Dynamic cross-cultural competencies and global leadership effectiveness

Paula Caligiuri [a,*], Ibraiz Tarique [b]

[a] Human Resource Management Department, School of Management and Labor Relations, Rutgers University, Piscataway, NJ 08901, USA
[b] Lubin School of Business, Pace University, New York, NY, 10038 USA

ARTICLE INFO

ABSTRACT

Analyzing data from a sample of 420 global leaders (matched with 221 supervisors), we found a combined effect of personality characteristics (extraversion, openness to experience, and lower neuroticism) and cross-cultural experiences (organization-initiated cross-cultural work experiences and non-work cross-cultural experiences) as predictors of dynamic cross-cultural competencies (tolerance of ambiguity, cultural flexibility, and reduced ethnocentrism). These competencies, in turn, are predictors of supervisors' ratings of global leadership effectiveness. Our study suggests that developmental cross-cultural experiences occur through both work-related and non-work activities. The results suggest that both selection and development are critical for building a pipeline of effective global leaders.

The global economy is producing a competitive landscape that is becoming increasingly more complex, dynamic and ambiguous for firms operating across borders. PriceWaterhouseCoopers's 14th Annual Global CEO Survey (2011) found that "bridging the global skills gap" was one of the top concerns they cited for the future as companies look "for better ways to develop and deploy staff globally." Globally competent business leaders, and not limited to those on international assignments, are critical for a firms' ability to compete and succeed internationally. In response to the growing demand for globally competent business leaders who can operate successfully in today's global environment and improve organizational performance across all geographic markets, 62% of firms around the world report having a global leadership development program of some form (American Management Association, 2010).

Many global leadership development programs include talent management and leadership succession programs that include a variety of developmental experiences (e.g., Beechler & Javidan, 2007; Evans, Pucik, & Barsoux, 2002; Gupta & Govindarajan, 2002). These organization-initiated developmental experiences include involvement in global teams (Maznevski & DiStefano, 2000), global travel that encourages learning from colleagues in different countries (Oddou, Mendenhall, Ritchie, 2000), in-country training or coaching (Mendenhall & Stahl, 2000), cross-national mentors (Mezias & Scandura, 2005), global rotational programs (Caligiuri & Di Santo, 2001), formal instructional programs (American Management Association, 2010), and international assignments (e.g.,

Dickmann & Doherty, 2010; Kreng & Huang, 2009; Yan, Guorong, & Hall, 2002).

While many activities may exist in a global leadership development program, only half of the 939 firms surveyed in the American Management Association study agree that their global leadership development programs are highly effective and improve leadership skills in the participants. Similarly, a 2010 study conducted by IBM of over 700 chief human resource executives globally found that "developing future leaders" was rated as the most important business capability needed to achieve future global business objectives. Unfortunately, it was also rated as one of their firms' least effective capabilities.

Before the best possible global leadership development program could be developed, it is important to understand how global leadership competencies are gained, a topic that, to our knowledge, is not yet understood. This manuscript will address the explanatory mechanisms through which experiential global leadership development opportunities can be effective for developing global competencies and how those competencies can, in turn, affect the ultimate goal of the programs – to improve leaders' abilities to operate effectively in cross-cultural and multicultural environments.

The primary question to be examined in this study is how these dynamic cross-cultural competencies are created or shaped – whether through individuals' immutable personality traits or cross-cultural experiences (or both). Specifically, this study will examine the roles of experiential opportunities, organization-initiated cross-cultural experiences (i.e., those found in leadership development programs) and non-work cross-cultural experiences. In addition, this study will also examine whether leaders' relatively

* Corresponding author.
  E-mail address: caligiuri@smlr.rutgers.edu (P. Caligiuri).

immutable personality characteristics (i.e., the Big Five) affect global leadership competencies. Ultimately, we test what is inferred by global leadership development programs: global leadership competencies are related to global leaders' task performance. Fig. 1 illustrates the relationships to be developed and tested in this study.

1. Global leadership competencies and global leadership task performance

In the context of building a pipeline of future global leaders, cross-cultural developmental opportunities should have one overarching goal, to *build global leadership competencies which will, in turn, will* be positively related to *performance on global leadership tasks.* Global leadership development practices are considered valuable when they can, in fact, improve global leadership performance (American Management Association, 2010). Predicting performance on global leadership tasks (e.g., interacting with external clients from other countries, developing a strategic business plan on a worldwide basis, managing a budget on a worldwide basis, managing foreign suppliers or vendors) is the ultimate goal for this study of global leadership development.

1.1. Dynamic cross-cultural competencies

Dynamic cross-cultural competencies are those that can be acquired or enhanced through training and development (O'Sullivan, 1999; Shaffer, Harrison, Gregersen, Black, & Ferzandi, 2006). The three competencies unique to leadership in a global or multicultural context are: (1) reduced ethnocentrism or valuing cultural differences, (2) cultural flexibility or adaptation, and (3) tolerance of ambiguity. These dynamic competencies have been identified as some of the competencies related to cross-cultural knowledge absorption (Kayes, Kayes, & Yamazaki, 2005), predictors of performance among expatriates (Shaffer et al., 2006) and

the skills of global leaders (Maznevski & DiStefano, 2000). Each is described in greater detail below.

Ethnocentrism is an individual's nationalistic self-centeredness, the belief that those from other cultures are inferior (Bizumic, Duckitt, Popadic, Dru, & Krauss, 2009). Ethnocentric individuals interpret and evaluate other's behavior using their own standards and make little effort to modify their own behavior to suit host cultural values (Black, 1990). Ethnocentric tendencies inhibit the individual in coping effectively with new social norms, values (Church, 1982). Prior research has found that ethnocentrism is negatively related to interaction adjustment and contextual performance and positively related to withdrawal cognitions (Shaffer et al., 2006). As noted by Thomas (1996), ethnocentric attitudes are especially damaging to the development and maintenance of cross-cultural interpersonal interactions. A global leader's ethnocentrism can have a deleterious effect on intergroup relations with co-workers, clients and subordinates and reduce success in tasks where a locally-responsive approach would be most appropriate. As global business requires greater collaboration and coordination among people from different cultures, reducing ethnocentrism is a worthwhile developmental goal for future global leaders.

Cultural flexibility, another dynamic competency, is defined as "the capacity to substitute activities enjoyed in one's home country with existing, and usually distinct, activities in the host country" (Shaffer et al., 2006, p. 113). Prior research suggests that cultural flexibility is positively related to cross-cultural adjustment (e.g., Shaffer et al., 2006), self-esteem and self-confidence (e.g., Mendenhall & Oddou, 1985), adapting to the foreign environments (e.g., Black, 1990), and success on foreign assignments (Arthur & Bennett, 1995). The presence of greater cultural flexibility can enhance global leaders' effectiveness when they are living and working internationally for extended periods of time (i.e., on expatriate assignments). While not all expatriates are global leaders – and not all global leaders are (or were) expatriates – cultural flexibility remains
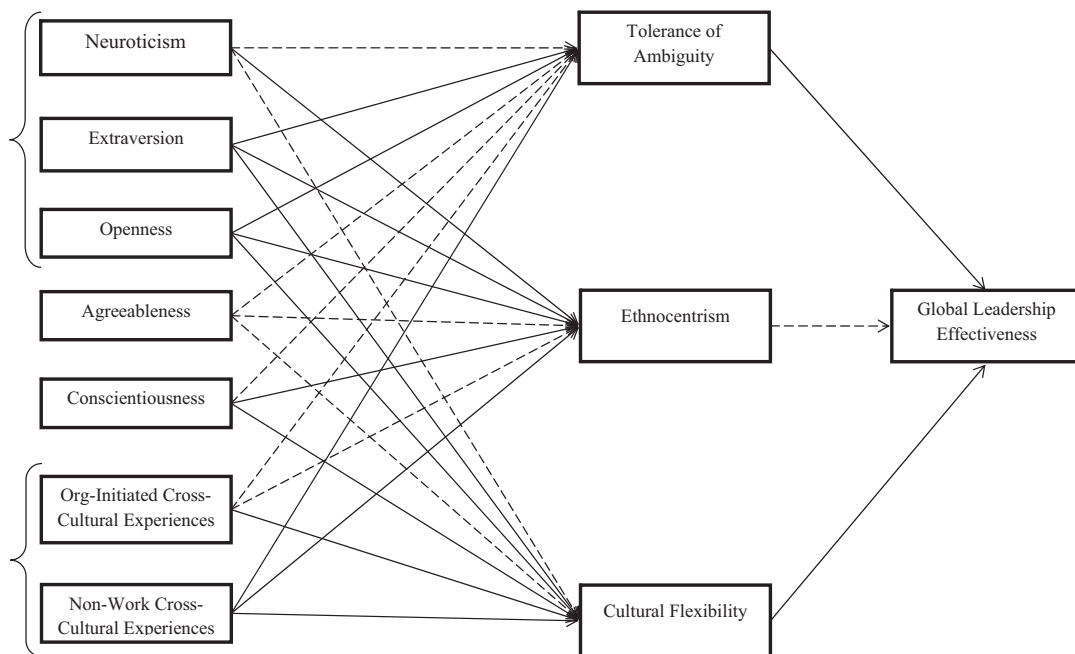
The variables in brackets include the hypothesized relationships. The variables in the upper brackets are the personality characteristics included in the hypotheses and the lower brackets include the cross-cultural experiences included in the hypotheses. Solid lines indicate statistically significant relationships and dotted lines indicate non-significant relationships.

Fig. 1. Mediated model predicting supervisor ratings of global leadership performance. The variables in brackets include the hypothesized relationships. The variables in the upper brackets are the personality characteristics included in the hypotheses and the lower brackets include the cross-cultural experiences included in the hypotheses. Solid lines indicate statistically significant relationships and dotted lines indicate non-significant relationships.

an important competence for all those who are working in multicultural situations; global leaders will often need to substitute their preferred way of doing things with a culturally different way. Thus, increasing cultural flexibility is an important developmental goal, especially among those global leaders who take frequent business trips in different countries or those who may accept expatriate assignments in the future.

Another dynamic competence companies seek to develop in their future global leaders is a *tolerance of ambiguity*. Tolerance for ambiguity is the ability to manage ambiguous, new, different, and unpredictable situations. Researchers have argued that people with greater tolerance for ambiguity are more likely to effectively manage the stress imposed by uncertain environments and to be more adaptive and receptive to change (Judge, Thoresen, Pucik, & Welbourne, 1999), and rapidly changing conditions. A few studies have argued that individuals with higher tolerance for ambiguity are better suited for positions that are characterized by ambiguity (cf. Sherrill, 2005). Given the many uncertainties and the complexity of the global economy, it is appropriate for global leadership programs to seek to develop a tolerance for ambiguity.

These three dynamic cross-cultural competencies should, collectively, produce a repertoire of behaviors in leaders related to their success in global leadership activities. As such, our first hypothesis to be tested is:

Hypothesis 1. Dynamic cross-cultural competencies are positively related to global leadership effectiveness such that ethnocentrism (H1a) is negatively related while cultural flexibility (H1b) and tolerance of ambiguity (H1c) are positively related.

1.2. Cross-cultural experiences

Two theories, social learning theory (Bandura, 1977) and the contact hypothesis (Allport, 1954), provide the conceptual basis for understanding the mechanism by which cross-cultural experiences lead to the development of cross-cultural competencies. The important element these two theories have in common is that learning occurs through interactions with people from different cultures (i.e., high-contact experiences).

Social learning theory (Bandura, 1977) proposes that individuals learn and develop by engaging with their surroundings. Applied to the development of global leadership competencies, learning occurs when leaders can practice newly-learned behaviors in the intercultural or multicultural context, when they can receive feedback (e.g., from peers or mentors), and when the environment is professionally or emotionally safe to take risks and possibly make a mistake (Caligiuri & Tarique, 2009; Maznevski & DiStefano, 2000).

Using these attributes as a guide, social learning theory helps cross-cultural developmental experiences into systems or bundles of interrelated activities based on their developmental potential. According to the participative modeling process, experiences range on a continuum from low-contact experiences that use the participative-verbal modeling approach (e.g., formal university coursework) to high-contact experiences that use participative-behavioral modeling (e.g., global assignments, global teams, studying abroad, being born into a multicultural family). Consistent with social learning theory, cross-cultural experiences with greater cross-cultural interaction or contact are related to greater cross-cultural adjustment (Caligiuri, 2000) and self-reported global leadership success (Caligiuri & Tarique, 2009).

When extended to the way in which business professionals gain global leadership competencies, the basic principles of the contact hypothesis lead to the same conclusion as social learning theory. This approach suggests that the more peer-level interaction (or contact) people have with others from a given cultural group, the more positive their attitudes will be toward the people from that cultural group (Amir, 1969). Contact theory further suggests that the experiences should offer meaningful peer-level interactions, opportunities to work together toward a common goal, and an environment that supports the interactions (Pettigrew & Tropp, 2006).

In the case of the development of global leadership competencies, the more opportunities for business leaders to interact with people from different cultures, the more likely they will be have positive attitudes toward people from different cultures (i.e., the contact hypothesis) and identify, learn, and apply diverse culturally-appropriate business behaviors (i.e., social learning theory). Taken together, we posit that multiple cross-cultural experiences will increase individuals' cross-cultural competencies (i.e., reduced ethnocentrism, increased cultural flexibility, and greater tolerance of ambiguity) and, in turn, these competencies will improve their success in global leadership activities.

There are various types of cross-cultural experiences individuals may have over the course of their lives that should shape these cross-cultural competencies. This study will examine two categories of cross-cultural experiences: (1) non-work cross-cultural experiences (2) organization-initiated cross-cultural experiences. We present both in greater detail below.

1.2.1. Non-work cross-cultural experiences

As found in a previous study by Caligiuri and Tarique (2009), developmental cross-cultural experiences may not necessarily happen in the workplace. Their study found that family diversity – being a member of a multicultural household – was related to self-ratings of performance in global leadership activities. Family diversity in their study was operationalized by whether the participant shared nationality with either, neither, or both parents. This is a particularly interesting variable to examine in light of social learning theory; children raised in households where they are modeling behaviors across multiple cultures (and often bilingual) have been shown to be more creative.

In addition to being raised in a multicultural household, individuals may self-initiate or seek out international experiences throughout their lives. Suutari and Brewster (2000) describe self-initiated cross-cultural or foreign experiences as those individually-initiated experiences in the pursuit of cultural, personal, or professional development. Non-work cross-cultural experiences include studying abroad, vacationing in foreign countries and international volunteerism. Non-work cross-cultural experiences have also been shown to be related to an accelerated professional development (Myers & Pringle, 2005).

As social learning theory and the contact hypothesis would suggest, cultural flexibility, tolerance for ambiguity, and low ethnocentrism would require the greater exposure to general and cultural specific skills/behaviors (through non-work cross-cultural experiences), and to understand which behaviors to execute or suppress in given situations (through interpersonal contacts). It can be argued that non-work cross-cultural experiences allows individuals to substitute behaviors or activities (cultural flexibility), effectively manage ambiguous and uncertain situations (tolerance of ambiguity), and minimize the tendency to view one's own culture as the only views that are correct (ethnocentrism). Collectively, these non-work cross-cultural experiences should reduce ethnocentrism and increase cultural flexibility, and greater tolerance of ambiguity. Second hypothesis is:

Hypotheses 2. Non-work cross-cultural experiences are related to dynamic cross-cultural competencies, such that these experiences are negatively related to ethnocentrism (H2a), positively related to cultural flexibility (H2b), and positively related to tolerance of ambiguity (H2c).

1.2.2. Organization-initiated cross-cultural experiences

According to Kayes et al. (2005) managers learn from cross-cultural experiences through a variety of knowledge absorption abilities, including valuing difference cultures, building relationships, listening and observing, coping with ambiguity, managing others, translating complex ideas, and taking action. Based on the social learning theory and the contact hypothesis, we can bundle organization-initiated cross-cultural activities experiences (Black & Mendenhall, 1989) into high-contact and low-contact experiences (Caligiuri & Tarique, 2009). The high-contact cross-cultural experiences that organization may initiate include international business travel with significant interaction (Oddou et al., 2000) (either international assignments or participation in international meetings), membership on global teams (Maznevski & DiStefano, 2000), in-country mentoring (Mezias & Scandura, 2005).

From a social learning perspective, individuals who participate in high contact organization-initiated cross-cultural experiences are more to retain and reproduce the learned skills and behaviors through greater opportunity. It follows that the more individuals engage in these high contact cross-cultural experiences, the more opportunity they have to practice the modeled behavior and to refine the ability to reproduce the modeled behavior at a later time in the appropriate situation (Caligiuri & Tarique, 2009).

Hypotheses 3. High contact organization-initiated cross-cultural experiences are related to dynamic cross-cultural competencies such that these experiences are negatively related to ethnocentrism (H3a), positively related to cultural flexibility (H3b), and positively related to tolerance of ambiguity (H3c).

1.3. Personality characteristics

In addition to the dysfunctional experiences, another possible reason for the mediocre results in global leadership development programs is that cross-cultural developmental experiences, on their own, might not be sufficient to increase global leadership competencies. Research suggests that certain personality characteristics are related to effectiveness of leaders working in a global environment (e.g., Caligiuri, 1997, 2000; Gupta & Govindarajan, 2002; Morrison, 2000). Central to the present study, personality characteristics have been found to be necessary for the acquisition of dynamic cross-cultural competencies (O'Sullivan, 1999).

When considering personality characteristics, five factors comprise the taxonomy for classifying stable and relatively immutable personality characteristics. This taxonomy which has been found repeatedly through factor analyses and confirmatory factor analyses across time, contexts, and cultures (Buss, 1991; Digman, 1990; Goldberg, 1990) and is labeled the "the Big Five": (1) extroversion, (2) agreeableness, (3) conscientiousness, (4) neuroticism, and (5) openness to experience or intellect (see Costa & McCrae, 1992 for more information on each factor).

Considering the way dynamic cross-cultural competencies are potentially developed through multicultural and international experiences, both openness and extraversion would predispose individuals to seek out experiences and interact with people from different cultures. These two personality characteristics have been found to be predictors of individuals' motivation to learn (Major, Turner, & Fletcher, 2006) and are correlates of transformational leadership (Judge & Bono, 2000). Neuroticism predisposes individuals to be more (or less) comfortable while engaging in these international experiences and multicultural interactions. The way in which these three characteristics will influence the development of cross-cultural leadership competencies is now described.

1.3.1. Openness to experience

Openness is the personality characteristics relating to the extent to which individuals are original, innovative, curious, and willing to take risks (Costa & McCrae, 1992). Individuals with a greater openness are more likely to engage in international experiences and multicultural opportunities because of their natural curiosity and interest in novel experiences. As social leaning theory suggests, having more international and multicultural experiences (more frequent among those high in openness) will lead to reduced ethnocentrism. Novel experiences should encourage greater receptivity to learn from different cultures. Cultural flexibility should increase among those higher in openness because they will be more likely to naturally seek out and engage in novel experiences and thus be exposed to different (or substitute) ways of doing things. Likewise, tolerance of ambiguity should be lower among those who are high in openness as these individual are certainly more comfortable in different countries and with people from different cultures.

Hypotheses 4. Openness to experience is related to dynamic cross-cultural competencies such that openness is negatively related to ethnocentrism (H4a), positively related to cultural flexibility (H4b), and positively related to tolerance of ambiguity (H4c).

1.3.2. Extraversion

Extraversion is the degree to which individuals are sociable, talkative, and seek social activities (Costa & McCrae, 1992). Following again from the social learning theory and contact hypothesis extroversion should predispose individuals to engage in cross-cultural interactions when involved in cross-cultural experiences. Extroverts have a greater natural ease with social demands and may be more willing to put forth the effort necessary to interact effectively with peers from different countries. In the training and development literature extroversion tends to be associated with a learning goal orientation (Zweig & Webster, 2004). The strong learning goal orientation aspect of extroversion might affect an individual's motivational process so that he or she maintains or even increase levels of effort (Colquitt & Simmering, 1998; Cron, Slocum, Vandewalle, & Fu, 2005) to learn and to maintain new skills and behaviors.

As the contact hypothesis suggests, those peer to peer interactions (more frequent among extraverts) will help reduce ethnocentrism as greater contact encourages greater respect. Cultural flexibility should increase among extraverts who may engage socially with people from different cultures and be exposed to different (or substitute) ways of doing things. Likewise, tolerance of ambiguity should decrease among extraverts as they are likely to have developed broader relationships among those who can provide instrumental support, thus reducing ethnocentrism.

Hypotheses 5. Extraversion is related to dynamic cross-cultural competencies such that extraversion is negatively related to ethnocentrism (H5a), positively related to cultural flexibility (H5b), and positively related to tolerance of ambiguity (H5c).

1.3.3. Neuroticism

Another stable personality characteristic related to the formation of dynamic cross-cultural competencies in neuroticism. Neuroticism is an individual's tolerance for and ability to manage potential stressful conditions, and the feelings of anxiety, insecurity, and nervousness (Herold, Davis, Fedor, & Parsons, 2002). Those higher in neuroticism individuals are likely to be more anxious, depressed, angry, emotional, worried, and insecure (Barrick & Mount, 1991). In contrast, those lower on this trait can

be characterized as calm, self-confident, and cool-minded (Barrick & Mount, 1991). In an international context, those with lower neuroticism are more likely to have the ability to manage stress and anxiety often associated with living and working in new cultural environments such as the stress related to making new friends, and to succeed professionally.

Ethnocentrism is expected to be lower and tolerance of ambiguity higher among those who are lower in neuroticism because these more stable individuals would have less anxiety with the complexities and ambiguities of foreign or multicultural environments. They would be able to embrace the situations more readily enabling themselves to learn from the novel environment and people from different cultures. Likewise, cultural flexibility should increase among those lower in neuroticism because their emotional stability will predispose them to be more confident stepping out of their comfort zone to try ways of doing things without causing undue anxiety and stress. Thus, our next hypothesis is:

Hypotheses 6. Neuroticism is related to dynamic cross-cultural competencies such that neuroticism is positively related to ethnocentrism (H6a), negatively related to cultural flexibility (H6b), and negatively related to tolerance of ambiguity (H6c).

As this study is attempting to disentangle the way in which global competencies are developed, no hypotheses are offered for the two remaining personality characteristics in the Big Five, agreeableness and conscientiousness. While agreeableness, for example, has been found to have a direct and positive relationship to adjustment (Shaffer et al., 2006) and performance of international assignees (Caligiuri, 2000; Mol, Born, Willemsen, & Van Der Molen, 2005), it is unclear whether there is a theoretical justification for its direct effect on the development of global leadership competencies covered in this study. Likewise, a direct relationship between conscientiousness and work performance has been demonstrated across a variety of professional samples (e.g., Barrick & Mount, 1991; Day & Silverman, 1989) but may not be theoretically linked to the development of cross-cultural competencies. As such, we have included agreeableness and conscientiousness in all statistical analyses on an exploratory basis and would expect a direct effect on global leadership performance.

2. Method

2.1. Research design and participants

The study was designed as a two-survey study, a Global Leader Survey (Survey 1) and a Supervisor Assessment Survey (Survey 2). Our sample included global leaders from three large multinational conglomerates. Each organization identified a group of leaders worldwide who were involved in a variety of global work activities and were categorized by the organization as "global leaders". There were 582 prospective participants identified by human resource executives across each of the three companies. These participants were invited by the human resource executive and the authors to complete an electronic an electronic (web-based) Survey 1. This survey included an that explained the goal of the study, emphasized that participation was voluntary, that their individual responses would be kept strictly confidential, and that their firm would receive an aggregate summary of the findings. Each participant was given three weeks to complete the electronic Survey 1. The respondents' responses to Survey 1 were completed electronically and sent direct to the second author. Survey 1 assessed each participant's participation in global leadership developmental experiences, personality characteristics, dynamic cross-cultural competencies, and demographics. After all participants had completed Survey 1, an electronic (web-based) Survey 2

was sent to each participant's immediate supervisor either by the authors or by the organization's HR department. On Survey 2, each supervisor provided an assessment of his or her subordinate who had participated in Survey 1. Once completed online, Survey 2 was sent directly to the second author. Survey 1 and Survey 2 were matched by a unique code for all subsequent data analyses.

Four hundred and twenty participants returned Survey 1 for a response rate of 72%. Twenty four percent of participants were female. Age groups included: 39% (41–50 years old), 31% (51–60 years old), 17% (31–40 years old), 10% (61–70 years old), 3% (21–30 years old), and 1% (71–80 years old). Eighty nine percent of the participants had a bachelor's degree or higher. The average tenure with the current organization was 15.8 years. Functional areas included: 34.5% (Production/Operations), 25.5% (Marketing/Sales), 7.4% (Research/Development), 6.7% (Planning/general Management), 5.7% (Finance/Accounting), 4.8% (Human Resources), 3.6% (Law), and 11% (others). The participants were from 41 different countries. Majority of the participants were from the U.S.A. (64%), Cuba (6%), Italy (3.5%), Austria (3%), UK (3%), the Netherlands (2.6%), Australia (2.3%), France (2.1%), Caribbean (1.6%), Kenya (1.4%), and Mexico (1.4%). Remaining participants were from Ireland, Peru, Saudi Arabia, South Africa, Tunisia, Turkey, Uganda, Albania, Argentina, Bolivia China, Denmark, Dominic, East Timor, Gabon, Iran, Israel, Ivory Coast, Korea, Kosovo, Mauritius, Norway, Portugal, Russia, and Sweden (each country had less than 1% of the total sample). With respect to supervisory data, 221 supervisors returned Survey 2 for a response rate of 43%.

2.2. Measures

2.2.1. Non-work cross-cultural experiences

Four single-item indicators assessed non-work cross-cultural experiences. Participants were asked whether they had participated in each experience, coded 1 if "yes" and 0 if "no". Cross-cultural experiences included having traveled internationally for vacation, having volunteered internationally, studying abroad, and having family diversity. With respect to family diversity, the item was measured by asking participants to report their country of birth with respect to the national backgrounds of their parents. Participants indicated their country of birth on a four-point scale: (a) born in the same country in which both your parents were born; (b) born in the same country in which your father was born, but not mother; (c) born in the same country in which your mother was born, but not father; and, (d) born in a country in which neither of your parents was born. For analyses, family diversity was coded 1 if a participant indicated choice (b), (c), or (d) and was coded 0 if the participant indicated choice (a). The result was an index with a range from 0 to 4 (0 if the person had none of the experiences to 4 if they had all of the experiences). The mean for was 1.29 (SD = 89).

2.2.2. Organization-initiated cross-cultural experiences

Four single-item indicators assessed high contact organization-initiated cross cultural experiences. Participants were asked whether they had participated in each experience during the last 12 months, coded 1 if "yes" and 0 if "no". High contact cross cultural leadership development experiences included long-term (one or more years) expatriate assignments, being a member on a global team, being mentored by a person (or people) from another culture, and participated in meetings in various international locations. The result was an index with a range from 0 to 4 (0 if the person had none of the experiences to 4 if they had all of the experiences). The mean was 2.62 (SD = 1.41).

2.2.3. The Big Five personality characteristics

Each personality characteristic was measured by a 12-item subscale of the revised NEO Personality Inventory NEO – FFI

(Costa & McCrae, 1992). Each item was scored on a 5-point Likert-type scale ranging from strongly disagree to strongly agree. The items were averaged, whereas, a high score denoted greater presence of the personality trait. For *openness to experience*, sample items include: "I often try new and foreign foods" and "Once I find the right way to do something, I stick to it." The mean for this scale was 3.46 (SD = .45), alpha coefficient was .67. For *extraversion*, sample items include: "I like to have a lot of people around me" and "I like to be where the action is." The mean of this scale was 3.90 (SD = .45), and alpha coefficient was .79. For *neuroticism*, sample items include: "I often feel inferior to others" and "Sometimes I feel completely worthless" The mean of this scale was 2.05 (SD = .50), and alpha coefficient was .80. For *agreeableness*, sample items include: "I try to be courteous to everyone whom I meet" and "I would rather cooperate with others than compete with them". The mean of this scale was 3.69 (SD = .35), and the alpha coefficient was .60. For *conscientiousness*, sample items include: "I keep my belongings neat and clean." and "I work hard to accomplish my goals." The mean of this scale was 4.19 (SD = .40), and alpha coefficient was .73.

Cultural flexibility was measured using the six items adapted from Shaffer et al. (2006). Item responses followed a 5-point Likert format, ranging from strongly disagree (1) to strongly agree (5). Sample item includes "Foreign countries have interesting and fun activities which are not common in my native country". The mean was 3.60 (SD = .45) and. and coefficient alpha was .82. The items were averaged so that a higher score denoted greater amount of cultural flexibility.

Tolerance for ambiguity was measured with four items adapted from Gupta and Govindarajan (1984). Sample item includes "The most interesting life is to live under rapidly changing conditions". For each item, the respondents were asked to indicate on a 7-point scale whether they strongly disagree (1), or strongly agree (5). The mean for this scales was 3.42 (SD = .74), and coefficient alpha was .66. The items were averaged so that a higher score denoted greater tolerance for ambiguity.

2.2.4. Ethnocentrism

Six items adapted from Shaffer et al. (2006) were used to measure ethnocentrism. Sample item includes "I like to meet foreigners and become friends (reverse scored): For each item, the respondents were asked to indicate on a 5-point scale whether they strongly disagree (1), or strongly disagreed (5). The mean for this scale was 1.90 (SD = .69) and coefficient alpha was .78. The items were averaged so that a higher score denoted greater ethnocentrism.

2.2.5. Supervisor ratings of global leadership effectiveness

Adapted from Caligiuri (2006), 8 items were used to measure effectiveness on international work activities. Supervisors rate global leaders on each item using a 5-point Likert scale ranging from 1 = not at all effective to 5 = very effective. Sample items include: "negotiating with people from other countries?" and "supervising people who are from different countries." The items were averaged to create an effectiveness score, whereas, a high score denoted greater effectiveness. The mean of this scale was 3.22 (SD = .63) and coefficient alpha was .82.

3. Results

Means, standard deviations, intercorrelations, and internal consistency reliabilities are presented in Table 1.

Because we have only 221 ratings of supervisor-rated global leadership success, we will use the reduced sample (N = 221) to test Hypotheses 1 and the full sample (N = 420) to test Hypotheses 2 through 6. Hierarchical linear regression analyses were used to examine our hypotheses in SPSS 18.0. To test Hypotheses 1, ethnocentrism, cultural flexibility, and tolerance of ambiguity were predictors of supervisor ratings of global leadership success. As shown in Model 5 of Table 3, cultural flexibility (B = .31, p < .0) and tolerance of ambiguity (B = .17, p < .05) had significantly positive effects on global leadership success. However, the effect of ethnocentrism on global leadership success was not significant (B = −.12, ns). Therefore, Hypothesis 1b and 1c were supported whereas Hypothesis 1a was not supported.

In Hypotheses 2 and 3, we proposed that non-work and organization-initiated cross-cultural experiences, respectively, are negatively related to ethnocentrism, positively related to cultural flexibility, and positively related to tolerance of ambiguity. As shown in Table 2, employees with more non-work experiences were less likely to be ethnocentric (B = −.17, p < .01), but more likely to have cultural flexibility (B = .14, p < .01) and be tolerant of ambiguity (B = .28, p < .01). Therefore, Hypothesis 2 was fully supported. Similarly, we found the positive influence of organization-initiated experiences on cultural flexibility (B = .04, p < .05) and tolerance of ambiguity (B = .06, p < .01). However, the effect of organization-initiated experiences on ethnocentrism was not significant (B = .00, ns). Hypotheses 3b and 3c were supported, but Hypothesis 3a was not supported.

Hypotheses 4 through 6 proposed that two personality characteristics (i.e., openness to experience, and extraversion) are negatively related to ethnocentrism, positively related to cultural flexibility, and positively related to tolerance of ambiguity.

Table 1
Means, standard deviations and correlations for individual-level variable.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Non-work experiences	1.29	.89	–	.29	−.11	−.01	.12	−.05	−.01	.39	−.26	.33	–
2. Organization-initiated experiences	2.62	1.40	.25	–	.04	.02	.05	−.10	−.04	.24	−.07	.21	–
3. Neuroticism	2.05	.50	−.07	.02	(.80)	.36	.03	.23	.32	.08	−.05	.00	–
4. Extraversion	3.90	.45	−.03	−.01	.33	(.79)	.13	.27	.35	.24	−.37	.19	–
5. Openness	3.46	.45	.15	.00	.06	.14	(.67)	.15	−.05	.24	−.33	.22	–
6. Agreeableness	3.69	.35	.01	−.12	.27	.30	.17	(.60)	.15	−.02	−.17	−.01	–
7. Conscientiousness	4.19	.40	.03	−.04	.30	.36	−.02	.21	(.73)	.06	−.20	.09	–
8. Tolerance of ambiguity	3.42	.74	.37	.12	.13	.23	.27	.07	.07	(.66)	−.38	.37	–
9. Ethnocentrism	1.90	.67	−.30	−.11	−.01	−.28	−.38	−.17	−.22	−.43	(.69)	−.51	–
10. Cultural flexibility	3.60	.45	.36	.23	−.01	.17	.25	.04	.17	.42	−.54	(.82)	–
11. Global leadership effectiveness	3.22	.63	−.03	−.15	.21	.17	.13	.07	.16	.28	−.27	.29	(.82)

Note: Correlations for the full sample appear above the diagonal. N = 420. All correlations larger than .10 are significant at p < .05 (two-tailed test); all larger than .13 are significant at p < .01.
Correlations for the sample with Global Leadership Success measure appear below the diagonal. N = 218. All correlations larger than .14 are significant at p < .05 (two-tailed test); all larger than .18 are significant at p < .01.
Values in parentheses are reliability coefficients.

Table 2
Effects of personality characteristics and cross-cultural experiences on dynamic cross-cultural competencies.

Variable	Ethnocentrism Model 1		Cultural flexibility Model 2		Tolerance of ambiguity Model 3	
	Estimate	SE	Estimate	SE	Estimate	SE
Non-work experiences	−.17***	.03	.14***	.02	.28***	.04
Organization-initiated experiences	.00	.02	.04**	.02	.06***	.02
Neuroticism	.14**	.06	−.05	.04	.07	.07
Extraversion	−.47***	.07	.18***	.05	.37***	.08
Openness	−.39***	.06	.17***	.05	.29***	.07
Agreeableness	−.11	.08	−.07	.06	−.19**	.09
Conscientiousness	−.22***	.08	.08*	.05	.00	.09
R^2	.29***		.19***		.26***	

Note: $N = 420$. Unstandardized coefficients are reported. Tests were two tailed.
* $p < .10$.
** $p < .05$.
*** $p < .01$.

Neuroticism is positively related to ethnocentrism, negatively related to cultural flexibility, and negatively related to tolerance of ambiguity As presented in Table 2, extraversion and openness to experience were significantly related to ethnocentrism ($B = −.47$ and $−.39$ respectively, both $p < .01$), cultural flexibility ($B = .18$ and $.19$ respectively, both $p < .01$), and tolerance of ambiguity ($B = .37$ and $.29$ respectively, both $p < .01$) in the proposed directions. Therefore, Hypotheses 4 and 5 were supported. In addition, neuroticism was positively related to ethnocentrism ($B = .14$, $p < .05$) but not significantly associated with cultural flexibility ($B = −.05$, ns) or tolerance of ambiguity ($B = .07$, ns). The results were not consistent with Hypotheses 6.

To test the overall model, we examined the mediating roles of ethnocentrism, cultural flexibility, and tolerance of ambiguity in the relationships between three personality characteristics and cross-cultural experiences and global leadership success. Because there are three mediators in the analyses, we adopted Preacher and Hayes's (2008) multiple mediation approach to examine the mediating effects of all three mediators simultaneously. Preacher and Hayes (2008) proposed two criteria for mediation test and provided an approach to calculate indirect effects with boot-strapping skills. First, we need the effects of independent variables (Xs) on mediators (Ms) to be significant. Second, the effects of Ms on dependent variable (Y) partialling out the effects of independent variables need to be significant. Although Baron and Kenny (1986) specified the significant relationships between Xs and Y as a criterion for mediation test, some authors have argued that this criterion is not necessary for mediation to occur (e.g., Kenny, Kashy, & Bolger, 1998; MacKinnon, Krull, & Lockwood, 2000; Shrout & Bolger, 2002). We did not consider the effects of X on Y as a criterion for mediation. Moreover, we used the SPSS macro command created by Preacher and Hayes (2008) to examine the significance of indirect effects through specific mediators.

As presented in Table 3, non-work cross-cultural experiences significantly related to the three mediators. The effect of ethnocentrism on global leadership success was not significant. The indirect effects of non-work cross-cultural experiences on global leadership success were only mediated by cultural flexibility and tolerance of ambiguity. As shown in Table 4, the indirect effects through cultural flexibility and tolerance of ambiguity were .05 (95% Confidence Interval (CI) = .02: .11) and .05 (95% CI = .01: .10) respectively. Similarly, we found that indirect effects of extraversion and openness to experience were also mediated by cultural flexibility (indirect effect = .05, 95% CI = .00: .14 for extraversion; indirect effect = .07, 95% CI = .02: .15 for openness to experience) and tolerance of ambiguity (indirect effect = .05, 95% CI = .01: .12 for extraversion; indirect effect = .05, 95% CI = .01: .12 for openness to experience). In addition, we found

Table 3
Regression analyses on global leadership success.

Variable	Ethnocentrism Model 1		Cultural flexibility Model 2		Tolerance of ambiguity Model 3		Global leadership success Model 4		Model 5	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Non-work experiences	−.19***	.05	.17***	.04	.29***	.05	.00	.05	−.12**	.05
Organization-initiated experiences	−.03	.03	.06***	.02	.01	.03	−.07**	.03	−.09***	.03
Neuroticism	.19**	.09	−.09	.07	.14	.09	.20**	.09	.23***	.09
Extraversion	−.32***	.10	.15**	.07	.31***	.10	.11	.10	−.03	.10
Openness	−.47***	.09	.21***	.07	.28***	.09	.16*	.09	.00	.09
Agreeableness	−.13	.13	−.04	.10	−.10	.14	−.09	.13	−.08	.12
Conscientiousness	−.32***	.12	.20**	.09	−.06	.12	.14	.12	.05	.11
Ethnocentrism									−.12	.07
Cultural flexibility									.31***	.10
Tolerance of ambiguity									.17**	.07
R^2	.31***		.24***		.24***		.10***		.23***	
R^2 change									.13***	

Note: $N = 218$. Unstandardized coefficients are reported. Tests were two tailed.
* $p < .10$.
** $p < .05$.
*** $p < .01$.

Table 4
Indirect effects of independent variables on global leadership success through proposed mediators.

Variable	Indirect effect through ethnocentrism	Indirect effect through cultural flexibility	Indirect effect through tolerance of ambiguity	Total indirect effect
Non-work experiences	.02 (−.01: .07)	.05 (.02: .11)	.05 (.01: .10)	.12 (.06: .21)
Organization-initiated Experiences	.00 (−.00: .02)	.02 (.00: .05)	.00 (−.01: .02)	. 02 (−.00: .06)
Neuroticism	.02 (−.01: .09)	.03 (−.01: .12)	−.02 (−.07: .00)	.03 (−.06: .12)
Extraversion	.04 (−.01: .11)	.05 (.00: .14)	.05 (.01: .12)	.13 (.04: .25)
Openness	.05 (−.02: .15)	.07 (.02: .15)	. 05 (.01: .12)	.17 (.07: .30)

Note: N = 218. Indirect effects were calculated according to Preacher and Hayes (2008). Values in parentheses are 95% confidence intervals for indirect effects. Indirect effects were significant when zero was not contained in the confidence intervals.

that the indirect effect of organization-initiated cross culture experiences was only mediated by cultural flexibility (indirect effect = .02, 95% CI = .00: .05). Moreover, because neuroticism was not significantly related to cultural flexibility and tolerance of ambiguity, which did not meet the first criterion, therefore there was no indirect effect of neuroticism on global leadership success.

4. Discussion

Suutari (2002) reported that research on global leadership development is still scarce and future research should focus on the various ways to develop global leaders. Following this recommendation, we believe this present study contributes to the research and practice of global leadership development in several ways. Applying the social learning theory (Bandura, 1977) and the contact hypothesis (Allport, 1954), this study builds on Morrison's (2000) and Suutari's (2002) suggestions to examine the *process* for developing global leaders and by determining the type of individuals who benefit most from participation in global leadership developmental experiences.

Prior empirical evidence has shown that while international development initiatives seem to be effective in positively changing proximal measures of effectiveness such as knowledge and skills, the impact on distal measures of effectiveness such as dynamic competencies and job performance is not clear (see Mendenhall et al., 2004). To the best of our knowledge, this study is one of the first to demonstrate how high-contact cross-cultural experiences can influence dynamic global leadership competencies and global leadership effectiveness.

The finding that dynamic cross-cultural competencies are related to global leadership effectiveness contributes to the global leadership development research in several ways. This finding highlights the importance of dynamic cross-cultural competencies in predicting global leadership effectiveness. To be effective, global leaders need high levels of both cultural flexibility and tolerance of ambiguity, and low levels of ethnocentrism required in jobs with complex international and multicultural responsibilities. In other words, dynamic cross-cultural competencies are drivers of job performance among global leaders. This finding also supports research that has theorized the importance dynamic cross-cultural competencies in improving global leadership effectiveness. These finding show that individuals with dynamic cross-cultural competencies are able to meet the challenges of working in a complex global environment. They are more likely to meet others' needs and expectations and the higher the likelihood of responding effectively to global challenges.

Non-work cross-cultural experiences are related to dynamic cross cultural competencies. To the best of our knowledge this is one of the first studies to examine non-work cross-cultural experiences among global leaders. Similar to international work experiences, prior non-work international experiences allow individuals to learn competencies important for living and working in different cultural contexts. These international experiences,

even in the non-work context, have an impact on individual employees' attitudes and behaviors (Takeuchi, Tesluk, Yun, & Lepak, 2005) that can affect the development of global leadership competence. This finding also provides support to the conceptual models that suggest non-international experiences to be effective in developing cross-cultural competence (e.g., Tarique & Takeuchi, 2008). Our results also extend this stream of research by showing that different facets of non-work cross-cultural experience are important variables influencing dynamic cross-cultural competencies.

The finding that high contact organization-initiated cross-cultural experiences are positively related to cultural flexibility and tolerance of ambiguity. This supports prior conceptual and empirical research that suggests that high contact or experiential developmental experiences are effective in bringing about cognitive and behavioral changes required to develop dynamic cross-cultural competencies. Participation in high-contact or experiential developmental experiences provides individuals with greater opportunity to improve their ability to learn and reproduce appropriate behaviors. This finding also highlights the importance of "overlearning". Greater participation in high contact developmental experiences allows the individual to over-learn the appropriate skills and behaviors so to better retain these competencies over time. In addition, this finding emphasizes the need to take a systems approach to fully understand the impact of several high contact organization-initiated cross-cultural experiences on dynamic cross-cultural competencies. Training and development literature has shown that there are several types of high contact organization-initiated cross-cultural experiences and it cannot be simply assumed that what is true of one type of developmental experience will also hold for other types. Finally, this finding provides support to the contact hypothesis and social learning theory as viable theoretical frameworks for explaining how interpersonal interactions may influence the retention and reproduction component of social learning process in the context of organization-initiated cross-cultural experiences.

The result showed that extroversion and openness to experience were significant related to dynamic cross-cultural competencies. As contact hypothesis suggests, extroversion allows for the retention and reproduction of learned skills and behaviors. Extroverts have the need to engage in social activities and a strong learning orientation, which affect interpersonal interactions in ways that are important to retain and reproduce learned skills and behaviors. Similarly, individuals high on openness to experience are more likely to retain and reproduce learned skills and behaviors. Openness to experience allows individuals to seek new experiences and learn about new cultures from other people. These two attributes of openness to experience facilitate interpersonal interactions in ways that are important to retain and reproduce learned skills and behaviors. The result also highlights the importance of examining how openness to experience and extroversion affects individuals in learning environments.

Finally, the study found that in the full model two dynamic cross-cultural competencies (cultural flexibility and tolerance of ambiguity) mediated the influence of developmental experiences and personality characteristics on supervisor-rated global leadership effectiveness. This finding provides interesting insight into the mechanism or the process through which developmental experiences and personality relate to global leadership effectiveness. That is, it is important to view dynamic cross-cultural competencies as possible mediators between developmental experiences and personality characteristics and effectiveness in global work activities. In addition this finding focuses on the "black-box" between developmental experiences and performance outcomes (as most of the prior studies that examined the criterion side of developmental activities have assumed a direct relationship between developmental experiences and learning and performance outcomes). Our finding attempts to open the black box between developmental experiences and learning and performance outcomes by considering mechanisms (e.g., dynamic cross-cultural competencies) through which developmental experiences affect work performance among global leaders. Our findings have identified a measurable link between developmental experiences and work performance. We have extended the global leadership development literature by providing support to the contact hypothesis and social learning theory as viable theoretical frameworks for explaining this black-box of global leadership development.

Overall, our finding suggests, in both personal or professional lives, significant intercultural experiences enable us to learn the nuances of behavior that are expected in another culture compared to our own – helping us to understand our own cultural values and assumptions. When we become sensitive to these characteristics of ourselves, as well as to the norms of behavior in another culture, we begin to develop the intercultural competencies so very important for success in global leadership activities.

4.1. Limitations and future research

As with all research studies, this study is not without limitations. The sample of global leaders is largely from the U.S. (64%). It is possible that the influence of organization-initiated experiences, non-work cross-cultural experiences, and personality on work performance may vary with the nationality of the leaders. For example, individuals from some smaller countries (e.g., the Netherlands) may have more opportunities for cross-cultural experiences given the possible ease with which they could interact with people from other cultures and the probability that more of their market is located outside their home country. In this context, the effect of the organization-initiated experiences may be lower, suggesting a cumulative approach. To improve generalizability of our findings, we encourage future studies to examine the hypotheses and model proposed in this study with samples of global leaders from different countries with varying levels of potential for cross-border contact.

Another limitation of the study was that we focused only on one type of effectiveness (individual work performance). There are many types of criteria such as organizational commitment, interpersonal effectiveness, and decision-making. To expand the field of global leadership development, future research should examine the influence of high contact developmental experiences and personality traits on various measures of global leadership effectiveness.

Despite the above limitations, this study does represent an avenue for future research and provides several interesting research areas for future theorizing and empirical investigation, extending this line of research. We suggest three specific areas for future research. First, research needs to examine the optimal level of participation in organization-initiated cross-cultural experiences. As this study suggests, global leaders should be encouraged and motivated to over-learn and to participate in numerous high contact organization-initiated cross-cultural experiences. However, the emotional, financial, and human costs of such an approach are high. Future research is needed to determine the optimal amount of experiential opportunity, with an eye toward helping organizations make better decisions on the way to best craft their global leadership development programs.

Another area for future research is to examine how contextual factors, such as work environment characteristics and organizational environment characteristics, affect the relationship between organization-initiated cross-cultural experiences and global leadership effectiveness. For example, factors in an individual's work environment may moderate the relationship between organization-initiated cross-cultural experiences and global leadership effectiveness in global work activities. One factor discussed extensively in the domestic employee development literature is the extent to which the individual is given the opportunity to use the learned competencies (cf. Ford, Quinones, Sego, & Sorra, 1992). The general consensus in the domestic employee development literature is that individuals who are given more opportunities to use the learned competencies are more likely to maintain their learning than individuals given few opportunities. Therefore, it is important for future research to identify factors in the global leader's work environment that would provide the leader with the opportunity to use the learned competencies.

A closely related area for future research is to explore further the non-work cross-cultural experiences. As noted by Caligiuri and Tarique (2009), it is possible that intercultural experiences that help develop dynamic cross-cultural competencies may not necessarily need to happen in the workplace—they can occur in non-work environments or may have occurred in childhood or young adulthood, as a result of being a member of a multicultural household. This area is ripe for future research and scholars should look deeper into different facets of non-work cross-cultural experiences. One area that can provide interesting insight is early international experiences or experiences gained from living outside the country of one's citizenship as a child (Cottrell & Useem, 1993). This form of international experience has been extensively discussed in the "third country kids" (TCK) literature (e.g., Selmer & Lam, 2004). Future researchers can borrow some of the insights from the TCK literature to examine how early international experience can be used to develop dynamic cross-cultural competencies.

4.2. Managerial relevance

The global economy has given rise to an ever-increasing need for business leaders who operate effectively in different countries. This study suggests that building a pipeline of global leaders will require a team effort from human resource professionals within global organizations. Corporate recruiters and staffing professionals should attract and select new associates who have the predisposing characteristics (i.e., those with extraversion and openness) and those who have had non-work high-contact cross-cultural experiences (e.g., international volunteerism, study abroad). Once in the organization, leadership development professionals in conjunction with global mobility professionals, when needed, should craft experiences with more developmental properties (i.e., those that are high-contact).

Taken together, global leadership development programs should identify those individuals with the requisite individual characteristics (e.g., personality) and offer high-contact cross-cultural experiences to those identified. As this study suggest, these human talent management practices could improve

organizations' chances for having global leaders who understand the cultural norms and are able to operate effectively across a variety of contexts. Collectively, the improved cross-cultural competence of business leaders should lead to better performance and greater competitiveness for their organizations.

4.3. Conclusion

The results of this study should be interesting for scholars and practitioners alike who are interested in the competencies needed to be successful in a global environment and, more importantly, how they are gained. As this study illustrated a combined effect of work and non-work experiences, this study should help lend greater weight to the international experiences gained outside of the traditional organizational setting. This study also adds to the body of literature shedding light on the importance of individual personality characteristics. We join the many scholars who are encouraging firms to use a combination of selection and well-designed developmental experiences to build the pipeline of future global leaders critical for the competitiveness of organizations going forward.

Acknowledgement

References

Allport, G. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
American Management Association. (2010). *Developing successful global leaders: A global study of challenges and opportunities*. NY: American Management Association.
Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71*: 319–342.
Arthur, W., Jr., & Bennett, W., Jr. (1995). The international assignee: The relative importance of factors perceived to contribute to success. *Personnel Psychology, 48*: 99–114.
Bandura, A. (1977). *Social learning theory*. NJ: Prentice Hall.
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.
Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance. *Personnel Psychology, 44*: 1–26.
Beechler, S., & Javidan, M. (2007). Leading with a global mindset. In M. Javidan, M. A. Hitt, & R. M. Steers (Eds.), *Advances in international management: The global mindset*. Oxford: Elsevier/JAI Press.
Bizumic, B., Duckitt, J., Popadic, D., Dru, V., & Krauss, S. (2009). A cross-cultural investigation into a reconceptualization of ethnocentrism. *European Journal of Social Psychology, 39*: 871–899.
Black, S. (1990). The relationship of personal characteristics with the adjustment of Japanese. *Management International Review, 30*: 119–134.
Black, S., & Mendenhall, E. (1989). A practical but theory based framework for selecting cross-cultural training methods. *Academy of Management Review, 15*: 113–136.
Buss, D. (1991). Evolutionary personality psychology. In M. Rosenzweig & L. Porter (Eds.), *Annual review of psychology*. CA: Annual Reviews Inc.
Caligiuri, P. M. (1997). Assessing expatriate success: Beyond just "being there". In Aycan, Z. (Ed.). *Expatriate Management: Theory and Practice* (Vol. 4). Greenwich, CT: JAI Press.
Caligiuri, P. (2000). Selecting expatriates for personality characteristics: A moderating effect of personality on the relationship between host national contact and cross-cultural adjustment. *Management International Review, 40*: 61–81.
Caligiuri, P. (2006). Developing global leaders. *Human Resource Management Review, 16*: 219–228.
Caligiuri, P., & Di Santo, V. (2001). Global competence: What is it and can it be developed through global assignments? *Human Resource Planning Journal, 24*: 27–35.
Caligiuri, P., & Tarique, I. (2009). Predicting effectiveness in global leadership activities. *Journal of World Business, 44*: 336–346.
Church, A. (1982). Sojourner adjustment. *Psychological Bulletin, 9*: 540–572.
Colquitt, J., & Simmering, M. J. (1998). Conscientiousness, goal orientation, and motivation to learn during the learning process: A longitudinal study. *Journal of Applied Psychology, 85*: 678–707.
Cottrell, A., & Useem, R. (1993, September). Article 3. TCKs experience prolonged adolescence [Electronic version]. NewsLinks – the newspaper of International Schools Services, XIII, No. 1. Retrieved August 12, 2004, from http://www.tckworld.com/useem/art3.html

Costa, P., & McCrae, R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment, 4*: 5–13.
Cron, W. L., Slocum, J. W., Jr., Vandewalle, D., & Fu, Q. (2005). The role of goal orientation on negative emotions and goal setting when initial performance falls short of one' performance goal. *Human Performance, 18*: 55–80.
Day, D. V., & Silverman, S. B. (1989). Personality and job performance: Evidence of incremental validity. *Personnel Psychology, 42*: 25–36.
Dickmann, M., & Doherty, N. (2010). Exploring organizational and individual career goals, interactions, and outcomes of developmental international assignments. *Thunderbird International Business Review, 52*: 313–324.
Digman, J. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology, 41*: 417–440.
Evans, P., Pucik, V., & Barsoux, J. (2002). *The global challenge: Frameworks for international human resource management*. MA: McGraw-Hill.
Ford, J., Quinones, M., Sego, D., & Sorra, J. (1992). Factors affecting the opportunity to perform trained tasks on the job. *Personnel Psychology, 45*: 511–526.
Goldberg, L. R. (1990). An alternative 'description of personality': The big five structure. *Journal of Personality and Social Psychology, 59*: 1216–1219.
Gupta, A., & Govindarajan, V. (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal, 27*: 25–41.
Gupta, A., & Govindarajan, V. (2002). Cultivating a global mindset. *The Academy of Management Executive, 16*: 116–126.
Herold, D., Davis, W., Fedor, D., & Parsons, C. (2002). Dispositional influences on transfer of learning in multistate training programs. *Personnel Psychology, 55*: 851–870.
IBM. (2010). Global CHRO Study, *Working beyond Borders*. ibm.com/workingbeyond-borders.
Judge, T. A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology, 85*: 751–765.
Judge, T., Thoresen, C., Pucik, V., & Welbourne, T. (1999). Managerial coping with organizational change: A dispositional perspective. *Journal of Applied Psychology, 84*: 107–122.
Kayes, D. C., Kayes, A. B., & Yamazaki, Y. (2005). Essential competencies for cross-cultural knowledge absorption. *Journal of Managerial Psychology, 20*: 578–589.
Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed.). New York: McGraw-Hill.
Kreng, V. B., & Huang, M. (2009). A discussion on international assignments performance and the constructing mechanism of career success development. *The International Journal of Human Resource Management, 20*: 1487–1502.
MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding, and suppression effect. *Prevention Science, 1*: 173–181.
Major, D. A., Turner, J. E., & Fletcher, T. D. (2006). Linking proactive personality and the Big Five to motivation to lean and development activity. *Journal of Applied Psychology, 91*: 927–935.
Maznevski, M. L., & DiStefano, J. J. (2000). Global leaders are team players: Developing global leaders through membership on global teams. *Human Resource Management, 39*: 195–208.
Mendenhall, M., & Oddou, G. (1985). The dimensions of expatriate acculturation: A review. *Academy of Management Review, 10*: 39–47.
Mendenhall, M., Stahl, G., Ehnert, I., Oddou, G., Kuhlmann, T., & Osland, J. (2004). Evaluation studies of cross-cultural training programs: A review of the literature from 1988-2000. In D. Landis & J. Bennett (Eds.), *The Handbook of Intercultural Training* (pp. 129–144). CA: Sage.
Mendenhall, M. E., & Stahl, G. K. (2000). Expatriate training and development: Where do we go from here? *Human Resource Management, 39*: 251–265.
Mezias, J. M., & Scandura, T. A. (2005). A needs-driven approach to expatriate adjustment and career development: A multiple mentoring perspective. *Journal of International Business Studies, 36*: 519–538.
Mol, S. T., Born, M. P., Willemsen, M. E., & Van Der Molen, H. T. (2005). Predicting expatriate job performance for selection purposes: A quantitative review. *Journal of Cross-Cultural Psychology, 36*: 590–620.
Morrison, A. (2000). Developing a global leadership model. *Human Resource Management, 39*: 117–131.
Myers, B., & Pringle, J. (2005). Self-initiated foreign experience as accelerated development: Influences of gender. *Journal of World Business, 40*: 421–431.
Oddou, G., Mendenhall, M. E., & Ritchie, J. B. (2000). Leveraging travel as a tool for global leadership development. *Human Resource Management, 39*: 159–172.
O'Sullivan, L. (1999). The distinction between stable and dynamic cross-cultural competencies: Implications for expatriate trainability. *Journal of International Business Studies, 30*: 709–725.
Pettigrew, & Tropp, T. F. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*(5): 751–783.
Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*: 879–891.
PriceWaterhouseCoopers's Annual Global CEO Survey. (2011). *Growth reimagined: Prospects in emerging markets drive CEO confidence*. PriceWaterhouseCoopers.
Selmer, J., & Lam, H. (2004). "Third-culture kids" future business expatriates? *Personnel Review, 33*: 430–446.
Shaffer, M., Harrison, D., Gregersen, H., & Black, S. (2006). You can take it with you: Individual differences and expatriate effectiveness. *Journal of Applied Psychology, 91*: 109–125.

Sherrill, W. (2005). Tolerance of ambiguity among MD/MBA students: Implications for management potential. *The Journal of Continuing Education in the Health Professions, 21*: 117–122.

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*: 422–445.

Suutari, V. (2002). Global leader development: An emerging research agenda. *Career Development International, 7*: 218–233.

Suutari, V., & Brewster, C. (2000). Making your own way: Self-Initiated foreign assignments in contrast to organizational expatriation. *Journal of World Business, 35*: 417–436.

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

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

Thomas, K. (1996). Psychological privilege and ethnocentrism as barriers to cross-cultural adjustment and effective intercultural interactions. *Leadership Quarterly, 7*: 215–228.

Yan, A., Guorong, Z., & Hall, D. T. (2002). International assignments for career building: A model of agency relationships and psychological contracts. *Academy of Management Review, 27*: 373–391.

Zweig, D., & Webster, J. (2004). What are we measuring? An examination of the relationships between the big-five personality traits, goal orientation, and performance intentions. *Personality and Individual Differences, 36*: 1693–1708.