
From Experience to Experiential Learning: Cultural Intelligence as a Learning Capability for Global Leader Development

KOK-YEE NG

Nanyang Technological University

LINN VAN DYNE

Michigan State University

SOON ANG

Nanyang Technological University

Although international assignments are recognized as important mechanisms for developing global leaders in organizations, existing research has focused primarily on leaders' performance during international assignments, rather than on the developmental outcomes gained from such assignments. We integrate research on experiential learning and cultural intelligence to propose a process model that focuses on how leaders translate their international work assignment experiences into learning outcomes critical for global leadership development. Our model positions cultural intelligence as a moderator that enhances the likelihood that individuals on international assignments will actively engage in the four stages of experiential learning (experience, reflect, conceptualize, experiment), which in turn leads to global leadership self-efficacy, ethnorelative attitudes toward other cultures, accurate mental models of leadership across cultures, and flexibility of leadership styles. Our model has major implications for the selection and training of individuals, as well as organizational practices related to international job assignments from a developmental perspective.

Effective global leaders are a vital asset for organizations today (Van Dyne & Ang, 2006). In the current milieu of diversity, complexities, and international competition, having leaders who are capable of understanding, functioning, and managing in the global environment is a valuable, rare, and inimitable resource that can offer firms a competitive advantage (Ang & Inkpen, 2008; Barney, 1992). It is, therefore, of little surprise that training and development of global leader competencies is one of the top-five organizational practices that significantly influences effectiveness of multinational companies (Stroh & Caligiuri, 1998).

Organizational interventions for enhancing global leadership effectiveness range from didac-

tic programs to intensive cultural experiences (Caligiuri, 2006). Didactic programs typically take the form of cross-cultural training or diversity training that is provided in-house, or conducted off-site by consulting firms or academic institutions. These courses aim to equip individuals with specific knowledge, skills, abilities, and other characteristics (KSAOs) such as greater awareness of cross-cultural differences; knowledge of appropriate behaviors when working with people from different cultures; specific business knowledge, such as international finance and project management; and the ability to converse in a different language.

Intensive cultural experiences, on the other

hand, aim to develop individuals more holistically by exposing them to the challenges of living and working in a foreign environment (Leung, Maddux, Galinsky, & Chiu, 2008). Short- and long-term international assignments are examples of such developmental programs increasingly adopted by organizations to nurture their global leaders, with many firms now requiring that high-potential leaders have at least one overseas assignment in their careers (Hall, Zhu, & Yan, 2001).

The growing emphasis on experiential approaches to global leader development may be attributed to the importance accrued to international experience. For example, research demonstrates that firms led by CEOs with international experience perform better financially (Carpenter, Sanders, Gregersen, 2001; Daily, Certo, & Dalton, 2000; Sambharya, 1996). In addition, global leaders themselves find international assignments beneficial for their personal and professional development. In a survey conducted by Gregersen, Morrison, and Black (1998), 80% of respondents reported that living and working abroad was the most powerful experience in developing their global leadership capabilities.

Despite the crucial role that international assignments play in global leadership development, most models and empirical research on international assignments have adopted a performance perspective, focusing on performance and adjustment of expatriates (e.g., see review and meta-analysis by Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005). While this stream of research offers important selection and training implications to ensure that international operations are managed effectively, it does not directly address the developmental objectives and benefits of international assignments. Thus, we lack research and conceptual models on how individuals learn to become better global leaders based on their international work experiences. We also lack conceptual frameworks that specify what types of individual are most likely to learn and benefit the most from international assignments.

Responding to this gap, we address two questions here: (1) How do global leaders learn from their international assignments to become better global leaders? (2) What attributes of global leaders enhance their learning while on international work assignments? Thus, in contrast to prior research that emphasizes performance and adjustment outcomes, we adopt a developmental perspective and focus on factors that affect global leader learning outcomes.

Adopting a developmental perspective requires several shifts in assumptions compared to the tra-

ditional performance perspective. A major and obvious difference is the emphasis on learning effectiveness, rather than on work effectiveness. This shift acknowledges that failures during international assignments can present excellent learning opportunities that help individuals hone their global leadership skills (Hall et al., 2001), and contrasts starkly with the traditional view that failures are undesirable outcomes to be avoided. The focus on learning outcomes also moves beyond expatriate research that has commonly focused on ways to staff and manage those in international positions, such as predeparture cross-cultural training (Morris & Robie, 2001), role clarity, and relational skills (Bhaskar-Shrinivas et al., 2005). Finally, switching from an emphasis on performance to a developmental perspective requires a fundamentally different theoretical basis. Thus, we draw on theories of adult learning to develop a model of processes that affect learning outcomes of global leaders.

We integrate two streams of research to inform our research questions: First, we adopt Kolb's (1984) experiential learning theory (ELT) to explicate the processes that enable leaders to learn and develop their global leadership capabilities through their international work assignments. Second, we consider *cultural intelligence* (CQ; Ang & Van Dyne, 2008; Earley & Ang, 2003), defined as an individual's capability to function effectively in culturally diverse contexts, as a key individual attribute that influences the extent to which individuals actively engage in experiential learning during their international work assignments.

In the remaining sections, we elaborate on our theoretical model (see Figure 1). We begin with a brief review of ELT (Kolb, 1984) and its application to global leadership development. We then describe the 4-factor conceptualization of CQ and discuss its role in enhancing experiential learning processes and learning outcomes during international assignments. We conclude with a discussion of future research directions and organizational implications aimed at enhancing learning outcomes of global leaders in international work assignments.

THEORY DEVELOPMENT

Experiential Learning Theory (ELT)

ELT is an adult learning theory that highlights the critical role experience plays in affecting learning and change. Kolb's (1984) formulation of ELT draws on the work of prominent educational and organizational scholars including John Dewey, Kurt

Lewin, and Jean Piaget, who share the common view that learning involves integrating experience with concepts and linking observations to actions (see especially Dewey, 1938).

We adopt the ELT framework as the basis of our process model for developing global leaders through international assignments for several reasons. First, ELT emphasizes learning as a process (Kolb, 1984), unlike traditional learning theories that focus on learning as behavioral or cognitive outcomes. This process-oriented approach is consistent with our research question to understand the intervening mechanisms that translate international work assignment experiences into learning outcomes. Second, ELT views learning as a holistic process of adapting to the world that requires the integrated functioning of the total person, which includes thinking, feeling, perceiving, and behaving, as well as interactions between the person and the environment (Kolb, 1984). The holistic nature of ELT fits well with the complexity of international assignments, given that leaders are exposed to, and required to manage a multitude of demands and cues from their new environment. Third, ELT views learning as a continuous process where new knowledge, changing existing ideas and perspectives, relearning, and integrating old and new ideas are important aspects of learning (Kolb, 1984). This emphasis on a continuous and dynamic cycle of learning is particularly crucial for global leaders given the uncertainties and complexities of culturally diverse business settings.

Kolb's (1984) 4-stage learning cycle comprises two fundamental processes that enable learning from experience: (1) grasping the experience, and (2) transforming the experience. The four learning stages are based on two dialectically related modes of grasping experience: concrete experience versus abstract conceptualization, and two dialectically related modes of transforming experience: reflective observation versus active experimentation. Concrete experience and abstract conceptualization are different ways of grasping the experience. Concrete experience focuses on tangible elements of the immediate experience, while abstract conceptualization relies on conceptual interpretation and symbolic representation of the experience. In a similar way, reflective observation and active experimentation are two different ways of acting upon the experience. Reflective observation relies on internal processing, while active experimentation emphasizes actual manipulation of the external world.

In essence, Kolb's ELT model prescribes a process of learning where the learner should undergo four bases—experiencing, reflecting, thinking,

and acting—in order to transform an experience effectively into learning (Kolb & Kolb, 2005). Having (grasping) an experience without doing anything with it (transforming) is not sufficient. Likewise, transformation cannot occur without an experience that can be acted upon. Hence, the model argues that tangible episodes or events (concrete experiences) are the basis for descriptive processing (reflective observations), which are then assimilated and distilled into conceptual interpretations (abstract conceptualization), which then become the basis for action (active experimentation). This fourth step (testing ideas in the real world) generates new experiences for the learner and triggers another cycle of learning.

To date, ELT has received widespread attention in the management development literature (Kayes, 2002; Kayes, Kayes, & Yamazaki, 2005a, b; Kolb & Kolb, 2005; Yamazaki & Kayes, 2004). Much of this research (e.g., Cassidy, 2004; Furnham, Jackson, & Miller, 1999; Mainemelis, Boyatzis, & Kolb, 2002; Yamazaki & Kayes, 2007) describes preferred learning styles based on Kolb's (1999a, b) Learning Style Inventory. Acknowledging the importance of this research and going beyond it, we adopt a prescriptive view of ELT and suggest that individuals need to experience all four stages of learning to gain maximum developmental benefits from international assignments (cf. Mainemelis et al., 2002). Thus, we conceptualize ELT as a process of learning involving conscious behaviors that effective learners display in order to translate experience into learning outcomes that, in turn, should enhance their global leadership effectiveness (cf. Cassidy, 2004).

This approach should offer important insights into why individuals do not learn equally from their international experiences (Leslie & Van Velsor, 1996; Spreitzer, McCall, & Mahoney, 1997; Van Velsor, Moxley, & Bunker, 2004). Although researchers have considered an assortment of individual differences that affect ability to learn from international assignments, including cognitive abilities, self-esteem, personality traits, such as openness and conscientiousness, and competencies, such as seeking and using feedback (Spreitzer et al., 1997; Van Velsor et al., 2004; Kayes et al., 2005b), there is no systematic framework to explain previous inconsistent results where some people seem to learn more than others from international work assignment experiences. Responding to this gap, we propose that effective learning varies across individuals because only some individuals engage in the entire experiential learning cycle when exposed to cultural experiences during their international assignments. Thus, the process of ex-

periential learning, as explicated by ELT, provides a theoretical basis for examining individual attributes that affect the extent of learning and leadership development during international assignments. We therefore build on and extend recent research that has examined the competencies necessary for experiential learning (Kayes et al., 2005b; Yamazaki & Kayes, 2004).

Specifically, we propose that CQ is an important set of learning capabilities that enhances the extent to which individuals translate their international work experiences into learning outcomes through the experiential learning processes of experiencing, reflecting, observing, and experimenting. This is consistent with Kayes et al.'s (2005a) thesis that individuals must have different abilities to manage each of the four stages in ELT. In sum, we aim to complement existing research on generic learning styles (e.g., Cassidy, 2004; Furnham et al., 1999; Kolb & Kolb, 2005; Mainemelis et al., 2002), and given the international context of our research questions on global leadership development, we focus on CQ as a specific set of learning capabilities. Below, we summarize Earley and Ang's (2003) conceptualization of CQ. We then present propositions for relationships between international work assignment experiences, CQ, experiential learning processes, and learning outcomes.

Cultural Intelligence and Experiential Learning

Cultural intelligence (CQ), defined as an individual's capabilities to function and manage effectively in culturally diverse settings (Earley & Ang, 2003), is an important individual attribute given today's diversified workplace. The conceptualization of CQ is based on Sternberg and Detterman's (1986) framework of multiple intelligences, which integrates different perspectives of intelligence to propose four complementary ways of conceptualizing individual-level intelligence: (a) *metacognitive intelligence* refers to awareness and control of cognitions used to acquire and understand information; (b) *cognitive intelligence* refers to knowledge and knowledge structures; (c) *motivational intelligence* acknowledges that most cognition is motivated and thus focuses on the magnitude and direction of energy as a locus of intelligence; and (d) *behavioral intelligence* focuses on individual capabilities at the action level (behavior). By expanding the scope of intelligence to include abilities related to self-regulation and the display of overt behaviors (Gardner, 1993), Sternberg and Detterman (1986) offer a more comprehensive theory of intelligence that goes beyond

cognitive abilities such as linguistic or logical-mathematical intelligence.

Based on Sternberg and Detterman's (1986) model, Earley and Ang (2003) conceptualized CQ as a multidimensional construct with mental (metacognitive and cognitive), motivational, and behavioral components. Hence, unlike previously fragmented research on intercultural competencies (Gelfand, Imai, & Fehr, 2008; Spitzberg, 1989), CQ offers a theoretical and parsimonious framework that comprises four capabilities. Metacognitive CQ is the capability for consciousness and awareness during intercultural interactions. It reflects mental capabilities to acquire and understand culturally diverse situations and includes knowledge of and control over individual thought processes (Flavell, 1979) relating to culture. Relevant capabilities include planning, monitoring, and revising mental models. Those with high metacognitive CQ are consciously mindful of cultural preferences and norms—before and during interactions. They question cultural assumptions and adjust mental models during and after experiences (Nelson, 1996).

While metacognitive CQ focuses on higher order cognitive processes, cognitive CQ focuses on knowledge of norms, practices, and conventions in different cultural settings acquired from education and personal experiences. This includes knowledge of economic, legal, and social systems of different cultures (Triandis, 1994). Individuals with high cognitive CQ are able to anticipate and understand similarities and differences across cultural situations. As a result, they are more likely to have accurate expectations and less likely to make inaccurate interpretations of cultural interactions (e.g., Triandis, 1995).

In addition to mental capabilities that foster understanding of other cultures, CQ also includes the motivational capability to cope with ambiguous and unfamiliar settings. *Motivational CQ* is the capability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences. It is based on the expectancy-value theory of motivation (Eccles & Wigfield, 2002) and includes intrinsic motivation (Deci & Ryan, 1985) and self-efficacy (Bandura, 1997). Those with high motivational CQ have intrinsic satisfaction and are confident about their ability to function in culturally diverse settings.

The fourth aspect of CQ recognizes that cultural understanding (mental) and interest (motivational) must be complemented with behavioral flexibility to exhibit appropriate verbal and nonverbal actions, based on cultural values of a specific setting (Hall, 1959). Thus, behavioral CQ is the capability

to exhibit situationally appropriate behaviors from a broad repertoire of verbal and nonverbal behaviors, such as being able to exhibit culturally appropriate words, tones, gestures, and facial expressions (Gudykunst, Ting-Toomey, & Chua, 1988).

Although a relatively new construct, CQ research has extended the conceptualization and theoretical grounding of CQ (Ang & Van Dyne, 2008; Ng & Earley, 2006; Triandis, 2006) to examine relationships with cultural adaptation and performance (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007), expatriate effectiveness (Kim, Kirkman, & Chen, 2008; Shaffer & Miller, 2008; Templer, Tay, & Chandrasekar, 2006), personality (Ang, Van Dyne, & Koh, 2006; Oolders, Chernyshenko, & Stark, 2008), intercultural training (Earley & Peterson, 2004; Harris & Lievens, 2005), and multicultural teams (e.g., Earley & Mosakowski, 2004; Janssens & Brett, 2006; Rockstuhl & Ng, 2008).

Going beyond existing research on CQ that has theorized and demonstrated the importance of CQ for performance in cross-cultural contexts, we focus here on CQ as a set of *learning* capabilities that are important for global leaders. Specifically, we consider how the four CQ dimensions enhance the likelihood that individuals will be actively engaged in the four stages of experiential learning—concrete experience, reflective observation, abstract conceptualization, and active experimentation—during international work assignments.

Concrete Experience

Individuals differ in how active they are or in how much they enjoy learning from concrete experiences. Kolb (1984) argues that individuals with an orientation toward concrete experience are open to new experiences, emphasize feeling rather than thinking, and function well in unstructured situations. In the context of international assignments, we propose that two CQ dimensions—motivational CQ and behavioral CQ—will affect the amount and quality of concrete experiences leaders seek during international assignments.

Self-efficacy research (Bandura, 1997) suggests that individuals who are more confident of their ability to complete a particular task are more likely to initiate effort, persist in their efforts, and perform better. Since intercultural interactions are typically stressful because of unfamiliar cultural norms and cues (Mendenhall & Oddou, 1985; Oberg, 1960; Shaffer, Harrison, Gregersen, Black, & Ferzandi, 2006), we suggest those with high motivational CQ, characterized by greater interest and self-efficacy, will actively seek cross-cultural ex-

periences during their international assignments. This is consistent with Yamazaki and Kayes' (2004) point that valuing people of different cultures is an important learning skill for engaging in concrete experiences. Conversely, those with little interest or confidence will minimize their degree of cultural involvement, thus restricting the amount and quality of concrete cross-cultural experiences they could learn from. Thus, our first proposition predicts that the relationship between international experience and concrete experiences will be stronger for those with higher motivational CQ.

Proposition 1: Motivational CQ enhances the likelihood that individuals will seek concrete cross-cultural experiences during their international job assignments.

Next, we propose that those with high behavioral CQ—the capability to exhibit appropriate verbal and nonverbal actions in culturally diverse situations—will also seek and engage in more cross-cultural experiences during international assignments. Gaining concrete experiences requires people to engage with the environment and typically involves interpersonal interactions. Since cultures differ in their norms for appropriate behaviors (Hall, 1959; Triandis, 1994), the capability of displaying a flexible range of behaviors is critical to creating positive impressions and developing meaningful intercultural relationships (Bhaskar-Shrinivas et al., 2005; Gudykunst & Kim, 1984). Building relationships with locals, in turn, creates more opportunities for cross-cultural contact (Kayes et al., 2005b; Yamazaki & Kayes, 2004). Accordingly, we predict that the relationship between international experience and concrete experiences will be stronger for those with higher behavioral CQ.

Proposition 2: Behavioral CQ enhances the likelihood that individuals will seek concrete cross-cultural experiences during their international job assignments.

We surmise that cognitive CQ and metacognitive CQ are unlikely to be related to concrete experiences, given that these two mental CQ capabilities emphasize knowledge and analytical processes involved in reasoning, rather than actions. Cognitive CQ and metacognitive CQ, however, are critically important for the next two stages of the experiential learning cycle, as described below.

Reflective Observation

Reflective observation occurs when people think about experiences and reflect critically on their

assumptions and beliefs. This is an important process because it helps people to describe the situation objectively and develop an understanding of why things happen (Kolb & Kolb, 2005). It also allows them to consider different perspectives or views of the situation.

We propose that cognitive CQ and metacognitive CQ enhance reflective observation during international assignments. Individuals with high cognitive CQ possess elaborate cultural schemas. Schemas are mental representations of patterns of social interaction that are characteristic of particular cultural groups (Triandis, Marin, Lisansky, & Betancourt, 1984), and are important because they enhance information processing (Taylor & Crocker, 1981) and enable more accurate identification and understanding of cultural issues. Research has shown that area studies training aimed at increasing cultural knowledge enhanced accuracy of interpreting social behaviors across cultures because trained participants were less likely to apply their own cultural assumptions to other cultures (Bird, Heinbuch, Dunbar, & McNulty, 1993). Similarly, Ang and colleagues (2007) demonstrated that cognitive CQ enhanced accuracy of judgment and decision making about cross-cultural interactions.

We argue that because individuals with high cognitive CQ have greater understanding of differences and similarities across cultural systems, they are more aware of what cues they should look for. They are also less likely to make negative evaluations of cultural norms and behaviors, which allows them to be more objective and accurate in their observations of cross-cultural experiences (Osland & Bird, 2000). Therefore, we propose that the relationship between international experience and reflective observation will be stronger for those with higher cognitive CQ.

Proposition 3: Cognitive CQ enhances the likelihood that individuals will reflect on their cross-cultural experiences during their international assignments.

We also propose that metacognitive CQ—thinking about thought processes related to cross-cultural experiences—will facilitate reflective observation during international assignments. Those with high metacognitive CQ monitor and think about their own assumptions, beliefs, and emotions as well as the way they process environmental and behavioral cues provided by others. They actively process their cognitive observations, create new categories in their memory storage, and consider multiple perspectives in making sense of their experiences (Flavell, 1979). Thus, we predict the following:

Proposition 4: Metacognitive CQ enhances the likelihood that individuals will reflect on their cross-cultural experiences during their international assignments.

Since reflective observation emphasizes perceptual and cognitive capabilities, we do not expect motivational CQ or behavioral CQ, which deal with the “heart” and the “body” of the learner, respectively (Earley, Ang, & Tan, 2006), to be of direct relevance to this stage of experiential learning.

Abstract Conceptualization

Abstract conceptualization, the third stage of experiential learning, emphasizes the importance of building general theories using scientific, as opposed to intuitive, approaches. This stage requires learners to distill their reflections into more general concepts that can guide their future actions, and emphasizes thinking, rather than feeling (Kolb, 1984).

Similar to reflective observation, we propose that cognitive CQ and metacognitive CQ will facilitate abstract conceptualization during international assignments. Research in cognitive psychology has shown that experts conceptualize problems more efficiently and effectively because they have more organized knowledge structures with stronger linkages among domain-related concepts. In contrast, novices are less efficient because their knowledge representations tend to be based on salient surface elements (Chase & Simon, 1973; Chi, Glaser, & Rees, 1982). In addition, novices are often less effective in their knowledge acquisition because their lack of pre-organized schemas hinders efficient classification of knowledge (Kalyuga, Ayres, Chandler, & Sweller, 2003).

Therefore, we propose that individuals with higher cognitive CQ will be more accurate and effective in developing general ideas and conceptual interpretations of culture based on their international assignments. This is because they have more organized and elaborated knowledge structures that facilitate their information processing as well as identification of relevant principles. Conversely, those with low cognitive CQ are less able to integrate their insights and reflections into coherent knowledge structures about culture, thus impeding the formation of higher order concepts and theories. Accordingly, we propose that the relationship between international experience and abstract conceptualization will be stronger for those with higher cognitive CQ.

Proposition 5: Cognitive CQ enhances the likeli-

hood that individuals will detect patterns and develop conceptual generalizations of cross-cultural experiences during their international assignments.

Metacognitive CQ should also enhance abstract conceptualization during international assignments because many cross-cultural situations do not fit typical norms or tendencies, even when expectations are based on rigorous research. Cultural paradoxes—situations or interactions that involve contradictory norms or behaviors—are common encounters for expatriates in all cultures (Osland & Bird, 2000). In fact, Osland and Osland (2006) reported that expatriates who are more involved in the host culture are more likely to be aware of paradoxes.

Thus, having the metacognitive CQ capability of thinking about thinking facilitates abstract conceptualization, particularly when faced with cultural paradoxes. Considering personal assumptions and being open to disconfirming experiences is a form of higher order reasoning that allows individuals to analyze new cross-cultural experiences without being biased or constrained by past experiences or expectations (Earley & Ang, 2003). Those with high metacognitive CQ have analogical reasoning capabilities that enable them to translate their insights from a particular experience into more general concepts and interpretations that can be applied to other cultural contexts. Thus, we propose that the relationship between international experience and abstract conceptualization will be stronger for those with higher metacognitive CQ.

Proposition 6: Metacognitive CQ enhances the likelihood that individuals will detect patterns and develop conceptual generalizations of cross-cultural experiences during their international assignments.

As with reflective observation, we do not expect motivational CQ and behavioral CQ to relate to abstract conceptualization because abstract conceptualization primarily involves mental capabilities. The capabilities to channel energy (motivational CQ) or display appropriate behaviors (behavioral CQ) are less relevant to the mental processes of developing conceptual interpretations.

Active Experimentation

Active experimentation involves a pragmatic focus on influencing the environment and getting things done and is concerned with whether one's en-

hanced understanding fits reality (Kolb, 1984). We argue that all four CQ capabilities will facilitate active experimentation during international assignments. First, cognitive CQ and metacognitive CQ are important because they enable learners to organize and map out action plans. Action, without clear goals and plans, is unlikely to produce desired outcomes. Thus, those with enhanced understanding of culture (cognitive CQ) and those who have clear plans and strategies for action (metacognitive CQ) are more likely to follow through and test their ideas and understanding during international assignments. Accordingly, we predict the relationship between international experience and active experimentation will be stronger for those with higher cognitive and metacognitive CQ.

Proposition 7: Cognitive CQ enhances the likelihood that individuals will implement and test their conceptual generalizations in cross-cultural interactions during their international assignments.

Proposition 8: Metacognitive CQ enhances the likelihood that individuals will implement and test their conceptual generalizations in cross-cultural interactions during their international assignments.

We argue that motivational CQ should also enhance active experimentation. Individuals with the desire and self-efficacy to deal with cross-cultural interactions tend to seek and persist when cross-cultural situations are challenging (Bandura, 1997). Moreover, given that self-efficacy is a "generative capability in which cognitive, social, emotional and behavioral subskills must be organized and effectively orchestrated to serve innumerable purposes" (Bandura, 1997: 37), having high motivational CQ enables learners to carry out sequences of action steps to achieve specific goals (Earley et al., 2006). Accordingly, we predict that the relationship between international experience and active experimentation will be stronger for those with higher motivational CQ.

Proposition 9: Motivational CQ enhances the likelihood that individuals will implement and test their conceptual generalizations in cross-cultural interactions during their international assignments.

Finally, behavioral CQ should also facilitate active experimentation during international assignments. One reason is language. Those who are not flexible in their language skills have fewer opportunities for meaningful contact with locals. This limits the quantity as well as quality of their cross-

cultural experiences and makes it difficult for them to engage in active experimentation. In addition, having the capability to adapt verbal and nonverbal behaviors to specific cultural contexts provides people with greater latitude for experimentation. Conversely, those with low behavioral CQ are more constrained and have fewer opportunities to implement and test their ideas (Kayes et al., 2005b). Therefore, we propose that the relationship between international experience and active experimentation will be stronger for those with higher behavioral CQ.

Proposition 10: Behavioral CQ enhances the likelihood that individuals will implement and test their conceptual generalizations in cross-cultural interactions during their international assignments.

In the next section, we consider the four learning stages of ELT and important learning outcomes that are especially relevant for global leadership development.

Learning Outcomes for Global Leadership Development

Learning, defined as the process of creating knowledge based on the transformation of experience (Kolb, 1984), is a multifaceted construct (e.g., Gagne, 1984; Kraiger, Ford, & Salas, 1993; Krathwohl, Bloom, & Masia, 1964) with implications for multiple learning outcomes. Kraiger and colleagues (1993), for instance, proposed three major categories of learning outcomes: affective, knowledge, and skills-based outcomes. In thinking about implications of the four stages of the ELT cycle, we identified four learning outcomes that should have particular significance to global leaders.

According to Kraiger et al. (1993), *affective learning outcomes* refer to changes in the learner's motivation and attitudes as a result of the learning experience. Two constructs that represent changes in motivation and attitudes with direct relevance to global leaders are sense of self-efficacy as a global leader and ethnorelative attitudes about other cultures. *Knowledge outcomes* refer to the quantity and type of knowledge gained as a result of a learning experience (Kraiger et al., 1993). For global leaders to be effective, it is essential that they understand that effective leadership styles vary across culture. Thus, we focus on knowledge of implicit leadership mental models across cultural contexts for our third learning outcome. The final category in Kraiger and colleagues' framework is behavior, or skill-based learning. This focuses on whether individuals are able to apply

newly learned behaviors to work or other settings (generalization; Kraiger et al., 1993). In the context of global leaders, an important skill-based learning outcome is the flexibility of leadership styles that the global leader can enact to suit specific cultural contexts. In the next sections, we develop our logic for predicting relationships between specific ELT processes and these four learning outcomes.

Affective Outcomes

Affective outcomes of learning reflect changes in motivation and attitudes. Self-efficacy is a person's sense of being able to perform a specific set of actions (Bandura, 1997). Applied to global leaders, an important and immediate learning outcome of international work assignments is enhanced global leadership self-efficacy. By applying existing research on leadership self-efficacy (Kane, Zaccaro, Tremble, & Masuda, 2002; Ng, Ang, & Chan, 2008), we define *global leadership self-efficacy* as perceived capabilities to perform specific leadership roles effectively in culturally diverse settings.

According to Kraiger et al. (1993), enhanced task-specific self-efficacy (such as global leadership self-efficacy) is an immediate and powerful indicator that learning has taken place. Consistent with this, a recent meta-analysis of training outcomes showed that posttraining self-efficacy was the best predictor of the amount of procedural knowledge gained from training interventions (Sitzmann, Brown, Casper, Ely, & Zimmerman, 2008).

Returning to the conceptual relationship between specific ELT processes and learning outcomes, we propose that individuals who actively engage in intercultural experiences during their international assignments will develop greater global leadership self-efficacy. This is because intercultural experiences provide concrete problem-solving opportunities that enable individuals to enhance their understanding of the challenges and strategies of global leadership. Moreover, cross-cultural interactions provide concrete experiences where individuals receive real-time feedback on their behaviors and effectiveness based on reactions from other parties during cross-cultural interactions. As suggested by Gist and Mitchell (1992), the information and feedback gained through these concrete experiences enhances self-efficacy. Applied to global leadership, we propose the following:

Proposition 11: Individuals who seek concrete cross-cultural experiences during

their international assignments are more likely to develop greater global leadership self-efficacy.

Another important affective outcome of experiential learning in international assignments is ethnorelative attitudes that recognize and accept that beliefs, traditions, and behaviors vary across cultures. This means that ethnocentric attitudes that other cultural beliefs, traditions, and behaviors are wrong or inferior to their own (Black, 1990) are minimized. Effective global leaders need to possess ethnorelative attitudes toward other cultures, so that they are sensitive and respectful of cultural differences and better able to understand behavior from the perspectives of other cultures (e.g., making isomorphic attributions and understanding why a behavior occurs from the other culture's perspective; Triandis, 2006).

Research demonstrates that ethnorelative attitudes can be fostered based on positive contact with other cultures and training programs designed to help participants make isomorphic attributions about behavior of those from other cultures (e.g., Bennett, 1986; Klak & Martin, 2003). In terms of relationships between ELT processes and learning outcomes, we propose that individuals who reflect on their cross-cultural experiences are more likely to develop ethnorelative attitudes. Given that unfamiliar cues in cross-cultural interactions are often misunderstood, those who actively and objectively reflect on their experiences, ask questions about why incidents occurred, and try to put themselves in the shoes of the other party, are more likely to develop ethnorelative, as opposed to ethnocentric attitudes (Bennett, 1986; Triandis, 2006). In contrast, individuals who do not engage in reflective observation are less likely to recognize and appreciate cultural differences. Thus, we propose the following:

Proposition 12: Individuals who reflect on their cross-cultural experiences during their international assignments are more likely to develop ethnorelative attitudes toward other cultures.

Knowledge Outcomes

Learning occurs when experiences change people's knowledge domain, such as gaining new knowledge or developing a more sophisticated mental model of a specific subject (Kraiger et al., 1993). For global leaders, a critical cognitive learning outcome is enhanced awareness and knowledge of ways that culture influences what is considered effective leadership. This is because

effective leadership styles vary based on culture—what is effective in one culture may be ineffective in other cultures due to culturally based implicit theories of leadership held by followers (e.g., see GLOBE study by House, Hanges, Javindan, Dorfman, & Gupta, 2004).

In thinking about relationships between ELT processes and learning outcomes, we propose that abstract conceptualization is particularly important for gaining accurate knowledge of implicit mental models of appropriate leadership across cultures (Lord, Brown, Harvey, & Hall, 2001). When individuals distill their observations and reflections into more general concepts and principles, they are more likely to add elements to their knowledge structures and build connections between knowledge elements (Glaser & Chi, 1989). For example, when global leaders engage in abstract conceptualization to develop guidelines about why participative leadership is effective in one setting but not in others (Dorfman et al., 1997), they begin to connect their knowledge of cultural values (e.g., power distance) with specific leadership behaviors (e.g., directive or participative styles), thus broadening their mental model of effective leadership by accurately taking into account cultural influences on implicit leadership theories. Accordingly, we present the following:

Proposition 13: Individuals who develop conceptual generalizations based on cross-cultural experiences during their international assignments are more likely to develop accurate mental models of effective leadership across cultures.

Skills-Based Outcomes

The final type of learning outcome identified by Kraiger et al. (1993) is skill-based, or behavioral learning outcomes. For global leaders, learning to exhibit a broad and flexible range of leadership behaviors is an important skill because cultures differ in what is viewed as appropriate leadership in particular situations (House et al., 2004). This is consistent with leadership research on behavioral flexibility (Zaccaro, Gilbert, Thor, & Mumford, 1991) and leadership complexity (Denison, Hooijberg, & Quinn, 1995), which argues that leaders must have a flexible repertoire of behavioral responses so that they can respond effectively and differently based on specific situational demands, while maintaining their own integrity and credibility.

In terms of the conceptual relationship between specific ELT processes and learning outcomes, we

propose that individuals who actively experiment with how to influence their peers and subordinates are more likely to develop a broader and flexible range of leadership styles. This is consistent with cognitive-behavioral approaches to training, which emphasize intentions and ability to change behaviors (Brewin, 1996). For example, during active experimentation, learners consciously plan for opportunities to verify their insights (e.g., whether an authoritarian leadership style is more effective with individuals from a particular culture) and then carry out their plan (e.g., give specific directions to members from that culture). Furthermore, active experimentation allows individuals to gain experience based on real interactions with others. Thus, active experimentation facilitates development of a wide range of flexible leadership behaviors that will be available to them in future interactions.

Proposition 14: Individuals who actively implement and test their ideas in cross-cultural situations during their international assignments are more likely to develop flexibility of leadership styles.

For our last proposition, we emphasize the importance of feedback loops and the ongoing nature of these processes. Thus, each of the four learning outcomes has implications for CQ. This is consistent with the general premise of the ELT learning cycle and is also consistent with the conceptualization of CQ as a malleable set of individual capabilities that can be enhanced by experiences (Van Dyne, Ang, & Koh, 2008). Thus, when experiential learning enhances global leader learning outcomes, this leads to future enhancements in CQ capabilities. This feedback loop suggests a virtuous circle, such that culturally intelligent individuals are more actively engaged in experiential learning processes during their international assignments, achieve high learning outcomes as a result of this involvement, and in turn gain increased CQ capabilities. Conversely, those with low CQ are less actively engaged in experiential learning, have poorer learning outcomes, and are less likely to gain enhanced CQ. Our last proposition predicts a feedback loop such that higher learning outcomes lead to higher subsequent CQ.

Proposition 15: Individuals who gain positive learning outcomes from their international assignments are more likely to experience subsequent enhanced CQ capabilities.

DISCUSSION

We have adopted a developmental perspective and positioned CQ and experiential learning as two key factors that influence global leader learning outcomes. Overall, we aimed to address two questions: (1) How do global leaders translate their international experiences into positive learning outcomes that enhance their global leadership effectiveness? (2) What individual attributes enhance learning outcomes of global leaders during their international experiences?

To address these questions, we integrated theory on experiential learning and cultural intelligence and developed a model where CQ capabilities facilitate active involvement in experiential learning. Thus, those with higher CQ are better able to balance and integrate the dual dialectics of the ELT process: grasping experience and transforming experience. They are also better able to participate actively in the four processes of ELT: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Moreover, we have proposed that those who are more actively engaged in experiential learning will benefit from more positive learning outcomes with special relevance to global leaders: global leadership self-efficacy, ethnorelative attitudes toward other cultures, accurate mental models of effective leadership across cultures, and flexibility of leadership styles.

In sum, we suggest that level of CQ influences experiential learning during international assignments and is one key reason why some global leaders succeed in their roles and others fail (Shaffer et al., 2006). It also may explain why some repatriates fail to experience career benefits and instead are disappointed and frustrated at the end of their assignments (cf. Bolino, 2007). For example, leaders who are low in CQ will be less likely to take the initiative to get involved with locals (Van Dyne & Ang, 2006). They also may have a tendency to short-circuit the experiential learning cycle, thus limiting their learning in becoming effective global leaders. For instance, leaders with high motivational CQ and high behavioral CQ may involve themselves in many concrete experiences during their international assignments. However, without high cognitive CQ and metacognitive CQ, they will not learn fully from their experiences because they lack the observational skills and conceptual understanding to transform their experiences into knowledge that can guide them in the future. In a similar way, those who possess high cognitive and metacognitive CQ, but who lack motivational CQ may

strive for cultural knowledge through books and observations but refrain from seeking real interactions that will provide more holistic experiences and engender deeper learning.

Thus, our conceptual model sheds light on past inconsistent research findings that show positive effects of international work assignments in some instances and no effects in other instances. The model also provides a conceptual explanation for why international assignments are not necessarily effective leadership development tools for all global leaders. Finally, the model has important organizational implications. Specifically, the model espouses that global leaders need to engage in all four stages of experiential learning, and this suggests two sets of organizational implications for helping to maximize the developmental benefits of international assignments for global leaders.

Organizational Implications Based on ELT

Selecting Individuals With CQ Capabilities to Learn

Selection is the basic mechanism organizations use to get the right people into the right positions (McCall & Hollenbeck, 2002). When organizations view experiential learning and development as important components of international assign-

ments, CQ can serve as an important selection tool. As we have explicated in our propositions, there are solid theoretical reasons for expecting that those with higher CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ) are more likely to undergo all four stages of the experiential learning process. This, in turn, makes them more likely to develop self-efficacy as global leaders, adopt ethnorelative attitudes toward other cultures, develop accurate mental models of leadership across cultures, and show flexibility of leadership styles (see Figure 1). Thus, in addition to having performance implications as demonstrated by prior research, our model proposes that CQ also has implications for learning outcomes and can be used to select people who are more likely to benefit from overseas assignments.

Many international assignments, however, are not designed for developmental purposes and instead emphasize other selection criteria, such as domain-specific business knowledge (Spreitzer et al., 1997). In such situations, candidates may possess KSAOs that are important for the role and organization. However, our model suggests that if they lack CQ capabilities to complement their existing skills-set, they may not benefit developmentally from international assignments. Thus, another implication arising from our work here is the importance of organizational policies and inter-

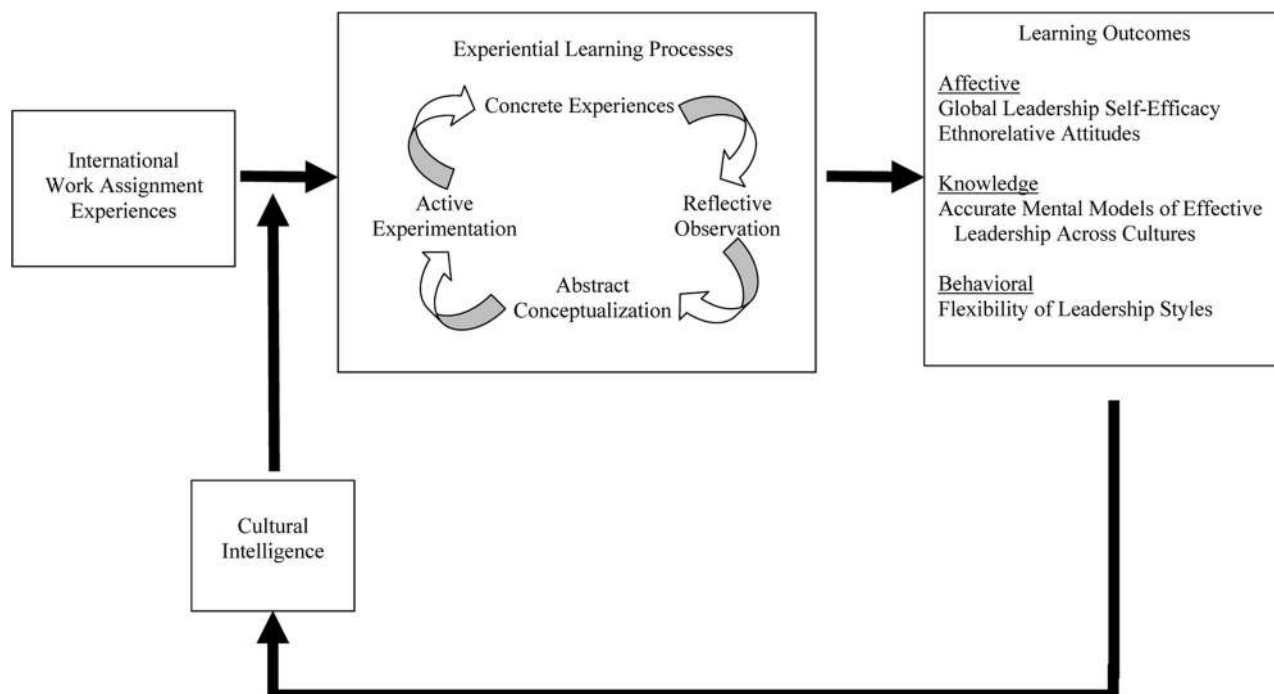


FIGURE 1

Cultural Intelligence and Experiential Learning for Global Leadership Development in International Assignments

ventions that encourage employees to learn from their cross-cultural experiences. This is particularly important for individuals who lack CQ capabilities and who may not naturally get actively involved in experiential learning in the absence of organizational incentives.

Policies and Practices to Encourage Experiential Learning

Expatriate assignments often include generous pay packages with expensive cars and exclusive homes. These perquisites, however, can isolate global leaders from the host-country culture. Oddou, Mendenhall, and Ritchie (2000) observed that even in short-term overseas trips, organizational travel policies that focus on efficient and effective travel can shelter global leaders in a "bubble" that separates them from direct and meaningful contact with the local culture. Hence, providing the physical, mental, and psychological "space" to allow people to experience, reflect, think, and experiment is critical for learning and change to take place (Kolb & Kolb, 2005). We suggest this idea of "space" has special relevance to global leaders who otherwise may not participate actively in experiential learning.

The first stage of experiential learning is *concrete experiences*. Organizations should encourage their leaders to get involved in the host culture to gain concrete experience in several ways. First, they can emphasize the value of concrete experiences by explaining that involvement and leadership development are important objectives of the assignment. This framing should help global leaders view the experience as more than just another task assignment or just another business trip (Oddou et al., 2000). Second, organizations can structure international assignments to facilitate interdependence with locals. This will provide leaders with more concrete and meaningful interactions with locals that should increase their involvement with the local culture (Osland & Osland, 2006). Third, organizations can reward leaders for learning foreign languages and increasing their knowledge of the local culture during their assignments. Each of these should facilitate and encourage cultural involvement (Oddou et al., 2000).

The second stage of experiential learning is *reflective observation*. Global leaders have heavy responsibilities and workloads that allow them very little time for reflection. Recognizing this reality, Mintzberg and Gosling (2002) recommended that international management programs should incorporate modules for personal reflection. Apply-

ing this to global leaders, organizations can encourage them to document their cross-cultural experiences, insights, and learning points in a journal (Oddou et al., 2000). By writing down their experiences and thoughts, global leaders can compare their experiences with their expectations. They can also compare their experiences across time and situations, thus promoting reflection and learning.

The third stage of the experiential learning process, *abstract conceptualization*, also has specific implications for organizations and their leadership development programs. The majority of existing cross-cultural training programs focus on providing country-specific knowledge (Earley & Peterson, 2004). Although such training is important for anticipating cross-cultural differences, it does not adequately equip global leaders with the capability to engage in abstract conceptualization that can help them make sense of novel and paradoxical situations. We recommend that cross-cultural training programs should focus on inductive logic and reasoning skills to help global leaders make sense of, as well as translate, their concrete experiences and reflections into more abstract understanding of the culture (Earley & Peterson, 2004). Training programs should also emphasize the benefits of developing a general appreciation of different cultures based on specific personal experiences, rather than based on stereotypical tendencies.

The final stage in the ELT process is *active experimentation*. Organizations can encourage leaders to apply their newly acquired insights by providing incentives and resources that encourage them to set specific and measurable developmental goals for exploration and experimentation. They also can make sure that reward systems do not contradict the importance of development. For example, if goals only emphasize short-term business results, global leaders will be less likely to maximize experiential learning opportunities. Coaching and mentoring resources will also be helpful to encourage and guide leaders in their experimentation processes. Alternatively, they could facilitate virtual team interactions among global leaders in various locations and encourage them to share their experiences and sense-making with each other. All of these should promote active learning (e.g., McCall & Hollenbeck, 2002; Oddou et al., 2000).

Research Directions

Spreitzer and colleagues (1997: 26) observed that "perhaps the most important direction for future

research is the creation of a theoretical framework for understanding the processes [italics added] by which end-state competencies and the ability to learn from experience contribute to the development of executive potential." Our model represents a step in this direction and points to several avenues for future research.

First, research can examine empirical relationships between the four aspects of CQ, experiential learning, and the learning outcomes proposed in our model. Future studies could assess CQ capabilities with Ang et al.'s (2007) 20-item CQS and adapt existing experiential learning measures (e.g., Learning Style Inventory by Kolb, 1999a, b) to assess actual observable learning behaviors. This would complement existing research on learning styles and preferred modes of learning. Learning outcomes such as global leadership self-efficacy can be assessed by adapting existing measures of leadership self-efficacy (e.g., Ng et al., 2008); ethnocentric attitudes (reverse of ethnorelative attitudes) toward other cultures could be assessed with Shaffer et al.'s (2006) 6-item ethnocentrism scale; accuracy of mental models of effective leadership across cultures can be assessed with measures of cognitive learning outcomes such as multiple-choice, true-false or free-recall tests (Kirkpatrick, 1987; Kraiger et al., 1993); and finally, the GLOBE leadership scales (House et al., 2004) could be adapted to assess flexibility of leadership styles. To assure rigorous research and avoid common source bias, we recommend multiple source designs where constructs are assessed by those in different roles (e.g., self, peers, supervisors).

Another stream of research could examine how international assignments can be designed to maximize their impact on leadership development outcomes. Research by McCauley, Ruderman, Ohlott, and Morrow (1994) on developmental components of jobs suggest that challenging job situations often provide valuable opportunities for development. Examples of challenging tasks that can stretch and develop a leader include tasks that involve a high level of responsibility, tasks that require the leader to create change, and tasks that require the leader to manage non-authority relationships. Applied to our context, future research could assess the developmental components of international assignments and examine their impact on leader's learning outcomes. Consistent with McCauley et al.'s (1994) arguments, we propose that international assignments with more developmental components will provide more significant experiences that will trigger reflection, thinking, and experimentation. Consistent with our model, research should also take into account interindi-

vidual differences in CQ and their effects on experiential learning and learning outcomes.

SUMMARY

Even though international assignments are recognized as an important means to develop global leaders, very little research has considered how leaders actually transform their experiences during their assignments into learning that will enhance their global leadership effectiveness. By integrating research on CQ and experiential learning theory, we aim to develop a better understanding of how and why global leaders learn from their international assignments to become better global leaders. In essence, our model suggests that CQ is an important set of learning capabilities that allows global leaders to benefit developmentally from their experiences by facilitating active involvement in all four sages of the ELT cycle during international assignments. Thus, CQ facilitates the transformation of experience into experiential learning as summarized by the phrase in our title: *from experience to experiential learning*. We recommend that researchers adopt a developmental perspective when studying expatriates and short-term travelers, so that the developmental benefits of international assignments can be maximized for both organizations and individuals.

REFERENCES

- Ang, S., & Inkpen, A. C. 2008. Cultural intelligence and offshore outsourcing success: A framework of firm-level intercultural capability. *Decision Sciences*, 39: 337-358.
- Ang, S., & Van Dyne, L., 2008. Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In Ang, S., & Van Dyne, L. (Eds.), *Handbook on cultural intelligence: Theory, measurement and applications*: 3-15. New York: M. E. Sharpe.
- Ang, S., Van Dyne, L., & Koh, S. K. 2006. Personality correlates of the four-factor model of cultural intelligence. *Group and Organization Management*, 31: 100-123.
- Ang, S., Van Dyne, L., Koh, C. K. S., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. 2007. The measurement of cultural intelligence: Effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review*, 3: 335-371.
- Bandura, A. 1997. *Self-efficacy: The exercise of control*. New York: Freeman.
- Barney, J. 1992. Integrating organizational behavior and strategy formulation research: A resource-based analysis. In P. Shrivastava, A. Huff, & J. Dutton (Eds.), *Advances in strategic management*, 8: 39-61. Greenwich, CT: JAI Press.
- Bennett, J. J. 1986. A developmental approach to training intercultural sensitivity. *International Journal of Intercultural Relations*, 10: 179-196.
- Bhaskar-Shrinivas, P., Harrison, D. A., Shaffer, M. A., & Luk, D. M.

2005. Input-based and time-based models of international adjustment: Meta-analytic evidence and theoretical extensions. *Academy of Management Journal*, 48(2): 25–281.
- Bird, A., Heinbuch, S., Dunbar, R., & McNulty, M. 1993. A conceptual model of the effects of area studies training programs and a preliminary investigation of the model's hypothesized relationships. *International Journal of Intercultural Relations*, 17: 415–435.
- Black, J. S. 1990. The relationship of personal characteristics with the adjustment of Japanese expatriate managers. *Management International Review*, 30: 119–134.
- Bolino, M. C. 2007. Expatriate assignments and intra-organizational career success: Implications for individuals and organizations. *Journal of International Business Studies*, 38: 819–835.
- Brewin, C. R. 1996. Theoretical foundations of cognitive-behavior therapy for anxiety and depression. *Annual Review of Psychology*, 47: 33–57.
- Caligiuri, P. 2006. Developing global leaders. *Human Resource Management Review*, 16: 219–228.
- Carpenter, M. A., Sanders, W. G., & Gregersen, H. B. 2001. Bundling human capital with organizational context: The impact of international assignment experience on multinational firm performance and CEO pay. *Academy of Management Journal*, 44: 493–511.
- Cassidy, S. 2004. Learning styles: An overview of theories, models, and measures. *Educational Psychology*, 24: 419–444.
- Chase, W. G., & Simon, H. A. 1973. The mind's eye in chess. In W. G. Chase (Ed.), *Visual information processing*: 215–281. New York: Academic Press.
- Chi, M. T. H., Glaser, R., & Rees, E. 1982. Expertise in problem solving. In R. Sternberg (Ed.), *Advances in the psychology of human intelligence*, 1: 7–75. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Daily, C. M., Certo, S. T., & Dalton, D. R. 2000. International experience in the executive suite: The path to prosperity? *Strategic Management Journal*, 21: 515–523.
- Deci, E. L., & Ryan, R. M. 1985. *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Denison, D. R., Hooijberg, R., & Quinn, R. 1995. Paradox and performance: Toward a theory of behavioral complexity in managerial leadership. *Organization Science*, 6: 524–540.
- Dewey, J. 1938. *Experience and education*. New York: Simon & Schuster.
- Dorfman, P. W., Howell, J. P., Hibino, S., Lee, J. K., Tate, U., & Bautista, A. 1997. Leadership in Western and Asian countries: Commonalities and differences in effective leadership processes across cultures. *Leadership Quarterly*, 8: 233–274.
- Earley, P. C., & Ang, S. 2003. *Cultural intelligence: Individual interactions across cultures*. Palo Alto, CA: Stanford University Press.
- Earley, P. C., Ang, S., & Tan, J. 2006. *CQ: Developing cultural intelligence at work*. Palo Alto, CA: Stanford University Press.
- Earley, P. C., & Mosakowski, E. 2004. Cultural intelligence. *Harvard Business Review*, 82(10): 139–146.
- Earley, P. C., & Peterson, R. S. 2004. The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager. *Academy of Management Learning and Education*, 3: 100–115.
- Eccles, J. S., & Wigfield, A. 2002. Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53: 109–132.
- Flavell, J. H. 1979. Metacognition and cognitive monitoring: A new area of cognitive inquiry. *American Psychologist*, 34: 906–911.
- Furnham, A., Jackson, C. J., & Miller, T. 1999. Personality, learning style and work performance. *Personality and Individual Differences*, 27: 1113–1122.
- Gagne, R. M. 1984. Learning outcomes and their effects: Useful categories of human performance. *American Psychologist*, 39: 377–385.
- Gardner, H. 1993. *Multiple intelligence: The theory in practice*. New York: Basic Books.
- Gelfand, M. J., Imai, L., & Fehr, R. 2008. Thinking intelligently about cultural intelligence: The road ahead. In S. Ang, & L. Van Dyne, (Eds.), *Handbook on cultural intelligence: Theory, measurement and applications*: 375–387. New York: M. E. Sharpe.
- Gist, M. E., & Mitchell, T. R. 1992. Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, 17: 183–211.
- Glaser, R., & Chi, M. T. 1989. Overview. In M. T. Chi, R. Glaser, & M. J. Farr (Eds.), *The nature of expertise*: xv–xxviii. Hillsdale, NJ: Erlbaum.
- Gregersen, H. B., Morrison, A. J., & Black, J. S. 1998. Developing leaders for the global frontier. *Sloan Management Review*, 40: 21–32.
- Gudykunst, W. B., & Kim, Y. Y. 1984. *Communicating with strangers. An approach to intercultural communication*. New York: Random House.
- Gudykunst, W. B., Ting-Toomey, S., & Chua, E. 1988. *Culture and interpersonal communication*. Newbury Park, CA: Sage.
- Hall, D. T., Zhu, G., & Yan, A. 2001. Developing global leaders: To hold on to them, let them go! *Advances in Global Leadership*, 2: 327–349.
- Hall, E. T. 1959. *The silent language*. New York: Doubleday.
- Harris, M., & Lievens, P. 2005. Selecting employees for global assignments: Can assessment centers measure cultural intelligence? In R. T. Golembiewski & M. A. Rahim, (Eds.), *Current topics in management*, 10: 221–240. Brunswick, NJ: Transaction Publishers.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. 2004. *Culture, leadership and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.
- Janssens, M., & Brett, J. M. 2006. Cultural intelligence in global teams: A fusion model of collaboration. *Group and Organization Management*, 31: 124–153.
- Kalyuga, S., Ayres, P., Chandler, P., & Sweller, J. 2003. The expertise reversal effect. *Educational Psychologist*, 38: 23–31.
- Kane, T. D., Zaccaro, S. J., Tremble, T. T., Jr., & Masuda, A. D. 2002. An examination of the leader's regulation of groups. *Small Group Research*, 33: 65–120.
- Kayes, D. C. 2002. Experiential learning and its critics: Preserving the role of experience in management learning and education. *Academy of Management Learning and Education*, 1: 137–149.

- Kayes, D. C., Kayes, A. B., & Yamazaki, Y. 2005a. Essential competencies for cross-cultural knowledge absorption. *Journal of Managerial Psychology*, 20: 578–589.
- Kayes, D. C., Kayes, A. B., & Yamazaki, Y. 2005b. Transferring knowledge across cultures: A learning competency approach. *Performance Improvement Quarterly*, 18(4): 87–100.
- Kim, K., Kirkman, B. L., & Chen, G. 2008. Cultural intelligence and international assignment effectiveness: A conceptual model and preliminary findings. In Ang, S., & Van Dyne, L. (Eds.) *Handbook on cultural intelligence: Theory, measurement and applications*: 71–90. New York: M. E. Sharpe.
- Kirkpatrick, D. L. 1987. Evaluation of training. In R. L. Craig (Ed.), *Training and development handbook: A guide to human resource development (3rd ed.)*: 301–319. New York: McGraw-Hill.
- Klak, T., & Martin, P. 2003. Do university-sponsored international cultural events help students to appreciate “difference”? *International Journal of Intercultural Relations*, 27: 445–465.
- Kolb, D. A. 1984. *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Kolb, D. A. 1999a. *Learning Style Inventory*. MA: TRG Hay/McBer, Training Resources Group.
- Kolb, D. A. 1999b. *Learning Style Inventory – Version 3: Technical specifications*. MA: TRG Hay/McBer, Training Resources Group.
- Kolb, A. Y., & Kolb, D. A. 2005. Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education*, 4: 193–212.
- Kraiger, K., Ford, J. K., & Salas, E. 1993. Application of cognitive, skill-based, and affective theories of learning outcomes to new methods of training evaluation. *Journal of Applied Psychology*, 78: 311–328.
- Krathwohl, D. R., Bloom, B. S., & Masia, B. B. 1964. *Taxonomy of educational objectives: The classification of educational goals*. White Plains, NY: Longman.
- Leslie, J. B., & Van Velsor, E. 1996. *A look at derailment today: North American and Europe*. Greensboro, NC: Center for Creative Leadership.
- Leung, A. K., Maddux, W. W., Galinsky, A. D., & Chiu, C-y. 2008. Multicultural experience enhances creativity: The when and how. *American Psychologist*, 63: 169–181.
- Lord, R. G., Brown, D. J., Harvey, J. L., & Hall, R. J. 2001. Contextual constraints on prototype generation and their multi-level consequences for leadership perceptions. *Leadership Quarterly*, 12: 311–338.
- Mainemelis, C., Boyatzis, R., & Kolb, D. A. 2002. Learning styles and adaptive flexibility: Testing experiential learning theory. *Management Learning*, 33: 5–33.
- McCall, M. W., & Hollenbeck, G. P. 2002. *The lessons of international experience: Developing global executives*. MA: Harvard Business School.
- McCauley, C. D., Ruderman, M. N., Ohlott, P. J., & Morrow, J. E. 1994. Assessing the developmental components of managerial jobs. *Journal of Applied Psychology*, 79: 544–560.
- Mendenhall, M., & Oddou, G. 1985. The dimensions of expatriate acculturation: A review. *Academy of Management Review*, 10: 39–47.
- Mintzberg, H., & Gosling, J. 2002. Educating managers beyond borders. *Academy of Management Learning and Education*, 1: 64–76.
- Morris, M. A., & Robie, C. 2001. A meta-analysis of the effects of cross-cultural training on expatriate performance and adjustment. *International Journal of Training and Development*, 5: 112–125.
- Nelson, T. O. 1996. Consciousness and metacognition. *American Psychologist*, 51: 102–116.
- Ng, K. Y., Ang, S., & Chan, K. Y. 2008. Personality and leader effectiveness: A moderated mediation of leadership self-efficacy, job demands and job autonomy. *Journal of Applied Psychology*, 93: 733–743.
- Ng, K. Y., & Earley, C. P. 2006. Culture and intelligence: Old constructs, new frontiers. *Group and Organization Management*, 31: 4–19.
- Oberg, K. 1960. Culture shock: Adjustment to new cultural environments. *Practical Anthropology*, 7: 177–182.
- Oddou, G., Mendenhall, M., & Ritchie, J. B. 2000. Leveraging travel as a tool for global leadership development. *Human Resource Management*, 2–3: 159–172.
- Oolders, T., Chernyshenko, O. S., & Stark, S. 2008. Cultural intelligence as a mediator in relationships between openness to experience and adaptive performance. In S. Ang, & L. Van Dyne, (Eds.), *Handbook on cultural intelligence: Theory, measurement and applications*: 145–173. New York: M. E. Sharpe.
- Osland, J. S., & Bird, A. 2000. Beyond sophisticated stereotyping: Cultural sensemaking in context. *Academy of Management Executive*, 14: 65–87.
- Osland, J. S., & Osland, A. 2006. Expatriate paradoxes and cultural involvement. *International Studies of Management and Organization*, 35(4): 91–114.
- Rockstuhl, T., & Ng, K. Y. 2008. The effects of cultural intelligence on interpersonal trust in multicultural teams. In S. Ang, & L. Van Dyne, (Eds.), *Handbook on cultural intelligence: Theory, measurement and applications*: 206–220. New York: M. E. Sharpe.
- Sambharya, R. B. 1996. Foreign experience of top management teams and international diversification strategies of U.S. multinational corporations. *Strategic Management Journal*, 17: 739–746.
- Shaffer, M. A., Harrison, D. A., Gregersen, H., Black, J. S., & Ferzandi, L. A. 2006. You can take it with you: Individual differences and expatriate effectiveness. *Journal of Applied Psychology*, 91: 109–125.
- Shaffer, M., & Miller, G. 2008. Cultural intelligence: A key success factor for expatriates. In S. Ang, & L. Van Dyne, (Eds.), *Handbook on cultural intelligence: Theory, measurement and applications*: 107–125. New York: M. E. Sharpe.
- Sitzmann, T., Brown, K. G., Casper, W. J., Ely, K., & Zimmerman, R. D. 2008. A review and meta-analysis of the nomological network of trainee reactions. *Journal of Applied Psychology*, 93: 280–295.
- Spitzberg, B. H. 1989. Issues in the development of a theory of interpersonal competence in the intercultural context. *International Journal of Intercultural Relations*, 13: 241–268.
- Sprenitzer, G. M., McCall, M. W., Jr., & Mahoney, J. D. 1997. Early identification of international executive potential. *Journal of Applied Psychology*, 82: 6–29.

- Sternberg, R. J., & Detterman, D. K. (Eds.). 1986. *What is intelligence?: Contemporary viewpoints on its nature and definition*. Norwood, NJ: Ablex.
- Stroh, L. K., & Caligiuri, P. M. 1998. Increasing global competition through effective people management. *Journal of World Business*, 33: 1–16.
- Taylor, S. E., & Crocker, J. 1981. Schematic bases of social information processing. In E. T. Higgins, C. P. Herman, & M. P. Zanna (Eds.), *Social cognition: The Ontario symposium*: 89–134. Hillsdale, NJ: Lawrence Erlbaum.
- Templer, K. J., Tay, C., & Chandrasekar, N. A. 2006. Motivational cultural intelligence, realistic job previews, and realistic living conditions preview, and cross-cultural adjustment. *Group and Organization Management*, 31: 154–173.
- Triandis, H. C. 1994. *Culture and social behavior*. New York: McGraw Hill.
- Triandis, H. C. 1995. Culture specific assimilators. In S. M. Fowler (Ed.), *Intercultural sourcebook: Cross-cultural training methods*: 179–186. Yarmouth, ME: Intercultural Press.
- Triandis, H. C. 2006. Cultural intelligence in organizations. *Group and Organization Management*, 31: 20–26.
- Triandis, J. C., Marin, G., Lisansky, J., & Betancourt, H. 1984. Simpatia as a cultural script of Hispanics. *Journal of Personality and Social Psychology*, 47: 1363–1375.
- Van Dyne, L., & Ang, S. 2006. Getting more than you expect: Global leader initiative to span structural holes and reputational effectiveness. In W. H. Mobley & E. W. Weldon (Eds.), *Advances in global leadership*, 4: 101–122. New York: JAI Press.
- Van Dyne, L., Ang, S., & Koh, C. 2008. Development and validation of the CQS: The cultural intelligence scale. In S. Ang, & L. Van Dyne (Eds.), *Handbook on cultural intelligence: Theory, measurement and applications*: 16–38. New York: M. E. Sharpe.
- Van Velsor, E., Moxley, R. S., & Bunker, K. A. 2004. The leader development process. In C. D. McCauley & E. Van Velsor (Eds.), *Handbook of leadership development (2nd ed.)*: 204–233. CA: Wiley.
- Yamazaki, Y., & Kayes, D. C. 2004. An experiential approach to cross-cultural learning: A review and integration of competencies for successful expatriate adaptation. *Academy of Management Learning and Education*, 3: 362–379.
- Yamazaki, Y., & Kayes, D. C. 2007. Expatriate learning: Exploring how Japanese managers adapt in the United States. *International Journal of Human Resource Management*, 18: 1373–1395.
- Zaccaro, S. J., Gilbert, J. A., Thor, K. K., & Mumford, M. D. 1991. Leadership and social intelligence: Linking social perspectives and behavioral flexibility to leader effectiveness. *Leadership Quarterly*, 2: 317–342.

Kok-Yee Ng (akyng@ntu.edu.sg) is associate professor in management at the Nanyang Technological University in Singapore, and director of research at the Center for Leadership and Cultural Intelligence. Ng received her PhD in organizational behavior from Michigan State University. Her research interests include cultural intelligence, leadership, and teams.

Linn Van Dyne (vandyne@msu.edu) professor, Michigan State University (PhD, University of Minnesota) is associate editor of *Organizational Behavior and Human Decision Processes*, a fellow in Society of Organizational Behavior, and on seven additional editorial boards. Her research programs include proactive employee behaviors and cultural intelligence.

Soon Ang (ASANG@ntu.edu.sg; PhD, Minnesota) is Goh Tjoei Kok Chair and professor in management at the Nanyang Business School, Nanyang Technological University in Singapore. Ang pioneered the concept of cultural intelligence and has published widely. Her research interests include cultural intelligence, outsourcing, and global leadership.