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Emergence of Cultural Intelligence and Global Mindset Capital: A Multilevel Model

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For Review Only

Emergence of Cultural Intelligence and Global Mindset Capital: A Multilevel Model

Purpose - The purpose of this paper is to establish under which conditions researchers should use the constructs cultural intelligence (CQ) and global mindset (GM). We further seek to understand the process through which these constructs emerge to a higher level, and link unit-level knowledge, skills, and abilities (KSAs) capital to pertinent firm-level outcomes.

Design/methodology/approach - This paper is a conceptual study with a multilevel model.

Findings - This paper differentiates two similar lines of research occurring concordantly on the CQ and GM constructs. Next, we develop a multilevel model to better understand the process through which CQ and GM emerge at higher levels and their underlying mechanisms. Finally, this paper adds meaning to the firm-level KSAs by linking firm-level KSAs capital to pertinent firm-level outcomes.

Research limitations/implications - The conclusion implies that researchers should use CQ when the context is focused on interpersonal outcomes and GM when focused on strategic outcomes. The multilevel model is a useful tool for scholars to select which rubric to use in future studies that have international managers as the subjects. We argue that if the scholar is interested in an individual's ability to craft policy and implement strategy, then GM may be more parsimonious than CQ. On the other hand, if the focus is on leadership, human resources, or any other relationship dependent outcome, then CQ will provide a more robust measure.

Practical implications - For practitioners, this study provides a useful tool for managers to improve individual-level commitment by selecting and training individuals high in cultural intelligence. On the other hand, if the desired outcome is firm-level sales or performance, we should focus on targeting individuals high in global mindset.

Originality/value - This is the first theoretical paper to examine how CQ and GM emerge to the firm-level and describe when to use each measure.

Keywords: Global Mindset, Cultural Intelligence, Multilevel, Firm Performance, Organizational Commitment

Introduction

In a world where countries' perceived boundaries are reduced by globalization, multinational organizations have to rely more on global managers to overcome the hurdles of expansion. Yet the skills that constitute a talented manager in the domestic market may not be the same as in international markets (Javidan et al, 2005). For example, managerial knowledge, skills, and abilities (KSAs) that make a manager successful at home may not be sufficient to adequately mitigate the increased risk involved in an international business context (Nadkarni et al, 2011). Potential differences in KSAs among successful domestic and international managers have provoked the academic community to engage in a search for a personality type or mindset that might be correlated with superior international performance. Cultural intelligence (CQ) (Ang et al, 2007) and the global mindset (GM) (Javidan & Teagarden, 2011) are two streams of research attempting to answer this call.

Cultural intelligence is defined as a person's capability to adapt effectively to new cultural contexts (Earley & Ang, 2003). Global mindset is defined as a way of approaching the world and a tendency to scan from a broader perspective (Srinivas, 1995). Both of the concepts are measured with multiple item Likert type scales, resulting in a degree to which an individual is low to high on each. While individuals with CQ or GM seem to possess similar abilities (e.g., the ability to scan and adapt), there are distinctive nuances between the two concepts that researchers suggest need to be explored (Earley et al, 2007). Furthermore, we aim to build on the Earley et al., (2007) work by focusing on "understanding of the mechanisms through which a global mindset [and cultural intelligence] is developed intrapersonally" (p. 97). The purpose of this paper is to address this issue by explicitly looking at similarities and differences between these two constructs and how they are developed. Next, we advocate for the use of CQ for organizational behavior (OB) and human

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2
3 resources (HR) outcomes and GM for strategic outcomes because they are focused on micro
4
5 and macro level processes, respectively.
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7 Within the management context, micro level scholars focused on
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9 industrial/organization (I/O) psychology, OB, and HR have concentrated on how individual-
10
11 level KSAs affect individual-level outcomes (e.g., job satisfaction or commitment to the
12
13 firm). On the other hand, macro level scholars concerned with strategy and organizational
14
15 theory have studied how aggregated firm level attributes of employees generate unit-level
16
17 returns (e.g., sales or profits). Yet despite a recent surge in both micro and macro level
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19 scholarship surrounding the human capital construct, “there is little understanding about how
20
21 human capital manifests across organizational levels” (Ployhart & Moliterno, 2011, p. 127).
22
23 Ployhart and Moliterno (2011) developed a new approach of how individual-level KSAs can
24
25 emerge at higher levels by integrating the insights from micro, intermediate, and macro level
26
27 organizational research with the concept of emergence from multilevel theory. We aim to
28
29 extend their work by looking at a specific set of KSAs (i.e., CQ and GM) and put forth a
30
31 multilevel model of the emergence of CQ and GM. Additionally, we advocate that a unit-
32
33 level CQ or GM capital has positive effects on unit-level commitment to the firm and
34
35 performance, respectively.
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40 Some scholars have attempted to study CQ at various levels. For instance, Imai and
41
42 Gelfand (2010), as well as, Rockstuhl and Ng (2008) utilized dyadic CQ, whereas Flaherty
43
44 (2008) studied team level CQ. More recently, Chen, Liu, and Portnoy (2012) showed that
45
46 firm-level motivational CQ enhances the relationship between individual-level motivational
47
48 CQ and individual cultural sales. Theoretical frameworks of firm-level CQ also suggest that
49
50 firm-level CQ leads to an increase in international and organizational performance (Moon,
51
52 2010). Scholars have stressed that there are still opportunities to further explore CQ at the
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3 firm level (Ng et al, 2012). Yet despite the aforementioned attempts, relatively little has been
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5 done to incorporate both CQ and GM in a multilevel model.
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7 Finally, we suggest that unit-level CQ and GM will have positive effects on unit-level
8
9 commitment and performance, respectively. Addressing this issue is particularly important
10
11 because if evidence confirms our propositions, companies may achieve results beyond those
12
13 found at the individual-level by developing one or both types of KSAs (CQ and/or GM)
14
15 depending on the desired outcomes (e.g., OB/HR or strategic outcomes). For example, if a
16
17 firm is having job commitment problems at the unit-level, then it might implement a training
18
19 program aimed at increasing unit-level CQ.
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22
23 Determining under which conditions researchers should use CQ or GM, and how they
24
25 emerge to a higher level construct has a wide range of consequences. First, it helps
26
27 differentiate two similar lines of research occurring concurrently on CQ and GM. This
28
29 differentiation will help scholars select which rubric to use in future studies of global
30
31 managers. Second, understanding the process through which CQ and GM emerge at higher
32
33 levels will help meso-level scholars understand the mechanisms that underlie this emergence.
34
35 Finally, linking unit-level CQ and GM capital to pertinent unit-level outcomes (i.e.,
36
37 commitment and performance) will significantly add meaning to the unit-level KSAs (CQ or
38
39 GM), and further justify the potential need for training on the concepts. The next section will
40
41 go into more detail on CQ and GM. Then we will discuss how these two constructs can
42
43 emerge to the unit-level. Next, we propose that unit-level CQ is related to unit-level
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45 commitment, and unit-level GM is related to unit-level performance. Finally we conclude
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47 with limitations, future research possibilities, and relevance to practitioners.
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Theory and propositions

Cultural intelligence

While the globalization of firms offers exciting opportunities for intercultural contact, it also comes with challenges due to misunderstandings, tensions, and conflicts. Cultural intelligence research is an across-culture paradigm that focuses on how to bridge cultural differences (Ang, Van Dyne & Rockstuhl, 2015). CQ is the effective capability of a person to adapt to new cultural milieus (Earley & Ang, 2003). Individuals high in CQ can better detect, assimilate, reason, and act appropriately in situations characterized by cultural diversity (Van Dyne et al, 2012). Ng, Van Dyne, Ang, & Ryan (2012) reviewed the CQ literature and found that CQ predicts a variety of important outcomes such as cross-cultural judgment and decision making, cultural adjustment, idea sharing, and job performance.

The context of different cultures is more specific to CQ than for other types of intelligence (e.g., emotional intelligence) (Rockstuhl & Ng, 2008; Rockstuhl, Ng, Ang, & Van Dyne, 2010; Chua et al., 2012). Those researchers established a boundary condition of CQ in that it is particularly relevant in a culturally diverse context, and not in a culturally homogeneous one. Based on Sternberg & Detterman's (1986) multilocus framework, which integrates different perspectives of intelligence, CQ is often studied as a multidimensional construct comprised of four facets: metacognitive, cognitive, motivational, and behavioral (Ang & Van Dyne, 2008; Earley & Ang, 2003).

Before discussing each of the components of CQ and how they map onto the KSAs framework, it is useful to understand the difference between knowledge, skills, and abilities; especially since the difference can be subtle (Lauby, 2013). Knowledge is the understanding of a subject. For example, an individual may know how to structure a meeting in a Mexico. It doesn't mean the individual can run the meeting. It means he/she knows how to structure it. Skills are proficiencies *learned* through experience and training. So, we develop our skills

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2
3 through the transfer of knowledge. Finally, abilities are the qualities of being able to do
4 something. Abilities are often considered *innate*. For example, prioritization and organization
5 are abilities that can help an employee develop their meeting skills (Lauby, 2013).
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10 The metacognitive facet is defined as the individual's mental capability to acquire as
11 well as understand cultural knowledge (Ang & Van Dyne, 2008). Metacognition refers to
12 thinking about thinking, or knowledge about cognitive objects, which consists of meta-
13 cognitive knowledge and meta-cognitive experience (Flavell, 1987). In terms of CQ,
14 metacognition is a critical aspect of CQ since much of what is required in a new culture is
15 putting together patterns into a coherent picture (Earley, 2002). In a complex intercultural
16 context, a high CQ person inductively creates a proper mapping of the social situation in
17 order to function effectively (Early, 2002). Regarding KSAs, metacognitive CQ is closely
18 tied to the ability part of KSAs, because it is more innate than a skill (see Table 1). Ramsey &
19 Lorenz (2016) found that metacognitive CQ was the only component of CQ that did not
20 improve after a semester of CQ training, suggesting that it is innate and can't be learned.
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36 Insert Table 1 about here
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41 Second, the cognitive facet is defined as an individual's knowledge about cultures and
42 cultural differences (Ang & Van Dyne, 2008; Earley & Ang, 2003). However, increased self-
43 knowledge would not necessarily lead to increased behavioral effectiveness unless the
44 individual is willing to work with and learn from others (Adler & Bartholomew, 1992).
45 Moreover, an individual should possess strong reasoning skills to recognize, integrate, and
46 interpret contextual environmental and social signals. In summary, cognition reflects an
47 individual's skill in acquiring new cultural knowledge (Chen et al, 2012). In terms of human
48 capital, the cognitive portion of CQ may fall under the knowledge and skill parts of KSAs.
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3 The aforementioned study by Ramsey & Lorenz (2016) found that the cognitive component
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5 of CQ changed the most in their study of students, suggesting that it might be the easiest to
6
7 learn.
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10 Third, the motivational facet is defined as the intensity and direction of cognitions,
11
12 and has two underlying constructs: self-efficacy and conscientiousness (Earley, 2002). Self-
13
14 efficacy is the person's belief in one's ability to succeed. Self-efficacy is a critical criterion
15
16 for individuals who face novel situations and conditions. Without it, adaptation to complex
17
18 intercultural environments is difficult to achieve. A person high in self-efficacy initiates
19
20 interactions even in uncertain and ambiguous cultural scenarios (Lovvorn & Chen, 2011). As
21
22 for conscientiousness in the context of CQ, it is the desire to continually achieve goals
23
24 regardless of uncertainty, setbacks, challenges, misunderstandings, and failures that result
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26 when interacting with novel cultural environments (Earley, 2002). According to the
27
28 bioecological theory, motivational CQ provides not only agentic control of affect, cognition,
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30 and behavior to guide goal accomplishment in intercultural environments but also the drive to
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32 actualize one's CQ potential (Van Dyne et al, 2012). Thus, even if a person has the
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34 knowledge (cognitive component) and ability (behavioral component) to learn what should
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36 be done in a foreign context, if that person is not motivated to act, then the individual will not
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38 perform well (Earley & Ang, 2003; Ng et al, 2009). This aspect of CQ is primarily tied to the
39
40 skills and ability parts of KSAs.
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45 Finally, the fourth component of CQ is the behavioral. The behavioral facet is the
46
47 person's ability to relevantly and appropriately act, verbally and nonverbally, to contextual
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49 situations (Earley, 2002). To succeed in different cultural settings, a person must be able to
50
51 rapidly adapt one's actions to different situations by acquiring or mimicking the appropriate
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53 behaviors until one gets incorporated into those cultures and acts without hesitation (Lovvorn
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55 & Chen, 2011). The focus of this component is having the skills necessary to adapt to the
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3 current intercultural situation. In terms of human capital, the behavioral portion of CQ may
4
5 fall under the skills part of KSAs.
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8 9 ***Global mindset***

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11 Scholars have developed a number of complimentary definitions of global mindset
12 (GM). Rhinesmith, (1995) states that individuals with a high GM have a broader perspective
13 of the world, which pushes them to find unexpected trends and opportunities. Gupta and
14 Govindarajan (2002) view GM as a combination of awareness and openness to the diversity
15 of cultures and markets with an inclination and capability to integrate across the diversity.
16
17 Javidan and Teagarden (2011, p. 14) define GM as “an individual’s ability to influence
18 individuals, groups, organizations and systems that are unlike him or her or his or her own”.
19
20 The authors state that GM is made up of three components: intellectual capital, social capital,
21 and psychological capital.
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31 Intellectual capital consists of a leader’s knowledge and cognitive capabilities (e.g.,
32 knowledge & ability) regarding different cultural contexts. It is comprised of attributes such
33 as global business savvy, cosmopolitan outlook, and cognitive complexity. Social capital
34 focuses on internal and external relationships; including a leader’s intercultural empathy,
35 interpersonal impact, and diplomacy (e.g., ability & skill). Psychological capital refers to a
36 positive psychological profile and personality traits (e.g., ability), such as a passion for
37 diversity, quest for adventure, and self-assuredness (Javidan & Walker, 2013). These
38 components encompass knowledge, skills, and abilities.
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49 While knowledge according to GM is the understanding of the cultural differences,
50 skills are related to the ability to take advantage of that knowledge and operationalize it
51 (Kedia & Mukherji, 1999). On one hand, a high GM would allow a manager to understand
52 the interdependence of the firm with the global economy. On the other hand, an individual
53 with a high GM would have the ability to create and implement a strategy to improve both
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3 individual and unit-level performance (Maznevski & Lane, 2004). In summary, the three
4
5 components of global mindset are related to all three of the KSAs represented by cultural
6
7 intelligence (see Table 1). Thus, what are the similarities and differences of CQ and GM?
8
9

10 11 *Comparing CQ and GM*

12
13 Cultural intelligence and global mindset are both based on the transformative learning
14
15 theory, albeit more so for CQ. The process of effectively changing one's frame of reference is
16
17 known as transformative learning (Cranton, 1994; 1996; Mezirow, 1991; 1995; 1996).

18
19 Through experience, values, and feelings, individuals define a specific frame of reference
20
21 through which they view the world. Frames of reference, which are structures of
22
23 assumptions, dictate individuals' actions by shaping and delimiting their expectations,
24
25 feelings, cognition, and perceptions. Furthermore, individuals have a strong tendency to
26
27 reject ideas that don't fit within their frame of reference. Yet transformative learners
28
29 constantly reshape their frames of reference, rendering them more inclusive, self-reflective,
30
31 discriminating, and integrative of experience (Mezirow, 1997). The ability to reshape one's
32
33 frame of reference in a cross-cultural context is important to individuals with either CQ or
34
35 GM, which are thus grounded in transformative learning theory.
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39
40 Additionally, both CQ and GM seem to cover the same KSAs (see table 1). One
41
42 difference is that CQ focuses on the underlying psychological mechanisms that lead to the
43
44 factors of CQ. Whereas GM is more general and addresses directly the knowledge, skills, and
45
46 abilities of the individual in a different culture, CQ delves into the metacognitive, cognitive,
47
48 behavioral, and motivational underpinnings. Earley et al., (2007) point out two differences
49
50 between the constructs. First, CQ adds the metacognitive element to the cognitive
51
52 component. While they admit that the cognitive aspect of CQ and GM is evident in both
53
54 constructs, GM scholars do not "describe in detail what higher order metacognitive strategies
55
56 might be useful for analyzing more proximate thought processes" (Earley et al, 2007, p. 95).
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3 Although any deeper understanding of the cognitive component of CQ (or GM for that
4 matter) is valuable, the relative differences on the topic between the two constructs seem
5 minor.
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10 Conversely, a key difference between the two constructs is that GM behavior is
11 focused on the ability to turn the cognitive understanding of cultural differences into some
12 type of effective policy (Gupta & Govindarajan, 2002). GM scholars discuss behavior and
13 adaptation as profitably applying the knowledge of cultural diversity, whereas CQ scholars
14 are more concerned with the process of interacting effectively on an interpersonal basis
15 (Earley et al, 2007). The fact that CQ focuses on the process of the interaction is based on its
16 explicit inclusion of the metacognitive component, which is lacking in GM. "CQ posits the
17 need to think about how information is processed and combined, while GM focuses more on
18 making sure different types of information are represented and processed" (Earley et al, 2007,
19 p. 95). This focus on the metacognitive strategies of interpersonal interactions (or the *how*) is
20 the primary departure between CQ and GM.
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34 So how do scholars select which construct to use? If a scholar is interested in an
35 individual's ability to craft policy and implement strategy, then GM may be more appropriate
36 than CQ, because GM is more focused on policy than CQ. On the other hand, if the focus is
37 on leadership, human resources, or any other *relationship* dependent outcome, then CQ may
38 provide a more robust measure since it deals with interpersonal interaction more than GM.
39
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44
45 There is one caveat that should be mentioned based on an Earley et al., (2007) review article.
46 Because CQ is more focused on cultural differences, it "is in some ways narrower than a
47 GM" (p. 99). For instance, GM takes into account broader issues such as unique economic
48 and political differences of regions. Thus, it is not as focused on purely cross-cultural issues.
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54 This broad versus deep approach further supports our recommendation of using GM for
55 policy and strategy outcomes.
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Therefore we propose:

Proposition 1: The outcome variable of interest determines whether cultural intelligence or global mindset is more applicable in an international context.

Proposition 2: Cultural intelligence can aid in the understanding of OB/HR outcomes, such as managerial effectiveness and human resources management.

Proposition 3: Global mindset can aid in the understanding of a firm's strategic outcomes, such as policy implementation and performance.

The emergence of cultural intelligence and global mindset to the unit-level

Multilevel research is primarily concerned with emergence, which is the process of explaining how and why phenomena at lower levels join to create a higher level construct that is distinct from its lower level origins (Ployhart & Moliterno, 2011). If scholars do not address the process of emergence, a number of misleading interpretations may arise (Kozlowski & Klein, 2000). This section begins by discussing human capital emergence. Human capital emergence will then be used as the basis for both cultural intelligence and global mindset emergence.

Leung et al., (2014) reviewed the cross-cultural competence literature and identified five major intercultural competency models: Global Competencies, Global Mindset, Multicultural Personality, Intercultural Development of Intercultural Sensitivity, and Cultural Intelligence. The authors suggest that the five intercultural competence models predict performance outcomes at different levels. The Global Leadership Competency, Multicultural Personality, and Intercultural Development Inventory models only predict individual-level performance outcomes, while the Cultural Intelligence and Global Mindset models predict performance outcomes at both individual- and organizational-levels. This suggests that CQ and GM are the two intercultural competency models that researchers should focus on when looking at higher level outcomes (See Table 2).

Insert Table 2 about here

Human capital theory can be used to elevate all of the facets of the four factor CQ model (metacognitive, cognitive, behavioral, and motivational) and the three factor global mindset (intellectual, social, and psychological) from the individual-level to the business unit or organizational-level. Originating from economics, human capital theory emphasizes values, costs, and transferability of human capital across all of the aggregated levels of an organization. This transfer begins with the individual. A central argument of the human capital theory is that both general and unit-specific human capital (KSAs) contribute simultaneously to the individual and unit effectiveness (Becker, 1964).

Ployhart et al., (2011) also discuss whether the KSAs are context-generic or context-specific. For instance, cognitive ability, personality, values, and interests are context-generic because they are relatively stable over time and situations. Skills may be context generic when they are tied to broad domains (e.g., social skills) or context specific when they are tied to narrow domains (e.g., skill in navigating a firm's political nuances). "Knowledge and experience may also be either context generic (e.g., knowledge of accounting principles) or context specific (e.g., knowledge of a client's specific accounting situation)" (Ployhart & Moliterno, 2011, p. 134). We suggest that the KSAs that make up CQ and GM are more context generic than context-specific and hence malleable. Yet as Ployhart et al., (2011) point out, these context-generic KSAs become context-specific human capital resources as a function of a unit-specific emergence enabling process.

The mechanism through which CQ and GM emerge in human capital theory is the *interaction* of individuals within a unit. Kozlowski and Klein describe "a phenomenon [as] emergent when it originates in the cognition, affect, behaviors, or other characteristics of

1
2
3 individuals, is amplified by their interactions, and manifests as a higher-level, collective
4
5 phenomenon” (2000; p. 55). The process underlying the emergence of CQ and GM should be
6
7 similar based on their underlying KSAs, and thus will be considered simultaneously.
8

9
10 Individuals, who work together, not only interact on a daily basis, but also
11
12 intentionally or unintentionally learn from each other by exchanging ideas, information,
13
14 experiences, and knowledge. They also learn from each other by simply observing actions.
15
16 CQ capabilities are therefore embedded in the individual’s web of intercultural interactions
17
18 (Ang et al, 2011). Some organizational scholars suggest that an interactional view should be
19
20 adopted in order to capture the interaction effects of individual characteristics and contextual
21
22 factors on the importance of roles that individuals play in their organizations (Ang & Inkpen,
23
24 2008; Cantor et al, 1982; Shoda et al, 2002). In summary, it is the interaction of individuals
25
26 (in both bottom-up and top-down processes) within a unit that builds unit-level KSAs (or
27
28 KSA capital).
29
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31
32 At the firm level, CQ or GM *capital* is dependent on the firm’s ability to channel its
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34 employees’ actions and energy in order to effectively learn about and function in cross-
35
36 cultural environments (Ang & Inkpen, 2008; Chen & Kanfer, 2006). One way to achieve
37
38 unit-level CQ or GM capital is the bottom-up process in which individuals’ CQ or GM can
39
40 transfer into unit CQ or GM capital (Chen et al, 2012). This transfer happens via two types of
41
42 interactions in which employees engage. First, a horizontal or peer to peer exchange takes
43
44 place when employees share ideas, resources, and assimilated attitudes regarding their
45
46 personal cross-cultural experiences. These interactions not only strengthen the employees’
47
48 confidence and interests in dealing with cross-cultural issues, but also create a collective
49
50 knowledge that emerges as unit CQ capital. Second, a vertical exchange takes place when
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52 employees seek advice from, make suggestions to, and ask for resources and support from
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3 their supervisors or leaders. Employees' CQ stimulates their supervisors' CQ, which in turn
4 stimulates a culture-related learning and training process across the unit (Chen et al, 2012).
5
6

7 Similar to CQ, GM can transfer from individual-level to unit-level GM capital
8 through the bottom-up processes. Within an organization, each individual has a mindset
9 which continuously shapes and is shaped by the mindsets of others in the organization.
10 Organizational mindsets can change with new experiences due to the organizational and
11 social processes through which members meet and interact (Gupta & Govindarajan, 2002).
12 Considering the process of individual CQ and GM emergence to unit-level capital as depicted
13 in Figure 1, we propose:
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22
23 *Proposition 4:* Individual-level cultural intelligence emerges as business-unit cultural
24 intelligence capital.
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27 *Proposition 5:* Individual-level global mindset emerges as business-unit global
28 mindset capital.
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34 Insert Figure 1 about here
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40 **Cultural intelligence and global mindset capitals' effect on unit-level outcomes**

41 A primary assumption in strategic human resource management research is that human
42 resource practices lead to aggregate human capital (KSAs) at the business unit or
43 organizational levels (Barney & Wright, 1998). This capital then contributes to an increase in
44 commitment (Story & Barbuto, 2011) and eventually superior performance for the business
45 unit or organization (Ployhart et al, 2009). The resourced base view (RBV) provides a
46 theoretical lens in which to understand how this happens. After a short review of the RBV, a
47 discussion on how CQ and GM capital affect unit-level outcomes (i.e., commitment and
48 performance, respectively) will ensue.
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3 The resource based view of the firm (Barney, 1991) supports the claim that human
4 capital leads to superior unit or organizational performance because human capital is
5 valuable, rare, inimitable, and non-substitutable (Wright et al, 2001). In the context of cross-
6 cultural work environments, human capital is valuable because CQ and GM are core
7 capabilities due to their rareness. This scarcity is not easily obtained due to the fact that they
8 are intrinsic characteristics within individuals that can be aggregated to the unit, resulting in a
9 competitive advantage. Furthermore, unit-level CQ and GM capital are inimitable due to the
10 task and social complexity that is inherent in cross-cultural interactions (Ployhart &
11 Moliterno, 2011). The greater the degree of complexity, the more difficult it will be for other
12 firms to duplicate, resulting in a competitive advantage. Finally, CQ or GM capital can
13 transform into a sustainable competitive advantage by being non-substitutable. This type of
14 capital is less likely to be substituted because of its social complexity (due to the interactions
15 between employees), causal ambiguity (there is not clear combination of practices that leads
16 to it) and firm history (firm's attractiveness to special talent) (Barney, 1991; Barney &
17 Wright, 1998).

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36 As discussed earlier, individual-level CQ is more appropriate than GM when the
37 outcome of interest is based on relationships. For instance, if the business unit is concerned
38 with commitment, then it may change its hiring strategy to acquire individuals that are high
39 in CQ. These individuals would interact with each other, resulting in an increase of unit-level
40 CQ capital. As suggested by the RBV, this CQ capital would lead to superior levels of
41 commitment (Story & Barbuto, 2011). Although Story & Barbuto's (2011) theoretical model
42 suggests a positive relationship between GM and relationship-based outcomes (e.g.
43 commitment and trust), their conceptualization of GM is primarily based on the concept and
44 components of cultural intelligence. Thus we propose:

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56 *Proposition 6:* Business unit cultural intelligence leads to business unit commitment.
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3 As aforementioned, individual-level global mindset should be used when considering
4 strategic unit-level outcomes (i.e., unit performance) due to its breadth. Specifically, it
5 focuses on other elements of the environment than interpersonal, such as politics and
6 economics. Thus, a GM capital that emerges at the unit-level will provide sustainable rents
7 according to the RBV (see Figure 1). For instance, if a group of individuals can combine the
8 diversity of their unit with the political and economic landscape of the region in which they
9 are operating, they will most likely be able to outperform units that have not manifested such
10 a resource (Chen et al, 2010). We assert that the mechanism underlying this phenomenon is a
11 unit-level GM capital. With this in mind, we propose:

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23 *Proposition 7:* Business unit global mindset leads to business unit performance.
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26 Discussion

27 The purpose of this article was threefold. First, we sought to establish under which conditions
28 researchers should use CQ and GM. In so doing, the article helps differentiate two similar
29 lines of research. This differentiation will help scholars select which rubric to use in future
30 studies that have global managers as the subjects. We argue that if the scholar is interested in
31 an individual's ability to craft policy and implement strategy, then GM may be more
32 parsimonious than CQ. On the other hand, if the focus is on leadership, human resources, or
33 any other *relationship* dependent outcome, then CQ may provide a more robust measure.
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35 Second, understanding the process through which these constructs emerge to a higher level
36 will help meso-level scholars with the mechanisms that underlie this emergence. Here we
37 focused on the underlying mechanism of emergence which is based on the interaction among
38 the individuals within a unit. The elimination of this interaction would likely result in a loss
39 of the gains (unit-level capital) available. Finally, linking unit-level KSAs capital to pertinent
40 unit-level outcomes (i.e., commitment and performance) will significantly add meaning to the
41 unit-level KSAs (CQ or GM), and further justify the need for training on the concepts.
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Implications, limitations, and future research

Implications

Practitioners will find these propositions useful due to their applicability to selection and training of potential international sojourners and expatriates. For instance, if the HR manager is having a problem with turnover of a particular unit's international cadre of employees, then it might improve unit-level commitment by selecting and training individuals high in cultural intelligence. The paper also suggests that it is critical to provide an environment in which these individuals can interact. Without it, CQ capital will not emerge. On the other hand, if the HR manager notices a lack of unit-level performance, a program to select individuals high in GM may be in order. These individuals are focused on the "big picture" and will effectively operationalize policy and strategy, resulting in sustainable rents.

Limitations and future research

This paper is not without limitations. First, a deeper understanding of how and why CQ and GM capital emerge should be explored. Second, future research may consider possible interactive or reciprocal effects between CQ and GM. For instance, Ng, Tan, and Ang (2011) argue that an organization's global culture capital (e.g. firm-level global mindset values) may foster individual cosmopolitan human capital (e.g. individual-level cultural intelligence) through the process of situated learning. Third, we did not focus on the methodological issues associated with multilevel measurement and testing. Yet this science has been improving rapidly and can be investigated by reviewing either the book by Kozlowski and Klein (2000) for a deep approach or the recent paper by Ployhart and Moliterno (2011) for a more recent applied dealing. Fourth, because this is a theoretical piece, we did not include empirical

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3 evidence to support our propositions. Future research would greatly enhance this work by
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5 testing the aforementioned propositions. Fifth, a deeper examination of the scales underlying
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7 the CQ and GM constructs was omitted for brevity concerns. While both of the scales were
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9 meticulously constructed and verified for validity, empirical analysts should compare and
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11 contrast the scales in order to better understand exactly how they differ from each other.
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13 Sixth, future studies should consider the potential different roles of each of the CQ
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15 components (Van Dyne et al, 2012) in the proposed model. Seventh, are individuals more
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17 prone to acquire skills related to CQ if they are people-oriented and acquire skills related to
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19 GM if they think more strategically? And finally, while work has recently begun to explore
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21 the emergence of CQ from the individual to the organizational level (Chen et al, 2012; Crotty
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23 & Brett, 2012; Groves & Feyerherm, 2011) it is still an open frontier (Ang et al, 2015).
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Table 1: Comparison of KSAs for CQ and GM.

KSAs	Cultural intelligence			Global Mindset
	Metacognitive	Cognitive	Motivational	Behavioral
Knowledge		X		X
Skill		X	X	X
Ability	X		X	X

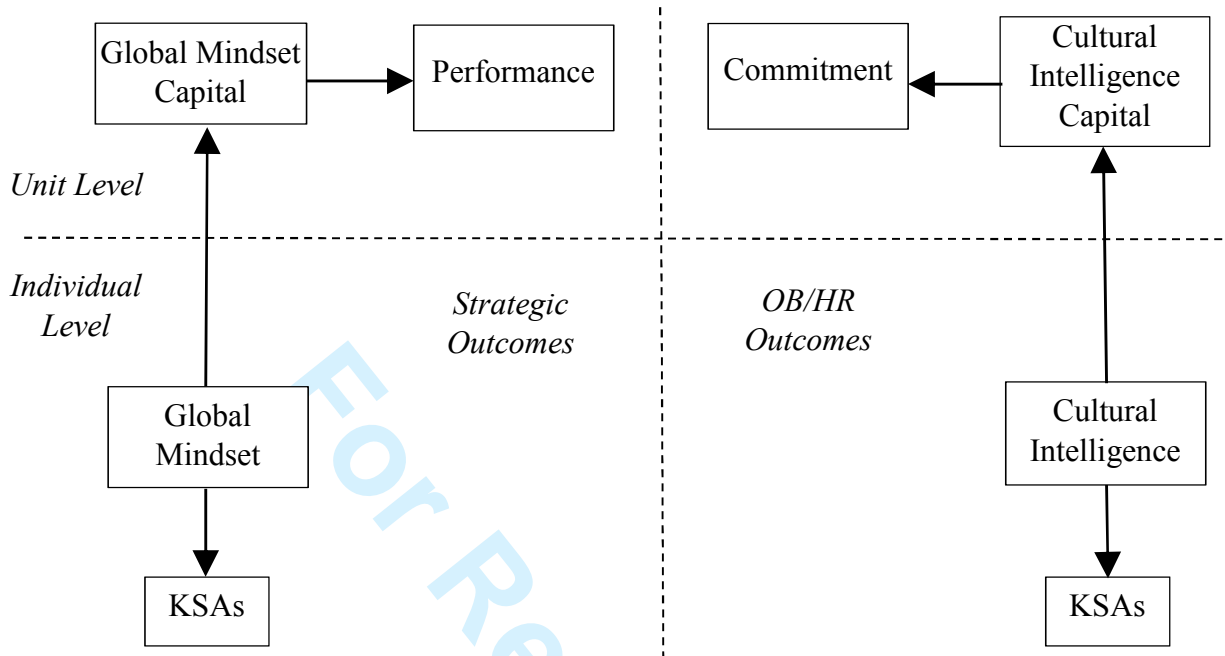
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Table 2: Performance outcomes predicted by five intercultural competence models.

Intercultural Competence Models	Individual Outcomes Predicted	Organizational Outcomes Predicted
Global Leadership Competency (Bird et al., 2010)	Link to individual leadership outcomes (Bird et al., 2010).	Not mentioned by previous studies.
Global Mindset (Javidan & Teagarden, 2011)	It captures how one processes complex information in a global environment.	Organizational Performance (Begley & Boyd, 2003; Gupta & Govindarajan, 2002). Strategic orientation: global aspiration, capability-seeking, and risk tolerance (Gaffney et al., 2014)
Multicultural Personality (Van der Zee & Van Oudenhove, 2000)	Exam grades of students working in culturally diverse teams (Van der Zee et al. 2004)	Not mentioned by previous studies.
Cultural Intelligence (Ang et al., 2007)	Task and contextual performance (Abdul Malek & Budhwar 2013; Ang et al. 2007; Chen et al. 2010; Chen et al. 2011; Chen et al. 2012; Duff et al. 2012; Nafei 2013; Rockstuhl et al. 2013a,b; Sahin et al. 2013; Sri Ramalu et al. 2012a; Wu & Ang 2011), Leader performance in culturally diverse teams (Groves & Feyerherm 2011), International leadership potential (Kim & Van Dyne 2012), Cross-border leadership effectiveness (Rockstuhl et al. 2011).	Joint profits of intercultural negotiation pairs (Imai & Gelfand 2010), Creativity performance of intercultural dyads (Chua et al. 2012), Team creativity in multicultural teams (Crotty & Brett 2012), Team performance of multicultural teams (Groves & Feyerherm 2011).
The Intercultural Development Inventory (Hammer & Bennett, 1998)	Effectiveness in meeting diversity and inclusion staffing goals (objective data) (Hammer 2011)	Not mentioned by previous studies.

Figure 1: Model of CQ and GM emergence and outcomes.



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