

Review of Literature



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Preamble

This report is presented to provide an overview of the literature reviewed by Van Driel Consulting Inc as part of the DEOMI 3C project. The submission of this report constitutes a formal deliverable as specified in the statement of work.

It is the intent of the researcher that the literature reviewed should function as the theoretical basis for the research endeavor associated with the DEOMI 3C project, and therefore help inform the design of the research effort, as well as subsequent item writing, and the composition of future reports and publications. However, this report should not be used as a publication in its own right prior to discussion with the researcher.

Special thanks is deserved by Dr Gary McGuire for his contributions to this literature review. Without his willingness to share information and his extensive insights, this report would have lacked critical content.

Introduction

Military deployment abroad has become increasingly common as the global war on terror (GWT), otherwise known as the “long war,” continues. The GWT has necessitated a paradigm shift in the thinking of the United States military community as it became apparent that traditional occupation and kinetic domination are no longer the means by which success can be attained. Today’s irregular wars will be won through assuring the stability of conflict regions. This is a difficult goal to accomplish due to its most basic element being the complicated task of winning the hearts and minds of individuals within the afflicted regions.

As the GWT continues, it is likely that the most critical antecedents of success will be found in the mental capabilities of front line personnel rather than military materiel. Upon deployment, all service members require specialized cultural knowledge and skills. These knowledge and skill sets will help them adapt to the challenges of being deployed in a different cultural setting as well as engage local populaces in an effective manner to facilitate the promotion of stability and security (McGinn, Weaver, McDonald, Van Driel, & Hancock, 2008; McFate, 2007). Collectively this knowledge and skill set falls within the realm of cross-cultural competence (Selmeski, 2007), which can be broadly defined as “a complex of abilities needed to perform effectively and appropriately when interacting with others who are linguistically and culturally different from oneself” (Fantini, 2006, p. 12).

Developing cross-cultural competence, as described by Fantini (2006), is not an easy proposition. This challenge has not gone unnoticed by the DOD. On the contrary, it has inspired large scale action in terms of both assessing existing and building new cultural capabilities within the entire DOD (McGinn et al., 2008). As evidence of this action, the DOD has begun to implement a strategy defined within the Defense Language Transformation Roadmap. The strategy defined within the Roadmap emphasizes the importance of developing and sustaining strong language and cultural foundational capabilities within the entire DOD as well as the capability to meet any and all global needs as they arise (McGinn et al., 2008).

To facilitate the achievement of these goals, one strategy that has been presented is to provide training aimed at teaching cultural and affective skills that are generalizable to all cultural contexts (Abbe, Gulick, & Herman, 2008). It is noted that this type of training focuses on fostering cross-cultural competence, or more specifically the “knowledge, affect and skill components that develop in response to experience, training and education” (Abbe, 2008, p. vii). In support of this approach, it is noted that general cultural competencies contribute more to intercultural effectiveness than knowledge, skills, and language proficiency related to any region in particular or even prior international experience (Abbe, 2008).

To put this perspective into a workable format, cross-cultural experts who comprised the Regional and Cultural Capabilities Assessment (RACCA) Work Group developed a cross-cultural developmental and assessment model. This working group articulated 40 competencies

intended to guide the growth in terms of cross-cultural capabilities of individual service members (McDonald, McGuire, Johnston, Selmeski, & Abbe, 2008). These competencies constitute a tremendous step in terms of establishing a standardized framework for training and assessing the cross-cultural competencies within the United States military. With widespread dissemination and implementation this framework will undoubtedly have a tremendous impact on the improvement of the cultural readiness of all service members. The next logical step in the process of improving the military is the development of a theoretically sound framework which is to be accompanied by an empirically derived measurement device aimed at comprehensively assessing unit level cross-cultural competence. By leveraging the work and insight of the RACCA workgroup, these goals are not only attainable but highly probable provided the current project is successfully completed.

As a basis for the establishment of a theoretical basis for a taxonomy of unit level cross-cultural competence, this report provides an overview of relevant literature relating to cross-cultural competencies as an individual as well as an organizational level construct. Furthermore, this report also provides an accessible discussion of the conceptual and statistical considerations that will have to be made as this project progresses. Finally this report also provides a series of recommendations for proximal actions that are necessary for the successful completion of this project.

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Cross-Cultural Competence

DEOMI Cross-Cultural Competence Research

Recently, Dr Karol Ross was commissioned by DEOMI to develop an operational definition of cross-cultural competence as well as an accompanying measurement device. The following operational definition of cross-cultural competence was derived from this initiative:

“[Cross-cultural competence] is the development of knowledge and skill through experience and training that results in a complex schema of cultural differences, perspective-taking skills, and interpersonal skills, all of which an individual can flexibly (or adaptively) apply through the willingness to engage in new environments even in the face of considerable ambiguity, through self-monitoring and through self-regulation to support mission success in a dynamic context” (Ross & Thornson, 2008, p. 12-13).

This is a broad definition that reflects the great difficulty of defining an amorphous and conceptually broad construct such as cross-cultural competence. The work of Dr Ross is part of a tradition that arguably goes back to the 1950s to the work of Hall (1959) on intercultural communication. However, her definition of cross-cultural competence reflects an advanced understanding of the characteristics required for effective intercultural interactions as well as the inherent difficulty in measuring cross-cultural competence.

Cross-Cultural Competence Conceptually

Cross-cultural competence is a concept that extends to all parts of organizations. As noted previously, Fantini defined cross-cultural competence as “a complex of abilities needed to perform effectively and appropriately when interacting with others who are linguistically and culturally different from oneself” (2006, p. 12). From an equally generic, yet more business oriented business perspective, cross-cultural competence involves the marketing and selling of products as well as the managing of people and business processes (Canen & Canen, 1999, 2002; Civelli, 1997). Despite the orientation from which cross-cultural competence is viewed, in a general sense it always seems to be defined in terms of the capabilities of individuals to interact with individuals from ethnic groups other than their own to achieve some desired outcomes such as organizational success. Other definitions of cultural competence include the following:

- “A set of congruent behaviors, attitudes, and policies that come together in a system, agency, or amongst professionals that system, agency, or those professionals to work effectively in cross-cultural situations” (Cross et al., 1989).

- “The integration and transformation of knowledge about individuals and group of people into specific standards, policies, practices, and attitudes used in appropriate cultural settings to increase the quality of services, thereby producing better outcomes” (Pope-Davis & Coleman, 1997).
- “The ability of individuals and systems to respond respectfully and effectively to people of all cultures, classes, races, ethnic backgrounds, and religions in a manner that recognizes, affirms, and values the worth of individuals, families, and communities and protects and preserves the dignity of each” (Child Welfare League of America, 2001).
- “An ability to provide services that are perceived as legitimate for problems experienced by culturally diverse persons” that “denotes the ability to transform knowledge and cultural awareness into...interventions that support and sustain ...system functioning within the appropriate cultural context” (McPhatter, 1997).

From these definitions it is evident that cross-cultural competence is dependent on the extent to which organizations can convert the understanding of cultural settings into better business practices. Inherently, organizational competence is therefore tied to the competence of individuals working within organizations. Without competent employees, organizations are incapable of being effective in any culture. Taking this observation into consideration, a prudent starting point for defining cross-cultural competence may be to define competence at the individual level.

Cross-Cultural Competence as an Individual Level Construct

Individual competence has been called many things. From a layman’s perspective, competence can be defined as “a combination of knowing and being able to do” (Webster, 1994, p.72). Competence has also been defined in more specific terms that are complimentary to this general definition of competence. Three of these more specific approaches to defining competence have been termed the “US” approach, the “French” approach, and the “UK” approach (Civelli, 1997).

According to the “US” approach, competence can be seen as an internal characteristic that has a causal relationship with superior performance, and can therefore be conceptualized as behavioral competence (Boyzatis, 1982; Sparrow, 1995). Conversely, according to the “French” approach, competence is related to psychological elements such as self image, aptitudes, personality traits, and acquired knowledge (Levy-Leboyer, 1996). The “UK” approach deviates from the prior two approaches in the sense that it utilizes criteria external to the individual to define competence. According to this approach, competence is the extent to which individuals

can meet and exceed the standards expected in a given employment context (Dale & Iles, 1992). Considering these broad definitions of competence, it is clear that competence can be generally described as an individual level construct that is related to what people know, their psychological characteristics and what they are capable of doing.

Many attempts have been made to detangle the complexity of cross-cultural competence. One of the most notable attempts was that of Norman Dinges (1983), who evaluated a number of perspectives on intercultural competence. Dinges discussed 6 philosophical perspectives of intercultural competence, including: overseasmanship, subjective culture and isomorphic attributions, the multicultural man, social behaviorism and culture learning, intercultural competence typologies, and intercultural communication. The following sections are dedicated to providing an overview of these perspectives. For future writing, it is advisable that the primary sources cited in this section should be referenced.

Overseasmanship

The first perspective discussed by Dinges was that of overseasmanship. Overseasmanship was derived from some of the earliest attempts to identify and define common factors to overseas performance of Americans (e.g. Cleveland, Mangone, & Adams, 1960, 1963). This body of work was known as the Carnegie project, which examined the attributes of effective higher –level administrators in government, business, religion, and industry that operated in different parts of the world (Dinges, 1983).

This project revealed that effective international personnel typically had technical skill, believed in their mission, had cultural empathy, had a sense of politics, and had organizational ability. Dinges (1983) notes that even at this early stage of research, it was noted that there is an interaction between the characteristics of assignments and the competencies that are needed to perform effectively in the international arena (e.g. Van-Harrison, 1978). However, in discussing the work of Cleveland et al. (1960, 1963), Dinges points out that it came to light that technical skills were as important as human relations factors.

According to the work performed by Cleveland et al. (1960, 1963) many American sojourners abroad were not technically competent, which is a deficiency that is amplified in difficult field conditions. Accordingly, they noted that individuals who had a wide variety of general skills were often more apt to adapt and succeed in performing their tasks than those with narrowly focused skills. Furthermore, Cleveland et al. (1960, 1963) noted that a certain amount of resilience is required to achieve specific goals associated foreign assignments. This resilience can be the product of a strong sense of mission that stems from an active desire to work abroad for an extended period of time, dedication to the purpose of the mission, acceptance of frustrations, and the ability to overcome inherent difficulties without losing organizational efficiency or self-respect (Dinges, 1983).

Another aspect of overseasmanship according to Dinges (1983) is cultural empathy as discussed by Deutch & Madle (1975). Cultural empathy can generically be described as a cognitively-

based sensitivity to the interpersonal processes required in successful intercultural interactions. Cultural empathy, therefore, is a skill that requires an understanding of the logic and coherence of other cultures as well as the capability to show restraint to form negative attributions of others based on perceived cultural differences. Dinges (1983) indicates that perceptiveness, receptiveness as well as the capacity for action that is derived from understanding are all components of cultural empathy.

Yet another aspect of overseasmanship as discussed by Cleveland et al. (1960, 1963), is the skill and knowledge required avoid trampling vested interests of others. This skill set includes a critical understanding of and an alertness towards the impact of decision-making processes, political symbols, indigenous political forces, as well as power structures.

The last aspect of overseasmanship, as identified by Dinges (1983), is organization ability, which is reflected by the ability to implement the managerial and administrative skills that are required within the United States to perform work in another location. Furthermore, organizational ability involves creating self-sustaining organizational structures in another location which will ensure the requisite works gets done.

Subjective culture and isomorphic attributions

Dinges notes that Triandis (e.g., 1976, 1977) is the largest proponent of the subjective culture perspective of intercultural effectiveness. According to this perspective, attribution theory can be utilized to inform actions that will help avoid intercultural conflicts and promote positive interactions among individuals who are similarly motivated to establish effective relationships (Dinges, 1983).

The subjective culture perspective rests on the tenet of isomorphic attributions, which can be defined as convergent judgments of the reason for a behavior. If individuals from different cultures have a similar understanding about the basis of actions, they may be better able to reward desired actions and discourage undesired actions. By implication, from Triandis' perspective, a critical understanding of others' background is required in order to facilitate positive intercultural interactions. Specifically, according to Dinges (1983), information regarding each of the following is needed: a) variations in social norms, b) role structures and role perceptions, c) behavioral expressions of general intentions, d) high-frequency self-concepts of cultural others, e) culturally valued and disvalued behaviors, f) culture differentiations in types of people, their modes of exchange in respect to one another, time and place, g) the "amplitude" of response of cultural others in a variety of social situations, and h) the reinforcements that are expected in different situations and how those reinforcements should be exchanged.

The most notable aspect of this perspective, according to Dinges (1983), is the motivational and incentive components of Triandis' approach. Triandis explicitly notes that appropriate motivations of all individuals in an intercultural interaction, as well as appropriate reinforcement contingencies, are critical to promoting positive intercultural exchanges.

Multicultural man

Another perspective on intercultural competence, as discussed by Dinges (1983), is that of Adler (e.g., 1975; 1977), who described the multicultural man.

According to Adler, multiculturalists are highly adaptable in various cultural contexts. This adaptive capacity stems from their ability to alter their sense of self to suit the cultural context. By being able to perform such internal shifts, multiculturalists constantly reform their values, beliefs, and personal boundaries. By being a multiculturalist, individuals tend to live out a number of beliefs that revolve around the value and stability of cultural systems, their equality of validity, and the sense of self that culture imparts on individuals.

If present in moderation, multiculturalism may promote a lifestyle which is based on striking a balance between dynamic personal growth and complete personal disintegration. Adler (1975, 1977) contends that this is a difficult proposition, which is likely the reason that multiculturalism is not often a promoted or discussed model of intercultural effectiveness. However, other authors such as Bochner (1973; 1977) have suggested that individuals who have a “belief in the community of mankind, cultural relativism of values, cognitive flexibility, membership in international and transnational social networks, and supranational references groups” (Dinges, 1983, p. 181) may be able to serve as critical links between members of diverse cultures.

Social behaviorism and culture learning

Dinges (1983) also discusses a social behaviorist perspective which hinges on the premise of individuals experiencing psychological strain due to situational stressors that interact with relative stable characteristics of individuals (e.g., Guthrie, 1975; Lazarus & Launier, 1978).

According to this perspective, individuals that are engaged in intercultural exchanges are involved in a real-life experiment in which the environment is changed, but all else (i.e., the individual) is held constant. When these exchanges are prolonged, individuals may experience a form of fatigue that is brought about by the constant need for adaptation. As fatigue is experienced, various “behaviors undergo extinction, reinforcement schedules are altered, new discriminative stimuli are learned, and social and symbolic reinforcers are reversed” (Dinges, 1983, p 181). Navigating this process constitutes a massive problem-solving task that requires recognition, discrimination, reappraisal, the construction of behavioral strategies, and the enactment of these new behavioral strategies (Dinges, 1983).

Critical to this perspective is individual’s ability to model the behavior of others who have successfully adapted to different cultural contexts. Therefore, observational skills and the ability to learn and imitate behaviors as well as attitudes are necessary for successful adaptation and functioning in a different cultural perspective.

Intercultural Competence Typologies

Dinges (1983) notes that there have been a number of typologies offered of intercultural adaptation. Most of these typologies denote behavioral patterns that range from very effective to very ineffective in intercultural contexts.

A notable typology was offered by Gudykunst, Hammer, & Wiseman (1977). They argued that a cross-cultural attitude composed of conative, affective, and cognitive components is critical for effective intercultural interactions. According to these authors, this attitude fosters an interaction among its constituent components that fosters an objective perspective from which intercultural interactions can be evaluated and interpreted. This attitude is described to consist of:

1. Being open-minded to new ideas and experiences
2. Having intercultural empathy
3. Accurately perceiving similarities and differences in own and host culture
4. Being non-judgmental
5. Astutely and non-critically observing one's own and others' behavior
6. Having the ability to establish meaningful relationships with host culture persons
7. Having minimal ethnocentrism.

Another notable model was offered by Brislin (1981) who noted that interaction between attitudes, traits, and skills are involved in effective intercultural interactions. According to this model, 6 hereditary personal traits and 6 social skills that are the product of formal training, education, or extensive job experience are critical to successful intercultural competence.

Brislin (1981) describes the 6 personal traits in the following manner:

1. Tolerant personality – Multi-dimensional thinking, receptiveness to changing social perceptions, comfort with ambiguous situations, interpersonal patience, and broad and flexible conceptual categories for social phenomena
2. Personality strength – High self-esteem, integrity, loyalty, and courage
3. Social relations – A combination of empathy, affiliativeness (i.e., friendliness, sociability, desires to work with and socialize with others) , and role-shifting ability
4. Intelligence – This is a misnomer for problem-solving abilities
5. Task orientation – Identification with one's work, precision in goal-oriented efforts, diligence and persistence in overcoming difficulties, and dependability in carrying out assignments
6. Potential for benefit – Openness to change, the ability to perceive and use feedback, motivation to learn about other cultures.

Conversely, Brislin (1981) notes that skills in the following areas are necessary:

1. Knowledge of subject matter
2. Language
3. Communication skills

4. Positive orientation to opportunities
5. Ability to use abovementioned traits in different cultural contexts
6. Ability to complete tasks.

This is a relatively comprehensive list of attributes and skills that may be useful in intercultural interactions, and constitutes one of the most complete typologies that were offered in the early stages of intercultural competence research. However, it is not refined into an integrated and cohesive framework.

Intercultural Communication

This topic is discussed in greater detail in a separate section in regards to being a viable framework for intercultural competence. Therefore, it will not be discussed further in this section.

Cross-Cultural Competence Empirically

From the early work dedicated to cross-cultural and intercultural competence, as discussed above, a great deal of progress has been made. Thomas and Fitzsimmons (2008) offer an overview of all of the empirical investigation performed since the 1970s in regards to cross-cultural competence. From this overview, they constructed a typology of the skills and abilities that have been found to be indicative of adjustment, relationship development, and task achievement. This typology is presented in Table 1. A more detailed version of this table, including the associated references identified by Thomas and Fitzsimmons (2008) is presented in Appendix 1. This approach reflects calls of earlier theorists such as Dinges (1983) and Klemp (1979) who called for a renewed interest in behaviorally oriented measures of cross-cultural competence.

In their analysis, Thomas and Fitzsimmons (2008) do not distinguish between competence and capability. Rather, they argue that competence and capability, even though theoretically distinct, overlap considerably in that they both reflect doing or performing certain things. They also note that intercultural effectiveness and its antecedents have a similar conceptual overlap. Accordingly, they draw upon the literature focused on international sojourner adjustment (e.g., Aycan, 1997; Brislin, 1981; Cushner & Brislin, 1996; Ruben & Kealey, 1979) to identify three distinguishing characteristics of successful cross-cultural interaction, namely:

1. Good personal adjustment – Indicated by feelings of contentment and well-being
2. Development and maintenance of good interpersonal relationships with culturally different others
3. Effective completion of task related goals.

Skills and Abilities	Effectiveness Criteria		
	Adjustment	Relationship development	Task Achievement
<i>Information</i>	Ability to understand others	Ambiguity tolerance	Ambiguity tolerance
	Cultural empathy	Empathy	Intercultural sensitivity
	Openness	Social de-centering	Openness
	Ambiguity tolerance	Intercultural sensitivity	Cultural Sensitivity
	Open-mindedness	Listening mode	
	Tolerance of ambiguity	Open-mindedness Cultural awareness Tolerance	
<i>Interpersonal</i>	Ability to effectively communicate	Language skills	Not task orientation
	Interpersonal skills	Willingness to communicate	Interpersonal skills
	Ability to communicate interpersonally	Socialization with host nationals	Language skills
	Language skills	Social orientation	Social adroitness
	Social orientation	Communication behavior,	Social orientation,
	Communication competence	Communication competence Intercultural communication apprehension	Language Skills Communication skills
	Willingness to communicate		
	Sociability	Cultural flexibility	Willingness to communicate
	Extroversion		
<i>Action</i>	Linguistic self-confidence		
	Self-monitoring	Moderate adaptation	Ability to adapt
	Cultural flexibility	Self-monitoring	Self-awareness
	Flexibility	Social adaptability	Social adaptability
	Self-monitoring		Cultural flexibility
	Ability to adapt		
	Social adaptability		
<i>Analytic</i>	Cultural flexibility		
	Attributional complexity	Attributional complexity Critical thinking	Cultural metacognition

Table 1. Thomas and Fitzsimmons typology of cross-cultural competence

In their review of the literature associated with skills related to intercultural effectiveness, Thomas and Fitzsimmons (2008) came to the conclusion that there is limited consensus in terms of the skills that are required for intercultural effectiveness due to the vast domain of skills and abilities that may be applicable. As an example, they indicate that Yamazaki and Kayes (2004) identified no less than 73 different skills related to expatriate adjustment. However, they do note that despite the large number of skills discussed in regards to intercultural effectiveness and competence, most empirical and theoretical models of intercultural effectiveness seem to have between 3 and 5 components, reflecting similar underlying processes and logic.

For instance, the Intercultural Sensitivity Scale (Chen & Starosta, 2000) and the Global Competencies Inventory (Bird, Stevens, Mendenhall, & Ouddou, 2007) both reflect information gathering/perceptual skills as well as interpersonal/relationship skills (Thomas & Fitzsimmons, 2008). Another idea that is common in other typologies, such as those proposed by Arthur and Bennett (1995), Stone (1991), and Tung (1981), is that of flexibility and adaptability. Thomas and Fitzsimmons (2008), note that collectively all of these typologies reflect 4 dimensions of skills, namely: informational skills, interpersonal skills, action skills, and analytical skills, that can be associated with intercultural effectiveness. The following section provides a brief overview of each of these skill sets as discussed by Thomas and Fitzsimmons (2008).

Informational skills

The first set of skills identified by Thomas and Fitzsimmons (2008) reflects the ability to pay attention to and appreciate differences in ones' own and others' cultural background. They note that traditionally a number of constructs including open-mindedness, tolerance of uncertainty, and empathy have been found to be associated with this type of informational skill set.

The first of these dimensions, open-mindedness has been frequently proposed as a critical component to effective intercultural exchanges (e.g., Arthur & Bennett, 1995) and found to be indicative of the extent of interaction with local country nationals (e.g., Tucker, Bonial, & Lahti, 2004). Furthermore, Thomas & Fitzsimmons (2008) indicate that when measured a personality variable, openness has been found to be positively related to job and task performance (Caliguiri, 2000; Matsumoto et al, 2004); however, others have not found this linkage (e.g., Dalton & Wilson, 2000; Mol et al, 2005).

Similarly, mixed evidence exists for the second dimension, tolerance of uncertainty, as a component of intercultural effectiveness. Early theorizing on intercultural effectiveness included a tolerance of ambiguity as an important component of intercultural effectiveness. However, a relatively mixed set of empirical results has been found in regards to the utility of this dimension. In support of tolerance of uncertainty as a viable component of intercultural effectiveness numerous researchers have found results indicating its utility. For instance, Ruben and Kealey (1979) found evidence for the relationship between tolerance of uncertainty and job performance. Similarly, Leong and Ward (2000) found a negative relationship between

tolerance of uncertainty and identity conflict (which is a predictor of adaptation). Van der Zee & Brinkmann, 2004) found a positive relationship between tolerance of uncertainty and self-rated aptitudes and interest in intercultural activities, while Tucker et al. (2004) found that it was also related to an individual's willingness to interact with host country nationals. Conversely, others have found negative or insignificant relationships with criteria such as developing interpersonal relationship (Nishida, 1985) and intercultural communication effectiveness (Olebe & Koestner, 1989).

The third component of informational skills, as discussed by Thomas and Fitzsimmons (2008), is empathy (alternately known as intercultural sensitivity, courtesy and the ability to understand others). Empathy has received wide support as a component of intercultural effectiveness. For instance, when measured as an index of understanding and empathy for local working style and awareness of cultural differences, Ward and Kennedy (1999) found empathy to be related to socio-cultural adaptation, while Cui and Van den Berg (1991) find it to be a significant component of intercultural effectiveness. Similarly, Bush et al. (2001) noted a positive relationship between empathy and the ability to develop a different communication style. Furthermore, a host of authors (e.g., Arasaratnam & Doerfel, 2005; Chang & Tharenou, 2004; Gibson & Zhong, 2005; Matveev, 2004) found support for a relationship between empathy and constructs such as intercultural communication competence and the ability to manage multicultural teams. Moreover, when operationalized as intercultural sensitivity, positive relationships have been found with supervisor-rated success on international assignments, the facilitation of interactions with host country nationals, and expatriate job performance (Mol et al. 2005; Spreitzer et al., 1997; Tung, 1998).

Interpersonal skills

The second set of skills identified by Thomas and Fitzsimmons (2008), namely interpersonal skills, reflects the capability to interact “with culturally different others and in other cultural contexts” (p. 211). This capability has been found to not only be related to intercultural effectiveness, but also to job satisfaction overseas and increased socialization with host country nationals (e.g., Hawes & Kealey, 1981; Tung, 1998). Interpersonal skills are defined by three components: sociability, flexibility, and communication skills.

The first component of interpersonal skills, sociability, received wide support in early Peace Corps literature; however, it was defined in many ways, including not being task oriented, social adroitness, social orientation, sociability, and being cooperative (Black, 1990; Caliguiri, 2000; Kealey, 1989; Ruben & Kealey, 1979). When conceptualized as social adroitness, a significant relationship was found with international aid workers' effectiveness. Similarly, when operationalized as sociability, which is a component of the personality trait extroversion, a significant relationship was found with expatriate adjustment and expatriates' desire to terminate assignments; however, it was not found to be related to supervisor-rated performance (Caliguiri, 2000; Parker & McEvoy, 1993; Ward & Kennedy, 1993).

When conceptualized in terms of communication skills, interpersonal skills, has received somewhat mixed support as a predictor of intercultural effectiveness. Numerous researchers have observed a positive relationship between language capability and the willingness to communicate with culturally different others (e.g., Church, 1982; Fish, 2005; Masgoret, 2006; Mol et al, 2005; Nicholson & Imaizumi, 1993; Nishida, 1985; Shaffer et al, 1999; Takeuchi & Hannon, 1996; Ting-Toomey & Gao, 1988); however others have noted that the relationship between communication skills and intercultural effectiveness may not be a simple one. For instance Benson (1978) indicated that foreign language skill was not necessarily related to sojourner effectiveness. To further explicate this viewpoint, Thomas (1998) noted that a basic knowledge of another language may be beneficial; however, only fluency, which is the product of extended training and practice will result in any substantial additional benefits. Additional perspectives on the role of communication in terms of intercultural effectiveness are provided in the section discussing intercultural communication.

Action skills

The third set of skills discussed by Thomas and Fitzsimmons (2008), namely action skills, reflect the ability to select behavior that is appropriate to a particular cross-cultural context and consequently include skills associated with behavioral flexibility, self-monitoring, and self-regulation.

When conceptualized in terms of cultural flexibility, behavioral flexibility, or the ability to replace activities from one's home environment with other activities in another cultural environment, it has been found that action skills falling within this domain are related to adjustment and task performance (e.g., Black, 1990; Mol et al, 2005; Shaffer et al, 2006; Tucker et al., 2004). However, as with communication skills, the relationship between behavioral flexibility and effectiveness may not be a linear one. For instance, it has been found that a high level of behavioral adaptation of cross-cultural negotiators has a negative impact on their performance, and may in fact be perceived negatively by culturally different others (Francis, 1991; Giles & Smith, 1979).

Similarly, when action skills were conceptualized as self-monitoring, or "the extent to which [people] can and do observe and control their expressive behavior and self-presentation" (Snyder & Gangestad, 1986, p. 125), positive relationships were observed between these skills and cross-cultural effectiveness, as well as some types of adjustment (Harrison et al., 1996; Kealey, 1989). However, results indicating the opposite have also been found (e.g., Montagliani & Giacalone, 1998).

Analytic skills

The last set of skills identified by Thomas and Fitzsimmons (2008), analytic skills, are characterized as those obtained from intercultural experience. Among these skills are the ability to make isomorphic attributions (Triandis, 1975), having attribution complexity (Fletcher,

Danilovics, Fernandez, Peterson, & Reeder, 1986), exhibiting mindfulness, and employing cultural metacognition (Thomas et al, 2006).

As noted before, making isomorphic attributions involves perceiving and evaluating cues to make accurate attributions. For the sake of brevity, this topic is not discussed in greater detail here. Similarly, mindfulness characterized by Thomas and Fitzsimmons (2008) as a “heightened awareness of and enhanced attention to current experience or present reality” (p. 214), as well as cultural metacognition defined as a focusing of one’s “attention on knowledge of culture, skills for intercultural interaction, and the process of intercultural influence as well as on one’s own motives, goals and external stimuli relevant to a cross-cultural situation” (Thomas & Fitzsimmons, 2008, p. 214) are discussed in greater detail elsewhere.

Analytical skills within the domain of attribution complexity, defined as the ability to attribute more complex causes of events and phenomena in order to identify more accurate causes for behavior (Fletcher et al., 1986) has been found to be related to predict intercultural anxiety, the ability to develop intercultural relationships, and cross-cultural adjustment (Bush et al, 2001; Leong & Ward; Stephan & Stephan, 1992). Results tempering these findings have, however, also been found (Matsumoto et al., 2004).

Cross-Cultural Competence as an Organization Level Construct

Beyond identifying factor associated with cultural competence at the individual level of analysis, a number of researchers have attempted to explicate the relationship between cultural contexts and organizational processes, while also considering the role of individuals within organizations. It has been noted, for instance, that national culture along with other environmental factors can be a significant force affecting organizational structure, processes, leadership, and managerial practices. In the business realm, these organizational effects of culture also have been described as potentially having an effect on individual level job outcomes, such as performance, effectiveness, absenteeism, and turnover (Aycan, 2000; Aycan, Kanungo, Mendonca, Yu, Deller, Stahl, & Kurshid, 2000; Aycan, Kanungo, & Sinha, 1999).

As illustrated in Figure 1, a model that incorporates a number of these observations regarding the impact of culture on organizational processes was offered by Aycan (2000). Through this model, Aycan (2000) argues that the functioning of organizations is dependent on the interplay amongst the external and internal environments of an organization, an organization’s organizational characteristics, and the individual and organizational outcomes derived from an organization’s functioning.

Aycan’s model asserts that the internal and external environmental context of an organization affects its organizational characteristics, including its formal organizational structure, organizational processes, as well as behavioral and interpersonal characteristics of its employees. The formal organizational structure is the degree to which organizational functions are complex, formalized, centralized, specialized, and diversified. Organizational processes are

the ways in which formal organizational characteristics are manifested, whereas the behavioral/interpersonal characteristics of employees can largely be described in terms of communication, leadership and managerial practices, participation, as well as human resource management practices. These organizational characteristics, together with the environmental context within which an organization functions, are said to influence individual and organizational outcomes, such as job outcomes (e.g., performance, effectiveness, and turnover) and organizational attitudes (e.g., job satisfaction, organizational commitment, and motivation).

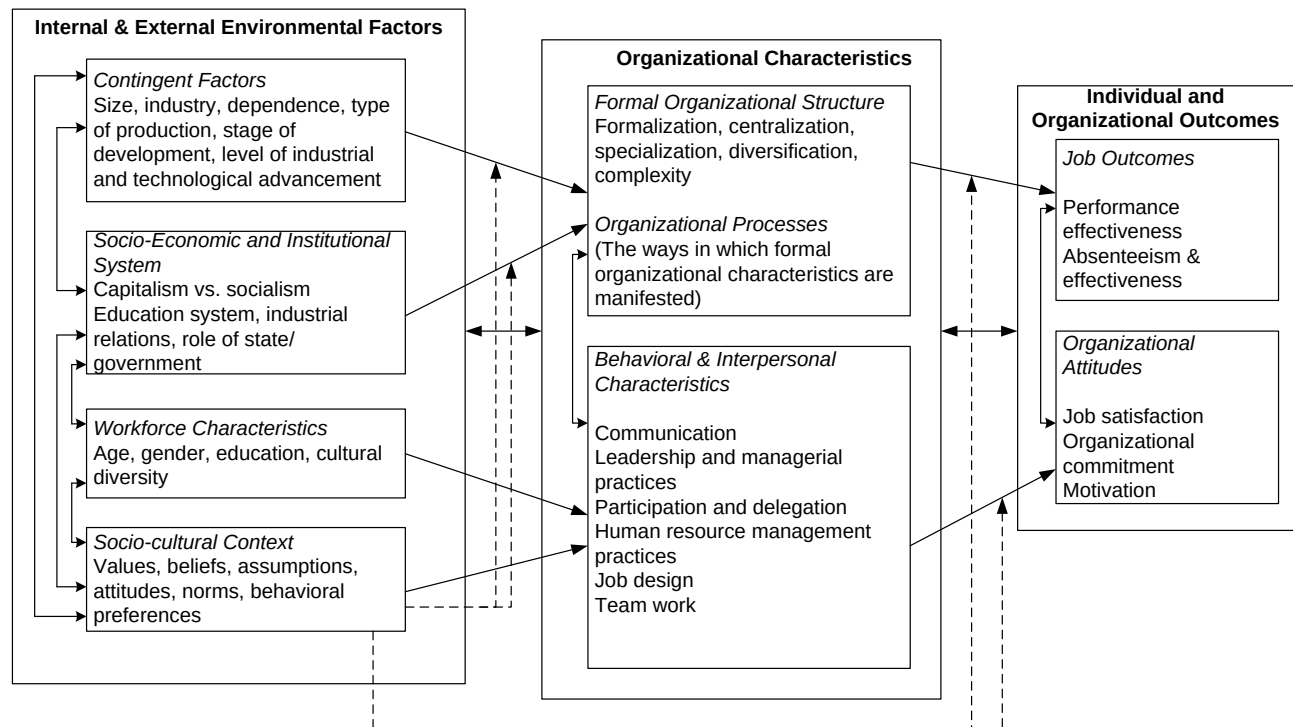


Figure 1. The impact of culture on organizations according to Aycan (2000)

Similar arguments have been made by other researchers as well. For instance, Tayeb (1988) noted that cultural variables constitute an influential force on the interpersonal aspects of organizations, such as the power and authority structures and the patterns of delegation, communication and consultation that are present in a culture. This means that similar organizations situated in different cultures may have very different practices that could impact their employees in a myriad of ways. It has been found that organizations that function within similar socio-economic settings (i.e. Britain and Germany) may have similar objectives but pursue different courses of action to achieve these objectives (Child & Keiser, 1979). Therefore, it is plausible that the functioning of employees within organizations may differ depending on the culture in which individual organizations are situated.

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Intercultural Communication

ICC as Theoretical Concept

Another interesting perspective on intercultural interactions is offered by Stella Ting-Toomey who is an advocate of intercultural communication (ICC). According to Ting-Toomey (1999) Intercultural communications are the communicative processes that occur between members of different cultural communities. Therefore, “in intercultural communication, the degree of difference that exists between individuals is derived primarily from cultural group membership factors such as beliefs, values, norms, and interaction scripts” (p. 16). Ting-Toomey also acknowledges that similar communication processes can occur between different groups representing different cultures. Accordingly she notes that “the term intergroup communication implies that a degree of difference exists from general group membership factors (e.g. ethnicity, gender, social class)” (p.16).

In both types of communications, Ting-Toomey (1999) notes that a symbolic exchange takes place in which both verbal and non-verbal symbols are used between individuals to establish a shared meaning about some thing or some event. During these exchanges, the participants are interdependent on one another, due to the impact that they have on each other. For instance, the initial expectation of a Japanese business man to bow as compared to the expectation of an American businessman to shake hands during their first meeting may cause confusion, and potentially subsequent discomfort. During such an interaction, all individuals involved are simultaneously encoding and decoding cues, thereby choosing to send the appropriate signals and attaching understandable meanings to the words and gestures of others.

All interactions are seen by Ting-Toomey (1999) as irreversible processes in which individuals have to negotiate shared meanings, convey factual information, manage how they express their own identities, and manage the relationship with individuals of other cultural communities. Furthermore, Ting-Toomey (1999) also points out that cultural interaction may involve misunderstandings between individuals who are behaving according to the social norms of their own cultures. By virtue of having different normatively informed behaviors, they may perceive one another as impolite or disrespectful without intending to do so. Another aspect of intercultural communication is that intercultural cultural interactions do not occur in a vacuum. Therefore, the context as defined by roles, behavioral and cognitive scripts, timing, as well as other physical and psychological factors can affect the nature of any intercultural interaction. Additionally, all intercultural interactions occur within embedded systems including political, religious, government, and socio-economic systems at the macro level, and ideologies, values,

norms, and expectations at the micro-level. To summarize these observations, Ting Toomey notes that her ICC theory is based on five core assumptions namely:

1. Intercultural communication involves varying degrees of cultural group membership differences.
2. Intercultural communication involves the simultaneous encoding and decoding of verbal messages in the exchange process.
3. Many intercultural encounters involve well-meaning clashes
4. Intercultural communication always takes place in a context
5. Intercultural communication always takes place in embedded systems

To navigate these issues Ting-Toomey leverages identity negotiation theory to propose that individuals need to manage their identities by being cognizant of their sense of self, the impact that cultural norms have on how they should express their identities, and that their identity may be threatened in different cultural contexts. Accordingly, Ting Toomey (1999) notes that individuals have primary as well as situational identities that are interdependently connected to one another that can be activated and expressed in any given situation. The eight domains that comprise the identity negotiation perspective are displayed in the following figure.

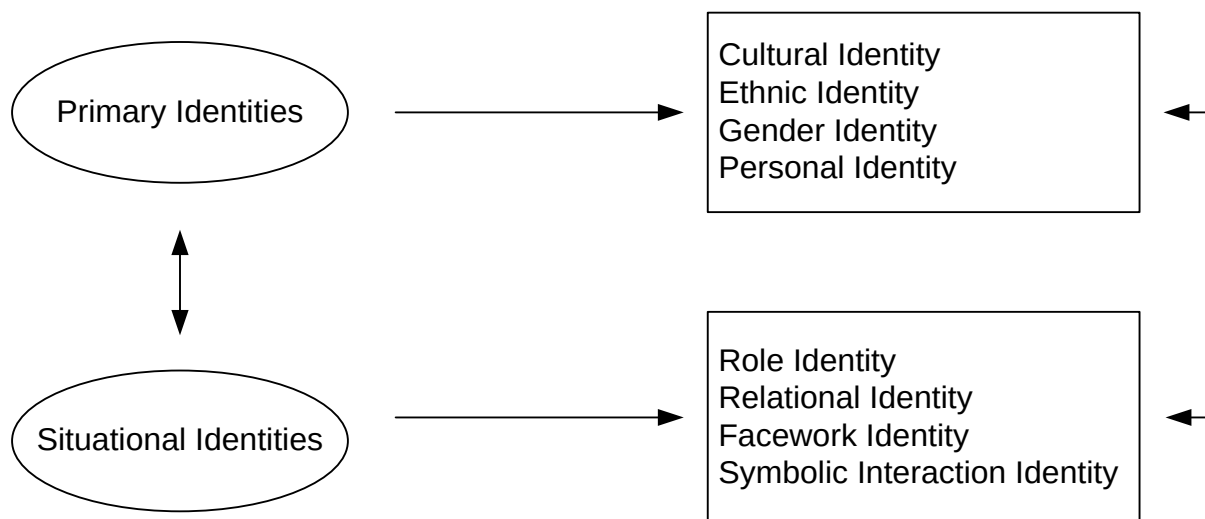


Figure 2. Identity negotiation - Eight identity domains

Being mindful of these eight domains of self-identity is the most critical component of Ting-Toomey's approach to intercultural communication. Mindfulness according to Langer (1989, 1997) is characterized as the process by which individuals tune into their habituated mental scripts and preconceived expectations. By being mindful, individuals have a readiness to shift their frame of reference, the motivation to use new categories to understand cultural or ethnic differences, and the preparedness to experiment with creative solutions during decision making

and problem solving (Ting-Toomey, 1999). On the opposite spectrum, Ting-Toomey (1999) also points out that individuals can be mindless. She characterizes mindlessness as a “heavy reliance on familiar frames of reference, old routinized designs or categories, and customary ways of doing things” (p. 46). Mindfulness according to Ting-Toomey mediated the impact of knowledge and motivation on individual’s expressed behaviors, and therefore is the crux of successful intercultural communication.

By being mindful, Ting-Toomey indicates that individuals can successfully utilize their knowledge, access appropriate motivational incentives, and successfully implement their skills. The extent to which individuals utilize mindfulness to accomplish these aims can be evaluated in terms of the appropriateness, perceived effectiveness, and the amount of satisfaction that are derived by individuals from their actions. More distally, the successfulness of mindful intercultural communication can also be evaluate in terms of specific outcomes such as the extent to which an individual is understood, respected, and supported by members of different cultural groups. This model is summarized in the following figure:

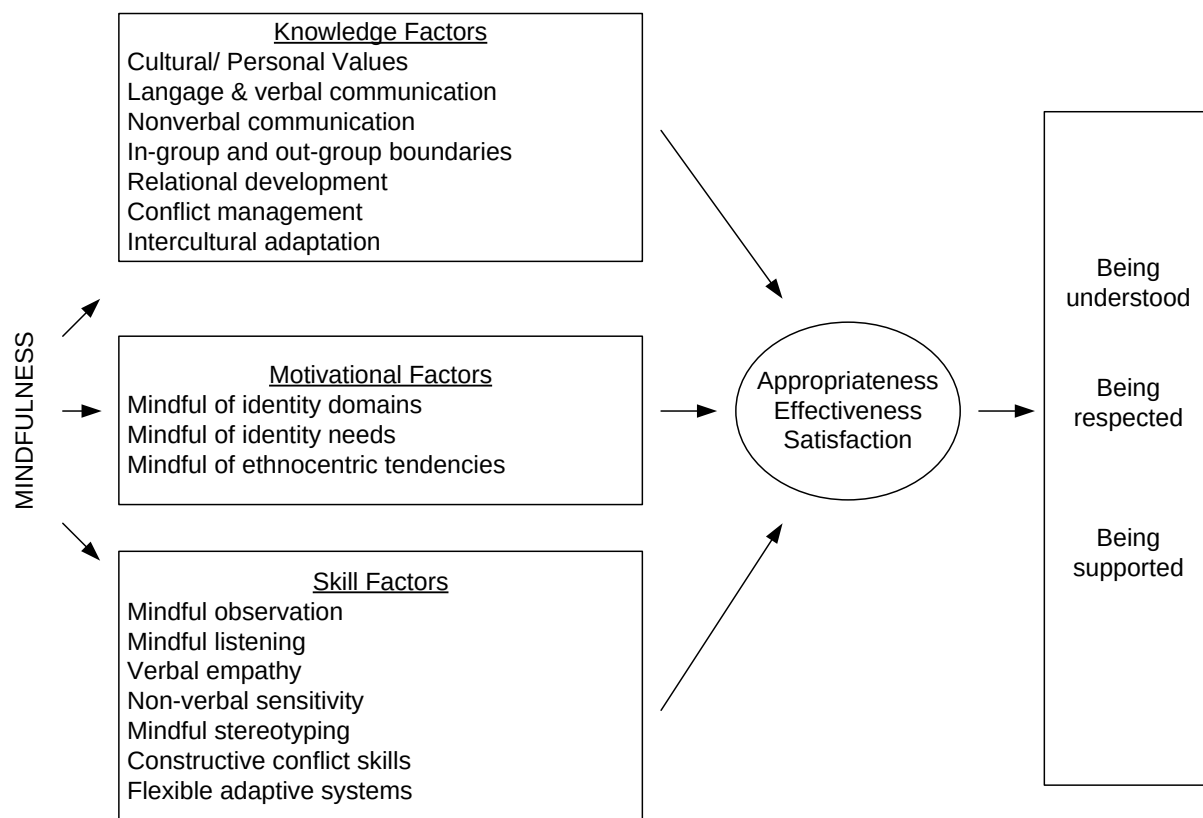


Figure 3: Mindful intercultural communication model

By implementing this model, Ting-Toomey notes that it is possible that individuals can ultimately arrive at a level where they can be considered transcultural communicators. To arrive at this stage of development, individuals need to have in-depth knowledge, heightened mindfulness, as well as communication skills and be able to apply all of these in an ethically in a wide range of cultural contexts. Ting-Toomey summarizes the attributes and abilities of transcultural competence in the following manner:

Attributes	Abilities
Tolerance for ambiguity	Ability to meet new situations with mindfulness
Open-mindedness	Ability to respond to cultural others in nonevaluative ways
Flexibility	Ability to shift frame of reference
Respectfulness	Ability to show respect and positive regard for another person
Adaptability	Ability to adapt appropriately to particular situations
Sensitivity	Ability to convey empathy verbally and nonverbally
Creativity	Ability to engage in divergent as well as systems-level thinking

Table 2. Transcultural competence: Attributes and Abilities

Empirical Support of ICC

Arasaratnama and Doerfel (2005) utilized the semantic network analysis approach by which individuals' assessments of others' intercultural communication attributes were evaluated. By utilizing this approach, these researchers were able to obtain answers to a number of research questions, including:

1. What is the definition of intercultural communication?
2. What qualities or aspects of people make them competent intercultural communicators?
3. Why are some individuals perceived to be competent intercultural communicators?
4. What are seen to be aspects of good communication in particular cultures?
5. What are seen to be aspects of bad communication in particular cultures?

In response to the first question, the researchers concluded that intercultural communication involves understanding, and verbally communicating information between individuals from different ethnic, or religious backgrounds as well as geographical locations.

In response to the second question, the researchers obtained a multifaceted answer. The first aspect of competent intercultural communicators was found to be *other-centeredness*. Accordingly, individuals who were sensitive, kind, have experience with other cultures, want to learn about other cultures, and are good at doing so, are seen to be inter-culturally competent. The researchers noted that these attributes resemble what has traditionally been described as empathy. The second aspect of intercultural communicators was found to be the extent to which individuals are *observant*. Accordingly, individuals that are open to others, better at communicating, show interest in differences, are aware of these difference, and have had sufficient exposure to these differences to the extent that they are enabled to identify such differences with others and use them for communicative purposes are seen to be good intercultural communicators.

In response to the third question, individuals who have the motivations to show interest, make efforts to talk, understand and help individuals from other cultures are seen to be good intercultural communicators. Furthermore, individuals who were sensitive to their needs to gain information about inter-cultural communication were also seen to be good intercultural communicators. Finally, good intercultural communicators were also described as individuals who ask questions, show sensitivity towards the cultural background of others, are kind, and have a global outlook. Individuals with these attributes are noted to be willing to spend time to listen and learn about others, they also have knowledge of cultural issues, and are good at relating to cultural differences.

In response to the fourth question, it was noted that across different cultures, being able to show respect toward others, communicating in a congenial and polite manner, and investing time to listen, talk to, know and make friends are seen as aspects of good communication.

Conversely, in response to the fifth question, it was noted that across different cultures, an inability to understand others, being rude, the avoidance of investing time to communicate with others, being disrespectful, and having an inability to communicate in a personal manner with others are signs of poor communication.

Collectively these findings indicate that there are certain attributes that make individuals good intercultural communicators and that there are near universal patterns in what is seen as good and bad communication. However, the results also indicate that even though these patterns exist, the details of their expression are unique to different cultural settings, making knowledge of specific cultural groups imperative to being a successful inter-cultural communicator.

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Cultural Intelligence (CQ)

Intercultural communication has been described as the predecessor of a new theoretical concept known as cultural intelligence or CQ (Thomas & Fitzsimmons, 2008). The basis for CQ is the observations that adaptation to the pressures of conducting business in foreign cultures is a stressful enterprise that requires solving complex problems. For individuals, including expatriates, solving such problems may require adopting different interpersonal strategies with coworkers whereas for organizations it may imply altering their *modus operandi* to fit the cultural contexts in which they want to conduct business. This adaptive ability has traditionally been viewed as the manifestation of intelligence, especially for individuals due to intelligence, in a broad sense, being defined as the “capacity for solving problems and adapt to diverse circumstances” (Early, Ang, & Tan, 2006, p3). Based upon this logic Early and his colleagues have presented arguments that the capability of solving complex intercultural problems as a specific type of intelligence, namely cultural intelligence, otherwise known as CQ (e.g. Early and Ang, 2003; Early, Ang, & Tan, 2006).

As a consequence, recently, the argument has been made that intelligence may also be exhibited by organizations as they overcome complex problems, including those associated with cross-cultural adaptation (e.g. Akgün, Byrne, & Keskin, 2007; Albrecht, 2003; Glynn, 1996, Janssens & Brett, 2006; Stalinski, 2004). In the next section, intelligence, and in particular CQ, will be discussed from a theoretical perspective at the individual as well as the organizational level.

CQ from a theoretical perspective

Intelligence has been conceptualized in a number of ways. Within the psychological literature, intelligence is generally described as the capability to process information that can be used to solve problems or overcome challenges (Sternberg & Salter, 1988). Furthermore, from an historical perspective, intelligence has traditionally been described as an individual level psychometric construct that reflects a number of cognitive processes such as perception, learning, encoding, memory, and reasoning (Glynn, 1996; Spearman, 1927; Terman, 1916). Inherent to all of these processes is the notion of expertise, or a repertoire of available knowledge, including declarative and procedural knowledge, that can be employed to solve problems (Glynn, 1996). Declarative knowledge consists of the factual information, beliefs about the causal relationships between phenomena, and the perceptual orientation of individuals. Conversely, procedural knowledge consists of the methods by which individuals obtain, store and manipulate their declarative knowledge (Cantor & Kihlstrom, 1989).

According to the traditional, psychometric perspective on intelligence, intelligence has also been conceptualized as individuals’ overarching capability to think and solve problems (Glynn, 1996). Accordingly, intelligence has been conceptualized as “general cognitive ability”, or “*g*” in the common psychological vernacular (Eysenck 1973; 1979; Spearman, 1927). This conceptualization has given rise to subsequent theories about the measurement of intelligence and its application as a predictor of future performance in scholastic as well as employment

settings (Gottfredson, 1986; Hunter, 1986; Schmidt, Hunter, Outerbridge, & Goff, 1988). The term intelligence quotient, abbreviated as IQ, stems from this particular branch of psychological theory.

The psychometric perspective on intelligence has been criticized as being limited in terms of reflecting the entire range of human behavior that can be considered intelligent. By focusing strictly on the individual, the psychometric perspective cannot describe how intelligence can be defined, related to, or affected by social and cultural contexts (Glynn, 1996; Gardner, 1993; Sternberg 1988). As a response to these limitations of the psychometric perspective of intelligence, other theorists known as contextualists proposed that intelligence is not an overarching and singular concept that is common to all individuals around the world, but rather a set of abilities that are domain specific and potentially variable across situations, societies, and cultures (Sternberg & Salter, 1988; Vygotsky, 1978).

From this perspective intelligence is multifaceted and may be manifested to different degrees within and between individuals (Glynn, 1996). Accordingly, theorists such as Gardner (1993) have argued that there are multiple forms of intelligence including linguistic and logical mathematical intelligence, musical intelligence, spatial intelligence, bodily-kinesthetic intelligence, as well as inter- and intra-personal intelligence. From this viewpoint, the manifestation of intelligence is inextricably tied to the socio-cultural environment in which it occurs (Cantor & Kihlstrom, 1989). This argument implies that different types of intelligence are elicited and shaped by different contexts (Glynn, 1996). This view of intelligence, however, has not gone without criticism. Sternberg & Salter (1988) for instance did not observe large variation in the expression of intelligence across different contexts.

Regardless of the theoretical view held in regards to intelligence, it can be argued that intelligence helps individuals adapt, and can therefore be defined in the following manner:

“Individual intelligence is defined as a person’s capability to process, interpret, encode, manipulate, and access information so as to acquire, retain, and apply knowledge quickly and successfully to meet external challenges or solve problems in a particular domain or context” (Glynn, 1996, p. 1996).

This definition implies that individual intelligence is simply the purposeful use of information to help individuals adapt to environmental challenges (Glynn, 1996).

Individual Level CQ

The main obstacle that individuals working in different cultural contexts need to overcome is coping with environmental challenges. Overcoming this obstacle requires intelligent reasoning and behavior. With this in mind, CQ has been proposed as an individual level characteristic that allows individuals to successfully meet the challenges encountered in an increasingly international workplace. As an emerging theoretical concept, CQ is gaining prominence in the

cross-cultural management literature. As a concept it holds great promise for cross-cultural management theoreticians as well as those who have to face the realities of managing individuals in cross-cultural contexts on a daily basis.

Similar to the traditional definition of intelligence, cultural intelligence (CQ) can be broadly defined as “an individual’s capability to adapt effectively to new cultural contexts” (Early & Ang, 2003, p 59) or the ability to generate appropriate behavior in new cultural settings (Early, 2002). CQ has been described to be distinct yet complementary to other forms of intelligence such as academic, practical, social, and emotional intelligence (Selmieski, 2007). One distinct aspect of CQ is that has been described in terms of four components spanning the domains of knowledge and cognition, meta-cognition, motivation, and behavior (Early & Ang, 2003; Ng & Early, 2006; Selmieski, 2007). This is in line with Sternberg’s (1986) thinking about intelligence. He views intelligence as a system of interacting abilities (Sternberg, 1997) which implies the existence of different “loci” of intelligence within a person (Ang et al., In Press), as discussed above.

Knowledge/ Cognition

The cognitive component of CQ is most closely aligned with traditional conceptions of intelligence. This domain of CQ is defined as the “specific knowledge that people are able to gain and comprehend about a new culture based on various cues provided” (Early & Ang, 2003, p 91). It can also be defined as the knowledge of specific norms, practices and conventions in new cultural settings (Ward & Fischer, 2008) or knowledge of the processes through which culture influences behavior (Thomas, 2006). Taken together, this component of CQ is comprised of what people know of themselves and also what they know about other cultures.

Self -knowledge is critical to CQ due to this knowledge providing a set of interpersonal as well as intrapersonal interpretative guidelines for individuals (Early & Ang, 2003; Gecas, 1982; Markus & Wurf; 1987; Markus & Kitayama, 1991). This type of self knowledge provides individuals with insights about their own personality, social identity and social role (Early & Ang, 2003). This type of knowledge therefore provides individuals with guidelines (i.e. schemas, prototypes, goals) for processing social information. Without such knowledge, individuals cannot know their social standing relative to others. The more complex an individual is in terms of self-knowledge, the more likely it is that such an individual will be able to function well cross-culturally. To exhibit high CQ, however, cognitive complexity should be tempered by cognitive flexibility, or the ability to reshape and adapt one’s self concept to new cultural settings (Early & Ang, 2003).

Adapting to new cultural settings often require abandoning pre-existing notions about how and why people behave in certain ways (Triandis, 2006). Consequently, knowledge about other cultures is also critical to CQ. Without this knowledge, individuals are unable to apply their knowledge of themselves to different cultural settings. Beyond having this knowledge, individuals high in CQ should also be able to use their knowledge of other cultures both inductively and deductively. From an inductive standpoint, individuals should be able to

observe phenomena in different cultural settings and correctly infer meaning from their observations. Conversely, individuals should also be able to deductively apply their prior general cultural knowledge to unique cultural situations (Earley & Ang, 2003).

Meta-cognition

The exhibition of high levels of CQ often requires individuals to step beyond their existing knowledge to comprehend events in their surroundings (Earley & Ang, 2003). Consequently, in order to have high levels of CQ, individuals need some meta-cognitive coping mechanisms to function effectively in situations that they do not necessarily fully comprehend. These mechanisms constitute the meta-cognitive aspect of CQ and involve the strategies of awareness, planning, checking knowledge, and development of coping strategies to cope with cultural challenges (Ng & Early, 2006; Selmeski, 2007). Ward and Fischer (2008) define the meta-cognitive component of CQ as an individual's cultural awareness during interactions with people from different cultural backgrounds. Similarly, Ang et al. (In Press) define it as the control of cognition (i.e., the processes used to acquire and understand knowledge).

Motivation

The application of knowledge and meta-cognitive strategies require the motivation to do so. Ceci (1996) defined motivational intelligence as the mental capacity to not only to direct, but also to sustain energy to accomplish a certain task while also realizing that the ability to be motivated is critical to solving problems. Consequently, Early and Ang (2003) define the motivation component of CQ as "one's propensity and commitment to act on the cognitive facet [of CQ] as well as persevere acquiring knowledge and understanding a new culture and overcome stumbling blocks or failure" (p. 91). Ward and Fischer (2008) provide a similar definition by stating that Motivational CQ is a "person's drive to learn more about and function effectively in culturally varied situations" (p. 3).

Earley and Ang (2003) note that the motivational component of CQ can be couched in terms of the self-concept which they rely on heavily to articulate the characteristics of the knowledge component of CQ. By using the Cultural Self-Representation Theory (Erez & Earley, 1993), Earley & Ang (2003) note that the self-concept refers to three self-motives namely self-enhancement, self-efficacy, and self-consistency that underlie the cultural cognitive structure included in CQ.

Self-enhancement refers to processes through which individuals enhance their conceptualization of themselves mainly by employing self-serving biases in information processing (Kunda, 1987). Examples of such self-serving biases include being more sensitive to stimuli that are self-relevant, more easily processing information that is self-congruent, better recall of self-relevant information, and distortion of reality to maintain a positive self-image (Early & Ang, 2003; Markus, Kitayama, & Heiman, 1997; Markus & Wurf, 1987).

Self-efficacy, on the other hand refers to the judgment of one's capability to attain a given level of performance (Bandura, 1986). Individuals tend to avoid tasks which they do not believe they

can successfully complete whereas they gravitate toward tasks that they believe they can complete. Within the context of CQ, this is important because individuals' perceived ability to engage in successful intercultural interactions may affect their willingness to engage individuals from different cultural backgrounds (Earley & Ang, 2003). Self-efficacy may be particularly important is when it comes to speaking a foreign language. A lack of self-efficacy in terms of foreign language ability may result in hesitation to use another language and ultimately less successful intercultural interactions (Earley & Ang, 2003).

Self-consistency refers to the desire of individuals to maintain a level of constancy in their thoughts and deeds (Earley & Ang, 2003). According to Erez and Earley (1993), this self-motive can cause individuals to actively construct memories as well as selectively form perceptions that are congruent with prior life experiences. Furthermore, this self-motive may also direct individuals to act in a manner that is consistent with their values and norms (Erez & Early, 1993).

Considering the brief discussion of these self-motives, it is clear that motivation may have a tremendous impact on an individual's willingness to engage in cross-cultural interactions. It is likely that individuals that strive to enhance their sense of self may avoid cross-cultural situations that may threaten or jar their self-images. Similarly, individuals that have high self-consistency needs may avoid intercultural interactions that will not help attain their desire for constancy. However, individuals with high levels of self-efficacy regarding intercultural interactions, may seek not to shy away from cultural challenges, but rather seek them out (Earley & Ang, 2003).

Behavior

The last component of CQ, namely the behavioral facet, is defined as "the capability of a person to enact his or her desired intended actions to a given cultural situation" (Early & Ang, 2003, p 91). Ward and Fischer (2008) define this component of CQ as "an individual's flexibility in demonstrating the appropriate actions when interacting with people from different cultural backgrounds" (p. 3).

These basic definitions of Behavioral CQ are expanded upon by Early and Ang (2003) in the sense that they view the behavioral domain of CQ as the *ability*, *aptitude* and *skill* to manifest the other components of CQ (i.e. cognitive, meta-cognitive, and motivational components). This definition is inherently multifaceted, but Early & Ang (2003) do not see this as a problem. According to their view, there is no need to conceptualize the behavioral component of CQ as comprised of three separate and unique qualities. Rather, they view these qualities of individuals as combinable, or collapsible, antecedents to individual intercultural performance. This view is in line with those of many other authors such as Campbell, Dunnette, Lawler, and Weick (1970) and Campbell and Campbell (1988) who have stressed the importance of defining abilities, aptitudes and skills as interrelated components of job performance.

Even though the behavioral component of CQ is seen as a unitary concept, Early and Ang (2003) do provide some discussion regarding the interaction of abilities, aptitudes and skills. Their discussion hinges on the definitions provided for each of these qualities by Dunnette (1976). Accordingly, aptitudes are described as the capacity of a person to acquire additional abilities, such as learning to speak another language, or acquiring new culturally appropriate behaviors. Conversely, skills are described as a person's physical or motor capabilities, such as bowing or smiling appropriately given the cultural context. Lastly, abilities are defined as a person's domain specific skills that are acquired over time. Abilities include the capability to respond appropriately when intercultural conflict is encountered (Early & Ang, 2003).

Considering this view on Behavioral CQ, a person that exhibits high levels of CQ should have willingness to persistently exhibit a broad array of culturally appropriate behaviors. Furthermore, a person with high CQ should also be flexible and adaptable in their behavior to the extent that they do not convey that their behavior is forced, and therefore uncomfortable to them. Individuals that have high CQ should also be able to correctly interpret the non-verbal, behavioral cues provided by others during intercultural interactions. Individuals that lack these qualities may not be able to discern the underlying motives causing certain behaviors in others or be able to present themselves in a favorable light in different cultural contexts (Early & Ang, 2003).

As implied by this discussion of the Behavioral CQ, CQ entails capability (Ng & Early, 2006). This observation implies that CQ is trainable, which further implies that workers can develop CQ, and therefore do not necessarily have to be selected for the amount of CQ that they possess (Selmieski, 2007). To this point, Ng and Early (2006) contend that workers can develop or enhance their CQ through interventions such as expatriate postings abroad or working in cross-cultural team settings.

Construct Validity of Individual Level CQ

Much theorizing has been done in terms of the relationship of CQ with other constructs. From a theoretical perspective, CQ has been described to be relatively closely linked to personality constructs such as the Big Five construct known as Openness to Experience (Ang et al., 2006). However, in a recent article, Ang, Van Dyne, Ng, and Tay (in press) described CQ as a construct that is distinct from other constructs such as cross-cultural adaptability and cross-cultural world mindedness. To reach these conclusions the authors examined the relationships between the 4 facets of CQ included in the 20-item Cultural Intelligence Scale (CQS), which can be viewed in Appendix 1. This enquiry revealed that CQ is distinct from general intelligence ("g") as measured by the Wonderlic Intelligence test, as well as a measure of Emotional Intelligence. It was also discovered that CQ was distinct from the Malowe Crowne Short Form measure of social desirability.

A number of other studies have also been conducted to examine the construct validity of the CQS as an instrument. For instance Ward, Fischer, Lam, and Hall (2008) performed three studies to examine the factor structure of the CQS, its relationship with emotional intelligence, general

cognitive ability (as measured by Raven's Advanced Progressive Matrices) and personality constructs (as measured by the subscales, including Emotional Stability, Social Initiative, Flexibility, Open-Mindedness, and Cultural Empathy of the Multicultural Personality Questionnaire, otherwise known as the MPQ). A strong correlation ($r = .82$) between CQ and emotional intelligence was observed, indicating that CQ as measured by the CQS is not entirely distinct from emotional intelligence. However, evidence was found for the discriminant validity ($r = .04$) of CQ and general intelligence as well as evidence for the convergent validity of CQ with the personality variables included in the MPQ.

Criterion Validity of Individual Level CQ

CQ is also described as being a predictor of cross-cultural adaptation, rather than constituting a form of cross-cultural adaptation itself (Ng & Early, 2006). Without this characteristic, CQ may well suffer from the logical fallacy known as a tautology, or circular reasoning (Berry & Ward, 2006). As CQ is seen to be an antecedent of cross-cultural adaptation, individuals who exhibit high levels of CQ should adapt quicker and more effectively to new cultural settings (Templer, Tay, & Chandrasekar, 2006). Furthermore, individuals high in CQ should also predict better cultural judgment, decision-making, well-being, and job performance (Ang et al, 2006). These last points allude to the notion that CQ is a scalar construct in the sense that it reflects a spectrum of capability ranging from high to none. Due to this quality, CQ is viewed to be a psychometrically measurable construct, which greatly increases both its theoretical as well as practical worth (Early & Ang, 2003; Ang, Van Dyne, Koh, & Ng, 2004).

Ang et al. (In Press) found results that are affirmative of these theoretical musings about CQ. They conducted three empirical studies using the CQS. In the first study the meta-cognitive and cognitive components of CQ, as measured by the CQS, were found to be predictive of cultural judgment and decision making (as assessed through assessing student's interpretation of a vignette or case study). In the second study, the motivational and behavioral components of CQ, as measured by the CQS, were found to be predictive of cultural adaptation (as assessed through a number of Likert type items reflecting well-being, daily interaction, perceived capability to make decisions, and ability to face up to responsibilities). In the third study, the meta-cognitive and behavioral components of CQ, as measured by the CQS, were found to be predictive of task performance (as assessed through peer assessment in a team setting, and school project performance). Furthermore, it was discovered that CQ, as measured by the CQS, offered predictive capabilities beyond the total number of countries in which an individual has worked.

Similarly, Templer et al. (2006) also demonstrated that the CQS, particularly the Motivational CQ component of the CQS, exhibits predictive validity in terms of cross-cultural adjustment. These results and those obtained by Ang et al. (In Press) have not gone unchallenged. In the same study mentioned above, Ward et al. (2008) inquired about the utility of the CQS in the prediction of psychological, socio-cultural, and academic adaptation of international students. The results of this study indicated that the CQ measurement provided by the CQS did not exhibit additional prediction utility over and above either emotional intelligence, or the

personality constructs measured by the Multi-Cultural Personality Questionnaire (MPQ) in terms of adaptive outcomes of international students. In another study, Ward and Fischer (2008) sought to empirically examine the contention of Ang, Van Dyne, and Koh (2006) that motivational CQ, as measured by the CQS, can mediate the influence of personality on general cross-cultural adjustment. To examine this issue, Ward and Fischer (2008) asked 346 international students in New Zealand to complete a survey battery that included the MPQ and the CQS. Subsequently they examined a structural equation model in which the motivational CQ component of the CQS acted as a mediator between general adjustment and the constructs measured by the MPQ. The results that were obtained only provided partial support for the theorizing of Ang et al. (2006). It was discovered that a better fitting model emerged when the motivational CQ component of the CQS mediated the relationship between only three subscales of the MPQ (cultural empathy, open mindedness, and flexibility) and general adjustment. In this better fitting model the two remaining MPQ subscales (social initiative and emotional stability) therefore have an unmediated relationship with general adjustment.

Issues Surrounding CQ

Despite its promise, CQ also has a number of associated concerns, including concerns about its basic theoretical underpinnings as well as its measurement. Berry and Ward (2006), for instance, questioned the soundness of the theory associated with CQ by highlighting the potential overlap between CQ and concepts such as emotional intelligence (EI). These concerns, however, have been addressed by Hampden-Turner and Trompenaars (2006) as well as Triandis (2006), who contend that CQ is a highly viable construct and useful. Triandis (2006), for instance, argues that CQ allows individuals to suspend their judgment regarding practices in other cultures until relevant information is gathered to allow for sound decision making.

From a measurement perspective, the most evident concern is that CQ is a relatively new construct that still needs rigorous empirical enquiry (Berry & Ward, 2006). This concern has been addressed by numerous researchers, who have steadily contributed to the understanding of CQ and its measurement. For instance, from the work of Ang et al. (2004) and Ward et al. (2008), it is clear that current psychometric scales exhibit stable factor structures, solid reliabilities, cross-cultural equivalence, and discriminant validity. Similarly, the results of Templer et al. (2006) indicate that the current psychometric CQ measure (i.e. CQS) may hold potential as a predictor of cross-cultural adjustment. However, considering the studies conducted by Ang et al. (In Press), Ward, et al. (2008), and Ward and Fischer (2008) it is evident that there is some controversy about the predictive utility of CQ for cross-cultural functioning and adaptation. Currently, no definitive answer has been obtained regarding the predictive utility of CQ in terms of cross-cultural adaptation and functioning, which necessitates further research, particularly research with larger sample sizes and samples of working individuals.

Broader Applications of CQ

Currently, CQ is most commonly treated as an individual level construct. However, it is possible to argue that CQ may also exist at the organizational level of analysis. Some authors have already made inroads into the theoretical realm of what CQ may look like at a collective level, such as those of teams or organizations (Janssens & Brett, 2006). According to Janssens and Brett (2006), CQ could well be identified at the team level as a strategy assumed by culturally diverse teams to balance creativity and realism to develop practical solutions that can be practically implemented. The approach promoted by Janssens and Brett (2006) is based on the tenet of “coexistence of differences” and is therefore termed the “fusion approach.” The term “fusion approach” is used largely in a metaphorical sense to illustrate how the practices and philosophy used in fusion cooking can be applied to managing global teams. By recognizing and fusing together different perspectives and enhancing team member participation, potential sources of intra-team problems can be avoided and the teams will be more capable of arriving at what Janssens and Brett (2006) termed “creatively realistic” solutions. Creatively realistic solutions stem from original, novel, and imaginative ideas that are connected to current knowledge and structures that exist within a team. Due to being tied to existing knowledge and structures within teams, creatively realistic solutions are practical and can be implemented by teams. This approach is largely a structural approach to managing teams rather than a process by which individual differences can be affected.

Even though the observations of Janssens and Brett (2006) are very conceptual in nature, they imply that cultural intelligence may exist at the organizational level, and not just at the individual level of analysis. The type of intelligence that they propose is qualitatively different from what Ang and Early (2003) proposed to exist at the individual level of analysis. The original definition of CQ, however, should not hinder researchers from applying CQ as a concept to other levels of analysis. To explore the possibility of using CQ as an organizational level construct, it is imperative to examine what is known about intelligence at the organizational level of analysis.

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Cross-Cultural Team Functioning

Culture has a tremendous impact on many aspects of teamwork within organizations (Gelfand, Erez, & Aycan, 2007). As a consequence many researchers have started to examine the antecedents, and consequences of team process in respect to how they incorporate cultural differences. Arguably, the most comprehensive overview of the topic area is provided by Halevy & Sagiv (2008). The following section discusses their observations in the hope of identifying potential constructs that may be of use in developing a unit level measure of cross-cultural competence. For future writing, it is advisable that the primary sources cited in this section should be referenced.

Multicultural teams

The first topic area addressed in the overview provided by Halevy and Sagiv (2008) focuses on the impact of culture on multicultural teams. The two main perspectives in regards to multicultural teams are known as social identity/ self categorization perspective and the information processing / decision making perspective (Van Knippenberg & Schippers, 2007). According to the self-categorization perspective, teams that are more homogenous in respect to their cultural make-up tend to be more effective due to experiencing less friction and conflict (de Dreu & Weingart, 2003). Conversely, the information processing perspective stresses that more diverse teams tend to have a larger pool of knowledge, skills, and viewpoints to their disposal as compared to culturally homogenous teams. However in order to utilize this larger resource pool, culturally heterogeneous teams have to overcome initial process losses to allow the different perspectives within the team to be heard, which will then allow for the capitalization of benefits based upon a broader range of task relevant capabilities and consequently perform better than culturally homogenous teams (De dreu, De Vries, Franssen, & Altink, 2000; Halevy & Sagiv, 2008; Nemeth, 1986, Van Kippenberg & Nemeth, 2007).

Little evidence exists to support either perspective conclusively (Halevy & Sagiv, 2008). However, despite finding crude main effects, a number of studies have found factors that moderate the effectiveness of culturally homogenous and heterogeneous teams. The first of these factors that has been observed is the type of task a team has to perform. When culturally diverse teams have to perform task that require a high levels of cohesion and interaction among team members, culturally heterogeneous teams may be more likely to experience coordination problems (Thomas, 1999). Furthermore, if a team task requires the development of creative solutions, more culturally heterogenous teams may be more successful than culturally homogenous teams (Thomas et al, 1996). Conversely, if teams need to perform tasks requiring cohesion or cooperation, cultural diversity may be detrimental to teams. Van Knippenberg & Schippers(2007) also note that the types of differences among team members may be an important moderating variable in terms of teams' task performance as well as the type of climate that exists within a team, team members' attitudes toward diversity, and the extent to which team members can develop shared perceptions or both the team and the team's task.

Additional moderating variables in terms of team performance can be found at the national cultural level, the group level of analysis, as well as the individual level of analysis according to Thomas (1996). At the cultural level of analysis, the culture, sociocultural norms, scripts, and values of team members may have a profound impact on team members' behaviors, attitudes, and approaches to team tasks and problems (Halevy & Sagiv, 2008; Thomas, 1996). At the group level, the cultural composition of a team may affect its processes, and at the individual level of analysis, the relational diversity, or the extent to which team members differ from one another may have an impact on their attitudes toward the group.

A similar approach to describing the impact of culture as a moderating variable on team processes is known as the fault line model (Lau & Murnighan, 2005). According to this model whenever large factions of team members from culturally distinct cultural backgrounds are present in a team, friction may arise due to the identification of team members with other members of their particular cultural group rather than the team as a whole. This may occur particularly when cultural differences are very salient within teams. Halevy and Sagiv (2008) citing Murnighan (1998; 2005), Early and Mosakowski (2000), Li and Hambrick (2005), as well as Polzer, Crisp, Jarvenpaa, & Kim (2006) notes that this type of a situation will limit information sharing across subgroups within teams, debilitating teams, ultimately rendering them ineffective.

Another set of factors that may affect teams according to Halevy and Sagiv (2008) is the surface as compared to deep level diversity within teams. Philips and colleagues (e.g. Philips & Loyd, 2006; Philips, Northcraft, & Neale, 2006) indicated that surface level differences such as directly observable aspects of group memberships may affect team processes in very different ways as compared to deep level diversity reflected in individuals' values and world views.

To support these general observations, Halevy and Sagiv (2008) provide an overview of issues that relate to collocated multicultural teams as well as teams within particular culture. In terms of collocated multicultural teams, these authors discuss group identification, communication, and intragroup conflict as factors that can affect team processes and outcomes. The following section briefly outlines their observations in respect to the research associated with multicultural teams.

Group identification

According to research performed by Cunningham (2005) as well as Van der Zee, Astma & Brodtbeck (2004), team identification rather than identification with a particular cultural group is related to not only team member satisfaction, but also team member well being, team process, and team outcomes. Furthermore it has been discovered that highly culturally homogenous and highly culturally heterogeneous teams typically outperformed teams with only moderate levels of cultural heterogeneity. Additionally, Polzer (2004) as well as Witt and Kerr (2002) found evidence indicating the willingness of participants to contribute to the team effort is dependent on their identification with the team relative to their identification with other sources of identity.

Communication

Halevy and Sagiv (2008) note that good communication within multicultural teams is one of the most important antecedents to successful team functioning. Communication can be used to rectify errors and discrepancies in intended and actual behavior, helping to restore trust and cooperation in teams (Tazelaar, Van Lange, & Ouwerkerk, 2004). However, this is often easier said than done considering the difficulty of communication in multicultural teams. Language barriers, the degree of intercultural communication competence, and the type of contextual (i.e. high vs. low context) communication of team members may pose problems to the performance of multicultural teams (Brett & Gelfand, 2006; Elron, Shamir, & Ben Ari, 1999; Matveev & Nelson, 2004). Furthermore, it has been found that cultural diversity may also affect information use in teams, with narrower bands of information being considered in great depth by teams with little to moderate diversity levels, and wider ranges of information being considered in lesser depth by teams with increased levels of cultural diversity (Dahlin, Weingart, & Hinds, 2005). To overcome these issues, teams can implement strategies such as active listening, providing multiple feedbacks, and perspective taking to become more effective (Elron, Halevy, Ben-Ari, & Shamir, 2003).

Intragroup Conflict

Conflict is often inevitable in teams. In multicultural teams the potential for conflict is often heightened due to the cultural differences and communication difficulties between team members (von Glinow, Shapiro, & Brett, 2004). Jehn (1995) identified 3 different types of conflict namely task, affective, and process conflict. According to Halevy and Sagiv (2008), the jury is still out regarding the potential positive impact of conflict on teams. However, they do note that a number of observations have been made regarding the potential impact of conflict. For instance, they cite research by De Dreu and Weingart (2003) indicating that task and relationship conflict are commonly negatively related to team performance. They also cite the research of Staples and Zhao (2006) which indicated a relationship between cultural diversity in teams and intragroup conflict, which in turn had a negative impact on team cohesion, team member satisfaction, but not team performance. Furthermore, they indicate that Li and Hambrick (2005) discovered that affective, but not task conflict had a negative impact on team performance, while Elron (1997) found that team diversity was positive related to team task conflict and team performance.

Teams within national Cultures

Conversely, in terms of teams within particular cultural contexts, Halevy and Sagiv (2008) discuss factors such as individual level values that can affect team processes and outcomes. In particular, they focus on the work performed in relation to Hofstede's individualism/collectivism value dimension as it impacts teams and individuals within teams in different cultural contexts.

Research by Hofstede (2001) indicates that societies with greater levels of collectivism should require greater emotional dependence from organizational members, which organizations should reciprocate by assuming broad responsibility for their members. Conversely, Halevy and Sagiv (2008) note that at the individual level of analysis, research performed by Kirkman, Lowe, and Gibson, and more notably, Oyserman, Coon, and Kimmelmeier (2002) suggests that collectivists tend to view group memberships as fixed and binding while individualists perceive their group memberships as more transient and revisable due to future cost-benefit analyses. These observations imply that individualists may view leaving a group as a viable option, while collectivists may be more liable to seek harmony within their groups while also keeping them more impermeable from outsiders than individualists (Kim, 1994; Markus & Kitayama, 1991; Triandis, 2001).

Comparative team studies

To support these contentions, Halevy and Sagiv (2008) cite a number of empirical studies performed in different cultural contexts. For instance they note that Smith, Dugan, Peterson, and Leung (1998) discovered that the nation level individualism collectivism of countries has an impact on preferences of conflict resolution styles in the employment context. In particular, in individualistic societies, there is a greater reliance on personal experience and a preference for solving conflict through avoidance or directness while in collectivistic societies there is a greater reliance on formal rules and a use of compromise to resolve conflicts. Furthermore, research conducted by Early (1993) indicated that individuals from collectivistic societies tended to work better in groups, particularly groups comprised of their in-group. This result is underscored by findings by Gomes, Kirkman, and Shapiro (2000) that revealed that in-group/out-group distinctions are more important and therefore pronounced for individuals in collectivistic societies than those within individualistic societies. It was discovered that cooperation in social dilemma games is much higher among individuals from collectivistic societies than those from individualistic societies (Hayashi, Ostrom, Walker, & Yamagashi, 1999; Parks & Vu; Yamagashi, 1988). Halevy and Sagiv (2008) also discuss research by Chen, Brockner, and Katz (1998) that illustrated how individuals from individualistic cultures can act completely different to their counterparts in collectivistic societies when faced with positive feedback greater than that given to members of their respective in-groups. These researchers found that as a group, Americans tended to shy away from their in-group members to protect their self-worth while the Chinese as a group, tended to maintain their positive evaluations of in-group members to protect their group's image.

Individual level culture and teams

Halevy and Sagiv (2008) note that at the individual level of analysis (i.e., focusing on the individual rather than the team, organization, or nation), culture has also been found to have a profound impact on teams. For instance Ramamoorthy and Flood (2004) found that individualism correlated negatively with team loyalty and pro-social behavior within teams. Kirkman and Shapiro (2000) also found that collectivism correlated positively with employees'

preference to work in teams, their team commitment, and their receptivity to team-based rewards. These researchers expanded their discoveries in 2001 when they found that individual level collectivism was negatively related to resistance to teamwork in self-management teams. They also found that at the team level, resistance to teamwork mediated the relationships of collectivism with empowerment, cooperation, and team productivity. Halevy and Sagiv (2008) discuss a litany of studies that underscore these basic findings, thereby indicating the value of considering individualism and collectivism as important aspects of team functioning.

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Existing Measures

A number of measures assessing cultural competence and related constructs are already in existence. The following reference section provides a list of some of the articles discussing these measures and will help inform the development of a unit level measure of cross-cultural competence. The review of these measures constitutes a future deliverable, which will be completed as specified in the statement of work.

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Expatriates

Another body of literature that offers great insight into the characteristics, skills and situational variables that have an impact on intercultural interactions is that dedicated to expatriation. The following section offers a brief review of the characteristics of expatriates as well as the factors that affect their effectiveness in different cultural settings. This overview may serve as additional background for the previous sections on cross-cultural competence.

The use of expatriate employees is a pervasive practice throughout most multinational corporations. The practice of utilizing expatriates is based on the notion that any organization, especially those who choose to compete on an international scale, is dependent on the people they employ to ensure their success (Black, Gregersen, & Mendenhall, 1992). Expatriates are sources of specific cultural knowledge, business acumen, and other technical skills that multinational corporations need to survive. They are, in a sense, the proverbial glue that binds multinational corporations together as well as the grease that keep these organizations operating smoothly.

Expatriates are individuals who pursue work opportunities or sojourns outside of their home country (Guzzo, 1996). Due to the nature of expatriate work, expatriates have a compelling need to adjust to new cultural contexts. In fact, it is likely one of the most important contributing factors to realizing the numerous opportunities for personal growth and financial gain offered by expatriate positions. However, if expatriates cannot overcome the difficult process of cultural adaptation, they will likely struggle to realize the benefits of their expatriate position. It has been noted that expatriates perceiving themselves as being ineffective while working abroad, or struggle to assimilate into a foreign culture, may end their foreign postings prematurely (Guzzo, 1996; Black et. al., 1991).

Characteristics of Successful Expatriates

To successfully adapt to different cultural settings a host of personal characteristics, including specialized knowledge and skill sets, such as those that have been identified as being representative of cross-cultural competence, as well as appropriate psychological characteristics may be required (Black, Gregersen, & Mendenhall, 1992; Clement, 1988; Guzzo, 1996; Sussman, 2000). Most competent expatriates have relational skills (i.e. being able to come to terms with the uniqueness of culturally diverse clients) and cultural empathy (i.e. a willingness to accept the lifestyles of other cultures). Among the psychological characteristics associated with expatriate success, the desire to succeed is the most important (Sussman, 2000). With a strong desire for success, expatriates are likely to endure discomfort and even hardship in order to successfully complete their assignment. They also need to be able to deal with ambiguity and should not rely heavily on their own culture to make sense of new environments. In order to be capable of doing this, expatriates need to have a strong self concept (i.e. strong beliefs who they are that is structured, consistent and stable), but also flexible and complex. This can buffer them from potentially negative information they may encounter during their sojourn. Sussman (2000) also points out that expatriates should be high

in what she calls centrality of identity (or knowledge of how culture impacts their self perceptions). She notes that when high centrality of identity is coupled with a high desire to succeed, expatriates will have the ability to recognize, learn, and engage in culturally appropriate behaviors when they are called for.

Cultural flexibility is another important factor which is something that can enable expatriate to make necessary adjustments in behavior and thought (Sussman, 2000). Generally, individuals who are considered to be high self-monitors are more culturally flexible. Another important characteristic of successful expatriates is a thorough understanding of the culture in which they are working. Expatriates should also be able to psychologically adjust (e.g. be able to have feelings of wellbeing and satisfaction) as well as exhibit socio-cultural competence, defined as the ability to fit in with a new culture and being able to act interactively (Sussman, 2000).

Clement (1988) proposed a model that described which types of skills may be more effective in certain settings. He noted that most effective expatriates have relational skills and cultural empathy. Relational skills are defined as “the ability of managers to deal effectively with the ‘unique’ clients he or she will find in a foreign culture” (p47). Cultural empathy conversely is defined not as “one’s ability to deal with the clients of another culture, but rather to one’s willingness to accept other cultures as a way of life” (p47). This is a key issue for managers on foreign postings. Managers who are culturally empathetic generally aim to understand other cultures as well as learn the language of the country that they are posted in.

It is logical that a thorough understanding of the culture in which one finds oneself, results in more efficient and effective communication with one’s subordinates (Clement, 1988). The importance of cultural empathy, however, may depend on the type of position an expatriate is working in. Cultural empathy may, in some cases, be a superfluous factor in determining success of a foreign assignment. Its necessity is largely based on the nature of the posting. For instance, a corporate manager may need more cultural empathy to be successful than a technician whose main concern is technical trouble shooting. In the latter position an understanding of the problem and effective communication skill to relate solutions is all that expatriates need in order to be considered effective (Clement, 1988), whereas the management position requires more interpersonal interaction. Clement (1988) underscores this theory by noting that Japanese companies rated relational skills as the most important factor for determining success on a foreign assignment, whereas companies in the U.S and Europe rated it as the second most important factor.

Yiu and Saner (2000) offer similar insights into expatriate effectiveness in managerial positions. According to their views, managers need to acquire and master certain complex perceptual cognitive competencies over and above their managerial skill and knowledge in order to be effective while on foreign assignments. For instance, managers on foreign assignments must be able to assimilate and understand the perceptions of those they are to manage in order to be effective. People’s perceptions and understandings differ across different cultures, because the way in which people view the world is largely dependent on the culture in which they grew up. In addressing this concern, Martinko and Douglas (1999) propose that one of the main reasons for expatriate failure is incongruence in the perceptions of expatriate managers’ perceptions

and those of the local subsidiary company employees that they need to manage. This may become a highly acute problem when managers come from highly individualistic cultures and are placed in highly collectivistic cultures. In the collectivistic cultures, the context in which work is performed is every bit as important as the outcomes of work, which is very different from individualistic cultures. When this incongruence exists, managers and their subordinates may lack an understanding of the expectations that one party has of the other. As such problems may arise, and the expatriate manager may become ineffective or leave a foreign posting without completing the task

This means that managers need to have an in-depth understanding of the culture that they are to work in before they are placed in it. Furthermore they need to know the language of those to be managed. Even though English is the lingua franca (trade language) of the modern business world, it is not sufficient to only know English when aiming to be a successful expatriate manager.

An additional concern regarding the successfulness of those on foreign postings is the matter of the posting's duration (Clement, 1988). Japanese companies were noted to generally have more long-term managerial level postings, lasting at least 5 years. This is due in part to the expectation of these companies that their expatriates will only perform at peak performance after at least 3 years in the host country. Japanese managers are also generally under the guidance of a higher-level mentor and have a large base of social support provided by other fellow expatriates. American expatriates often lack this kind of support and therefore see their foreign postings as trips into oblivion (Clement, 1988).

In another study, Ward and Kennedy (2001) noted that British expatriates posted in Singapore had higher levels of success when they utilized effective stress and coping mechanisms. They discovered that the expatriates in their study experienced less stress when they used direct, task-oriented strategies such as detailed planning. It was also noted that the use of humor was linked with better adjustment of British expatriates to the Singaporean culture. Conversely, Ward and Kennedy discovered that individuals who engaged in denial of, disengagement from, and venting about their postings suffered from greater amounts of stress.

In a similar vein, Caliguiri (2000) notes a number of personality variables that have predictive power in terms of expatriate success. She found in assessing expatriates with the use of the Five Factor Model of Personality, that extroversion, agreeableness, and emotional stability are negatively related to expatriate's desire to leave their foreign postings prematurely. Furthermore, she found that conscientiousness is positively related to supervisor's ratings of expatriate performance. Caliguiri's (2000) findings imply that individuals who are willing to learn about foreign cultures, are easy to interact with, have the ability to handle stress, and sustain reliable work are the most likely to succeed as expatriates.

Other Factors Affecting Expatriate Effectiveness

Orientation

While expatriates are abroad, they are largely dependent upon their organizations to provide means to adjust to the new culture in which they have been placed (Guzzo, 1996). With this being the case, organizations need to do more in terms of training expatriates before they are dispatched to their postings abroad (Lueke & Svyantek, 2000). Realistic expectations should be set and realistic previews of the job should be given. Surprise about the downsides of a job often leads to disillusionment with not only the job, but also working for a particular organization (Lueke & Svyantek, 2000). This situation can easily be exasperated when individuals accept foreign postings. If they do encounter situations other than what they were lead to believe existed in the country of their posting, surprise can easily become disillusionment and may ultimately result in the expatriate quitting the job. To counter this problem, organizations need to take into account that there is a socialization process that takes place when an individual accepts a foreign posting.

During this socialization process ample attention should be given to the expatriate employees to ensure proper adjustment (Lueke & Svyantek, 2000). This may affect the expatriates' perceptions of organizational involvement and support they have regarding their employers. In turn, this extra attention to proper adjustment increases the amount of organizational commitment an expatriate employee has towards his or her employer, increases job satisfaction, and decreases the possibility of psychological withdrawal from the job. Psychological withdrawal can be described as the process employees undergo before they decide to quit the job. This process can be countered by organizations helping their expatriate workforce find housing, as well as pointing out of shops, restaurants, and local attractions in the new place (Guzzo, 1996).

When employers are seen as being involved with and concerned about the socialization process, employees on foreign postings will tend to seek more feedback, which can help increase their effectiveness. Taken together, the recognition of a socialization period and adequate organizational support during this period can aid in lowering turnover rates of expatriate employees (Lueke & Svyantek, 2001; Kraimer & Wayne, 2001).

Training

Organizations can overcome the difficulties of expatriate adjustment and facilitate the adjustment process to a foreign culture by providing specific training and aid to expatriates. The adjustment and orientation to a foreign culture that is needed generally differs from one position to the other, and is largely due to the type of role that an individual will perform while on his or her foreign posting.

According to Clement (1988), training should be tailored for every expatriate employee with more intensive cultural training programs needed for those in managerial positions than those

in positions where less human interaction takes place. Clement proposes that individuals who are to fill managerial positions may need to obtain practical experience in the country of their posting. This is done in order to become proficient in the language and knowledgeable of the culture by spending significant amounts of time in the country of their posting before they start their assignments. However, those individuals whose success as an expatriate is less dependent on their ability to interact with members of a foreign culture may benefit from less intensive approaches to cultural training. Their training may range from cultural briefings and language instruction to mere technical briefings regarding the geographical features of the country in which they will be operating.

A study of German expatriate managers in China (Domsch & Lichtenberger, 1991) elucidates the need for training programs as described by Clement. In their study, Domsch and Lichtenberger discovered that many German organizations did not offer acceptable training to the expatriates that they posted abroad. Many of the expatriate managers employed by German organizations stated that they had no understanding of how they should have adjusted their leadership style to adjust to the culture of those that they are to manage. Furthermore, many of these expatriates further stated that they had a lack of knowledge regarding the typical behavior of those that they were managing. Consequently, many of these managers struggled to find an appropriate leadership style in order to be effective.

As proactive steps to reduce the strain placed on expatriate managers in China, the expatriate managers studied advocated better training programs (Domsch & Lichtenberger, 1991). It was stated that these programs should include longer and more intensive language training, cross-cultural seminars, and more in-depth descriptions of the situation in the country of the posting as well as the activities of the company in that country. Furthermore, it was noted that stringent market analyses and studies should be done of host country markets, and future expatriates should be offered informational visits to host countries prior to their assignments. An additional consideration that needs to be made when considering the training of expatriate workers is the culture in which they will be working. It has been proven that it is faulty to assume that the same behavior of expatriate managers in different countries will result in similar levels of productiveness (Vance & Paik, 2002). Consequently, it is beneficial to provide country specific training to the individuals who are sent on foreign assignments. This training should be strictly linked to the antecedents of good job performance while on a foreign assignment. Furthermore, this training should be based on an empirical analysis of input from workers in the host country to which an individual manager is assigned. This form of training will provide managers with effective tools upon their arrival in the host country to start working with a minimum amount of trepidation. An additional benefit to this form of targeted training is that it communicates to the host country workforce that their opinions are being valued, which gives them an interest in seeing the manager perform well.

Luthans and Farner (2002) propose a method that may facilitate the establishment of training conducted with the input of host country workers. According to their views, the effectiveness of culture specific training such may be enhanced through the use of a multi-rater feedback system, such as a 360 rating system. In using a rating system such as this, the host country

workforce can provide valuable feedback to the parent organization regarding the effectiveness of the expatriates they send to work abroad. This feedback can be used to judge how well training programs equip expatriates to work abroad as well as indicating which facets of the training programs are most useful. The ability to influence expatriate training programs provides a further interest of the host country workforce to see expatriates succeed (Luthans & Farner, 2002)

The culture of expatriate trainees

The approaches described by Luthans and Farner (2002) as well as Vance and Paik (2002) are useful, but it should also be noted that culture specific training should not only be conducted in terms of the needs of host country workers. The culture and nationality of individual expatriate workers should also be taken into consideration (Howe, Keng, Anthony, & Hong, 1990).

To this end, Osman-Gani (2000) notes that most research conducted on expatriate effectiveness and training has been done with the use of expatriates from the United States. As such, there is little understanding of what expatriates from other cultures value in terms of training and orientation programs. In order to advance the training available to individuals in other cultures, Osman-Gani surveyed samples of managers and professionals from The United States, Japan, Germany, Korea, and Singapore. He found that Koreans, Japanese, and Singaporean expatriates place a higher value on language training than American and German expatriates. Furthermore, both German and American expatriates considered human resources, labor factors, socio-cultural factors and general management issues as the most important content areas for expatriate training. This is contrasted by the finding that Korean expatriates consider fiscal and accounting issues as the most important. Regarding training duration Koreans preferred longer training (at least 2 weeks) whereas Americans preferred shorter training programs. All of the groups assessed considered on-site, or on-the- job training as the most appropriate training delivery method. Generally Americans and German expatriates favored workshops and lectures as the most appropriate delivery methods after on-site training whereas Asian expatriates favored more one-on-one training opportunities. Germans also favored role-playing exercises. Through these findings it is clear that expatriate employees from various parts of the world have decidedly different preferences and needs in regards to expatriate training programs

Perceptions of host country workers

Toh and Denisi (2003) note another reason for expatriate ineffectiveness. Host country nationals working for multinational enterprises often perceive inequities in regards to their payment and that of their expatriate managers. This can lead to a perception of injustice and unfairness. These perceptions in turn cause host country national workers to withdraw from their jobs and cause other organizational problems. The outcome of these perceptions of injustice usually entails a lower level of effectiveness of the expatriate managers that are appointed over the host country nationals. Organizations can limit the pervasiveness of these

perceptions by establishing an equitable pay scale or decreasing the amount or kinds of information available about to the host country workforce about expatriate managers.

Gender and Expatriation

During the early 1980s female expatriates were quite rare. In one study of 60 North American companies it was discovered that only approximately 25% of the companies had female expatriates posted abroad (Adler, 1984). This may be due to perceptions of the organizational management that females have increased difficulty in coping with the changes in domestic life that a foreign posting can bring about. It is pointed out that this perception is somewhat true, but that women can be every bit as effective overseas as male expatriates and tend to succeed in greater number than their male counterparts. It is also noted that organizations that want to employ females in their expatriate workforces should consider providing special services to the women employed. These services should include counseling and support for husbands, aid in securing education and care services for children, and a facilitation of the establishment of support networks for women throughout the multinational enterprise. (Harris & Harris, 1987)

Selmer and Leung (2002) discovered that the more determined Western, female expatriates were to pursue an expatriate career the more effective they might be. The results of this study shows that the more determined women are to pursue an expatriate career, the better their interactional adjustment is, or in other words, the better they interact with the host country workers. This has a positive effect on how well they adjust to the culture that they are working in as well as how well they perform their job while on the foreign posting. In drawing these conclusions, Selmer and Leung imply that Western females may have better chances of succeeding in the international arena than many males.

These are but a few of the perspectives regarding expatriate effectiveness. The body of literature dedicated to expatriates is indeed extremely broad as evidenced by the list of references provided below. This body of literature represents a deep well of wisdom that can be drawn from to inform the current investigation.

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*Please note that for the sake of aiding future research, additional references not discussed in the paper are listed in this reference section.

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Conceptualizing Higher Level Phenomena/ Emergence

Beyond identifying cross-cultural competencies, of critical concern to the current research project is the conceptualization of cross-cultural competence at the unit level of analysis. The following sections outline the most pertinent issues with measuring phenomena at multiple levels of analysis, and what those conceptualizations imply.

Levels of Analysis

The relationship between the characteristics of individuals and collectives (i.e., teams, countries, societies, and organizations) has provided researchers and philosophers food for thought for centuries. For instance, August Comte, the father of sociology, pondered how people could both be the cause and consequence of society (Gabrenya, 2005). Similarly, modern researchers have made numerous inquiries regarding the relationship between individuals, societies, and also organizations.

Within organizations, individuals make contributions through creating products, providing services and intellectual capital that result in organizational actions and success. However, the relationship between the contributions of individuals and organizational outcomes is difficult to describe in concrete terms. Similarly, the relationship between individuals' characteristics, such as intelligence, and the characteristics of their employing organizations is challenging to define. Defining how the qualities and behavior of individuals are related to organizational level behaviors and outcomes constitute a complicated set of questions. The essence of these questions is whether organizations are merely a sum of their individual employees or something qualitatively different than the aggregation of a group of individuals (James, 1982; Kozlowski & Klein, 2000).

Most organizations have come to value the importance of their individual employees, and have instituted concerted talent management programs. With such programs, organizations aim to attract the most talented individuals, provide training for existing employees, and retain exemplary employees. The aims of such programs are to facilitate and sustain organizational success by leveraging the talents and contributions of individual employees (Berger & Berger, 2003). Implicitly, organizations therefore, function from the belief that the seeds of their success lie within the individuals that comprise their respective workforces. Despite this school of organizational thought, drawing direct corollaries between individuals' unique contributions to organizational processes and success remains a difficult proposition. This difficulty stems from the complexity of the relationships between individuals and organizations.

Individuals within Collectives

In analyzing the relationship between individuals and organizations it is possible to draw inferences at a minimum of two levels, namely the level of the individual and of the organization. As individuals interact, collective actions emerge and are transmitted, ultimately resulting in functions and structures existing at the collective (i.e. organizational) level (Hoffman

& Jones, 2004; Morgeson & Hoffman, 1999). Such collective functions and structures can influence the emotions, thoughts and behavior of individuals within collectives in which such collective functions and structures have emerged (Fischer, 2008). Put another way, Morgeson and Hofmann (1999) stated:

“Mutual dependence (or interdependence) between individuals creates a context for their interaction. This interaction, in turn, occasions a jointly produced behavior pattern which lies between the individuals involved. Collective action, thus, has a structure that inheres in the double interaction rather than within either of the individuals involved. As interaction occurs within larger groups of individuals, a structure of collective action emerges that transcends the individuals who constitute the collective” (p. 252)

Following this logic, it is possible to make the argument that organizational phenomena such as success and failure can be observed at both the individual as well as the organizational level. Such phenomena may be related but are conceptually distinct. For instance, in the efforts of individual employees can make a service or product viable in new markets, make it easier or cheaper to provide, or simply improve the quality of a product. These efforts can then be translated at the organizational level into expanded business ventures, higher profit margins, or increased customer loyalty. The success of the individual employee therefore translates into success for the organization. Consequently, even though the success attained at these two levels are related, they are conceptually distinct, and therefore constitute qualitatively different phenomena. Taking account of such differences in meaning of a phenomenon is known as the levels of analysis problem (Marsella et al., 2000).

The levels of analysis problem, which can be defined as the shift of the meaning and nature of phenomena at different levels of analysis, is rooted in a theoretical concept known as *emergence*. Emergent phenomena can be described as the collective level phenomena that emerge from and transcend the interactions of lower level phenomena (Goldstone, Roberts, & Gureckis, 2008). To illustrate the concept of emergence, Goldstone and Janssen (2005) point out that “just as neurons interconnect in networks that create structured thoughts beyond the ken of any individual neuron, so people spontaneously organize themselves into groups to create emergent organizations that no individual may intend, comprehend, or even perceive” (p. 424). Similarly, Goldstone et al. (2008) note that any “business has a style and ethos that transcends its employees” (p. 10). This observation is supported by Atran, Medin, & Ross (2005) who note that phenomena such as culture transcend, but are also rooted, in the interactions of individuals. Other concrete examples of emergent social outcomes can be found in the book recommendations on Amazon.com, which continually evolve based upon buyers’ buying habits, the behavior of a group of sports fans, and the creation of an incredibly complex online encyclopedia (e.g. Wikipedia), that can arguably be edited by any person in the world (Goldstone et al., 2008).

Much of the thinking regarding levels of analysis and the concept of emergence is based on the theories of French sociologist Émile Durkheim who theorized about the relationship between individuals and societies in which they live (e.g. Durkheim, 1947; Durkheim, 1958; Durkheim, 1965). One of Durkheim's most often discussed theories, illustrating the concept of emergence, is that of the division of labor. Durkheim argued that in traditional societies, people were more or less the same, self-sufficient and bound together as a group by their common heritage. He also argued, that in more modern societies in which survival is dependent on the creation of personal wealth, people specialize in certain occupations, and therefore become highly interdependent on one another to have their material needs met. This interdependence gives rise to modes of control that transcend the individual such as laws and social norms but that regulate individual behavior. These laws and social norms come to constitute a social consciousness which is dependent on, but also transcendent of the consciousness as well as the interaction between individuals. Therefore, despite individual differences in consciousness, a society may still form a "collective consciousness".

Durkheim, however, also noted that tension often exists between individual and the social consciousness. This observation implies that to understand societies, and other collectives of people, it is critical to understand how the differences among people can be reconciled with their interdependence (Starkey, 1993).

Levels of Theories

Due to the potential shift in meaning of phenomena at different levels of analysis, as is illustrated by Durkheim's conceptualization of individual and collective consciousness, the levels of analysis problem has a profound impact on the use of theory. All theories operate at specific levels of analysis. Theory "describes the target (e.g. individuals, group, organization) that a theorist or researcher aims to depict and explain" (Klein, Dansereau, & Hall, 1994, p. 196). Theories therefore also imply the level to which generalizations can be drawn (Rousseau, 1985). Applying theories that are applicable to individuals to collectives (such as organizations and cultures) or applying theories that apply to collectives to individuals may result in inferences that are essentially incorrect (Achen & Shively, 1995; Klein & Kozlowski, 2000; Van de Vijver & Leung, 2001).

Pertinent examples of how the level of a theory can be problematic can be found in the cross-cultural personality literature. This field of study examines the applicability of personality constructs and measures across cultures. This field of study dates back to the time of the ancient Greek philosopher Herodotus (484-425 B.C.) who pondered the differences between the customs of Greece and those of other nations around the Mediterranean (Barnouw, 1963). As this field became codified as a science in the 20th century, it has grown but has also garnered criticism.

Much of this criticism stems from the view that cross-cultural personality research is ethnocentric in its views and practices. This criticism is derived from the common practice of Western cross-cultural personality researchers using personality constructs and measures that

are derived from Western experiences in other non-Western cultures, without considering the impact of culture on individuals' personality (Lonner, 1979; Marsella et al., 2000). This criticism is derived from the views that the culture of societies has a profound impact on the individual characteristics, such as the personality, of individuals within those societies. From this perspective, the characteristics of individuals such as personality do not occur in a vacuum, but is rather the consequence of the interaction of individuals with the culture in which they live. Due to this interaction, it is imperative to consider the level at which the theories derived from this particular branch of cross-cultural psychology operate.

This line of reasoning applies to organizational research as well. For instance, organizational theorists have long postulated the true nature of leadership (e.g. Dansereau & Yammarino, 1998). It is possible to envision leadership as an individual level construct, but it can also be seen as a team level property that is shared by team members. It is postulated that leaders generally treat their subordinates in a similar and consistent manner. By virtue of being treated in a similar manner by their leaders, team members should have consistent views of their leaders. Additionally, through social processes within the team, team members may come to share their views and thereby form a unified opinion about a leader (Klein & Kozlowski, 2000). Such unified opinions, may well differ among teams by virtue of teams having different leaders. To summarize, phenomena such as leadership, can therefore be described as a concept that not only has relevance at the team level (rather than solely at the individual level), but can also be used to differentiate between teams.

Aggregation Processes

Viewing leadership as a team level phenomenon is one example of how theory can aid in the conceptualization of phenomena as at the collective or aggregate level of analysis. Similarly, theory can inform the conceptualization of numerous constructs other than leadership. Many researchers have noted however that the conceptualization of constructs is tied to how constructs are measured and aggregated to reflect phenomena at higher levels of analysis. This is the most critical issue when it comes to understanding the concept of emergence from an empirical perspective.

To highlight this issue in greater detail, the observations of a number of theoreticians can be noted. Susser (1994), for instance, identified two types of variables that can be used in to represent group level phenomena, namely *integral* and *contextual* variables. Integral variables are a reflection of group properties that vary meaningfully across groups but not within groups.

An example of such a variable is group size (Bliese & Jex, 2002). Conversely, contextual variables reflect an aggregate of individual group member's input. According to Susser (1994), contextual variables are therefore calculated by using the mean of individual's responses on a particular item or scale. An example of such a variable is the average hours worked by a group of individuals (Bliese, & Jex, 2002).

Recognizing the value in conceptualizing group variables in this manner, Kozlowski and Klein (2000) expanded on Susser's (1994) initial thinking by further sub-dividing what Susser (1994) called contextual variables according to the process that is used to derive such a variable. The first of these processes is described as a *compilation process*. Through using a compilation process, higher level variables are unlikely to share theoretical similarity with their lower level counterparts. An example of such a variable is the variability in age of a group's members, which is highly dissimilar in meaning from the individual variable (e.g. individual team member age) that is used to calculate it (Bliese & Jex, 2002). The second type of process is described as a *composition process*. Composition processes, such as obtaining the average of a group's responses, make it possible for individual level variables to share a theoretical meaning with their group level counterparts (Jex & Bliese, 2002). Depending on how contextual variables are operationalized, they may reflect a number of group properties namely *global properties*, *shared properties*, or *configurational properties* of groups (Klein and Kozlowski, 2000).

Global properties are described as being easily observable, descriptive properties of groups such as the type of functioning of a team. For instance, teams can function as a distributed network of individuals or can work in close proximity as a face-to-face team. Global properties are easily assessed through obtaining information from subject matter experts, and therefore do not require extensive data collection to assess in a comprehensive manner.

Conversely, *shared team properties* "originate [from] the experiences, attitudes, perceptions, values, or behaviors that are held common by the members of a team" (Klein & Kozlowski, 2000, p. 215). These properties are therefore shared characteristics among members of groups such as teams. Leadership at the team level, as discussed above, is an example of such a construct. Another construct that can be assessed at both the individual as well as the team level as a shared team property, is efficacy (Klein & Kozlowski, 2000). Self efficacy is the belief in one's own capability to achieve certain outcomes, whereas team efficacy is the belief that a team as a whole can achieve certain outcomes (Klein & Kozlowski, 2000; Bandura, 1997). Views of team efficacy are determined by the extent to which team members share the view that their team has the ability to achieve certain outcomes. These views emanate from interactions and communication among team members. To assess shared construct such as team efficacy, it is necessary to gather input from individual team members and assess the extent to which the views of team members are shared (Klein & Kozlowski, 2000)

Configurational team properties are similar to shared team properties in the sense that they emerge from the experiences of individual team members' experiences, attitudes, perceptions, values, thoughts and behaviors (Klein & Kozlowski, 2000). However, configurational team properties may or may not be shared by team members. Configurational properties are better conceptualized as the variability with which individual team members exhibit these properties. An example of such a property may be the extent to which team members have non-work responsibilities (Klein & Kozlowski, 2000). For instance, teams may be composed of members that are young and single, young and married, as well as young married parents. Depending on the home life of team members, they may have varying levels of non-work responsibilities (Klein & Kozlowski, 2000).

The challenge to researchers is therefore to assess the extent to which individual team members vary in terms of such constructs to be able to form a comprehensive picture of the make-up of a team and thereby gain clarity about the configurational properties of the team. It is possible that teams may consist of only single young team members, but it is also possible that teams may consist of a mixture of young team members that are single, married, or are parents (Klein & Kozlowski, 2000).

From these examples, it is evident that the manner in which variables are linked at lower and upper levels of analyses determines requires careful consideration from both an theoretical and methodological perspective (Bliese & Jex, 2002).

Levels of Analysis Issues from a Cross-Cultural Research Perspective

Beyond issues relating to data aggregation, the level at which a theory operates also holds implications for the possible conclusions that can be derived from a theory. If a theory is intended to operate at the aggregate level, it may be inappropriate to draw conclusions from that theory at the individual level of analysis. Similarly, theories that operate at the individual level of analysis may not be appropriate to use at the aggregate level of analysis.

To illustrate this issue, Van de Vijver and Leung (2001) offer an observation made by Robinson (1950) in regards to pregnancy rates. Robinson noted that if 2% of women are pregnant in a country, it is not possible to draw the inference that all women in the country are 2% pregnant. This type of error in logic is known as an *ecological fallacy*, or applying average results obtained at the group level to individuals within a group (Klein & Kozlowski, 2000; Gabrenya, 2005). This error is illustrative of the limited applicability of measurements that have been made at the collective level to the individual level. However, similar errors can occur when inferences about collectives are made while considering information obtained at the individual level of analysis. This type of error in logic is known as a *reverse ecological fallacy* or *atomistic fallacy* (Klein & Kozlowski, 2000). Such an error can occur when concluding that all individuals from a culture will exhibit the same qualities of a particular individual representing that culture. Put more concretely within the context of common stereotypes - Germans are not all perfectionists, Hispanics are not all passionate, and the French do not all like coffee, cigarettes, or the music of Jacques Brel and Edith Piaf. Therefore, if a concept is measured at the individual level of analysis, great care should be taken to apply those findings to collectives, such as groups, organizations, and cultures, and vice versa.

Furthermore, when data are aggregated, it is possible to infer a completely different meaning from data at a higher level of analysis than at the individual level of analysis (Fontaine, in press; Van de Vijver & Fischer, 2008). Constructs, for instance may have identical meanings at higher level and lower levels of analysis, and are described as being *isomorphic*, at both levels of analysis. For instance, if the age of individual team members is the same as the average age of the group of which the individuals are members, the meaning of age is isomorphic at the individual and team level of analysis. When isomorphism is observed, it can be concluded that the whole is not greater than the sum of its parts (Jex & Bliese, 2002). Constructs having

different meanings at different levels of analysis are said to be *non-isomorphic*. When non-isomorphism is observed, it can be concluded that the whole may be larger than the sum of its parts (Bliese & Jex, 2002). Similarly, it is possible that that constructs are not interpretable at the individual level of analysis, but do have meaning at a higher level of analysis. This was purportedly the case with the data obtained by Project GLOBE in its attempts to link leadership preferences to cultural values around the world (House et al., 2004; Peterson & Castro, 2006). Considering these possible outcomes, Bliese and Jex (2002) argue that non-isomorphism is the most reasonable outcome when aggregating individual level data. Individuals differ, and therefore the meaning of a construct will be different at higher levels of analysis than it will be at individual levels of analysis (Jex & Bliese, 2002).

In support of this contention, Firebaugh (1978) pointed out that “an aggregate variable often measures a different construct than its name-sake at the individual level of analysis” (p. 560). Bliese and Jex (2002) illustrate this point by noting that within work groups, the meaning of hours worked by individuals may differ from the meaning of the average number of hours worked by a group of workers.

To illustrate this argument, these authors note that the average work hours of a group of workers may be mandated by certain external guidelines such as government regulations. However, individual workers may opt to work long hours due to reasons other than external guidelines. Such reasons may involve attempting to get ahead with their work or simply avoiding family members (Bliese & Jex, 2002).

Bliese and Jex (2002) note that the potential meaning shift of constructs at different levels of analysis is not an issue that is unique to organizational research. These authors point out that the same issue has been observed in issues ranging from public health to sociology. To support this contention, they provide an observation made by cultural value researcher Shalom Schwartz (1994), who noted:

“The construct referenced at the ecological [group level] may be the context or social environment in which individual live, distinct from the attributes of those individuals. Thus, poverty as an individual characteristic and poverty as a neighbourhood characteristic may exert different *independent* [italics added] effects on health” (p. 820).

Levels of Analysis Issues and Organizational Research

The issues of cross-cultural effectiveness and competence have been addressed by numerous organizational scholars, as noted in detail below. However, few scholars have examined organizational cross-cultural competence as an emergent phenomenon. Cross-cultural competence has for instance been defined explicitly at the individual level of analysis, but not at the organizational level of analysis. To shed some additional light on the issue of how to

tackle this issue, it is necessary to review some of the most important theory in terms of multilevel organizational theory as discussed by Chan (1998).

Composition Models

Determining how constructs are linked may help determine how the meaning of constructs can change at different level of analysis. To address this issue, Chan (1998) introduced the concept of *composition models*. Composition models provide the means to explain how concepts are transformed at different levels of analysis such as the individual level, team level, and organizational level. The ability to explain this type of transformation at different levels of analysis can help researchers to adhere to the scientific principle of parsimony and avoid confusion about the applicability of constructs to different levels of analysis (Chan, 1998). Chan points out that constructs can be similar, yet different at different levels of analysis, and states that composition models can help “specify the functional relationship among phenomena or constructs at different levels of analysis...that reference essentially the same content but that are qualitatively different at different levels” (Chan, 1998, p. 234).

The utility in using composition models is that they offer a conceptual framework which can be used to describe the applicability of constructs of different levels of analysis. Chan (1998) notes that confusion that often exists regarding the applicability or utility of constructs at different levels of analysis. He argues that this confusion is unnecessary and can be avoided if it is clear how constructs are operationalized at different levels of analysis. Without this knowledge it is quite possible that incomparable constructs are being compared to one another, or that constructs are being used inappropriately at different levels of analysis. Composition models are therefore helpful aids for “conceptual precision in construct development and measurement” (Van de Vijver & Fischer, 2008, p. 19).

The first composition model proposed by Chan (1998), stemming from the research dedicated to inferring organizational climate from psychological climate (Glick, 1985), is known as the *additive model*. This model constitutes a simple summation of individual level data. Similarly, the second model discussed by Chan also is derived from the literature aimed at deriving organizational climate from individual level psychological climate (i.e. Jarnes et al., 1984) data. This model revolves around obtaining consensus among individuals within groups, and is therefore known as the *direct consensus model*.

The third model, the *referent shift consensus model*, involves obtaining input from individuals about the groups of which they are members rather than obtaining information from individuals about themselves. This approach shifts the frame of reference is therefore shifted from the individual to the group. However, data obtained at the individual level of analysis is still used to draw conclusions about the group. Cultural value and norm research, such as the Global Leadership and Organizational Behavior Effectiveness Project, or Project GLOBE as discussed by House, Hanges, Javidan, Dorfman, and Gupta, 2004, is an example of this approach to researching group level phenomena.

The fourth model proposed by Chan is the *dispersion model*. This model focuses on the extent to which characteristics are shared by group members, or put another way the extent to which individuals vary in terms of the characteristic being considered. This approach to studying group characteristics is common in the organizational climate strength literature (i.e. Dickson, Resick, & Hanges, 2006; James & Jones, 1974; Peterson, Van Driel, Crepeau, McDonald, 2008; Schneider & Reichers, 1983). In this body of literature, the view is that the more widely views are shared, the stronger the indicator of an organization's climate.

The last model is the *process model*. According to this model, it is possible to determine analogous processes at both the individual and the group level of analysis. Put another way, organizational level processes may be similar to and emerge from individual level psychological processes. Studies using this approach can be found in the literature dedicated to emergence of organizational climate from processes that help develop psychological climate (Chan, 1998).

Chan's Composition Models can be summarized as follows:

Functional relationships	Typical operational combination	Empirical support	Example from climate research
<i>Additive model</i>			
Higher level unit is a summation of the lower level units regardless of the variance among these units	Summing or averaging lower level scores	Validity of additive index (e.g., mean of lower level units)	From psychological climate to organizational climate (Glick's [1985] conceptualization)
<i>Direct consensus model</i>			
Meaning of higher level construct is in the consensus among lower level units	Within-group agreement to index consensus and justify aggregation	Value of within-group agreement index (e.g., rwg); validity of aggregated scores	From psychological climate to organizational climate (Jarnes et al.'s [1984] conceptualization)
<i>Referent-shift consensus model</i>			
Lower level units being composed by consensus are conceptually distinct though derived from the original individual-level units	Within-group agreement of new referent lower level units to index consensus and justify aggregation	Value of within-group agreement index (e.g., rwg); validity of aggregated scores	From psychological climate to organizational collective climate

Functional relationships	Typical operational combination	Empirical support	Example from climate research
<i>Dispersion model</i>			
Meaning of higher level construct is in the dispersion or variance among lower level units	Within-group variance (or its derivative) as operationalization of the higher level construct	Absence of multimodality in within-group distributions of lower level scores; validity of dispersion index	From psychological climate to climate strength
<i>Process model</i>			
Process parameters at higher level are analogues of process parameters at lower level	No simple algorithm; ensure analogues exist for all critical parameters	Nomological validity for source and target constructs at their respective levels to distinguish shared core content from level-specific aspects	From psychological climate development to organizational climate emergence

Table 3: Chan's (1998) Composition Models

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Multilevel Assessment and Statistics

Appropriateness of Data Aggregation

The appropriateness of aggregating data is of critical concern to any multi-level data analysis endeavor, and should be assessed before any inquiry regarding the meaning of a psychometric instrument is performed (Muthén, 1994; Van de Vijver & Poortinga, 2002). The following section provides an outline of the data analytic procedures that were used to assess the appropriateness of aggregating individual level data and assessing the meaning of those data at higher levels of analysis.

For the results of any measurement device, including the CQS, to be aggregated to a higher level such as a group, organization, or country, there needs to be a compelling reason to do so. A compelling reason to pursue this approach is the belief that membership in a group may influence the expression of a psychological phenomenon by members of a given group. In other words, group membership may influence the expression of phenomena at the individual level of analysis. Another compelling reason could be that the phenomenon may *emerge* from the interactions of individuals and may therefore potentially be qualitatively different at the group level than at the individual level, as described in previous sections.

To provide empirical justification for aggregating any data, the individual level factor structure as well as the within group agreement and between group variability should be assessed. Therefore, within group agreement was assessed in the current inquiry by using the a_{wg} index (Brown & Hauenstein, 2005), whereas between group variability was assessed by using the intraclass correlation (1) index, also known as ICC(1) (Bliese, 2000; Hox, 1995). Larger ICC(1) values indicate more variance explained by grouping variables and therefore the need to give more importance to grouping variables. Van de Vijver and Poortinga (2002) contend that if an ICC(1) indicates that group membership contributes to 5% or more of variance of a measure, there is utility in assessing group level differences of that measure. ICC(1) is therefore an estimate of the proportion of the total variance of a measure that is explained by group membership (Bliese, 2000). Put another way, it is an estimate of the extent to which any one rater may represent all the raters within a group, that is, the raters are interchangeable (James, 1982).

An intraclass correlation coefficient (2) or ICC(2) was also computed to assess whether group mean measures reflect the construct in a qualitatively different way from their individual level counterparts (Bliese & Jex, 2002). ICC(2), or the assessment of the reliability of group means, is generally seen as the best source of evidence of emergent properties in data (Bliese & Jex, 2002). If an ICC (2) value is “at or near zero, there is little empirical support to suggest that the group mean is measuring something distinct from the individual level variable” (Bliese & Jex, 2002, p. 269). The formulas and explanations for both a_{wg} , ICC(1), and ICC(2) are provided in Appendix 3.

If support can be found for the aggregation for a measurement device such as the CQS, it is necessary to examine its meaning at the levels of analysis being considered. However, if no support is found for the aggregation of a measurement device, further inquiry will not be possible (Van de Vijver & Fischer, 2008). The most commonly used methodology to assess the equivalence of constructs at the individual and an aggregate level was first proposed by Muthén (1994) and expanded upon by Van de Vijver and Poortinga (2002). The purpose of this approach is to demonstrate the presumed positive associations between measurement indicators, and to show that measurement of these indicators can be attributed to some underlying, or latent construct (Fontaine, in press).

Examining the equivalence of psychological measurement indicators at the group level provides researchers with the means to inquire whether the same latent variables account for the associations between indicators at both the individual as well as the aggregated or group level (Fontaine, in press). Put more concretely, this approach helps to determine if the structure of a measurement device at the individual level of measurement is similar to the structure of that measurement device when data are aggregated to the group level. Therefore, if multiple groups are present in a sample, and a stable factor structure emerges at the individual level of analysis, it may also be appropriate to assess the variation between groups. Subsequently, the association of the constructs should be assessed between the groups of interest. Lastly, the within group, individual level structure of the measurement device compared to the between group structure of the same measurement device.

Assessing Similarity in Meaning across Levels of Analysis

Exploratory factor analytical technique

To assess the similarity in meaning, or structure, at the group and the individual level of analysis, an exploratory factor analytic (EFA) technique can be utilized. EFAs are used to explain the correlations among items as well as the shared variance between factors within a dataset (Tabachnick & Fidell, 2006). An exploratory approach to analyzing the data is appropriate at this point because no previous measure with a defined structure has been proposed to assess unit-level cross-cultural competence.

The first step in assessing the similarity in structure at the individual and organizational level of analysis is to derive the individual level structure within the dataset (Van de Vijver & Fischer, 2008). To accomplish this task, the pooled-within group variance-covariance matrix should be constructed giving each group an equal weight in the matrix regardless of its size. Subsequently, an EFA should be performed on these data in order to identify a meaningful structure. The number of factors to be rotated must be determined using one or more of the following methods. Firstly, the number of factors that should be expected based on existing theory can be used. Secondly, a scree plot can be used. If an elbow (i.e. a sharp turn) is observed in the scree plot, the number of factors above the scree plot should be selected. Thirdly, the interpretability of the results should be considered. Eigenvalues greater than 1 rule can be applied in this instance (Tabachnick & Fidell, 2006). Fourth, it is also possible to rotate

data until a stable and interpretable factor structure emerges (Tabachnick & Fidell, 2006). If a stable observable structure emerges from the pooled within-group matrix, the measure will have a stable meaning within organizations at the individual level of analysis (Van de Vijver & Fischer, 2008).

If a stable, individual level, within organization factor structure can be observed, it should then be compared to the organizational level structure to allow for the assessment of congruence between the data at the individual and the organizational levels of analysis. However, if a stable within-organizations factor structure is not found, comparisons between organizations will be meaningless (Van de Vijver & Fischer, 2008). To compute the organization association matrix that will allow for a Procrustean rotation, the values obtained from all variables assessed within each organization are aggregated. Pearson-correlations are computed between these variables, thereby modeling the means between organizations (Van de Vijver & Fischer, 2008). This matrix will be the input for the EFA that will be used to examine the structure of the data at the organizational level of analysis.

To compare the individual to the organizational level internal structure, it is necessary to execute an EFA on the organizational level correlation matrix. A Procrustean target rotation of the organization level factors is used to obtain a maximum fit with a hypothesized target matrix (McCrae, et al., 1996). In a sense, a Procrustean rotation forces factors to conform as much as possible to some predetermined structure (Digman, 1967). In this case, the predetermined structure will be the structure derived from the EFA conducted at the individual level of analysis.

To assess congruence of the structure at the individual and organizational level, Tucker's Phi can be used. Tucker's Phi values in of .85 and lower are commonly used to indicate a lack of factor congruence whereas coefficients in excess of .90 as generally used to indicate close congruence (Van de Vijver & Fischer, 2008).

If the data exhibit the same structure at both the organizational and individual levels of analysis, *isomorphism* in meaning of the instrument will exist at both level of analysis. If the data exhibits a different structure, and therefore, a different meaning at the organizational than individual level of analysis, *non-isomorphism* will exist. If neither isomorphism nor non-isomorphism exist, *interaction effects* are possible. Alternately, if none of these results are obtained, it should be concluded that CQ as measured by the CQS has *no interpretable meaning* at the organizational level of analysis.

Subsequent Analyses

Upon the establishment of a viable measure of unit level cross-cultural competence from an exploratory perspective, it will be necessary to validate the measure as specified in the statement of work. This will require a series of analyses, including Structural Equation Modeling (SEM) techniques, to further assess the impact of qualitative moderator variables,

such as group membership (Jaccard, & Wan, 1996). Through using a nested goodness-of-fit strategy, SEM as performed within the LISREL statistical package can provide estimates of how well the data fit a factor structure such as that for an entire sample as well as each group that is specified within the overall sample, thereby providing evidence for or against the results found during the initial exploratory phase of the inquiry. Consequently, with the use of this strategy, it will be possible to determine whether the empirically derived structure of the unit level measure of cross-cultural competence holds for different organizations. Therefore, with the use of a nested goodness-of-fit strategy aimed to assess the impact of qualitative moderator variables, it will be possible to assess evidence for the structural equivalence of the newly developed measure at the group level for different organizational groups.

Ultimately a structural equation modeling approach may be employed alongside some more basic statistics to assess the predictive utility of the newly created measure in terms of units' performance.

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Recommendations and Conclusions

From this literature review there are clearly myriad of antecedents of cross-cultural competency that are potential candidates for predicting cross-cultural competency at the individual level of analysis. However, it is the researcher's recommendation that assessing the antecedents of cross-cultural competence should be a secondary priority while, the assessment of cross-cultural competencies expressed as skills, competencies, and behaviors should be the primary concern of the remainder of this endeavor. This is an approach that was first advocated by Klemp (1979) and endorsed in subsequent years by many theoreticians, most notably by Dinges (1983) and Thomas and Fitzsimmons (2008) as discussed previously. By utilizing such an approach, it will be possible to gain a clear indication of the actual cross-cultural competencies present within units rather than precursors to competencies or idealized visions of the competencies that should be present in units. This is an approach that is already utilized in the Defense Equal Opportunity Climate Survey (DEOCS) as deployed by the Defense Equal Opportunity Management Institute (DEOMI), and therefore does not constitute a deviation from existing assessment theory and methodology already in place within the Department of Defense.

However, beyond competencies, it may be fruitful to assess some context variables such as task type, units' cultural diversity, and individual service members' cultural values. As discussed previously, these variables have been found to be indicative of organizational performance in multicultural and intercultural settings. Assessing these constructs may offer insights into potentially moderated relationships between unit level cross-cultural competencies and unit cross-cultural performance. Implicitly, a clear distinction between unit level competencies and performance is therefore warranted. This type of distinction is necessary to avoid a tautology in which competencies are described in similar terms as actual unit level performance.

An integrated taxonomy of unit level cross-cultural performance should also take into account the types of units that are being considered. It is quite feasible that the skills required within multi-cultural (i.e. coalition) units may be different than those required within units comprised of service members from a single national culture but that have to operate in foreign cultural contexts (i.e. traditionally deployed units). Therefore, it may be appropriate to develop distinct cross-cultural competency taxonomies and modular assessment devices for different types of units. By providing a wider variety of theoretically informed assessment devices, more flexibility will be attained in terms of the assessment of specific competencies. As a consequence, commanding officers will have the ability to tailor the types of cross-cultural competence assessments deployed within their units.

It will also be imperative to conceptualize all constructs in an appropriate manner. One avenue that offers the most promise is using a framework such as Chan's (1998) composition models, and in particular what Chan described as the reference shift consensus model. By using a framework such as Chan's (1998) it will be possible to pick a particular conceptualization of unit level competencies that will allow for accurate operationalization, assessment, and subsequent interpretation of unit level cross-cultural competencies. These are benefits that will require methodical planning and theoretical insight at the beginning of the design process of the unit level taxonomy of cross-cultural competence. Without attaining the necessary insight, or planning appropriately, it is possible that a cumbersome, if not completely ineffectual taxonomy and measurement device may be developed.

It is a near certainty that more information will be attained as this endeavor continues. In particular it is likely that more service specific information will be attained as the project progresses. Much of this information has already been collected by DEOMI, and will be an invaluable supplemental resource that should be used in conjunction with the literature review contained within this document.

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Appendix 1

Thomas and Fitzsimmons (2008) Review of Cross-Cultural Competency Literature

Skills and Abilities <i>Information</i>	Effectiveness Criteria		
	<u>Adjustment</u>	<u>Relationship development</u>	<u>Task Achievement</u>
	Abe & Wiseman (1983) - <i>Ability to understand others</i>	Nishida (1985) - <i>Ambiguity tolerance</i>	Ruben & Kealey (1979) - <i>Ambiguity tolerance</i>
	Cui & Van den Berg (1991) - <i>Cultural empathy</i>	Olebe & Koester (1989) - <i>Empathy</i>	Spreitzer, McCall & Mahoney (1997) - <i>Intercultural sensitivity</i>
	Redmond & Bunyi (1993) - <i>Cultural empathy</i>	Redmond & Bunyi (1993) - <i>Social decentering</i>	Caliguiri, (2000) - <i>Openness</i>
	Cui & Awa (1992) - <i>Cultural empathy</i>	Tung (1998a) - <i>Intercultural sensitivity, listening mode</i>	Matsumoto, Leroux, Bernhard, & Gray (2004) - <i>Openness</i>
	Arthur & Bennett, 1995) – <i>Openness</i>	Bush, Rose, Gibert, & Ingram (2001) - <i>Empathy</i>	Mol et al (2005) - <i>Cultural Sensitivity</i>
	Ward & Kennedy (1999) - <i>Cultural empathy</i>	Chang & Tharenou (2004) - <i>Cultural empathy</i>	
	Leong & Ward (2000) - <i>Ambiguity tolerance</i>	Matveev, 2004 - <i>Open-mindedness, cultural awareness</i>	
	Van der Zee & Van Oudenhoven, (2001) - <i>Cultural empathy, open-mindedness</i>	Tucker, Bonial, & Lahti, (2004) - <i>Tolerance, open-mindedness</i>	
	Hammer et al (2003) - <i>World mindedness</i>	Arasaratnam & Doerfel (2005) - <i>Empathy</i>	
	Van der Zee & Brinkmann, 2004) - <i>Tolerance of ambiguity, cultural empathy</i>	Gibson & Zhong (2005) - <i>Empathy</i>	
<i>Interpersonal</i>	Hammer, Gudykunst, & Wiseman (1978) - <i>Ability to effectively communicate</i>	Church (1982) - <i>Language skills</i>	Ruben & Kealey (1979) - <i>Not task orientation</i>
	Hawes & Kealey (1981) - <i>Interpersonal skills</i>	Gudykunst, Nishida, & Chua (1987) - <i>Language skills</i>	Hawes & Kealey (1981) - <i>Interpersonal skills</i>
	Abe & Wiseman (1983) - <i>Ability to communicate interpersonally</i>	Kassing (1997) - <i>Willingness to communicate</i>	Nishida (1985) - <i>Language skills</i>

		Effectiveness Criteria	
<u>Skills and Abilities</u>	<u>Adjustment</u>	<u>Relationship development</u>	<u>Task Achievement</u>
<i>Interpersonal (Continued)</i>	Cui & Van den Berg (1991) - <i>Communication competence</i>	Cui & Van den Berg (1991) - <i>Communication behavior, language skills</i>	Taylor & Napier (1996) - <i>Language Skills</i>
	Parker & McEvoy (1993) – <i>Sociability</i>	Redmond & Bunyi (1993) - <i>Communication competence</i>	Lievens, Harris, Van Keer, & Bisqueret (2003) - <i>Communication</i>
	Ward & Kennedy (1999) - <i>Sociability</i>	Neuliep & McCroskey(1997) - <i>Intercultural communication apprehension</i>	Mol et al. (2005) - <i>Language skills</i>
	Caliguiri (2000) – <i>Extroversion</i>	Shaffer, Harrison, & Gilley (1999) - <i>Language skills</i>	
	Hechanova, Beehr, & Christiansen (2003) - <i>Language skills</i>		
	Lin & Rancer (2003) - <i>Intercultural willingness to Communicate</i>		
	Fish (2005) - <i>Host language skills</i>		
	Masgoret (2006) - <i>Linguistic self-confidence</i>		
<i>Action</i>	Kealey (1989) - <i>Self-monitoring</i>	Francis (1991) - <i>Moderate adaptation</i>	Stone (1991) - <i>Ability to adapt</i>
	Black (1990) - <i>Cultural flexibility</i>	Harrison et al (1996) - <i>Self-monitoring</i>	Fraga, Atkinson, & Wampold (2004) - <i>Self-awareness</i>
	Arthur & Bennett (1995) – <i>Flexibility</i>	Tucker et al (2004) - <i>Social adaptability</i>	Tucker et al (2004) - <i>Social adaptability</i>
	Harrison, Chadwick, & Scales (1996) - <i>Self-monitoring</i>	Fitzsimmons, Jackson, & Thomas (2006) - <i>Self-monitoring</i>	
	Tung (1981) - <i>Ability to adapt</i>		Mol et al. (2005) - <i>Cultural flexibility</i>
	Tucker et al (2004) - <i>Social adaptability</i>		Shaffer et al (2006) - <i>Cultural flexibility</i>
	Shaffer, Harrison, Gregersen, Black, & Ferzandi (2006) - <i>Cultural flexibility</i>		
<i>Analytic</i>		Stephan & Stephan (1992) - <i>Attributional complexity</i>	Ang van Dyne, Koh, & Ng (2004) - <i>Cultural metacognition</i>
	Stephan & Stephan (1992) - <i>Attributional complexity</i>	Matsumoto et al (2004) - <i>Critical thinking</i>	

