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Development of Cross-Cultural Psychological Capital and Its Relationship With Cultural Intelligence and Ethnocentrism

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Abstract

As a key construct in the field of positive organizational behavior, positive psychological capital (or PsyCap) has been well established in the work domain. In the current study, the applicability of PsyCap was extended into the domain of cross-cultural interactions and was tested via a training intervention in the United States (n = 130) and South Africa (n = 71). Psychological resource training targeting the underlying components of hope, efficacy, resilience, and optimism resulted in significant gains in cross-cultural PsyCap, cultural intelligence, and positive emotions as well as decreases in ethnocentrism. In the South African sample, gains in PsyCap and cultural intelligence were maintained one month following training. Results are discussed within the context of psychological resource training for employees working in a diverse environment. This intervention study extends and applies PsyCap into the domain of cross-cultural development and management.

Keywords

cross-cultural, psychological capital, PsyCap, cultural intelligence, ethnocentrism, emotions, training

In recent years, there has been a shift in the field of psychology to move away from a negative or deficiency focus toward an emphasis on optimal human functioning. Instead of focusing on dysfunctional or problematic behavior, researchers in this relatively new research paradigm—referred to as positive psychology—scientifically investigate positive subjective experience, positive individual traits, and positive institutions (Seligman & Csikszentmihalyi, 2000). The positive institution pillar of positive psychology includes positive organizational psychology, behavior, and scholarship. Positive organizational behavior (POB), specifically, refers to "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (F. Luthans, 2002, p. 59).

A multidimensional construct that meets these POB criteria and has received a significant amount of research attention and support (Avey, Reichard, Luthans, & Mhatre, 2011; Donaldson & Dollwet, 2013; Donaldson & Ko, 2010) is positive psychological capital (PsyCap). PsyCap refers to an individual's positive psychological state of development (F. Luthans, Youssef, & Avolio, 2007) and consists of four psychological resources, namely, efficacy, hope, optimism, and resilience. When occurring together these psychological resources act synergistically to enhance human functioning in many different areas of life such as health, relationships, and work, which have been identified as starting points for the application of positivity and PsyCap (Youssef-Morgan & Luthans, 2013).

Of the life areas of health, relationships, and work, the majority of PsyCap research to date has been situated in the work domain resulting in strong empirical support for the importance of this higher order construct (F. Luthans, Youssef, et al., 2007). Specifically, empirical findings suggest that workplace PsyCap plays an important role in increasing job satisfaction, job performance, organizational commitment, engagement at work, and organizational citizenship behaviors (e.g., Avey, Wernsing, & Luthans, 2008; Larson & Luthans, 2006; F. Luthans, Avolio, Avey, & Norman, 2007; F. Luthans, Norman, Avolio, & Avey, 2008). Furthermore, workplace PsyCap has been found to help reduce negative work-related behaviors and attitudes such as turnover intentions, absenteeism, stress, and workplace deviance (Avey et al., 2008; Avey, Luthans, & Jensen,

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2009). A recent meta-analysis by Avey, Reichard, et al. (2011) of 51 studies on workplace PsyCap demonstrates the cumulative support for the positive relationship of PsyCap with a variety of different work-related behaviors, attitudes, and performance. Moreover, PsyCap is conceptualized as state like (versus trait like; F. Luthans & Youssef, 2007), making it context dependent and developable through targeted skill building (F. Luthans, Avey, Avolio, Norman, Combs, 2006; F. Luthans, Avey, & Patera, 2008).

As noted, the relevance of PsyCap has been argued to extend beyond the workplace to additional domains of life such as health and relationships (e.g., F. Luthans, Youssef, Sweetman, & Harms, 2013; Youssef-Morgan & Luthans, 2013); and in the current study, we examine an aspect of the relationship domain of PsyCap. Specifically, we focus on PsyCap anchored in the context of cross-cultural interactions (Dollwet & Reichard, in press). Aligned with Youssef and Luthans (2012), we argue that the relevance of PsyCap applies to cross-cultural leadership skills that are becoming increasingly important in today's global economy. We focus on PsyCap anchored in cross-cultural *interactions* because such interactions are particularly important due to globalization and increasing diversity within home countries. In fact, Bird (2013) identified cross-cultural relationship skills as an important competency for global leaders. This is true not only in the United States, where more than 33.5 million immigrants and growing currently reside (Nieman, 2006), but also in countries like South Africa, where great diversity is acknowledged in the label "rainbow nation." In addition to knowledge of different cultures (i.e., cognitive cultural intelligence), such increasing diversity requires that employees have generalizable psychological skills that allow them to interact fluidly with many cultural groups and multiethnic workers.

Initial work on applying generalizable psychological resources to the cross-cultural context has begun in recent years (Dollwet & Reichard, in press; Javidan & Teagarden, 2011). For example, Javidan and Teagarden (2011) define a scale to capture "global mind-set" as a key capability in effective global leaders, with PsyCap being one component in addition to intellectual and social capital. In fact, Clapp-Smith, Luthans, and Avolio (2007) theorized that PsyCap was a mediator of the relationship between cognitive complexity and cultural intelligence in the context of cultural trigger events. In a similar but unique vein, Dollwet and Reichard (in press) developed and validated a measure of cross-cultural PsyCap. What is unique about the latter is that the anchor of PsyCap in Dollwet and Reichard's work is cross-cultural *interactions* specifically, whereas the anchor of PsyCap in the Javidan's global mind-set work is traversing cultures and countries and includes the components of "passion for diversity, quest for adventure, and self-assurance" (Javidan, Hough, & Bullough, 2013). Because of the importance of effective interactions across cultures both abroad *and* within one's diverse home country, we rely on Dollwet and Reichard's work as it is broader in nature and aligns with the state-like PsyCap components of efficacy, hope, optimism, and resilience.

Building on these initial advances, we seek to add to the empirical literature on cross-cultural skills by emphasizing a positive, strengths-based perspective and by focusing on generalizable psychological resources that enable employees to effectively interact across cultures. As such, in this study we take into account initial work that has been done in this area (e.g., Javidan & Teagarden, 2011) and continue to build on it by narrowing in on the influence and developable nature of PsyCap in building psychological resources necessary to engage and succeed in cross-cultural interactions. Thus, the purpose of this article is to further extend the construct of PsyCap to the domain of cross-cultural interactions—which we refer to as cross-cultural PsyCap (Dollwet & Reichard, in press)—and test a training model to increase cross-cultural PsyCap and cultural intelligence and decrease ethnocentrism.

Cross-Cultural PsyCap

In this section, we discuss each PsyCap component as it relates to the domain of cross-cultural interactions and provide a foundation for the intervention components as elaborated on in the method section. Despite the fact that prior research has addressed each of the components individually, limited extant research has considered efficacy, hope, optimism, and resiliency as a higher order construct emphasizing cross-cultural interactions.

Cross-Cultural Self-Efficacy. The first dimension of cross-cultural PsyCap—efficacy—refers to individuals' belief in their ability to achieve a particular task (Bandura, 1997), in this case to succeed in their cross-cultural interactions. According to Bandura (1997), efficacy is domain-specific, variable, based on practice or mastery, can be influenced by others, can be developed, and involves several self-regulated cognitive processes (i.e., symbolizing, forethought, observational cognitive processing, and self-reflective processing). Perhaps most important, efficacy is related to a variety of desirable work outcomes, including job performance (Stajkovic & Luthans, 1998). Cross-cultural efficacy, more specifically, has been found to be an important resource when working across cultures and in diverse settings (e.g., F. Luthans, Zhu, & Avolio, 2006). For example, high levels of efficacy affect the willingness of expatriates to learn new ways of thinking and behaving in a host country (Black & Mendenhall, 1991). In addition, it has been found to contribute to an employee's motivation to understand and adapt to a new environment (Earley & Ang, 2003).

Cross-Cultural Hope. Hope, the second component of cross-cultural PsyCap, refers to a cognitive and motivational state which enables people to set realistic goals that are attained through self-directed behavior (agency or "will") and the capability of generating alternatives to reach those goals when encountering barriers (multiple pathways to goals or "way"; Snyder, Irving, & Anderson, 1991). Employees with high cross-cultural hope are likely to pursue and achieve goals related to working with people from different cultures and have the ability to think of many ways around challenging cross-cultural interactions. For example, a Black Xhosa-speaking South African must have both the determination to identify and achieve his or her goal of successfully interacting with his or her Indian South African neighbor (i.e., agency or the "will") as well as the creation of alternative strategies to replace those that may have been blocked in the process of doing so (i.e., pathways or the "way").

Prior research indicates that hope significantly relates to a number of positive workplace outcomes (Reichard, Avey, Lopez, & Dollwet, 2013), which may also be important for cross-cultural interactions. For example, hope positively relates to self-awareness and self-knowledge, which enables individuals to lead more authentically (Avolio & Luthans, 2006). As such, individuals high in cross-cultural hope may be more aware of their own cultural assumptions and knowledge, thereby allowing them to build stronger and more transparent relationships with others as well as identify strategies (pathways) to learn from different cultures. Furthermore, hope increases autonomy, independent thinking, and resourcefulness (F. Luthans, Youssef, et al., 2007), which are important for success in a multicultural work environment. Other studies (e.g., F. Luthans, Avolio, Walumbwa, & Li, 2005; S. J. Peterson & Byron, 2008; Youssef & Luthans, 2007) demonstrate that hope is related to performance (both self-rated and supervisor-rated), job satisfaction, work happiness, and organizational commitment. These positive outcomes are particularly relevant for employees working across cultures as they frequently have to make decisions based on insufficient information, as well as find and make use of available resources (Lobel, 1990). Particularly when working in a different culture with potential language barriers and norm differences, it can be assumed that people often need to interact with limited information or knowledge about the other culture. Finally, hope is proposed to be an important psychological resource that enhances performance when working across cultures. Cross-cultural experiences can surface an employee's narrow way of thinking, cultural bias, and lack of sense-making ability in a cultural setting. Hope can help put this newfound awareness into action through agency and pathways (Clapp-Smith et al., 2007).

Cross-Cultural Optimism. The third component of cross-cultural PsyCap is optimism. Optimism refers to the expectancy of positive outcomes in that an individual generally tends to expect the best when interacting across cultures (Scheier & Carver, 1992). Optimistic individuals put forth continuous effort to attain their goals, even when confronted with difficulties (C. Peterson, 2000), which often characterize cross-cultural interactions.

Optimism has been found to relate to self-awareness and effective leadership (Avolio & Luthans, 2006). Specifically, an optimistic explanatory style provides employees with the motivation and support to realize long-term success because they retain positive expectations about future cross-cultural interactions, despite current setbacks (F. Luthans, Youssef, et al., 2007). Optimism is especially important for cross-cultural interactions (Jokinen, 2005) because it relates to employees' ability to handle ambiguity/uncertainty, take risks, and learn from mistakes (Rhinesmith, 1996). Furthermore, optimistic employees are more likely to attribute failed cross-cultural interactions to external events and seek new ways/strategies to be successful in subsequent interactions. Thus, optimism is a valuable psychological resource for employees to remain motivated during cross-cultural interactions, which are frequently characterized by ambiguities and obstacles (Risberg, 1997).

Cross-Cultural Resilience. Finally, cross-cultural interactions may result in negative outcomes (e.g., adversity, conflict, and failure) or positive outcomes (e.g., great friendships and increased responsibility). Resilience refers to the capacity to bounce back from such negative or even positive events (Masten, 2001) and results from the cumulative interaction of the possession of individual assets (e.g., relationships, social skills, initiative) and the frequency of and exposure to risk factors (e.g., destructive experiences, stress). This adaptive capacity gives individuals the psychological resources needed to overcome stressful events in a variety of different settings, including those resulting from cross-cultural interactions. As being part of the overall PsyCap construct, resilience is context dependent and can be applied to cross-cultural settings. Thus, employees high in cross-cultural resilience may be able to perform well when working with people of other cultures even when facing difficulties or culture shock due to language barriers, cultural novelty, or cross-cultural conflict (Bird, 2013; Bird & Stevens, 2013). Studies that support this assumption have found that resilience can increase performance as it promotes proactive learning—even in times of hardship (F. Luthans, Youssef, et al., 2007), which may often characterize cross-cultural interactions.

The challenge underlying a cross-cultural interaction is rooted in its novelty. Of importance, resilience can help people adapt to novel situations (Masten & Reed, 2002), and this benefit makes resilience a valuable psychological resource in cross-cultural interactions. F. Luthans, Youssef, et al. (2007) describe how resilience can enhance coping and adaptive capabilities, leading to flourishing outside of

typical comfort zones. Resilience may also support greater cultural intelligence by helping employees to cope with uncertainty and exhibit broadened thinking (Clapp-Smith et al., 2007).

The interactive effects of the four PsyCap components speak to the collective potency of the aforementioned psychological resources for successfully navigating cross-cultural interactions. For example, efficacious, optimistic employees are likely to develop multiple strategies/pathways (demonstrating high hope) toward cross-cultural interactions, which increase the likelihood of success. In addition, such confidence, optimism, and hope (demonstrated via their multiple strategies) are likely to result in a greater ability to bounce back when experiencing setbacks when working across cultures (i.e., high resilience). A positive explanatory style (which is a component of optimism) may increase resilience, as the attribution of negative outcomes to external events leads to a greater ability to bounce back quicker (Clapp-Smith et al., 2007). Taken together, PsyCap anchored in cross-cultural interactions is an important, state-like characteristic for effectively working across cultures. Next, we discuss the development of cross-cultural PsyCap.

Developing Cross-Cultural PsyCap

To avoid the high failure rate in international assignments and improve cross-cultural interactions within organizations at home, the vast majority of U.S. and European companies have responded by providing cross-cultural training (Bennett, Aston, & Colquhoun, 2000). There is supporting evidence of the effectiveness of cross-cultural training in improving the performance of employees who work across cultures (Caligiuri, Phillips, Lazarova, Tarique, & Bürgi, 2001). This training facilitates effective cross-cultural interactions, resulting in higher levels of cultural adjustment and expatriate success (Deshpande & Viswesvaran, 1992). Considering the importance of cross-cultural training, it seems imperative for organizations to know if training plays a significant role in cross-cultural attitudes and behaviors, and which training strategies are effective.

Cross-cultural training typically includes two broad sets of activities (Kealey & Protheroe, 1996). The first fulfills the purpose of information giving and is more cognitive and intellectual in nature (e.g., knowledge about a target culture). It includes practical information about living conditions, political climate, and social structures of other cultures, thus primarily providing concrete knowledge about cultural norms, practices, and beliefs (i.e., cognitive cultural intelligence). This is useful as it shortens the adjustment period and provides vital information on the cultural context. Yet Kealey and Protheroe (1996) maintain, and we agree, that merely equipping leaders with knowledge (i.e., cognitive cultural intelligence) about other cultures will not ensure success.

Thus, a second set of activities including a broad set of intercultural skills such as adaptation, cross-cultural communication, and partnership skills is essential for cross-cultural training to be effective. However, according to Kealey and Protheroe (1996), this type of generalizable psychological training is inadequately represented in the published literature. We propose that beyond cross-cultural training focusing primarily on the cognitive dimension of cultural intelligence, it is likely that successful employees benefit from a range of psychological resources that allow them to take a positive perspective about their new environment and buffer them against setbacks. Training in cross-cultural PsyCap may provide a fertile area for such psychological resource training in the area of cross-cultural interactions.

The state-like and developmental nature of PsyCap has been supported by prior intervention studies (F. Luthans, Avey, Avolio, & Peterson, 2010). F. Luthans, Avey, et al. (2006) provide specific guidelines for how PsyCap can be developed via in-person classroom training. Such training interventions are generally designed to increase each of the four components of PsyCap (F. Luthans, 2012). Efficacy, specifically, can be developed through incremental task mastery, modeling or vicarious learning (e.g., learning by watching relevant others), verbal persuasion (e.g., encouragement from a respected peer), and arousal (e.g., increasing positive emotions; Bandura, 1997). Strategies used to increase employee hope are (a) goal setting training including "stepping" or graduated mastery, focusing on the process of goal orientation and accomplishment, and setting stretch goals and (b) contingency planning comprising anticipation of obstacles, positive mental imagery, creative thinking, and action planning (F. Luthans & Jensen, 2002). Optimism can be increased by helping individuals cognitively reframe past events so that positive outcomes are attributed to internal factors (i.e., things the individual did or does well), whereas negative outcomes are attributed to external factors (i.e., things that are outside of one's control). Finally, resilience can be developed by increasing assets such as positive emotions and reducing risk factors such as by planning to work through setbacks (F. Luthans et al., 2010). Further intervention research also supports the effectiveness of building PsyCap not only through in-person training but also through a web-based PsyCap training program (F. Luthans, Avey, et al., 2008).

Due to its state-like nature, PsyCap can be developed, and interventions aiming to increase it have been found to be effective (F. Luthans et al., 2010; F. Luthans, Avey, & Patera, 2008). Thus, we expect that exposure to classroom training on psychological resources will increase employees' levels of cross-cultural PsyCap as well as other related cross-cultural skills. To date, no studies have placed PsyCap into a cross-cultural domain and tested the effect of targeted training with regard to generalizable cross-cultural skills that distinguish themselves from mere knowledge

acquisition (Kealey & Protheroe, 1996). The goal of this study is therefore to test such a classroom-training model focused on building cross-cultural psychological resources grounded in theory and evidence-based research on PsyCap. This training intervention is expected to increase participants' levels of cross-cultural PsyCap.

Hypothesis 1: Cross-cultural PsyCap training will increase the participants' self-rated levels of cross-cultural PsyCap .

Prior research has examined various cross-cultural competencies, most notably cultural intelligence and ethnocentrism, that also have an impact on the success of international encounters. It is therefore expected that a training intervention built around developing cross-cultural PsyCap would also have a positive effect on these cross-cultural competencies, which we discuss next.

Cultural Intelligence. This construct, usually referred to as CQ, has been well established in the field of cross-cultural skills (Ang, Van Dyne, & Koh, 2006). Like PsyCap, CQ is also a higher-order construct that consists of four subfactors: metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ. Together, these components of CQ capture people's knowledge about another culture as well their behavioral repertoire to function effectively across cultures and their motivation to learn about another culture. Generally, people who are high in CQ are able to adjust to a new culture without experiencing significant amounts of stress, achieve their cross-cultural goals, and are effective in adjusting their behavior when interacting cross-culturally (D. C. Thomas et al., 2008).

Like PsyCap, CQ is considered state like and can, therefore, be developed (Ang et al., 2006). For example, a study conducted by Crowne (2008) indicated that CQ can be enhanced through exposure to different cultures, which includes cross-cultural training. Preliminary research by Dollwet and Reichard (in press) found a significant positive relationship between cross-cultural PsyCap and CQ. Training based in the theoretical framework of building cross-cultural PsyCap is expected to lead to increased CQ.

Hypothesis 2: Cross-cultural PsyCap training will increase participants' self-rated levels of CQ.

Ethnocentrism. This widely recognized construct refers to the tendency to see one's own ethnic group as most important and prominent, thereby blindly accepting those of a similar culture while rejecting those of different cultures (Booth, 1979). Research suggests that ethnocentrism can be destructive when interacting with people across different cultures (K. M. Thomas, 1996). For example, Shaffer, Harrison, Gregersen, Stewart Black, and Ferzandi (2006) found that high levels of ethnocentrism were negatively related to the success of individuals who were working in a different country than their native country. Dollwet and Reichard's (in press) study on cross-cultural PsyCap also supported this notion, as the findings indicated a negative relationship between ethnocentrism and cross-cultural PsyCap. We expect that a training intervention focused on developing cross-cultural PsyCap will lead to lower levels of ethnocentrism in training participants.

Hypothesis 3: Cross-cultural PsyCap training will decrease participants' self-rated levels of ethnocentrism.

State Emotions. Finally, cross-cultural PsyCap may play an important role in buffering negative emotions or accelerating positive emotions due to cross-cultural interactions. Because we expect that trainees will increase their efficacy, hope, optimism, and resilience through the cross-cultural PsyCap intervention, they will also experience an increase in positive state emotions such as "inspired" or "determined" and a decline in negative state emotions such as being "afraid" or "nervous." Furthermore, according to Fredrickson's (2006) broaden-and-build theory, low-intensity positive emotions have the potential of expanding an individual's attention and cognitive ability, which in turn may further increase the experience of positive emotions, thereby creating a "positive spiral" of emotions. Thus, it is hypothesized that positive state emotions will further increase through mastery experiences included in cross-cultural PsyCap training, while negative state emotions will decrease through these experiences. Although a few of studies have demonstrated a positive relationship between PsyCap and positive emotions (e.g., Avey, Wernsing, & Mhatre, 2011), the impact of a PsyCap training intervention on emotions has not yet been tested and thereby serves as an additional contribution of the present research.

Hypothesis 4: Cross-cultural PsyCap training will increase participants' self-rated levels of positive emotions.

Control Variables. Following Dawkins, Martin, Scott, and Sanderson's (2013) recommendations for future research on PsyCap, the construct that has been conceptualized (F. Luthans, Youssef, et al., 2007) and empirically supported as being state like (F. Luthans, Avolio, et al., 2007; S. J. Peterson, Luthans, Avolio, Walumbwa, & Zhang, 2011), should still be differentiated from more stable traits such as personality. For this reason and also due to its demonstrated relationship with cultural variables (Mak & Tran, 2001; Shaffer et al., 2006), openness to experience as a stable personality trait was assessed and controlled for in this study. We also controlled for positive trait emotions (South Africa sample only), given its relationship with positive state emotions (Fredrickson, 2006; Watson & Clark, 1992), and for

international experience (U.S. sample only), given its established relationship with cultural variables (Black & Mendenhall, 1991; Shaffer et al., 2006).

Method

Design and Procedures

We utilized a pretest–posttest single group quasi-experimental design on two samples, one in the United States and one in South Africa. Measures were collected before and after the training intervention. Similar 2-hour training sessions were conducted with both samples, with the only difference being tailoring of case studies to the relevant country context.

Cross-Cultural PsyCap Training

We developed a classroom-training model that was grounded in theory and research on PsyCap (F. Luthans, 2012; F. Luthans, Youssef, et al., 2007) and designed to focus on building cross-cultural PsyCap. As stated, the training session was 2 hours in length, with approximately 20 participants per session. The training included four phases to increase efficacy, hope, optimism, and resilience through targeted exercises focused on creating self-awareness, reframing past events, building broad cross-cultural interaction skills, and identifying multiple strategies for success in cross-cultural interactions. First, participants were provided feedback regarding their self-reported level of CQ based on an online preassessment survey. Second, they were split into dyads and asked to discuss their own cross-cultural experiences. The facilitator then asked two participants to share their experience with the entire group. To build optimism, the reported experiences were broken down into (a) events outside of my control (e.g., environmental factors) and (b) internal resources (e.g., strengths, skills, resources). Third, participants were grouped into teams of three or four and assigned a cross-cultural scenario to read and role-play. The cross-cultural scenarios depicted negative cross-cultural interactions and were tailored to the training context based on the country where the training took place. Groups were asked to role-play an alternative positive cross-cultural interaction and then explain their behavior and rationale to the larger group. In the last portion of the training, participants were led through a goal-setting exercise to help ensure the application of new skills beyond the classroom. Finally, posttraining assessments were collected.

U.S. Participants

Participants from a variety of diverse backgrounds and cultural experiences were targeted for this study. The intention was to rigorously test the effectiveness and validity of a cross-cultural PsyCap training intervention with people of varying cross-cultural experiences as well as various demographic backgrounds. Thus, 130 leaders from organizations in Los Angeles and San Bernardino, California, counties (historically diverse counties in terms of ethnicity) participated in this study, which included an online preassessment, the cross-cultural PsyCap training session, and a posttraining assessment. Organizations, on average, were medium in size (M = 562 total employees), and participating leaders reported managing an average of 22 employees. Most participants were female (n = 108) and U.S. citizens (n = 122). However, 4 reported dual citizenship and 4 reported having an "other" citizenship but did not specify. Most participants had traveled outside of the United States, excluding day trips to Mexico or Canada, at least once (49 reported more than four times, 18 four times, 14 three times, 6 twice, 9 once, and 34 never). About a third of the sample (n = 46) had never lived outside of the United States, and only 22 reported having lived outside of the United States for one year or more. Overall, the sample was quite diverse with regard to ethnicity, with 57 Caucasians, 29 Hispanic/non-Whites, 24 African Americans, 7 Asian/Pacific Islanders, 4 Hispanic/Europeans, and 9 others. Finally, the majority of participants were well educated, as 33 participants had a graduate degree, 54 had a 4-year college degree, 35 had attended some college, and 8 had a high school diploma.

South Africa Participants

Participants were recruited through the University of Cape Town to take part in the study. On agreeing to participate, participants were sent an email with a link to an online survey including all study variables (pretest) about 2 weeks prior to the training date. In addition to providing Time 1 data, this survey acted as a pretraining assessment of cross-cultural skills (i.e., CQ) on which participants were given feedback during the training session. Posttest survey data on all major study variables were collected immediately after the training was completed and again online 1 to 2 months later.

In all, 89 administrative and professional staff members at the University of Cape Town in South Africa completed the pretraining survey, and 71 of these took part in the training program and completed the immediate posttraining assessment, for a 20.2% dropout rate. There were no significant differences in demographics or study variables between those who dropped out after completing the pre-assessment and those who completed the training. Finally, 55 of these 71 participants completed the 1-month follow-up posttraining assessment, for a 22.5% dropout rate. No major demographic differences were found between those who completed the training and those who completed the 1-month follow-up assessment. Specifically, there were no differences in self-reported English proficiency, trait affectivity, or educational background ($t = -0.41$, $p = .67$; $t = -1.52$, $p =$

Table 1. Data Collected per Sample.

	S.A. sample			U.S. sample	
Measure	Pre	Post	Post-Post	Pre	Post
Cross-cultural PsyCap	√	√	√	√	√
Cultural intelligence	√	√	√	—	—
Ethnocentrism	√	√	√	—	—
Positive state emotions	√	√	—	—	—

S.A. = South Africa; U.S. = United States.

.12; $t = -0.36$, $p = .72$, respectively). There were differences in number of years having lived outside of South Africa ($t = -1.26$, $p < .05$); however, it is unlikely that this previous living experience would significantly change a participant's response from the first posttest directly after the training to the follow-up 1 month later. Thus, demographics are provided on the 71 participants who completed the training.

The majority of participants (88.7%) were citizens of South Africa, with some (8.5%) also having dual citizenship with another country. A small number had citizenship in a different country (1.4%, British, Swazi). In addition, the majority were female (78.9%), and in terms of education, 42.3% had a bachelor's degree, 16.9% had a South African matric degree (equivalent to U.S. high school), 22.5% had a diploma (comparable to a U.S. associate's degree), 12.7% had a master's degree, and only 2.8% had less than a matric degree. Most of the participants self-classified as Colored (i.e., of mixed race, 47.9%), 25.4% were White, 8.5% were Black, and 8.5% were Indian. The majority of the participants had left South Africa at least once in their lives (75%) but had never lived outside of their home country (55%). Finally, most participants (64.8%) had some supervision responsibility of managing at least one employee. Based on the online pre-training assessment data, no significant differences in CQ, cross-cultural PsyCap, or ethnocentrism were found among different genders, educational backgrounds, or ethnic groups.

Measures

As shown in Table 1, pre-post measures of cross-cultural PsyCap, CQ, ethnocentrism, and state emotions were collected to assess change as a result of the classroom training as predicted in study hypotheses. For the U.S. sample, we only collected pre-post data on cross-cultural PsyCap. Openness to experience and trait emotions were examined as control variables.

Cross-Cultural PsyCap. In both the United States and South Africa, Dollwet and Reichard's (in press) 20-item measure of cross-cultural PsyCap with four subscales (efficacy, hope, optimism, and resilience) was used. This measure was developed by adapting the PCQ-24 (F. Luthans, Avolio, et al., 2007; F. Luthans, Youssef, et al., 2007) workplace PsyCap 6-point scale to the domain of cross-cultural interactions. All items were rated on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The efficacy subscale included nine items such as "I feel confident when interacting with individuals from different cultures." The cross-cultural hope subscale was based on four items, including "I can think of many ways to reach my goals when interacting with individuals from different cultures." Furthermore, the cross-cultural optimism scale consisted of four items, with a sample item being "I'm optimistic about my future cross-cultural interactions." Finally, "Even when things are tough, I can interact quite well with people from different cultures" is a sample item from the three-item cross-cultural resilience subscale.

To assess whether the higher-order factor structure proposed for cross-cultural PsyCap was supported in both the U.S. and the South African samples, confirmatory factor analyses were conducted using Amos Software. The results from both of these analyses support the model of cross-cultural PsyCap being a higher order construct with subfactors of cross-cultural self-efficacy, hope, optimism, and resilience. The U.S. sample indicated good initial fit ($\chi^2 = 1.80$, $df = 2$, $p = .41$, $\chi^2/df = 0.90$). Further support for the PsyCap model was provided by the high incremental fit index (IFI) and comparative fit index (CFI; IFI = .97, CFI = .97). Finally, all factor loadings for the four subcomponents of cross-cultural PsyCap were significant ($p < .001$) and ranged from $\beta = .66$ to $\beta = .93$. Similarly, the CFA of cross-cultural PsyCap items for the South African sample also had good fit ($\chi^2 = 5.64$, $df = 2$, $p = .06$, $\chi^2/df = 2.82$) and high IFI and CFI indices (IFI = .98, CFI = .98). Finally, all factor loadings for the four subcomponents of cross-cultural PsyCap were significant ($p < .001$) and ranged from $\beta = .70$ to $\beta = .98$. Thus, as can be seen in Table 2, the proposed cross-cultural PsyCap model fits the data fairly well and was therefore applied in further analyses for both the U.S. and the South African samples.

The overall measure demonstrated strong reliability (U.S.: pretest $\alpha = .92$, posttest $\alpha = .92$; South Africa: pretest $\alpha = .95$, posttest $\alpha = .92$, post-posttest $\alpha = 93$). All 20 PsyCap items were combined into an overall scale (U.S.: pretest $M = 3.43$, $SD = 0.35$, posttest $M = 3.66$, $SD = 0.37$; South Africa: pretest $M = 3.63$, $SD = 0.48$, posttest $M = 3.93$, $SD = 0.40$, post-posttest $M = 3.85$, $SD = 0.57$).

Cultural Intelligence. In South Africa only, we measured CQ using the 20-item scale by Ang et al. (2006). Items on each of the four dimensions were rated on a 5-point Likert-type response scale ranging from *strongly disagree* (1) to *strongly agree* (5). The meta-cognitive and cognitive CQ subscales

Table 2. CC PsyCap Confirmatory Factor Analysis Factor Loadings.

Latent Variable	Subfactor	U. S. sample β	S.A. sample β
CC PsyCap	Self-Efficacy	.93**	.98**
CC PsyCap	Hope	.83**	.87**
CC PsyCap	Optimism	.66**	.70**
CC PsyCap	Resilience	.73**	.78**

CC PsyCap = Cross-cultural psychological capital; S.A. = South Africa; U.S. = United States. U.S. sample: $\chi^2 = 1.80$, $df = 2$, $p = .41$; $\chi^2/df = 0.90$; incremental fit index = .97, comparative fit index = .97. S.A. sample: $\chi^2 = 5.64$, $df = 2$, $p = .06$; $\chi^2/df = 2.82$; incremental fit index = .98, comparative fit index = .98.
**$p < .001$.

consisted of five items each and included statements such as "I check the accuracy of my cultural knowledge as I interact with people from different cultures." Five items were on each of the subscales for motivational and behavioral CQ including items such as "I enjoy interacting with people from different cultures." The overall composite CQ scale yielded acceptable internal consistency for pretest (α = .87), posttest (α = .87), and post-posttest (α = 87).

Ethnocentrism. In South Africa only, ethnocentrism was assessed using six items from Shaffer et al.'s (2006) measure, which identifies the participants' propensity to view their own cultural traditions and behaviors as right and those of others as wrong. A sample item includes "foreigners have little understanding of our culture and way of thinking." All six items were combined to represent an overall composite of ethnocentrism α = .70 (for both pretest and posttest) and α = .67 (post-posttest).

Emotions. In South Africa, both trait and state emotions were assessed using Thompson's (2007) internationally validated short form of the Positive and Negative Affect Schedule (PANAS). To measure state emotions, participants were instructed to indicate how intensely they felt 10 different emotions at the *current point in time*. Data on state emotions were collected immediately before training commenced and immediately following training. Sample emotions measuring positive affectivity include "alert" and "inspired," while sample emotions measuring negative affectivity include "hostile" and "ashamed." Each emotion was rated in a 5-point Likert-scale ranging from *not at all* (1) to *extremely* (5). Reliability for this scale was adequate for positive state emotions at Time 1 and Time 2 (α = .90 and α = .87, respectively) but below acceptable levels for negative state emotions at both Time 1 and Time 2 (α = .48 and α = .54, respectively). Therefore, only data on positive state emotions are reported, which aligns with study hypotheses (i.e., no predictions were made related to negative state emotions).

The same 10 emotions from Thompson's (2007) short-form PANAS were used to measure trait emotions, a control variable. To ensure the assessment of relatively stable trait emotions, participants were instructed to think of how they *generally* feel when responding to each emotion. All 10 emotions were rated on a 5-point Likert-scale ranging from *never* (1) to *always* (5). Internal consistency for both positive and negative trait emotions were marginally adequate (α = .67 and α = .68, respectively).

Openness to Experience. Openness to experience was measured using a 10-item scale from the International Personality Item Pool (DeYoung, Quilty, & Peterson, 2007). Each item was rated on a 5-point Likert-scale ranging from *strongly disagree* (1) to *strongly agree* (5), with a sample item being "I am curious about many different things." The scale yielded acceptable internal consistency (U.S.: α = .75; South Africa: α = .72). Therefore, the 10 items were combined into one overall indicator of openness to experience. As indicated, due to its relationship with cultural variables, openness to experience was controlled for in hypothesis testing.

Prior International Experience. In the United States, prior international experience was assessed through self-report total time spent living outside of the United States estimated to the nearest month. With a range of 0 to 300 months, on average participants spent 14.4 months ($SD = 43.82$) living outside of the United States. In the U.S. sample, international experience (in months) was positively skewed and, therefore, recoded into three categories based on equal splits: no international experience (0; $n = 69$), some international experience (1; 1-6 months; $n = 28$), and a lot of international experience (2; 7+ months; $n = 33$). Due to its relationship with cultural variables, prior international experience was controlled for in hypothesis testing for the U.S. sample. Due to skew, this variable was transformed as described below.

Results

Preliminary Analyses

Preliminary analyses were conducted including calculations of range, skew, and kurtosis. Means, standard deviations, and correlations of cultural variables are presented in Table 3, and correlations of cultural variables with control variables are shown in Table 4. Skew and kurtosis were in the acceptable range for all study variables except for one problematic variable, prior international experience, which was trichotomized as described above. As expected, cross-cultural PsyCap positively correlated with CQ and negatively correlated with ethnocentrism. Openness to experience (both United States and South Africa), trait

Table 3. Means, Standard Deviations, Reliabilities, and Correlations of Main Study Variables (South Africa).

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	12
1.	CC PsyCap T1	3.63	0.48	.94										
2.	CC PsyCap T2	3.93	0.40	.51**	.92									
3.	CC PsyCap T3	3.85	0.57	.50**	.55**	.93								
4.	CQ T1	3.34	0.49	.43**	.48**	.44**	.87							
5.	CQ T2	3.51	0.43	.38**	.73**	.50**	.68**	.87						
6.	CQ T3	3.50	0.38	.41**	.55**	.59**	.65**	.75**	.87					
7.	Ethnocentrism T1	2.22	0.46	−.56**	−.40**	−.38**	−.29**	−.30*	−.22	.70				
8.	Ethnocentrism T2	2.04	0.49	−.48**	−.55**	−.38**	−.30*	−.44**	−.47**	.64**	.70			
9.	Ethnocentrism T3	2.14	0.44	−.49**	−.45**	−.61**	−.38**	−.42**	−.48**	.64**	.68**	.67		
10.	PosStateEmo T1	3.40	0.88	.35**	.40**	−.01	.14	.14	.12	−.15	−.35**	−.11	.90	
12.	PosStateEmo T2	3.93	0.73	.09	.53**	.08	.15	.30*	.12	−.16	−.33**	−.06	.56**	.87

N = 48-86. CC PsyCap = cross-cultural psychological capital; CQ = cultural intelligence; PosStateEmo = positive state emotions; T = time. Reliabilities (Cronbach's alpha) are on the diagonal.
*$p < .05$. **$p < .01$.

Table 4. Correlations With Control Variables (South Africa).

Variable	Gender	Openness	Positive trait affect	Negative trait affect
CC PsyCap T1	−.16	.40**	.25*	−.23*
CC PsyCap T2	−.10	.30*	.41**	−.42**
CC PsyCap T3	−.25	.12	.04	−.18
CQ T1	−.08	.50**	.31**	−.06
CQ T2	.12	.39**	.28*	−.15
CQ T3	−.14	.24	.17	−.16
Ethnocentrism T1	.11	−.32**	−.16	.22*
Ethnocentrism T2	−.10	−.21	−.21	.19
Ethnocentrism T3	−.05	−.24	−.03	.18
PosStateEmo T1	.04	.07	.45**	−.45**
PosStateEmo T2	−.13	−.02	.40**	−.33**

N = 69-89. CC PsyCap = cross-cultural psychological capital; CQ = cultural intelligence; PosStateEmo = positive state emotions; T = time. *Female* = 1, *male* = 0.
*$p < .05$. **$p < .01$.

affect (South Africa only), and prior international experience (United States only) were related to cultural variables and were therefore controlled for in hypothesis testing.

We predicted that classroom training designed to build the four positive resources that make up PsyCap would result in an increase in cultural PsyCap (Hypothesis 1). Paired samples *t* tests were conducted to test for mean differences before and after training. Results support this hypothesis with statistically significant increase in PsyCap after psychological resource training in both the U.S. sample, $t(108) = 6.78$, $p < .001$, and the South African sample, $t(69) = 5.89$, $p < .001$. Repeated measures ANOVAs were also conducted to test for change in mean differences before and after training. Results support hypotheses producing a statistically significant increase in PsyCap after the training intervention for both the U.S. sample, $F(1, 108) = 46.05$, $p < .001$, and the South African sample, $F(1, 70) = 34.64$, $p < .001$ (see Figure 1).

To analyze the effects of the relevant personality trait openness to experience, international experience, ethnic minority, and gender on these training effects, PsyCap difference scores were computed and predicted by these covariates in linear regression. This strategy allows us to assess the relationship between change in PsyCap and the control variables. The regression equation predicting the PsyCap difference score was not significant, indicating the gains in PsyCap following training were not a result of preexisting differences on control variables. Taken together, Hypothesis 1 was fully supported, indicating the training intervention resulted in an increase in PsyCap in both the U.S. and the South African samples.

We predicted that PsyCap training would also increase CQ (Hypothesis 2) and state emotions (Hypothesis 4), while decreasing ethnocentrism (Hypothesis 3). Based on the South African sample, paired samples *t* tests were conducted to test for mean differences before and after training.

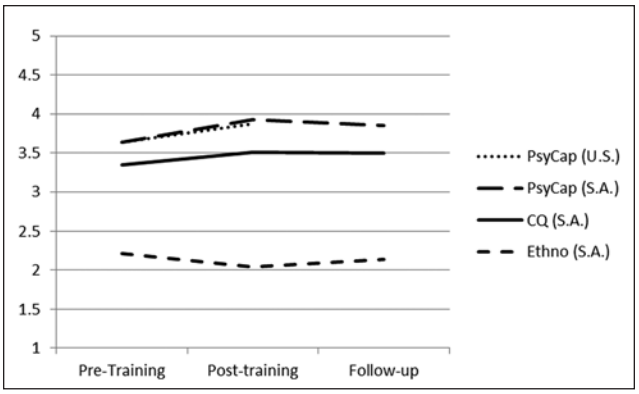

Figure 1. Significant change in cultural variables following training (U.S.: n = 104-109; S.A.: n = 52-87).
CQ = cultural intelligence; Ethno = ethnocentrism; PsyCap = psychological capital; S.A. = South Africa; U.S. = United States.

Supporting our predictions, the findings showed from before to after PsyCap training there was a significant increase in both CQ, $t(70) = 3.44$, $p < .001$, and positive emotions, $t(63) = 6.18$, $p < .001$, and a decrease in ethnocentrism, $t(70) = -4.08$, $p < .001$. Repeated measures ANOVAs were also conducted to test for change in mean differences before and after training. The results supported our hypotheses with statistically significant increases in CQ, $F(1, 70) = 11.83$, $p < .001$, and positive emotions, $F(1, 63) = 38.24$, $p < .001$, and a significant decrease in ethnocentrism, $F(1, 70) = 16.64$, $p < .001$, after PsyCap training (see Figure 1). To analyze the effects of openness to experience, trait affect, and gender on training effects in the South African sample, difference scores were computed and predicted by these covariates in linear regression. The regression equation predicting CQ difference score, the ethnocentrism difference score, and the state emotions difference score from the covariates were not significant, thus providing further support for the role of the training in attaining positive changes in outcomes.

To examine the impact of the psychological resource training over time, we next analyzed the changes in cross-cultural PsyCap, CQ, and ethnocentrism from before the training to 1 to 2 months after the training by conducting paired samples t tests on Time 1 and Time 3 variables. Results indicated a change in both PsyCap, $t(53) = 2.86$, $p < .01$, and CQ, $t(51) = 2.92$, $p < .01$, but not ethnocentrism, $t(52) = -1.60$, *ns*, from Time 1 (pretraining assessment) to Time 3 (1 to 2 months following training). To assess the stability in training effects over time based on the values of cross-cultural variables from after the training to 1 to 2 months later, we conducted paired samples t tests on Time 2 and Time 3 variables. Results indicated stability in PsyCap, $t(53) = -1.24$, *ns*, CQ, $t(50) = -0.55$, *ns*, and ethnocentrism, $t(51) = 1.23$, *ns*, from Time 2 (posttraining assessment) to Time 3 (1 to 2 months following training). Therefore, training effects were maintained for more than 1 month for both PsyCap and CQ, but not for ethnocentrism.

Discussion

The PsyCap domain of cross-cultural interactions is particularly relevant in light of recent organizational pressures to expand globally and manage a diverse workforce at home (e.g., Ang & Inkpen, 2006). Due to these global trends, organizations are increasingly in need of employees who can effectively work across cultures and are looking for ways to build more generalizable cross-cultural skills in their employees. Most cross-cultural training efforts focus on increasing knowledge of cultural differences (e.g., diversity training). For example, in his book chapter titled "Building Global Minds for Individual Managers," Jeannet (2000) emphasizes the importance of gaining factual cultural knowledge, identifying the culture's defining historical and cultural moments, understanding the economic and political systems, and acquiring language skills. As noted by Kealey and Protheroe (1996), although this strategy may be effective for employees who interact mainly with one or two distinct cultural groups (e.g., a U.S. leader based in Japan), the growth of subcultures and increasing percentage of multiethnic workers make this one-size-fits-all strategy not scalable. Finally, although to date PsyCap has played an important role in the concept of global mind-set (Clapp-Smith et al., 2007; Story, Barbuto, Luthans, & Bovaird, in press) and in global leadership (Story, Youssef, Luthans, Barbuto, & Bovaird, 2013; Youssef & Luthans, 2012), a positive psychology lens (versus a deficiency-based approach) has only recently been applied to research in the cross-cultural context. We assert that developmental interventions targeting cross-cultural PsyCap should be added to existing traditional global leader development programs, such as those emphasizing language training, films/books, and cultural briefings (Oddou & Mendenhall, 2013).

The goal of the present study has been to expand our current understanding of PsyCap and its applications in three major ways: (a) placing PsyCap into the yet novel and very relevant context of cross-cultural interactions, (b) conducting a face-to-face training intervention to test the developmental nature of cross-cultural PsyCap, and (c) studying two different samples, one from South Africa, which to date has received relatively little attention in the PsyCap literature (for exceptions, see Cascio & Luthans, in press; F. Luthans, Van Wyk, & Walumbwa, 2004; and the upcoming special issue on positive organizational behavior in the *South African Journal of Industrial Psychology*).

The utilization of intervention research is critical in the burgeoning area of positive organizational behavior as the majority of extant research relies on correlational designs and lacks the strength of causal claims (Hackman, 2009). Despite the fact that there has been some intervention

research to support the developmental nature of the PsyCap construct (e.g., F. Luthans et al., 2010; F. Luthans, Avey, & Patera, 2008), these studies have been scarce, and more work is needed to shed light on how PsyCap can best be developed through targeted training, especially with samples outside of the United States. Because this was an applied training intervention study, it provides additional support for the developmental and state-like nature of PsyCap by demonstrating the effectiveness of an in-person training intervention targeted at increasing PsyCap. In addition, this is the first study testing the development of PsyCap in the cross-cultural domain and in a South African sample. Finally, this is one of the first studies to examine the longitudinal impact of PsyCap training over time, finding that training effects were maintained for both cross-cultural PsyCap and CQ for over one month. Taken together, the applicability of PsyCap in a cross-cultural setting as well as the longitudinal effectiveness of a targeted training intervention in both a U.S. and South African sample supports the generalizability of the PsyCap construct in a variety of different settings.

CQ and ethnocentrism are two of the most studied variables in cross-cultural research. Like PsyCap, CQ is state like and open to development. Despite the fact that prior training research has emphasized the knowledge-based components of CQ by emphasizing cultural facts and differences (Kealey & Protheroe, 1996), the current study is the first to examine a PsyCap training intervention grounded in theory on PsyCap to the development of CQ. Through the use of training strategies targeting hope (goal setting and contingency planning), efficacy (mastery experience and vicarious learning), resilience (recognizing/building assets and reducing risk factors), and optimism (attributions for success and failure), we found gains in CQ and decreases in ethnocentrism. In fact, the gains in CQ were maintained for more than one month following the PsyCap training. This finding provides further evidence of change associated with psychological resource training.

Ethnocentrism was reduced through the training process; however, it returned to pretraining levels one month following training. It is possible that immediate training effects on ethnocentrism were a result of the increased salience of cross-cultural group memberships, or cross-categorization (Hewstone, Rubin, & Willis, 2002), resulting in decreased ethnocentrism. However, on returning to their regular lives and possibly their dominant cultural groups, participants' negative attitudes toward the out-group, or different cultures, may have been reverted to. A sociocognitive bias, as deep-seated as ethnocentrism, may be less amenable to a short training session and may need additional changes in an individual's context. Reinforcement of training through follow-up boosters and coaching is likely necessary to sustain training effects. To date, no research exists on the effects of boosters and coaching in the reduction of ethnocentrism. However, Hewstone et al.'s (2002) suggestions for the reduction of intergroup bias, specifically intergroup processes relating to the salience of category distinctions or increasing the complexity of social categorizations, may provide ideas for such follow-up.

Finally, due to the emotionally charged nature of cross-cultural interactions, an important contributor to success in such interactions is emotion, and in this study we examined the impact of PsyCap training as a causal agent in positive state emotions. In general, emotions have been found to play an important role in extracting meaning from past experiences (Fredrickson, 2000). Cross-cultural trigger events, in particular, may be emotionally charged events; events that activate inner/psychological resources (Reichard et al., 2013). Negative emotions (such as fear, embarrassment, or anxiety) deplete such resources (Morris & Feldman, 1996) and demotivate the leader to actively engage in cross-cultural interactions. However, PsyCap has been shown to relate to positive emotions (e.g., Avey et al., 2008) and positive emotions can actually buffer against the adverse impact of negative emotions and even build resources (cognitive, psychological, social; Fredrickson, 2001; Isen, 1999). In fact, in the current study, we found that training rooted in the framework of PsyCap had a positive effect on participants' state emotions. Instead of depleting energy and resources, experiencing positive emotions (such as interest, amusement, and hope) broadens the range of thoughts and responses that a leader may have in a cross-cultural situation (Fredrickson, 2001). Such broadening is likely to accelerate leaders' development by enabling them to take different perspectives (an important aspect of CQ) on a culturally complex situation and thus leaving them open to revising narrow (ethnocentrism) frameworks and beliefs resulting in an upward spiral of development (Fredrickson & Joiner, 2002). In summary, the current study demonstrates a link between cross-cultural PsyCap and Fredrickson's (2001) broaden-and-build theory on positive emotions.

Limitations and Future Research

Despite its contributions, this study has some limitations that need to be recognized and offer opportunities for future research. For one, this study does not test for the differentiating effects of each of the four PsyCap psychological resources that are targeted in the training. In other words, we cannot draw a conclusion on what the "most effective training ingredient" is within the cross-cultural PsyCap training. In future research it would be interesting to test the differentiating effects of each (i.e., efficacy, hope, optimism, or resilience) to examine if a particular component is driving the increase in cross-cultural PsyCap. That way, training interventions can be refined and focused on what is most essential, which may save valuable training time and resources. On the other hand, however, the synergistic

effects of the four PsyCap components make the inclusion of each component in training important.

Despite the fact that this study adopts rigorous pre-post data collection methods, longitudinal research designs based on other-report data would be helpful in determining the lasting training effects of the cross-cultural psychological resource training. Given the modest gains, training effects could be an artifact of responding to the same measure twice. Furthermore, due to the lack of a comparison group, the attention paid to the training group rather than the training itself may have caused the gains. Although we utilized longitudinal self-report data, we recommend other data sources than self-reports to provide an assessment of the participants' cross-cultural performance before and a few months after the training intervention. That way long-term performance training impact can be evaluated while better controlling for the effect of repeated measurement. The addition of a comparison group would further increase the ability to conclude that the psychological resource training was the causal factor in increasing cultural outcomes.

Finally, there seems to be considerable potential to apply PsyCap in many contexts. Yet to date there are relatively few studies that apply PsyCap to settings outside of the traditional workplace. One recent example would be the study by B. C. Luthans, Luthans, and Jensen (2012), which found PsyCap to be positively related to GPA, supporting the relevancy of PsyCap in a school context. The same is true of some of the studies represented in this special issue. Specifically, Wernsing examines the PsyCap measurement invariance across 12 major cultures of the world; Vogelgesang, Clapp-Smith, and Osland test PsyCap as a mediator between global mind-set and global leaders' desired outcomes; Memili, Welsh, and Kaciak apply PsyCap at the organizational level of franchise family firms; Lester, Krasikova, and Harms study the relationship of deployed soldiers' PsyCap and diagnosed mental health issues and substance abuse; and Luthans, Luthans, and Avey test a PsyCap training intervention on the development of students' level of PsyCap. PsyCap could be applied to a number of other settings such as athletics/sports and even parenting.

Practical Applications

The findings from this study provide various practical applications to a global work setting. For example, a cross-cultural psychological resource training intervention like the one used in this study could readily be used to prepare expatriates for international assignments. The power of this type of training is that, due to the generalizability of PsyCap (compared to being country-specific knowledge), it can be applied to any expatriate and any host country. Furthermore, the empirically supported state-like nature of cross-cultural PsyCap can be utilized for targeted coaching and development of global leaders or employees who work in diverse settings. Finally, this study demonstrates the applicability of PsyCap to a novel context (cross-cultural interactions), which encourages further use of the construct in a variety of different settings (i.e., academic, sports).

Conclusion

To conclude, this intervention study builds on and extends the existing PsyCap framework (F. Luthans, Youssef, et al., 2007) and provides new research and practical applications for the construct. Cross-cultural PsyCap in particular can be used to assess, develop, and help facilitate cross-cultural interactions. Thus, this study supports the versatility and relevance of PsyCap to a yet understudied international context and sample. Overall, this study also provides new direction for international human resource management by identifying additional ways training for global employees can be more focused on generalizable, evidence-based psychological resources such as PsyCap versus being simply knowledge based.

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