ideas.
8. I have difficulty understanding abstract ideas. **R**
9. I am not interested in abstract ideas. **R**
10. I do not have a good imagination. **R**

### Tolerance for Ambiguity (Herman et al., 2010)

*Please rate the following statements on how well they describe you, in general, using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. I avoid settings where people don't share my values. **R**
2. I can enjoy being with people whose values are very different from mine.
3. I would like to live in a foreign country for a while.
4. I like to surround myself with things that are familiar to me.
5. The sooner we all acquire similar values and ideals, the better. **R**
6. I can be comfortable with nearly all kinds of people.
7. If given a choice, I will usually visit a foreign country rather than vacation at home.
8. A good teacher is one who makes you wonder about your way of looking at things.
9. A good job is one where what is to be done and how it is to be done are always clear. **R**
10. A person who leads an even, regular life in which few surprises or unexpected happenings arise, really has a lot to be grateful for. **R**
11. What we are used to is always preferable to what is unfamiliar. **R**

12. I like parties where I know most of the people more than ones where all or most of the people are complete strangers. **R**

Cultural Motivation (Ang et al., 2007)

*Please rate the following statements on how well they describe you, in general, using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. I enjoy interacting with people from different cultures.
2. I am confident that I can socialize with locals in a culture that is unfamiliar to me.
3. I am sure I can deal with the stresses of adjusting to a culture that is new to me.
4. I enjoy living in cultures that are unfamiliar to me.
5. I am confident that I can get accustomed to the working conditions in a different culture.

Previous Experience Abroad (adapted from Takeuchi, Tesluk, Yun, & Lepak, 2005)

*Please answer the following questions about your previous experience abroad.*

1. What is the total number of times you have travelled outside of the US (excluding travel for the Peace Corps)? Please include international experiences for leisure, work, study, or extended residence.

\_\_\_\_\_ Total number of trips abroad (frequency count)

2. What is the total length of time you have travelled outside the US? Please include international experiences for leisure, work, study, or extended residence.

\_\_\_\_\_ Total length of trips abroad (months)

Climate For Transfer (adapted from Holton et al., 2000)

*For the following items, please think specifically about the pre-service training and how either your Peace Corps Program Staff or Counterpart/Partner supports you as a volunteer. (1=Strongly Disagree, 5=Strongly Agree).*

1. My Peace Corps Program Staff encourages me to use the skills I have learned in training.
2. At work, my Peace Corps Program Staff expects me to use what I learned in training.
3. My Peace Corps Program Staff consults with me to work on problems I may be having in trying to use my training.
4. My Peace Corps Program Staff consults with me regarding ways to apply training on the job.
5. My Counterpart/Partner shows interest in my skills.

6. My Counterpart/Partner gives me feedback to help me improve my job performance.
7. My Counterpart/Partner lets me know if I am doing a good job when I use my skills on the job.
8. My Counterpart/Partner would use different techniques than the ones I bring to the organization.
9. My Counterpart/Partner is open to changing the way they do things.
10. My Counterpart/Partner is not willing to put in the effort to change the way things are done. **R**
11. People in my partner organization are not willing to put in the effort to change the way things are done. **R**
12. People in my partner organization are open to changing the way they do things.
13. People in my partner organization prefer to use existing methods, rather than try new methods I've learned and tried to suggest. **R**

Training Transfer (adapted from Tesluk et al., 1995)

*Please rate your views on each of the following statements using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. I have incorporated content learned during pre-service training to help me while I'm working.
2. I have incorporated content learned during pre-service training to help me in my daily activities outside of work.
3. I use the lessons on empathy (e.g., anticipating the needs of others, having concern for others, etc.) presented in the pre-service training course to help me while on assignment.
4. I use the lessons on cultural flexibility (e.g., understanding cultural norms in different settings and how they differ from my own, etc.) presented in the pre-service training course to help me while on assignment.
5. I use the lessons on time flexibility (e.g., understanding cultural perceptions of time, etc.) presented in the pre-service training course to help me while on assignment.
6. My understanding of the U.S. in relation to other cultures, discussed during PST, has been useful while on assignment.
7. Overall, the training I received on cultural attitudes (i.e., empathy, cultural flexibility, time flexibility, cultural norms and expectations) has been useful.
8. I use the interpersonal skills (e.g., proper greetings, gestures, etc.) taught in PST to help me while on assignment.
9. I use the perspective-taking skills taught in PST to help me while on assignment (e.g., being aware of host country national concerns, applying my understanding of cultural gender differences while interacting in a social setting, etc.).
10. I use the well-being skills taught in PST to help me while on assignment (i.e., symptoms of culture shock, strategies to combat difficult adjustment issues, etc.).

11. Overall, the cross-cultural training I received during PST has been useful in-country.
12. I have opportunities to try out lessons learned from the pre-service training on the job.

### Cross-Cultural Success Measures

#### Job Satisfaction (adapted from Wanous, Reichers, & Hudy, 1997)

*Please rate your views on each of the following statements using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. In general, I like my assignment.
2. Overall, I am satisfied with my local organization when I compare it to other organizations I've worked for.
3. In general, I do not like my job. **R**

#### Job Performance (adapted from Caligiuri, 1997)

*Please rate your ability on the following factors using scale provided (1=Novice, 5=Superior).*

1. Technical performance on this Peace Corps Volunteer assignment (i.e., related to skills needed to complete your job).
2. Effectiveness at representing the Peace Corps to the host national community.
3. Effectiveness at maintaining good working relationships with host nationals.
4. Effectiveness at communicating and keeping others in the community informed of my role, abilities, and interests.
5. Effectiveness at communicating and keeping others in the workplace informed of my role, abilities, and interests.
6. Effectiveness in capacity development.
7. Effectiveness in sharing an understanding of Americans to host country nationals.
8. Effectiveness in learning about host country nationals.

#### Cross-Cultural Adjustment (Black and Stephens, 1989)

*Please rate the extent to which you feel you have adjusted for each of the following factors (1=Poor, 5=Excellent).*

1. living conditions, in general
2. housing conditions
3. food
4. shopping
5. cost of living

6. entertainment / recreation facilities and opportunities
7. health care
8. safety and security
9. socializing with host nationals
10. interacting with host nationals on a day-to-day basis at work
11. interacting with host nationals outside of work
12. speaking with host nationals
13. job environment
14. specific job responsibilities
15. monitoring and evaluation responsibilities

Premature Return Intentions (adapted from Caligiuri, 2000)

*Please rate your views on each of the following statements using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. I am seriously considering ending my Volunteer service early.
2. I intend to stay for the entire expected length of my service. **R**
3. Most likely, I will request an early return home.
4. I will think about extending my Peace Corps service beyond the 2 year standard commitment. **R**

3C Attitudes

Empathy (adapted from Cloninger et al., 1994)

*Please rate the following statements on how well they describe you, in general, using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. I feel others' emotions in intercultural settings.
2. I anticipate the needs of others in intercultural settings.
3. I reassure others in intercultural settings.
4. I am concerned about others in intercultural settings.
5. I make people feel welcome in intercultural settings.
6. I take time out for others in intercultural settings.

Cultural Flexibility (adapted from Shafer et al., 2006)

*Please rate the following statements on how well they describe you, in general, using the scale provided (1=Strongly Disagree, 5=Strongly Agree).*

1. Most foreign countries have interesting and fun activities which are not common in my native country
2. It is easy for me to learn to enjoy new activities.

3. Learning about other cultures is interesting and fun.
4. It is easy for me to adapt to new ways of doing things.
5. Even though a foreign country might not have things I enjoy in my home country, it is easy for me to find new things I like.
6. Because I find new activities to enjoy, being away from my country will not make me homesick.

## Appendix E

### *Email to Post-Leaders by Peace Corps Headquarters*

Dear Colleagues,

I hope that this message finds you well. I'm writing to follow up on the cross-cultural training evaluation study in which your post participated last year. PhD candidate Emily Feinberg has recently completed her analysis and will soon be sending you a report with her findings (both global and post-specific). I think there are some important lessons we can learn from this study, and they come at an opportune time when we are working to improve the quality of training worldwide.

Thank you, your staff teams, and your Volunteers for participating in this research project. We truly appreciate the time you took to administer the surveys and send the data back to Washington for analysis. Thanks also to Emily for designing and implementing a study that will help the Peace Corps to improve cross-cultural training.

After you have had a chance to review the final report, we would like to schedule a follow-up phone call with you to discuss how the findings might be used to specifically benefit your post.

Again, we truly appreciate your participation in this research study. The researcher will be in touch soon with the final report.

**Table 1**

*Study Measures and Data Collection*

---

Measures	Rater, Data collection
Demographic Information (age, sex, ethnicity, education)	Volunteer 1
International experience	Volunteer 1
Openness to experience	Volunteer 1
Tolerance for ambiguity	Volunteer 1
Cultural flexibility	Volunteer 1, 2
Time flexibility	Volunteer 1, 2
Empathy	Volunteer 1, 2
Ethnocentrism	Volunteer 1, 2
Interpersonal skills	Volunteer and Trainer, 1, 2
Self maintenance skills	Volunteer and Trainer, 1, 2
Perspective taking skills	Volunteer and Trainer, 1, 2
Cultural distance	Volunteer 1, 2, 3
Cultural motivation	Volunteer 1, 2, 3
Maladaptive coping	Volunteer 1, 2, 3
Perceived language ability	Volunteer 2, 3
Transfer Motivation	Volunteer 2, 3
Climate for Transfer	Volunteer 3
Training use (Transfer)	Volunteer 3
Job Satisfaction	Volunteer 3
Job Performance	Volunteer 3
Premature return intentions	Volunteer 3
Adjustment	Volunteer 3

---

**Table 2***Study Variable Means, Standard Deviations, Reliabilities, and Correlations*

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Learning	0.90	0.66	-															
2. Transfer	3.81	0.57	.25*	(.89)														
3. Openness	3.99	0.51	-.05	.14	(.78)													
4. TA_Diverse	3.79	0.52	.10	.03	.21*	(.67)												
5.TA_Change	3.52	0.66	-.05	-.05	.06	.42*	(.62)											
6. Cult Motiv 2	4.35	0.49	.10	.24*	.23*	.30*	.15*	(.85)										
7. PrevExp Freq	8.02	8.67	-.01	-.10	.20*	-.07	.01	.01	-									
8. PrevExp Dur	12.19	16.30	.03	.10	.05	-.08	-.01	.14	.55*	-								
9. Clim Home	3.66	0.70	.37*	.46*	.09	.10	-.01	.23*	.06	.02	(.84)							
10. Clim Host	3.18	0.73	.23*	.13	.13	.08	-.05	.10	-.01	.05	.43*	(.85)						
11. Job Sat	3.68	0.79	.20	.13	-.01	.06	.14	0.10	-.12	-.02	.26*	.32*	(.89)					
12. Job Perf	3.47	0.62	.12	.22*	.23*	.28*	.03	.46*	.13	.10	.35*	.27*	.13	(.90)				
13. Return In	2.04	0.65	-.15	-.35*	-.21*	-.01	-.10	-.25*	.21*	.04	-.26*	-.28*	-.33*	-.14	(.73)			
14. Adj_general	3.50	0.72	.17	.29*	.08	.21*	.18	.38*	-.08	.04	.29*	.18	.28*	.28*	-.020*	(.87)		
15. Adj_interact	3.58	0.77	.25*	.25*	.12	.22*	-.03	.39*	.01	.07	.32*	.30*	.22*	.64*	-.20*	.54*	(.90)	
16. Adj_work	3.17	0.86	.28*	.10	.25*	.32*	.10	.38*	.07	.04	.50*	.40*	.32*	.57*	-.21*	.43*	.60*	(.88)

\*  $p < 0.05$ ,  $N=101$ , *TA*= Tolerance for Ambiguity, *PrevExp*=Previous International Experience, *Clim*=Climate for Transfer

**Table 3***Time 1 vs. Time 2 Trainer Skill Ratings*

	T1 <i>M</i>	T1 <i>SD</i>	T2 <i>M</i>	T2 <i>SD</i>	Learning	<i>SD</i>	<i>t</i>
1. Using appropriate body language related to personal space and physical contact while interacting with host country nationals in an informal community or social setting.	2.67	1.18	3.62	0.92	0.95	0.94	15.43*
2. Using appropriate gestures while interacting with host country nationals in an informal community or social setting.	2.75	1.18	3.64	0.91	0.89	0.86	15.68*
3. Using appropriate behaviors while interacting with host country nationals in a work setting.	2.52	1.38	3.26	1.26	0.74	0.95	11.74*
4. Using appropriate greetings and sayings in an informal community or social setting.	2.86	1.05	3.76	0.81	0.90	0.84	16.27*
5. Changing verbal behavior (e.g., tone, volume) when an interaction requires it.	2.49	1.27	3.48	1.01	0.98	0.96	15.63*
6. Seeking out friendships within their peer group and community in order to develop social support systems.	2.67	1.09	3.62	0.88	0.95	0.94	14.85*
7. Using existing networks to build new networks within a peer group and in the community.	2.47	1.31	3.43	0.99	0.96	1.03	14.10*
8. Following local norms of respect when interacting with community members (e.g., village elders).	2.95	1.12	3.71	0.90	0.76	0.87	13.22*
9. Appropriately applying culture specific behaviors when interacting with members of the opposite sex.	2.61	1.17	3.60	1.00	0.98	0.93	16.02*
10. Appropriately applying culture specific behaviors when interacting with a workplace supervisor.	2.39	1.35	2.97	1.38	0.58	1.10	7.99*
11. Informally taking in new cultural knowledge (e.g., values, customs) when interacting with people from the community.	2.80	1.13	3.61	0.92	0.82	0.88	14.20*
12. Informally taking in new cultural knowledge when interacting with people from work (e.g., power related differences, practices).	2.32	1.30	3.03	1.29	0.71	1.00	10.67*
13. Identifying values of host culture family and being sensitive to these value differences.	2.87	1.10	3.74	0.93	0.87	0.92	14.50*
14. Being sensitive to concerns that are unique to a host country national during informal community interactions (e.g., gender roles).	2.66	1.15	3.56	0.87	0.90	0.94	14.44*
15. Being sensitive to concerns that are unique to a host country national during workplace interactions (e.g., power).	2.33	1.37	3.00	1.29	0.66	1.12	8.85*
16. Pausing to reflect upon an intercultural situation before reacting.	2.58	1.17	3.48	0.94	0.90	1.01	13.40*
17. Trying to take the perspective of host country nationals and making attributions based on their cultural framework instead of own framework.	2.03	1.15	3.16	1.00	1.13	0.97	15.31*

	T1 <i>M</i>	T1 <i>SD</i>	T2 <i>M</i>	T2 <i>SD</i>	Learning	<i>SD</i>	<i>t</i>
18. Trying to adapt behavior to fit local customs related to gender roles.	2.67	1.18	3.62	0.89	0.95	0.92	15.56*
19. Being aware of the values of own culture.	3.11	0.97	4.00	0.66	0.88	0.97	13.72*
20. Being aware of biases and stereotypes from my own culture.	2.78	1.17	3.79	0.86	1.01	1.03	14.95*
21. Engaging in hobbies, alone or with others, and regularly maintaining these activities.	2.80	1.26	3.74	0.88	0.94	0.93	15.08*
22. Proactively using coping mechanisms, such as engaging in familiar activities (e.g., listening to own music) or physical activities (e.g., exercising), to combat culture shock.	2.75	1.14	3.66	0.93	0.91	0.88	15.51*
23. Being aware of positive and negative periods of wellbeing.	2.89	1.11	3.71	0.87	0.82	0.91	13.55*
24. Being mindful of symptoms of culture shock.	2.79	1.09	3.66	0.80	0.87	0.95	13.97*
25. Thinking of strategies to combat difficult periods of wellbeing and apply these strategies.	2.60	1.22	3.65	0.92	1.05	1.03	15.44*
26. Following Peace Corps policies related to personal safety and security.	3.16	1.02	3.76	1.01	0.61	0.89	10.38*
27. Identifying common health concerns and using proper behaviors to promote physical health.	2.93	1.15	3.78	1.02	0.86	0.93	13.89*
Overall Skill Ratings	<b>2.40</b>	<b>0.88</b>	<b>3.30</b>	<b>0.903</b>	<b>0.90</b>	<b>0.66</b>	<b>14.50</b>

\*  $p < 0.05$

**Table 4**

*Paired Samples T-Test for Trainer Overall Skill Ratings*

	<i>Time 1 M (SD)</i>	<i>Time 2 M (SD)</i>	<i>t</i>	<i>df</i>
Overall skill rating	2.40 (0.88)	3.30 (0.90)	14.50*	114

\*  $p < 0.01$

**Table 5**

*T-Test for Overall Skill Ratings of Trainers vs. Volunteers*

	<i>Volunteer</i> <i>M (SD)</i>	<i>Trainer</i> <i>M (SD)</i>	<i>t</i>	<i>df</i>
Overall skill rating Time 1	3.30(0.63)	2.40(0.88)	8.34*	119
Overall skill rating Time 2	3.76(0.63)	3.30(0.90)	4.76*	114

\*  $p < 0.05$

**Table 6***Hypothesis 1 Regression Analyses: Learning, Transfer, and Job Satisfaction*

Variables	$\beta$	$t$
Step 1		
Effect Code 1	0.12	1.06
Effect Code 2	-0.17	-1.56
Effect Code 3	-0.15	-1.32
Skills Time 1	-.29	-1.57 <sup>†</sup>
$R^2$		.08
Step 2		
Skills Time 2	0.47	2.56*
$R^2$		.14*
$\Delta R^2$		.06*
Step 3		
Transfer	0.19	1.90 <sup>†</sup>
$R^2$		.18
$\Delta R^2$		.04 <sup>†</sup>

Note.  $N = 98$ ; One-tailed significance tests, \*\* $p \leq .01$ , \* $p \leq .05$ , <sup>†</sup>  $p \leq .10$ .

*Learning, Transfer, and Job Performance*

Variables	$\beta$	$t$
Step 1		
Effect Code 1	0.10	0.88
Effect Code 2	-0.11	-0.67
Effect Code 3	0.08	0.41
Skills Time 1	0.05	0.25
$R^2$		.04
Step 2		
Skills Time 2	0.27	2.08*
$R^2$		.11*
$\Delta R^2$		.07*
Step 3		
Transfer	0.24	2.31*
$R^2$		.18*
$\Delta R^2$		.07*

Note.  $N = 98$ ; One-tailed significance tests, \*\* $p \leq .01$ , \* $p \leq .05$ , <sup>†</sup>  $p \leq .10$ .

*Learning, Transfer, and Premature Return Intentions*

Variables	$\beta$	$t$
Step 1		
Effect Code 1	0.06	0.63
Effect Code 2	0.25	0.15
Effect Code 3	-0.11	0.60
Skills Time 1	0.09	0.62
$R^2$		.04
Step 2		
Skills Time 2	-0.28	0.14
$R^2$		.06
$\Delta R^2$		.02
Step 3		
Transfer	-0.33	-3.24*
$R^2$		.16*
$\Delta R^2$		.10*

Note.  $N = 98$ ; One-tailed significance tests, \*\* $p \leq .01$ , \* $p \leq .05$ , †  $p \leq .10$ .

*Learning, Transfer, and General Adjustment*

Variables	$\beta$	$t$
Step 1		
Effect Code 1	0.10	0.86
Effect Code 2	-0.18	-1.02
Effect Code 3	0.04	0.22
Skills Time 1	-0.15	0.76
$R^2$		.02
Step 2		
Skills Time 2	0.19	0.97
$R^2$		.03
$\Delta R^2$		.01
Step 3		
Transfer	0.28	2.61*
$R^2$		.10
$\Delta R^2$		.07

Note.  $N = 98$ ; One-tailed significance tests, \*\* $p \leq .01$ , \* $p \leq .05$ , †  $p \leq .10$ .

*Learning, Transfer, and Interaction Adjustment*

Variables	$\beta$	$t$
Step 1		
Effect Code 1	0.21	1.86 <sup>†</sup>
Effect Code 2	-0.18	-1.05
Effect Code 3	-0.07	-0.33
Skills Time 1	-0.08	-0.41
$R^2$		.05
Step 2		
Skills Time 2	0.29	1.53
$R^2$		.07
$\Delta R^2$		.02
Step 3		
Transfer	0.20	1.89 <sup>†</sup>
$R^2$		.11
$\Delta R^2$		.04

Note.  $N = 98$ ; One-tailed significance tests, \*\* $p \leq .01$ , \* $p \leq .05$ , <sup>†</sup> $p \leq .10$ .

*Learning, Transfer, and Work Adjustment*

Variables	$\beta$	$t$
Step 1		
Effect Code 1	0.31	2.72*
Effect Code 2	-0.21	-1.27
Effect Code 3	-0.02	-0.09
Skills Time 1	-0.08	-0.45
$R^2$		.08 <sup>†</sup>
Step 2		
Skills Time 2	0.31	1.67 <sup>†</sup>
$R^2$		.12*
$\Delta R^2$		.04*
Step 3		
Transfer	0.03	0.27
$R^2$		.13*
$\Delta R^2$		.01

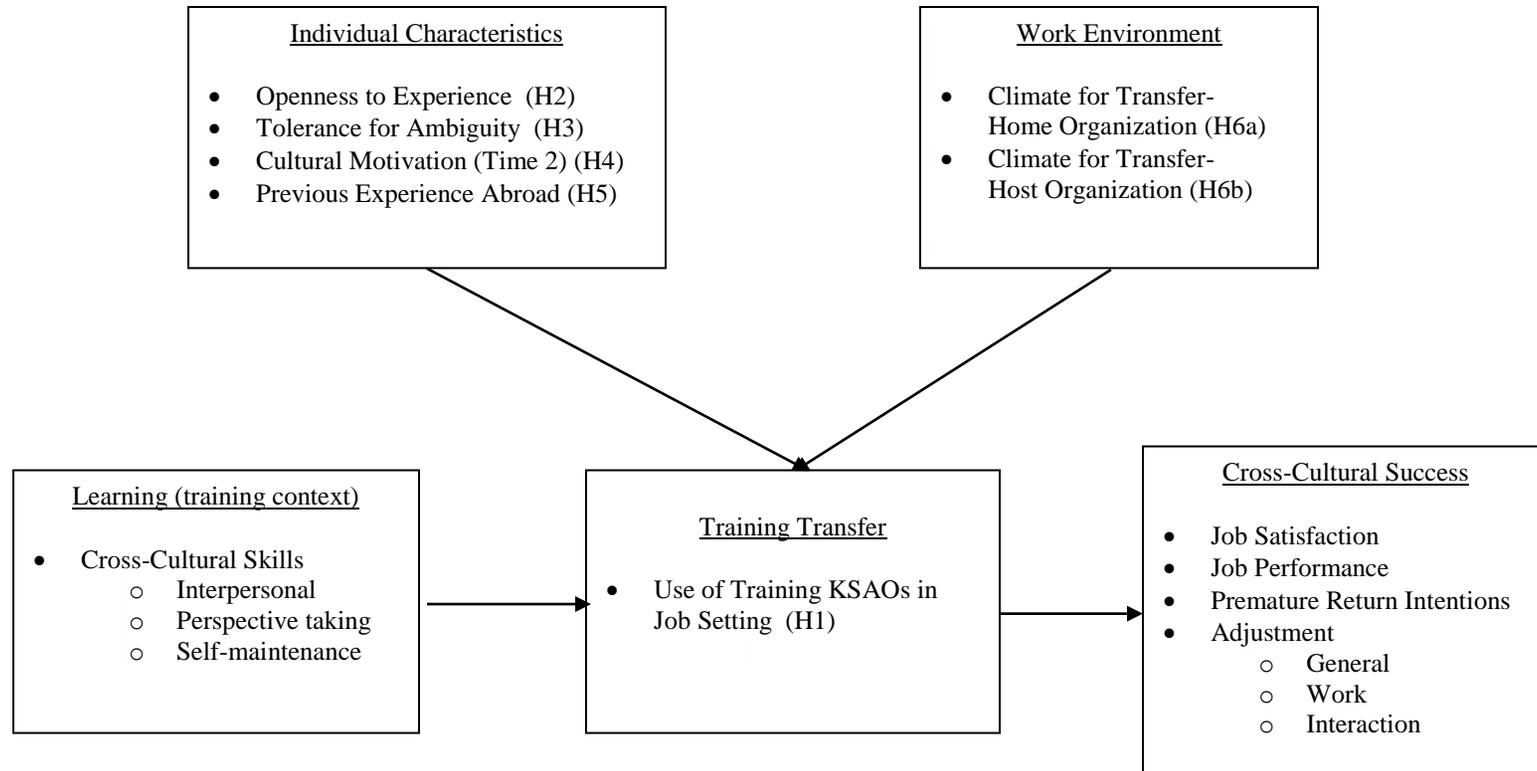
Note.  $N = 98$ ; One-tailed significance tests, \*\* $p \leq .01$ , \* $p \leq .05$ , <sup>†</sup> $p \leq .10$ .

**Table 7***Supplementary Analysis Means, Standard Deviations, Reliabilities, and Correlations*

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Learning	0.90	0.66	-								
2. Transfer	3.81	0.57	.25*	(.89)							
3. Cult Motiv 1	4.24	0.52	.09	.18	(.83)						
4. Cult Motiv 2	4.36	0.49	.10	.24*	.49*	(.85)					
5. Cult Motiv 3	4.31	0.60	.02	.22*	.41*	.62*	(.86)				
6. Empathy 1	3.84	0.47	.12	.13	.46*	.36*	.27*	(.80)			
7. Empathy 2	3.99	0.56	.14	.21*	.28*	.47*	.30*	.53*	(.81)		
8. Cult Flex 1	4.13	0.50	-.04	.10	.55*	.46*	.39*	.41*	.35*	(.77)	
9. Cult Flex 2	4.24	0.47	.07	.33*	.32*	.60*	.40*	.26*	.48*	.47*	(.79)

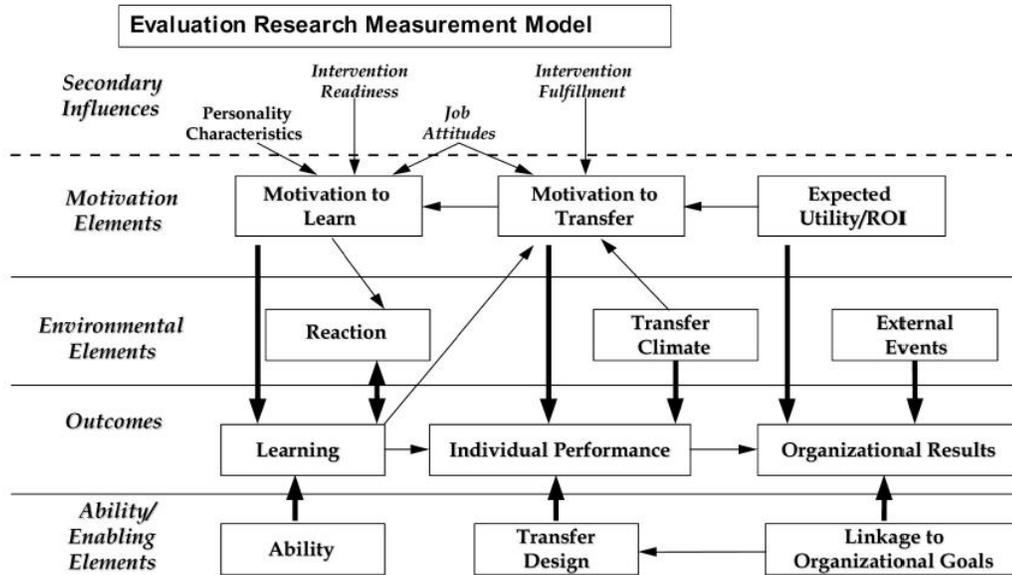
\*  $N=101$ ,  $p<0.05$ , *Cult Motiv*=Cultural Motivation, *Cult Flex*= Cultural Flexibility, 1=Time 1, 2=Time 2, 3=Time 3

**Figure 1. Proposed Model of Training Transfer**

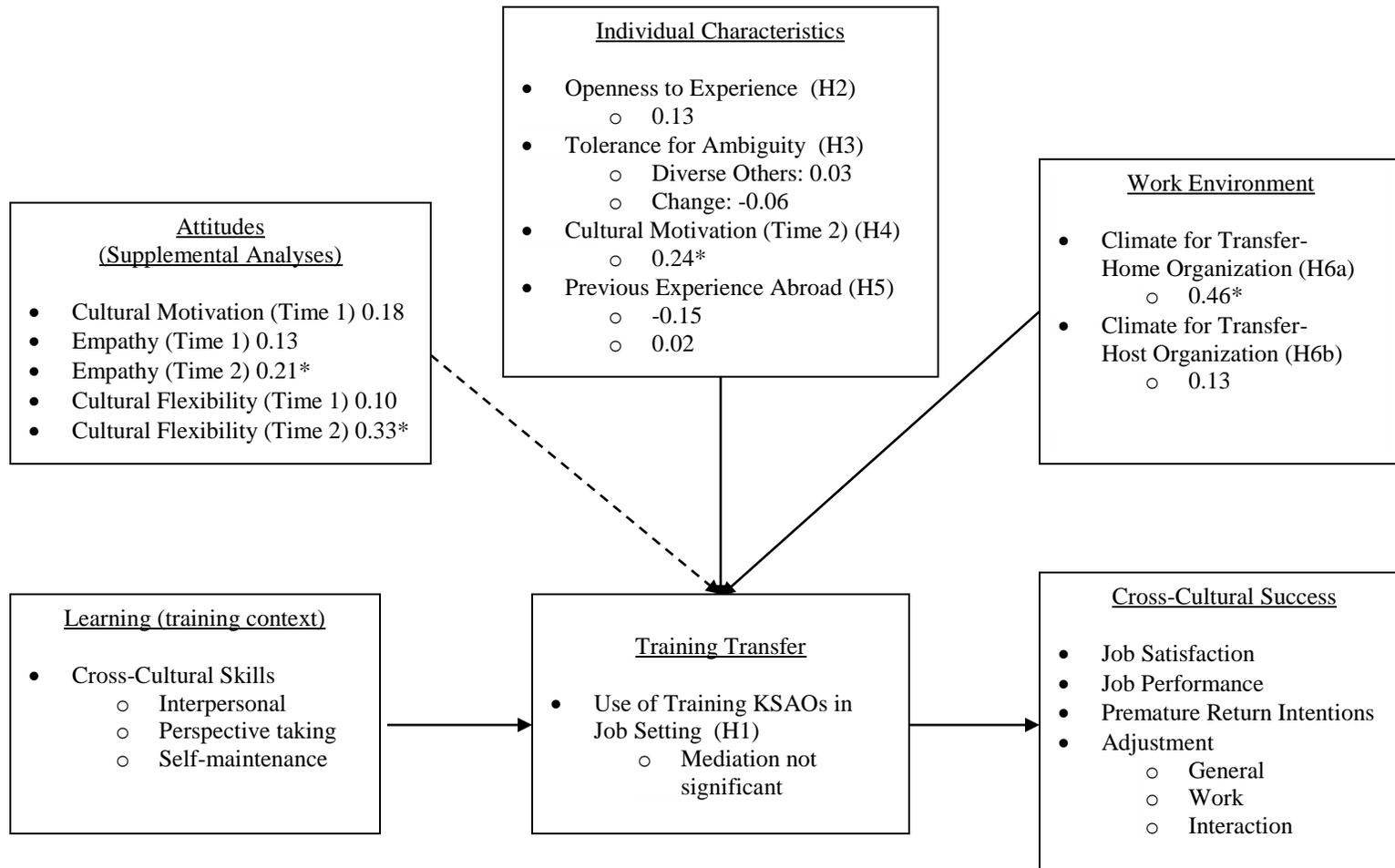


**Figure 2. Evaluation Research Measurement Model (Holton, 1996)**

Holton's evaluation model



**Figure 3. Training Transfer Model with Found Relationships**



*Solid line=Hypothesized relationships, Dashed line= Supplemental Analyses, \*p<0.05*

## References

- Adams, J.A. (1987). Historical review and appraisal of research on the learning, retention, and transfer of human motor skills. *Psychological Bulletin*, *10*, 41-74.
- Aguinis, H. (2004). *Regression Analysis for Categorical Moderators*. New York: Guilford.
- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, *60*, 451-474.
- Alliger, G. M., & Janak, E. A. (1989). Kirkpatrick's levels of training criteria: Thirty years later. *Personnel Psychology*, *42*, 331-342.
- Ali, A., Van der Zee, K., & Sanders, G. (2003). Determinants of intercultural adjustment among expatriate spouses. *International Journal of Intercultural Relations*, *27*, 563-580.
- Alvarez, K., Salas, E., & Garofano, C.M. (2004). An integrated model of training evaluation and effectiveness. *Human Resource Development Review*, *3*, 385-416.
- Anderson, C. D., Warner, J. L., & Spencer, C. C. (1984). Inflation bias in self-assessment examinations: Implications for valid employee selection. *Journal of Applied Psychology*, *69*, 574-580.
- Ang, S., & Van Dyne, L., (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In S. Ang, & L. Van Dyne, (Eds.) *Handbook on cultural intelligence: Theory, measurement and applications* (pp. 3-15). Armonk, NY: M.E. Sharpe.

- Ang, S., Van Dyne, L., Koh, C.K.S., Ng, K.Y., Templer, K.J., Tay, C., & Chandrasekar, N.A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review*, 3, 335-371.
- Arthur, W., & Bennett, W. (1995). The international assignee: The relative importance of factors perceived to contribute to success. *Personnel Psychology*, 48, 99-114.
- Avon, N. (2011). Why more Americans don't travel abroad. Retrieved on November 3, 2012 from [http://articles.cnn.com/2011-0204/travel/americans.travel.domestically\\_1\\_western-hemisphere-travel-initiative-passports-tourism-industries?\\_s=PM:TRAVEL](http://articles.cnn.com/2011-0204/travel/americans.travel.domestically_1_western-hemisphere-travel-initiative-passports-tourism-industries?_s=PM:TRAVEL).
- Baldwin, T.T., & Ford, K.J. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41, 63-105.
- Bandura, A. (1977). *Social learning theory*. New York: General Learning Press.
- Barrick, M.R., & Mount, M.K. (1991). The Big Five personality dimensions and job performance. *Personnel Psychology*, 41, 1-26.
- Barrick M.R., Mount M.K., & Strauss J.P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. *Journal of Applied Psychology*, 5, 715-722.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

- Bass, B. M., & Vaughan, J. A. (1966). *Training in industry: The management of learning*. Belmont, CA: Wadsworth.
- Bates, R. (2004). A critical analysis of evaluation practice: the Kirkpatrick model and the principle of beneficence. *Evaluation and Program Planning*, 27, 341–347.
- Beier, M.E., & Kanfer, R. (2010). Motivation and training in perspective: A phase perspective. In W. J. Kozlowski & E. Salas (Eds.), *Learning, training, and development in organizations* (pp.65-97). New York: Routledge.
- Bennett, J. M. (1986). Modes of cross-cultural training: Conceptualizing cross-cultural training as education. *International Journal of Intercultural Relations*, 10(2), 117-134.
- Bennett, J.B., Lehman, W.E.K., & Forst, J.K. (1999). Change, transfer climate, and customer orientation. *Group and Organization Management*, 24, 188-207.
- Bhaskar-Shrinivas, P., Harrison, D.A., Shaffer, M.A., & Luk, D.A. (2005). Input-based and time-based models of international adjustment: Meta-analytic evidence and theoretical extensions. *Journal of Applied Psychology*, 48(2), 257-281.
- Bhawuk, D. P. S. (2001). Evolution of culture assimilators: Toward theory-based assimilators. *International Journal of Intercultural Relations*, 25 (2), 141-163.
- Bhawuk, D. P. S., & Brislin, R. W. (2000). Cross-cultural training: A review. *Applied Psychology: An International Review*, 49, 162–191.
- Black, J. S., & Stephens, G. K. (1989). The influence of the spouse on American expatriate adjustment and intent to stay in Pacific Rim overseas assignment. *Journal of Management*, 15, 529–544.

- Black, J. S., & Mendenhall, M. E. (1990). Cross-cultural training effectiveness: A review and a theoretical framework for future research. *Academy of Management Review, 15*, 113-136.
- Black, J.S., & Mendenhall, M. (2006). A practical but theory-based framework for selecting cross-cultural training methods. *Human Resource Management, 28*, 511-539.
- Black, J. S., Mendenhall, M., & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *Academy of Management Review, 16*, 291-317.
- Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. L. (2010). Transfer of training: A meta analytic review. *Journal of Management, 36*, 1065-1105.
- Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt and W. C. Borman (Eds.), *Personnel Selection* (pp.71-98). San Francisco: Josey-Bass.
- Brinkerhoff, R.O. & Montesino, M.U. (1995). Partnerships for training transfer: lessons from a corporate study. *Human Resource Development Quarterly, 6*, 263-274.
- Broad, M.L. & Newstrom, J.W. (1992). *Transfer of training: Action packed strategies to ensure high payoff from training investments*. New York: Addison Wesley.
- Brookfield Global Relocation Services (2010). *Global relocation trends: 2010 summary report*. Toronto, Canada: Brookfield GRS.

- Burke, L.A., & Hutchins, H.M. (2008). A study of best practices in training transfer and proposed model of transfer. *Human Resource Development Quarterly*, 19, 107-128.
- Caligiuri P.M. (1997). Assessing expatriate success: Beyond just “being there.” In Saunders DM, Aycan Z (Eds.), *New approaches to employee management*, 4, (pp. 117-140). Greenwich, CT: JAI Press.
- Caligiuri, P. M. (2000). The big five personality characteristics as predictors of expatriate success. *Personnel Psychology*, 53, 67-88.
- Caligiuri, P. M., & Day, D. V. (2000). Effects of self-monitoring on technical, contextual, and assignment-specific performance. *Group & Organization Management*, 25, 154-174.
- Caligiuri, P. M., & Di Santo, V. (2001). Global competence: What is it, and can it be developed through global assignments? *Human Resource Planning*, 24, 27–36.
- Caligiuri, P., & Phillips, J. (2003). An application of self-assessment realistic job previews to expatriate assignments. *International Journal of Human Resource Management*, 14, 1102–1116
- Caliguri, P. & Tarique, I. (2006). International assignee selection and cross-cultural training and development. In I. Björkman and G. Stahl (Eds.), *Handbook of Research in IHRM*. London: Edward Elgar Publishing.
- Caligiuri, P., Tarique, I., & Jacobs, R. (2009). Selection for international assignments. *Human Resource Management Review*, 19(3), 251-262.

- Carmines, E. G., & McIver, J. P. (1981). Analysing models with unobservable variables. In G.W. Bohrnstedt and E.F. Borgatta (Eds.), *Social Measurement: Current Issues* (pp. 65-115). Beverly Hills, CA: Sage.
- Chapelle, C. A., & Robert, C. (1986). Ambiguity tolerance and field independence as predictors of proficiency in English as a Second Language. *Language Learning*, 36, 27-45.
- 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, 1110-1130.
- Cheng, E. W. L., & Hampson, I. (2008). Transfer of training: A review and new insights. *International Journal of Management Reviews*, 10, 327-341.
- Cloninger, C.R., Przybeck, T.R., Svrakic, D.M., & Wetzel, R.D. (1994). The temperament and character inventory (TCI): A guide to its development and use, St. Louis: Washington University Center for Psychobiology of Personality.
- Colquitt, J. A., Lepine, J. A., & Noe, R. A. (2000). Toward and integrative of training motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, 85, 678-707.
- Costa, P.T., Jr., & McCrae, R.R. (1992). *Revised NEO personality inventory and NEO five factor inventory: Professional manual*. Odessa, FL: PAR.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

- Deshpande, S. P., & Viswesvaran, C. (1992). Is cross-cultural training of expatriate managers effective: A meta-analysis. *International Journal of Intercultural Relations, 16*, 295-310.
- Dolezalek, H. (2005). 2005 industry report. *Training, 42(12)*, 14–28.
- Earley, P.C. & Ang, S. (2003). *Cultural intelligence: An analysis of individual interactions across cultures*. Palo Alto, CA: Stanford University Press.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods, 12*, 1-22.
- Ehrman, M. (1999). Ego boundaries and tolerance of ambiguity in second language learning. In Arnold, J. (ed.). *Affect in language learning*. Cambridge: Cambridge University Press.
- Facteau, J. D., Dobbins, G. H., Russell, J. E. A., Ladd, R. T., & Kudisch, J. D. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *Journal of Management, 21*, 1-25.
- Fiedler, F. E., Mitchell, T. R., & Triandis, H. C. (1971). The culture assimilator: An approach to cross-cultural training. *Journal of Applied Psychology, 55*, 95-102.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Ford, J.K., Quinones, M.A., Segó, D.J., & Sorra, J.S. (1992). Factors affecting the opportunity to perform trained tasks on the job. *Personnel Psychology, 45*, 511–527.

- Ford, J. K., & Weissbein, D. A. (1997). Transfer of training: An updated review and analysis. *Performance Improvement Quarterly*, *10*(2), 22-41.
- Frenkel-Brunswik, E. (1949). Tolerance towards ambiguity as a personality variable, *American Psychologist*, *3*, 268.
- Fritz, M.S., & MacKinnon, D.P. (2007). Required sample size to detect the mediated effect. *Psychological Science*, *18*(3): 233–239.
- Gagné, R. M. (1977). *The conditions of learning*. New York: Holt, Rinehart, and Winston.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, *17*, 183–211.
- Gist, M. E., Stevens, C. K., & Bavetta, A. G. (1991). Effects of self-efficacy and post-training intervention on the acquisition and maintenance of complex interpersonal skills. *Personnel Psychology*, *44*, 837-861.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, *4*, 26-42.
- Goldstein, I., & Ford, J. K. (2002). *Training in organizations* (4th ed.). Belmont, CA: Wadsworth.
- Graham, C.H., & Gagne, R.M. (1940). The acquisition, extinction, and spontaneous recovery of a conditioned operant response. *Journal of Experimental Psychology*, *26*, 251-280.

- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488.
- Hammer, M.R., Bennett, M.J. & Wiseman, R. (2003). The intercultural development inventory: A measure of intercultural sensitivity. In M. Paige (Guest Editor), *International Journal of Intercultural Relations*, 27, 421-443.
- Harris, M.M., & Schaubroeck, J. (1988). A meta-analysis of self-supervisor, self-peer, and peer-supervisor ratings. *Personnel Psychology*, 41, 43-62.
- Harrison, J. K., Chadwick, M., & Scales, M. (1996). The relationship between cross-cultural adjustment and the personality variables of self-efficacy and self-monitoring. *International Journal of Intercultural Relations*, 20, 167-188.
- Harzing, A.W.K. (2006). Response styles in cross-national survey research: A 26-country study. *International Journal of Cross Cultural Management*, 6(2), 243–266.
- Hechanova, R., Beehr, T. A., & Christiansen, N. D. (2003). Antecedents and consequences of employees' adjustment to overseas assignment: A meta-analytic review. *Applied Psychology: An International Review*, 52, 213-236.
- Herman, J. L., & Tetrick, L. E. (2009). Problem-focused versus emotion-focused coping strategies and repatriation adjustment. *Human Resource Management*, 48(1), 69-88.
- Herold, D.M., Davis, W., & Fedor, D.B. (2002). Dispositional influences on transfer of learning in multi-stage training. *Personnel Psychology*, 55, 851–870.

- Holton, E. F. III (1996). The flawed four level evaluation model. *Human Resource Development Quarterly*, 7, 5-21.
- Holton E.F., III, Bates, R.A., & Ruona, W.E.A. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11, 333–360.
- Holton, E. F. III, Bates, R. A., Seyler, D. L., & Carvalho, M.B. (1997). Toward construct validation of a transfer climate instrument. *Human Resource Development Quarterly*, 8, 95-113.
- Hom, P. W. & Griffeth, R. W. (1991). Structural equations modeling test of a turnover theory: Cross-sectional and longitudinal analyses. *Journal of Applied Psychology*, 76(3), 350-366.
- Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55. Retrieved July 15, 2009, from PsycINFO database.
- Hunter, J. E., & Schmidt, F. L. (1990). *Methods of meta-analysis: Correcting error and bias in research findings*. Newbury Park: SAGE Publications.
- Judge T.A., & Ilies, R. (2002). Relationship of personality to performance motivation: A meta analytic review. *Journal of Applied Psychology*, 87, 797–807.
- 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.

- Kealey, D.J., & Protheroe, D.R. (1996). The effectiveness of cross-cultural training for expatriates: An assessment of the literature on the issue. *International Journal of Intercultural Relations*, 20(2), 141-165.
- Kirkpatrick, D. L. (1976). Evaluation of training. In R. L. Craig and L. R. Bittel (Eds.) *Training and development handbook*. New York: McGraw-Hill.
- Kline, R. B. (2005). *Principles and practices of structural equation modeling* (3rd Ed), Guilford New York: Guilford.
- Klein, H. J., & Lee, S. (2006). The effects of personality on learning: The mediating role of goal setting. *Human Performance*, 19, 43–66.
- Klein, H., Noe, R., & Wang, C. (2006). Motivation to learn and course outcomes: The impact of delivery mode, learning goal orientation, and perceived barriers and enablers. *Personnel Psychology*, 59(3), 665-702.
- Kraiger, K., Ford, J.K., & Salas, E. (1993). Application of cognitive, skill-based, and affective theories of learning outcomes to new methods of training evaluation. *Journal of Applied Psychology*, 78, 311-328.
- Kraimer, M. L., Wayne, S. J., & Jaworski, R. A. (2001). Sources of support and expatriate performance: The mediating role of expatriate adjustment. *Personnel Psychology*, 54, 71-99.
- Kunin, T. (1955). The construction of a new type of attitude measure. *Personnel Psychology*, 9, 65-78.
- Laker, D. R. (1990). Dual dimensionality of training transfer. *Human Resources Development Quarterly*, 1, 209-235.

- Lanik, M., & Mitchell Gibbons, A. (2011). Guidelines for cross-cultural assessor training in multicultural assessment centers. *The Psychologist-Manager Journal*, *14*(4), 221-246.
- Leiba-O'Sullivan, S. (1999). The distinction between stable and dynamic cross-cultural competencies: Implications for expatriate trainability. *Journal of International Business Studies*, *30*(4), 709-725.
- Leong, C. (2007). Predictive validity of the multicultural personality questionnaire: A longitudinal study on the socio-psychological adaptation of Asian undergraduates who took part in a study abroad program. *International Journal of Intercultural Relations*, *31* (5), 545- 559.
- Lievens, F., Harris, M. M., Van Keer, E., & Bisqueret, C. (2003). Predicting cross-cultural training performance: The validity of personality, cognitive ability, and dimensions measured by an assessment center and a behavior description interview. *Journal of Applied Psychology*, *88*, 476-489.
- Lindell, M.K., & Brandt, C.J. (2000). Climate quality and climate consensus as mediators of the relationship between organizational antecedents and outcomes. *Journal of Applied Psychology*, *85*, 331-348.
- Littrell, L.N. & Salas, E. (2005). A review of cross-cultural training: Best practices, guidelines, and research needs. *Human Resource Development Review*, *4*, 305-34.
- Littrell, L.N., Salas, E., Hess, K.P., Paley, M. & Riedel, S. (2006). Expatriate preparation: A critical analysis of 25 years of cross-cultural training research. *Human Resource Development Review*, *5*(3), 355- 388.

- MacCallum, R., Browne, M., & Sugawara, H. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1*(2), 130-149.
- Mathieu, J.E., Martineau, J.W., & Tannenbaum, S.I. (1993). Individual and situational influences on the development of self-efficacy: Implications for training effectiveness. *Personnel Psychology, 46*, 125-47.
- McCrae, R., & Costa, P. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology, 52*, 81-90.
- McLain, D.L. (1993). The MSTAT-I: A new measure of an individual's tolerance of ambiguity. *Educational and Psychological Measurement, 53*, 183-189.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace*. Thousand Oaks, CA: Sage.
- Mendenhall, M. & Oddou G. (1985). The dimensions of expatriate acculturation: A review. *Academy of Management Review, 10*, 39-47.
- Mendenhall, M.E., Ehnert, I., Kühlmann, T., Oddou, G., Osland, J. & Stahl, G. (2004). Evaluation studies of cross-cultural training programs: A review of literature from 1988-2000. In D. Landis, J.M. Bennett, & M.J. Bennett (Eds.) *Handbook of Intercultural Training* (3<sup>rd</sup> ed., pp. 85-128). Thousand Oaks, CA: Sage.
- Mercer LLC. (2008). *Expatriate employee numbers double as companies see increased value in expatriate assignments*. Retrieved April 15, 2009, From Mercer LLC.

Website:<http://www.mercer.com/knowledgecenter/reportssummary.htm?idContent=1326180>.

- Mischel, W. (1977). The interaction of person and situation. In D. Magnusson, & N. S. Endler (Eds.), *Personality at the crossroads: Current issues in interactional psychology* (pp. 217-247). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Mitchell, T. R. (1982). Motivation: New directions for theory and research. *Academy of Management Review*, 17, 80-88.
- Mitchell, R., & Nicholas, S. (2004). *Knowledge creating mechanisms and competitive advantage: The value of cognitive diversity, transactive memory, open mindedness norms and trans-specialist knowledge*. Paper presented at the Conference of the American Society for Business and Behavioral Science, Cairns, Australia.
- Morris, M.A., & Robie, C. (2001). A meta-analysis of the effects of cross-cultural training on expatriate performance and adjustment. *International Journal of Training and Development*, 5 (2), 112-125.
- Naumann, E. (1993). Antecedents and consequences of satisfaction and commitment among expatriate managers. *Group and Organization Management*, 18(2), 153-187.
- Neuliep, J.W. (2002). Assessing the reliability and validity of the generalized ethnocentrism scale. *Journal of Intercultural Communication Research*, 31(4), 201-216.

- Nishida, H. (1985). Japanese intercultural communication competence and cross-cultural adjustment. *International Journal of Intercultural Relations*, 9, 247–269.
- Noe, R.A. (1986). Trainees' attributes and attitudes: neglected influences on training effectiveness. *Academy of Management Review*, 11, 736-49.
- Noe, R.A., & Colquitt, J.A. (1986). Planning for training impact. In K. Kraiger (Ed.), *Creating, implementing, and managing effective training and development* (pp. 53-79). San Francisco, CA: Jossey-Bass Inc.
- Noe, R.A. & Schmitt, N. (1986). The influence of trainee attitudes on training effectiveness: test of a model. *Personnel Psychology*, 39, 497-523.
- Norton, R.W. (1975). Measurement of ambiguity tolerance. *Journal of Personality Assessment*, 39, 607–619.
- Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology*, 7, 177–182.
- Ones, D.S., & Viswesvaran, C. (1997). Personality determinants in the prediction of aspects of expatriate job success. In Z. Aycan (Ed.), *New approaches to employee management: Vol. 4. Expatriate management: Theory and research* (pp. 63–92). Stamford, CT: JAI Press.
- ORC Worldwide. (2006). Survey of international assignment policies and practices. Retrieved December 15, 2010, From Benefits and Compensation international. Website: [http://www.expatica.com/hr/story/Investigating-expat-work\\_life-balance-from-the-expat-viewpoint.html](http://www.expatica.com/hr/story/Investigating-expat-work_life-balance-from-the-expat-viewpoint.html).

- Ostroff, C., Kinicki, A.J., & Tamkins, M.M. (2003). Organizational culture and climate. In W.C. Borman, D. R. Ilgen, & R. J. Klimoski, (Eds) *Handbook of Psychology*, Volume 12: I/O Psychology. (pp 565-594). Mahwah, NJ: Erlbaum.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). San Diego, CA: Academic Press.
- Peace Corps (2011). *Learn about volunteering*. Retrieved January 20, 2011 from <http://www.peacecorps.gov/index.cfm?shell=learn>.
- Peace Corps (2012). *The application process*. Retrieved November 3, 2012 from <http://www.peacecorps.gov/learn/howvol/stepstoapply/>.
- Podsakoff, P. M., MacKenzie, S. M., Lee, J., & Podsakoff, N. P. (2003). Common method variance in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Poulton, E.C. (1957). On prediction of skill movements. *Psychological Bulletin*, 54, 467-478.
- Quinones, M. A. (1995). Pretraining context effects: Training assignment as feedback. *Journal of Applied Psychology*, 80, 226-238.
- Rackham, N. & Ruff, R. (1991). *Managing major sales*. New York: Harper Business.
- Robinson, D.G., & Robinson, J. (1989). Training for impact. *Training and Development Journal*, 43(8), 39.

- Rouiller, J. Z., & Goldstein, I. L. (1993). The relationship between organizational transfer climate and positive transfer of training. *Human Resource Development Quarterly*, 4, 377-390.
- Salas, E., Wilson, K. A., & Lyons, R. (2008). Designing and delivering training for multicultural interactions in organizations. In D.L. Stone and E.F. Stone-Romero (Eds), *The influence of culture on human resource management processes and practices* (pp.115-134). NY: Psychology Press.
- Salgado, J. (1997). The five-factor model of personality and job performance in the European Community. *Journal of Applied Psychology*, 82, 30-43.
- Schneider, B. (1997). The people make the place. *Personnel Psychology*, 40, 437- 453.
- Selmeski, B.R. (2007). Military cross-cultural competence: Core concepts and individual development. Royal Military College of Canada: Centre for Security, Armed Forces & Society.
- Shaffer, M. A., Harrison, D. A., Gregersen, H., Black, J. S., & Ferzandi, L. A. (2006). You can take it with you: Individual differences and expatriate effectiveness. *Journal of Applied Psychology*, 91, 109-125.
- Shaffer, M.A., Kraimer, M.L., Chen, Y., & Bolino, M.C. (2012). Choices, challenges, and career consequences of global work experiences: A review and future agenda. *Journal of Management*, 38, 1282-1327.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.) *Sociological Methodology*. (pp. 290-312). Washington, DC: American Sociological Association.

- Sookhai, F., & Budworth, M.H. (2010). The trainee in context: Examining the relationship between self-efficacy and transfer climate for transfer of training. *Human Resource Development Quarterly*, 21, 257-272.
- Takeuchi, R., Tesluk, P.E., Yun, S., & Lepak, D.P. (2005a). An integrative view of international experience. *Academy of Management Journal*, 48, 85-100.
- Takeuchi, R., Wang, M.O., & Marinova, S.V. (2005b). Antecedents and consequences of psychological workplace strain during expatriation: A cross-sectional and longitudinal investigation. *Personnel Psychology*, 58, 925-948.
- Takeuchi, R., Wang, M., Marinova, S. V., & Yao, X. (2009). Role of domain-specific facets of perceived organizational support during expatriation and implications for performance. *Organization Science*, 20, 621-634.
- Takeuchi, R., Yun, S., & Tesluk, P.E. (2002). An examination of crossover and spillover effects of spousal and expatriate cross-cultural adjustment on expatriate outcomes. *Journal of Applied Psychology*, 87, 655-666.
- Tannenbaum, S. I., & Yukl, G. (1992). Training and development in work organizations. *Annual Review of Psychology*, 43, 399-441.
- Taylor, P. J., Russ-Eft, D. F., & Taylor, H. (2009). Transfer of management training from alternative perspectives. *Journal of Applied Psychology*, 94, 104-121.
- Tesluk, P.E., Farr, J.L., Mathieu, J.E. & Vance, R.J. (1995). Generalization of employee involvement training to the job setting: individual and situational effects. *Personnel Psychology*, 48, 607-632.

- Thurstone, L.L. (1919). The learning curve equation. *Psychological Monographs*, 26, 1-51.
- Tracey, J.B., Tannenbaum, S.I., & Kavanagh, M.J. (1995). Applying trained skills on the job: the importance of the work environment. *Journal of Applied Psychology*, 80, 239-252.
- Trant, C. A. (2005). *Factors contributing to the effectiveness of newly posted Peace Corps volunteers in the rural aquaculture promotion project in Zambia*. Unpublished masters thesis. Texas A&M University. College Station, TX.
- Triandis, H.C. (1975). Culture training, cognitive complexity and interpersonal attitudes. In R. Brislin, S. Bochner and W. Lonner, *Cross cultural perspectives on learning*. New York: John Wiley and Sons.
- Van Eerde, W., & Thierry, H. (1996). Vroom's expectancy models and work-related criteria: A meta-analysis. *Journal of Applied Psychology*, 81, 575–586.
- Vroom, V. H. (1964). *Work and motivation*. New York: Wiley.
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, 82, 247–252.
- Warr, P. & Bunce, D. (1995). Trainee characteristics and the outcomes of open learning. *Personnel Psychology*, 48, 347- 375.
- Xiao, J. (1996). The relationship between organizational factors and the transfer of training in the electronics industry in Shenzhen, China. *Human Resource Development Quarterly*, 7, 55-73.

- Yamazaki, Y., & Kayes, D.C. (2004). An experiential approach to cross-cultural learning: A review and integration of competencies for successful expatriate adaptation. *Academy of Management Learning & Education*, 3, 362–379.
- Yamhill, S. (2001). *Factors affecting transfer of training in Thailand*. Unpublished doctoral dissertation. University of Minnesota, Twin Cities.